Children, young people, and health in Brimbank

Comparisons of key indicators from Brimbank Atlases of Health and Education over time

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About us

The Mitchell Institute for Education and Health Policy at Victoria University is one of the country's leading education and health policy think tanks and trusted thought leaders. Our focus is on improving our education and health systems so more Australians can engage with and benefit from these services, supporting a healthier, fairer, and more productive society.

Acknowledgements

Suggested citation

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The Brimbank Collaboration and the *Growing Brimbank* program

Victoria University, through the Mitchell Institute for Health and Education Policy, and Brimbank City Council have been working collaboratively since 2014 to identify and address the most pressing risk factors for poor health, education, and social disadvantage in the Brimbank local government area in the western metropolitan area of Melbourne, Victoria.

Established in 1994 after the merger of the former Cities of Keilor and Sunshine, the City of Brimbank spans 123 km² with an estimated population (2021) of 209,422. It is the fifth most populous municipality in Greater Melbourne.

Brimbank is culturally diverse, with more than 160 different languages spoken, almost half of the population born overseas and 64% of the population speaking a language other than English at home. It includes some of the most socioeconomically disadvantaged and culturally diverse population groups in Victoria. Brimbank residents overall have lower levels of education, poorer health, are less active, and have significantly higher rates of obesity and diabetes.

Brimbank is currently experiencing strong residential, industrial, and commercial development, and incorporates one of the largest industrial areas in Melbourne. Significant infrastructure investment in Brimbank has the potential to build a healthier, more sustainable, and resilient city. However, maximising the benefits of long-term infrastructure and service investments for all residents of Brimbank will require a parallel commitment to lifting health and education outcomes for the most disadvantaged groups within the community. Brimbank Council has already made a commitment to promote, partner, and advocate for such outcomes, described in the Sunshine Priority Precinct 2050 Vision.

In collaboration with the City of Brimbank and the Public Health Information Development Unit, then at the University of Adelaide, (PHIDU), the Mitchell Institute in 2013 developed the design for and then commissioned several Brimbank population reports that have informed the Growing Brimbank program. These reports were based on a suite of indicators of health and education status of a community population to provide an evidence-based resource for planning and investment. The reports include:

- The Brimbank Atlas of Health and Education (PHIDU, 2014 and 2019)
- Physical Activity, Sport and Health in the City of Brimbank (Eime et al, 2014)
- The Brimbank Spatial Map of Physical and Social Infrastructure (AHPC, 2017)

The indicators in these reports are drawn from nationally available data, enabling the reports and extracts of these reports to be replicated in later years and for other communities. The reports are publicly available at www.mitchellinstitute.org.au and www.brimbank.vic.gov.au.

These reports have provided the foundation for the *Growing Brimbank* program, a collaborative, place-based approach to generate sustainable change in the risk factors for, and levels of disadvantage in, health and education that currently affect residents of Brimbank. The program is a partnership between the City of Brimbank and Victoria University and applies research into 'what works' to prevent and reduce conditions that affect health, wellbeing, and prosperity of Brimbank residents at key stages of people's lives: early childhood, school years and youth, starting a family, and adulthood. (City of Brimbank, November 2020)

Executive Summary

This report summarises the change over time, from 2006, of a subset of key health and education indicators included in the Brimbank Atlases of Health Education – Editions 1 and 2. It examines change for Brimbank as a whole, within Brimbank where data are available, and Brimbank as compared with the greater Melbourne region, Victoria, and Australia. Its purpose is to assist Brimbank City Council and its residents to assess progress made in improving the health and wellbeing of the community, as well as inform the *Pathways in Place* program, a new, five-year, $11 million program that aims to break cycles of disadvantage and promote flourishing in Brimbank and Logan, Queensland.

Three domains that are significant in ensuring that a community has a thriving and healthy population have been selected for this report: early years and learning, youth transitions, and population health. Of these domains and over the time period covered by the reports (between 2006 and 2018), Brimbank appears to have improved most, both absolutely and comparatively, in youth transitions, and least in population health, with several exceptions to this general pattern.

Early years and learning

Across key early years and learning indicators, Brimbank has mostly improved or remained unchanged over time.

Direction of change in Brimbank on key early years indicators

Children in jobless families	Children in families with mothers with low educational attainment	Low birth weight babies	Women smoking during pregnancy	Participation in preschool	Children developmentally vulnerable
Better	**Better**	**Similar**	**Worse**	**Similar**	**Similar**

Change within Brimbank is variable, with no individual Public Health Areas (PHAs) consistently shifting at a faster or slower pace compared to Brimbank as a whole.

Compared with Greater Melbourne, Victoria, and Australia, Brimbank has closed the gap somewhat on the percentage of children in jobless families. On other indicators, however, it is mostly tracking similarly to or worse than these comparator regions.

Direction of change in Brimbank on key early years indicators compared with change in Greater Melbourne, Victoria, and Australia

	Children in jobless families	Children in families with mothers with low educational attainment	Low birth weight babies	Women smoking during pregnancy	Participation in preschool	Children developmentally vulnerable
Gr Melb	**Better**	**Similar**	**Worse**	**Similar**	**Similar**	**Similar**
Vic	**Better**	**Similar**	**Worse**	**Better**	**Similar**	**Similar**
Aus	**Better**	**Worse**	**Worse**	**Worse**	**Worse**	**Similar**

Youth transitions

Brimbank has improved on several key youth pathways indicators and worsened on only one – youth unemployment, which has increased in all areas within Brimbank and for which the Brimbank overall percentage is higher than the overall percentage of youth unemployment in Greater Melbourne, Victoria and nationally.

Direction of change in Brimbank on key youth transitions indicators

Earning or learning	Youth unemployment	Internet not accessed at home	Participation in full-time secondary school	Early school leavers	NAPLAN – Yr 9 reading	NAPLAN – Yr 9 numeracy
Better	**Worse**	**Better**	**Better**	**Similar**	**Better**	**Similar**

Within Brimbank, the PHA of Deer Park–Derrimut stands out as having consistently better than average positive change across all youth transition indicators for which there was PHA-level data.

Comparatively, Brimbank has made positive strides on the indicator, 'Internet not accessed at home', and as compared with Greater Melbourne on several other indicators.

Direction of change in Brimbank on key youth transitions indicators compared with change in Greater Melbourne, Victoria, and Australia

	Earning or learning	Youth unemployment	Internet not accessed at home	Participation in full-time secondary school	Early school leavers	NAPLAN – Yr 9 reading	NAPLAN – Yr 9 numeracy
Gr Melb	**Better**	**Worse**	**Better**	**Similar**	**Similar**	**Better**	**Better**
Vic	**Better**	**Similar**	**Better**	**Similar**	**Similar**	**Similar**	**Similar**
Aus	**Similar**	**Similar**	**Better**	**Worse**	**Similar**	**Similar**	**Worse**

Population health

Brimbank has had a decrease in the percentage of its residents who smoke, but a stagnation on other population health indicators and a worsening on obesity and electronic gaming machine losses.

Direction of change in Brimbank on key population health indicators

General health	Psychological distress	Diabetes Type 2	Circulatory system diseases	Smoking - men	Smoking - women	Obesity – men	Obesity - women	EGM player losses
Similar	**Similar**	**Similar**	**Similar**	**Better**	**Better**	**Worse**	**Worse**	**Worse**

A particular positive change is male smoking rates, which have dropped over time, and dropped more quickly in Brimbank than in Victoria and Australia as a whole. Of particular concern are rates of Type 2 diabetes and losses from electronic gaming machines. These indicators have worsened in Brimbank and at a faster rate than in the other geographic regions.

Direction of change in Brimbank on key population health indicators compared with change in Greater Melbourne, Victoria, and Australia

	General health	Psychological distress	Diabetes Type 2	Circulatory system diseases	Smoking-men	Smoking-women	Obesity-men	Obesity-women	EGM player losses
Gr Melb	**Similar**	**Similar**	**Worse**	**Similar**	**Similar**	**Similar**	**Similar**	**Similar**	**Worse**
Vic	**Similar**	**Similar**	**Worse**	**Similar**	**Better**	**Similar**	**Similar**	**Similar**	**Worse**
Aus	**Similar**	**Similar**	**Worse**	**Better**	**Better**	**Similar**	**Similar**	**Similar**	**Worse**

Introduction

In 2014 and 2019, the Mitchell Institute for Education and Health contracted the Public Health Information Development Unit (PHIDU) to produce The Brimbank Atlas of Health and Education (The Atlas) – Editions 1 and 2.

These Atlases were developed in response to the glaring policy gap in Australia in the relationship between health and education and their impact on individual wellbeing and economic participation. The Atlases are focused on the inequalities in health and education outcomes across the communities of the City of Brimbank, highlighting the characteristics of those communities and groups living in Brimbank that have been doing well and those where further effort is needed to improve these outcomes.

The first edition of The Atlas, published in 2014, provided Brimbank and its residents with information to support the planning and development of services and other supports to enhance health and education outcomes in the community.

The second edition of The Atlas, published in 2019, updated the selected indicators of health and education and the contributing social and economic factors that influence the health and education opportunities and outcomes for individuals within communities. It provided a range of information for decision-makers, planners, service providers, researchers and communities.

The indicators included in The Atlas were chosen for several reasons. First, they describe aspects and characteristics of the population that are recognised contributors to health, education, and wellbeing in communities. Second, they cover the lifespan, thus offering a perspective on understanding inequalities across life, and how the accumulation of experiences at earlier stages contributes to outcomes later on.

This report provides evidence regarding change over time on a subset of the indicators included in the Atlases – for Brimbank as a whole, within Brimbank where data are available, and Brimbank as compared with the greater Melbourne region, Victoria, and Australia. Note that all data reported are from prior to the onset of the COVID-19 pandemic.

The aim of this report is twofold:

1) to provide Brimbank and its residents with information on whether efforts thus far to improve the health and education of the residents of Brimbank are working; and
2) to inform a new, five-year, $11 million collaborative program involving Brimbank, Logan (Qld), Victoria University, Griffith University, and the Paul Ramsay Foundation – *Pathways in Place: Co-creating Community Capabilities*, which aims to break cycles of disadvantage and promote flourishing in these two communities, with a particular focus on two key life stages: early years and youth transitions. Its intent is then to share findings to inform developments in similar communities across Australia.

This report considers three sets of indicators, drawn from the prior Atlas reports:

- Early years and learning
- Youth transitions
- Population health

The indicators for Early years and learning and Youth transitions describe two life cycle stages and are a focus of both the *Growing Brimbank* program and the *Pathways in Place* program. The population health indicators, which consist of both risk factors for and measures of established chronic health conditions in the population, inform the *Growing Brimbank* program.

Notes on the data and figures

All early years and youth transitions indicators except NAPLAN outcomes are presented in two types of figures: maps of Brimbank divided into the ten Population Health Areas (PHAs) and the two Statistical Local Areas (SLAs), and a line chart comparing Brimbank, Greater Melbourne, Victoria, and Australia. NAPLAN outcomes and the population health indicators include only the line chart.[1]

Maps: Each map indicates change over time for each PHA and/or SLA as compared with Brimbank LGA as a whole, for a given indicator. SLA maps are included in addition to PHA maps where a longer time span of data is available at the SLA level than at the PHA level. Therefore, for any given indicator, the PHA and SLA maps are not directly comparable. If the change for a particular PHA or SLA is better than the average change across all of Brimbank, this is indicated with solid shadings – the darker the shading, the better that area is doing on that indicator relative to the entire Brimbank LGA. If the area's change is worse than the average change across Brimbank, this is indicated with patterned shadings – with the denser the pattern, the worse that area is doing. Please refer to Appendix B for what constitutes "better" and "worse".

Line charts: These charts plot the available data for Brimbank, Greater Melbourne, Victoria, and Australia for each indicator.

Appendix A provides a table with all the data included in this report.

Appendix B provides additional information about the data used in this report.

Map of Population Health Areas (PHAs) within Brimbank

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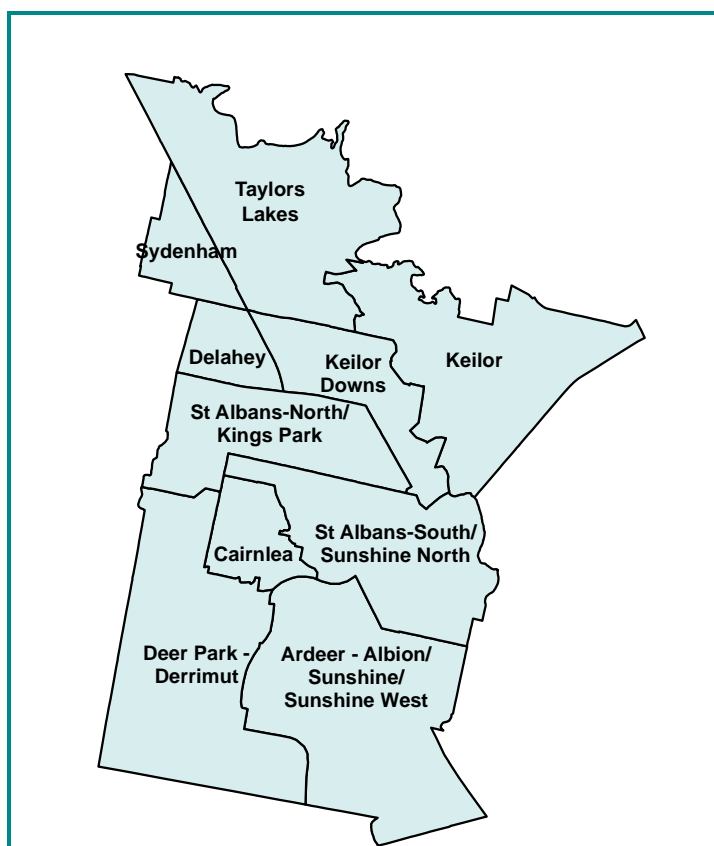
[1] NAPLAN data were unavailable at either the PHA or SLA level. Population data are not reported at the sub-LGA level as these are modelled estimates with large error margins and therefore any differences seen between areas may not be real.

Early years learning and development

In this section of the report, we present the comparison data for six key early years' indicators:

- Children in jobless families
- Children in families with mothers with low educational attainment
- Low birth weight babies
- Women smoking during pregnancy
- Participation in preschool
- Children developmentally vulnerable

Overall, the results are mixed. On the positive side, Brimbank in 2016 compared with 2006 had a lower percentage of children in jobless families and children in families with mothers with low educational attainment. However, Brimbank also had a higher percentage of women smoking during pregnancy as compared with previously, and percentages for low birthweight babies, four-year-old children participating in preschool, and children assessed as being developmentally vulnerable on one of more of the five national Australian Early Development Census developmental domains remained unchanged.

Direction of change in Brimbank on key early years indicators

Children in jobless families	Children in families with mothers with low educational attainment	Low birth weight babies	Women smoking during pregnancy	Participation in preschool	Children developmentally vulnerable
Better	Better	Similar	Worse	Similar	Similar

Change within Brimbank was variable, with no clear patterns by area. For example, whereas the Population Health Areas (PHAs) of St Albans-South / Sunshine North and Cairnlea have improved more in a positive direction when compared with Brimbank as a whole on the indicator, Children developmentally vulnerable, these PHAs show a comparatively worse outcome on the indicator, Women smoking during pregnancy.

The relative direction and strength of change in these indicators for Brimbank is also somewhat mixed when compared with the other regions. On several indicators it is similar, particularly when compared with Greater Melbourne, but it fares worse than Australia as a whole on four of the six indicators.

On the positive side, not only has the percentage of children in Brimbank living in jobless families decreased, but also the gap between Brimbank and the comparator regions has narrowed. Although the gap appears to have increased for low birthweight babies, it is important to note that the number of low birthweight babies in Brimbank each year is quite small, and so a small increase can result in a large percentage increase.

Direction of change in Brimbank compared with change in Greater Melbourne, Victoria, and Australia

	Children in jobless families	Children in families with mothers with low educational attainment	Low birth weight babies	Women smoking during pregnancy	Participation in preschool	Children developmentally vulnerable
Gr Melb	Better	Similar	Worse	Similar	Similar	Similar
Vic	Better	Similar	Worse	Better	Similar	Similar
Aus	Better	Worse	Worse	Worse	Worse	Similar

Children in jobless families

Indicator definition: *Children aged less than 15 years in families in which no parent is in employment*
Dates compared: 2006–2016 (SLA); 2011-2016 (PHA)

Families in which no parent is employed not only experience substantial economic disadvantage but also may have reduced social opportunities that affect their wellbeing and health. Children who live without an employed parent may be at higher risk of experiencing financial hardship and other disadvantage in the short to medium term. They may not have a role model of employment to follow, and so the joblessness of the parent(s) may mean that such children are more likely to have outcomes such as welfare dependency in the long term[1] In some families, the reason the parent is without a job may be to care for children or to undertake study to try to improve the future economic prospects of the household. However, most of the children living without an employed parent live in lone-parent households with limited resources[2].

Key findings

- Brimbank improved on this indicator. While in 2006, 25.5% of children under 15 were living in jobless families, this had dropped to 18.3% in 2016.

- Brimbank improved somewhat more on this indicator as compared with Greater Melbourne, Victoria, and Australia, with a smaller gap in 2016 as compared with 2006.

- Within Brimbank, the Ardeer-Albion/ Sunshine/Sunshine West PHA improved the most on this indicator between 2011 and 2016, whereas Taylors Lakes, Keilor Downs, and Delahey have worsened.

Children in jobless families: Brimbank compared with other regions (2006-2016)
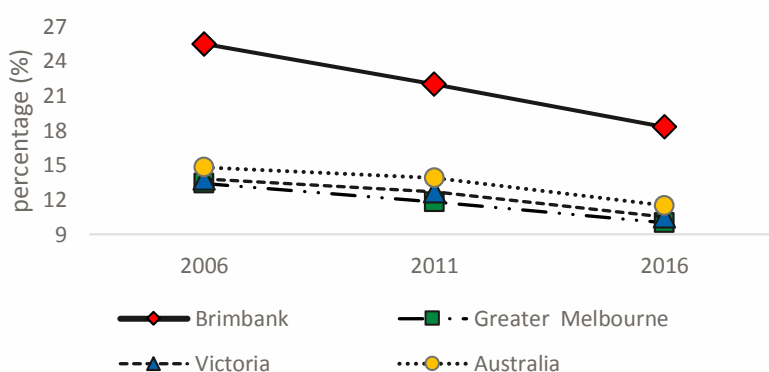
Children in jobless families: change in PHAs compared with change in Brimbank overall (2011-2016)
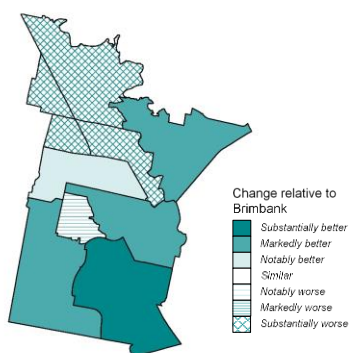
Children in jobless families: change in SLAs compared with change in Brimbank overall (2006-2016)

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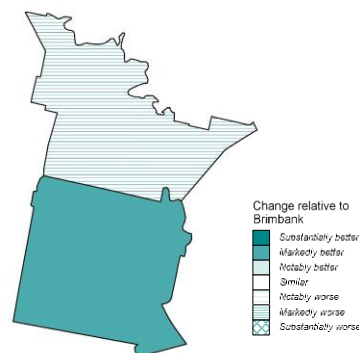
Children in families with mothers with low educational attainment

Indicator definition: *Children aged less than 15 years living in families in which the female parent's highest level of schooling was year 10 or below, or in which the female parent did not attend school*
Dates compared: 2006 – 2016; 2011-2016 (PHA)

A lack of successful educational experiences of parents may lead to low aspirations for their children[3], and may be related to parents' attitudes (6), their ability to manage the complex relationships that surround a child's health and education, and their capacity to control areas of their own lives[4].

Key findings

- Brimbank improved on this indicator. Whereas in 2006, 29.3% of children in Brimbank were living in families with mothers with low educational attainment, by 2016 this had dropped to 19.5%.

- The improvement in Brimbank was similar to the improvement across Greater Melbourne and Victoria, and slighter less than that across Australia as a whole.

- Rate of change varied somewhat within Brimbank, but all PHAs improved on this indicator.

Children in families with mothers with low educational achievement: Brimbank compared with other regions (2006-2016)

Children in families with mothers with low educational attainment: change in PHAs compared with change in Brimbank overall (2011-2016)
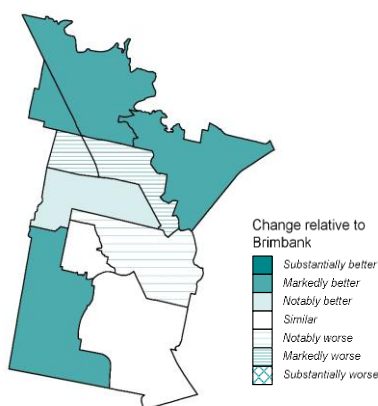
Children in families with mothers with low educational attainment: change in SLAs compared with change in Brimbank overall (2006-2016)
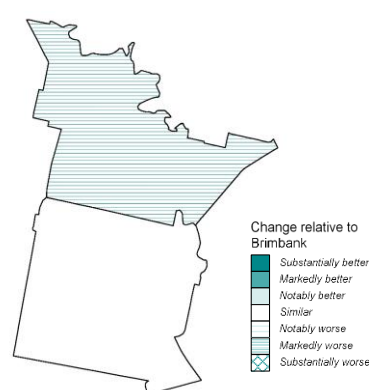
Low birth weight babies

Indicator definition: *Babies (both live born and stillborn) weighing less than 2500 grams at birth*
Dates compared: 2004/06 – 2012/14

The weight of a baby at delivery is a key indicator of infant health and can be affected by a number of factors, including the age, size, health, and nutritional status of the mother; pre-term birth; and tobacco smoking during pregnancy[5]. Low birthweight is generally associated with poorer health outcomes, including increased risk of illness and death, longer periods of hospitalization after birth, and increased risk of developing significant disabilities[6].

Key findings

- Brimbank remained stable on this indicator. Approximately the same percent of babies in Brimbank were born with low birth weights in 2012-14 compared with in 2004-06. Between these dates, the percentage decreased slightly from 7.3% to 7.2%.

- This stagnation compares unfavourably with Greater Melbourne, Victoria, and Australia, all of which have shown slight improvements on this indicator over this time.

- Within Brimbank, four PHAs improved on this indicator: Keilor, Keilor Downs, Cairnlea, and St Albans - South / Sunshine North
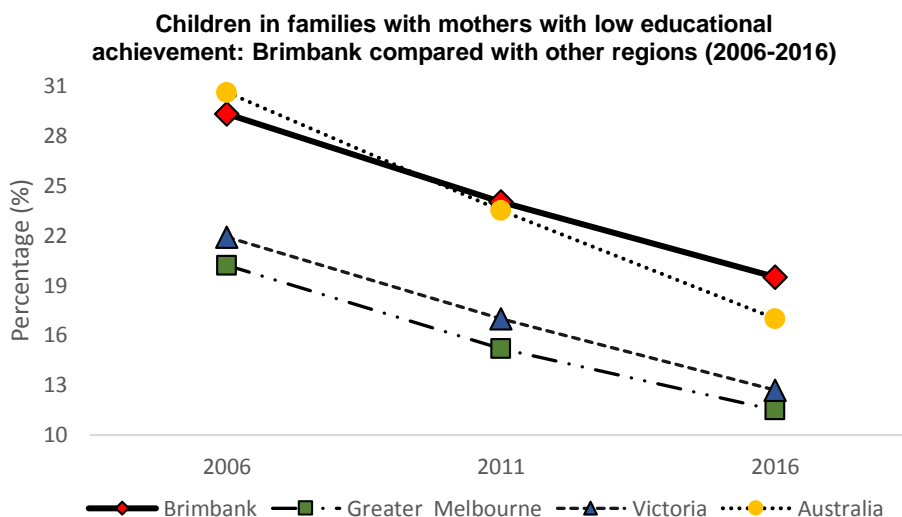
Low birth weight babies: Brimbank compared with other regions (2004-06 - 2012-14)
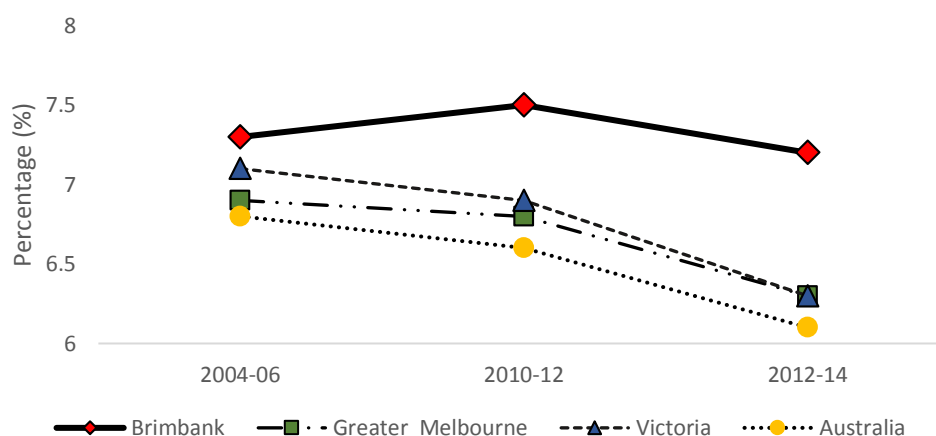
Low birth weight babies: change in PHAs compared with change in Brimbank overall (2004-06 -2012-14)
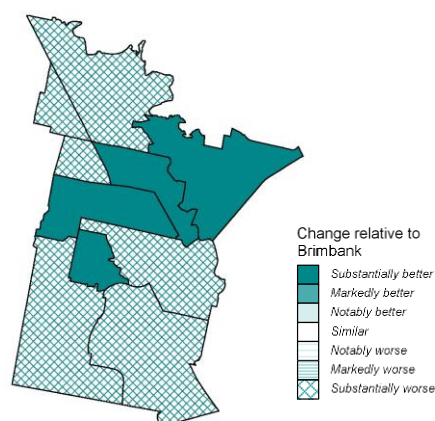
Women smoking during pregnancy

Indicator definition: *Women who reported that they smoked at any time during the first 20 weeks of pregnancy*
Dates compared: 2009/11 – 2012/14

Maternal smoking during pregnancy is a major risk factor that can adversely affect infant health, increasing the likelihood of low birth weight, pre-term birth, fetal and neonatal death, and Sudden Infant Death Syndrome (SIDS)[7].

Key findings

- Brimbank worsened on this indicator. A larger percent of women in Brimbank reported smoking during pregnancy in 2012-14 compared with in 2009-11. Over this time, the percentage increased from 9.0% to 10.5%.

- This increase in Brimbank was similar to the increase across Greater Melbourne and slightly better than the increase for Victoria, but worse than Australia as a whole, which showed a reduction in the percentage of women smoking during pregnancy.

- Despite the overall increase for Brimbank as a whole, three PHAs within Brimbank improved slightly on this indicator: Keilor, Deer Park-Derrimut, and Ardeer - Albion / Sunshine / Sunshine West.

- The PHA of Taylors Lakes, however, showed a large increase (140%) over this time in the percentage of women reporting smoking during pregnancy.

Smoking during preganancy: Brimbank compared with other regions (2009-11 - 2012-14)

Smoking during pregnancy: change in PHAs compared with change in Brimbank overall (2009-11 – 2012-14)

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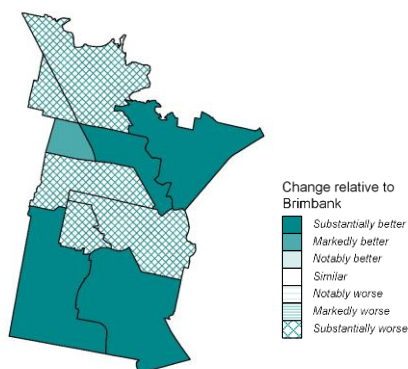
Participation in preschool

Indicator definition: *Children recorded in the Census as attending a preschool*
Dates compared: 2014 – 2018

A growing body of evidence suggests that engagement with quality early childhood education and care (ECEC) programs such as preschool can enhance children's early development[8].

Key findings

- Brimbank (indicated by a red line in this chart) improved slightly on this indicator. A slightly higher percent of children in Brimbank attended preschool in 2018 compared with in 2014. Over this time, the percentage increased from 81.6% to 84.1%.

- The increase in Brimbank was similar to the increase across Greater Melbourne and Victoria, but slightly less than for Australia as a whole.

- Despite improvement on this indicator for Brimbank as a whole, five PHAs reported decreases in preschool participation. The largest percentage decreases were for the PHAs of Keilor (down 24.1%) and Taylors Lakes (down 14.7%).

Participation in preschool: Brimbank compared with other regions (2014-2018)
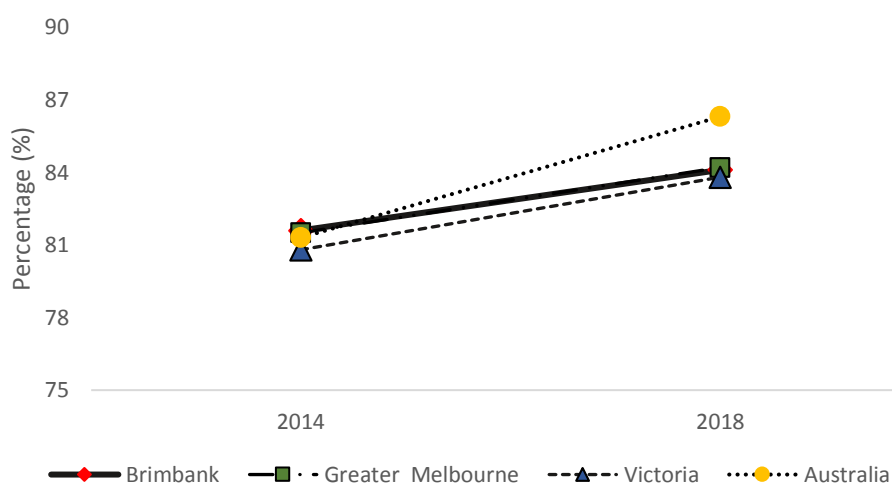
Participation in preschool: change in PHAs compared with change in Brimbank overall (2014-2018)
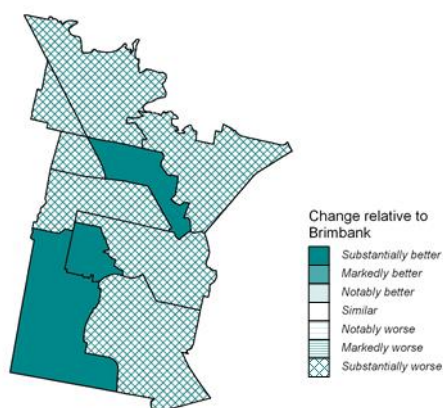
Children developmentally vulnerable

Indicator definition*: Children who were assessed as being developmentally vulnerable on one or more of the five national Australian Early Development Census developmental domains*
Dates compared: 2009–2018; 2012-2018 (PHA)

The Australian Early Development Census (AEDC) collects information on children in their first year of full-time formal school (average age of 5 years and 7 months) using a teacher-completed checklist. Information is collected across five domains: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills (school-based), communication skills, and general knowledge. This data helps communities assess how well they support young children and their families[9].

Key findings

- Brimbank remained unchanged on this indicator when comparing 2009 with 2018; however, this follows increases in the percentage of children who were developmentally vulnerable in 2012 and 2015. From 2009 to 2018, the percentage decreased very slightly from 27.1% to 26.2%.

- The change in Brimbank was similar to that across Greater Melbourne and Victoria, and slightly worse than that for Australia as a whole.

- Within Brimbank, the PHA of Cairnlea recorded the greatest improvement on this indicator and the PHA of Taylors Lakes recorded the worst increase.

Children developmentally vulnerable: Brimbank compared with other regions (2009-2018)
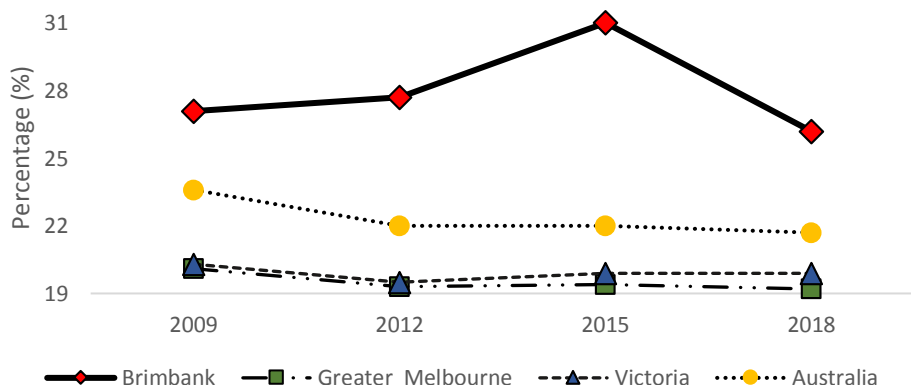
Children developmentally vulnerable: change in PHAs compared with change in Brimbank overall (2012-2018)
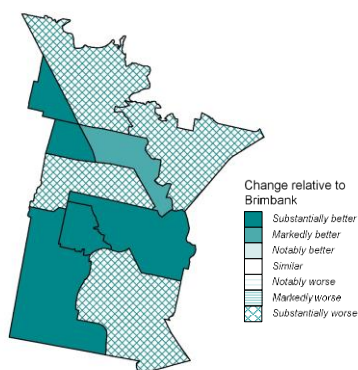
Children developmentally vulnerable: change in SLAs compared with change in Brimbank overall (2009-2018)
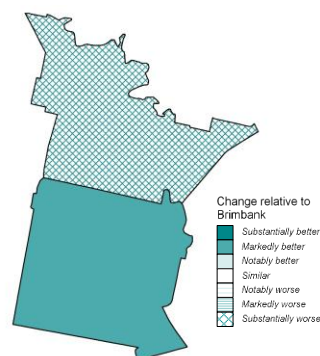
Youth transitions

In this section of the report, we present the comparison data for seven key youth pathways indicators:

- Learning or earning (age 15-24 years)
- Youth unemployment
- Internet not accessed at home
- Participation in full-time secondary school (age 16 years)
- Early school leavers
- NAPLAN (Year 9) – reading (below minimum standard)
- NAPLAN (Year 9) – numeracy (below minimum standard)

Brimbank improved on several key youth pathways indicators and worsened on only one – youth unemployment. On this indicator, all comparator regions recorded an increase. Brimbank improved on the percentage of young people who are either studying or working, participating in full-time school, met minimum standards on NAPLAN Year 9 Reading, and have accessed the internet at home. It is important to note that the change in wording for the internet indicator from 'connection' in 2006 to 'access' in 2011 resulted in a large percentage decrease (did not access) from 2006 to 2011; nevertheless, there was also a smaller decrease between 2011 and 2016, suggesting that the improvement was not simply due to the change in wording. Brimbank saw little change in percentage of either early school leavers or students scoring below minimum standard Year 9 NAPLAN numeracy.

Direction of change in Brimbank on key youth pathways indicators

Learning or earning	Youth unemployment	Internet not accessed at home	Participation in full-time secondary school	Early school leavers	NAPLAN – Yr 9 reading	NAPLAN – Yr 9 numeracy
Better	**Worse**	**Better**	**Better**	**Similar**	**Better**	**Similar**

Rates of change within Brimbank varied, with different PHAs improving or worsening at faster or slower rates than the average across Brimbank depending on the indicator. The PHA of Deer Park–Derrimut, however, stands out as having consistently had better than average positive change across all youth transition indicators for which there was PHA-level data.

In comparing rates of change in Brimbank with those in Greater Melbourne, Victoria, and Australia, Brimbank improved on several indicators compared with Greater Melbourne – learning or earning, NAPLAN reading and numeracy scores, and internet access. However, it fared worse on youth unemployment. Brimbank recorded an increase in internet access to a greater degree than the other comparator regions.

Direction of change in Brimbank compared with change in Greater Melbourne, Victoria, and Australia

	Learning or earning	Youth unemployment	Internet not accessed at home	Participation in full-time secondary school	Early school leavers	NAPLAN – Yr 9 reading	NAPLAN – Yr 9 numeracy
Gr Melb	**Better**	**Worse**	**Better**	**Similar**	**Similar**	**Better**	**Better**
Vic	**Better**	**Similar**	**Better**	**Similar**	**Similar**	**Similar**	**Similar**
Aus	**Similar**	**Similar**	**Better**	**Worse**	**Similar**	**Similar**	**Worse**

Learning or earning (age 15-24 years)

Indicator definition: *Young people aged 15-24 years who reported that they were in full-time work or full-time education, or in part-time work combined with part-time education*
Dates compared: 2006–2016; 2011-2016 (PHA)

Young people who don't engage in school, work, or further education or training run a significant risk of school failure, unemployment, risky health behaviours, mental health problems, social exclusion, and economic and social disadvantage over the longer term[1011]

Key findings

- Brimbank improved on this indicator. A larger percent of young people in Brimbank were studying and/or working full-time in 2016 compared with in 2006. Over this time, the percentage increased from 72.3% to 84.1%.

- The improvement in Brimbank was slightly better than the improvement across Greater Melbourne and Victoria, and about the same as Australia as a whole.

- Within Brimbank, every PHA improved on this indicator between 2011 and 2016, led by Deer Park – Derrimut (increase of 25.3%).

Learning or earning (15-24 yrs): Brimbank compared with other regions (2006-2016)
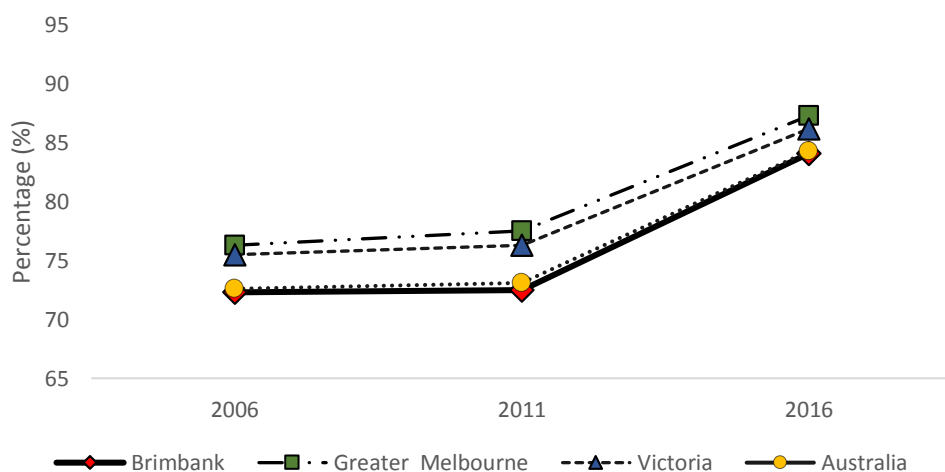
Learning or earning (age 15 to 24 years): change in PHAs compared with change in Brimbank overall (2011-2016)
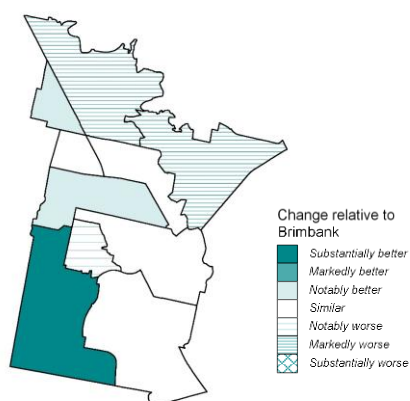
Learning or earning (ages 15 to 24 years): change in SLAs compared with change in Brimbank overall (2006-2016)

11
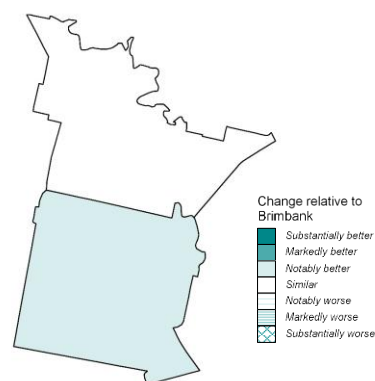
Youth unemployment

Indicator definition: *Number of people aged 15 to 24 years who reported in the Census of Population and Housing that they were unemployed.*
Dates compared: 2006–2016; 2011-2016 (PHA)

Unemployment is associated with a range of poor health outcomes. The experience of unemployment harms a young person's financial and psychological wellbeing, and these effects are felt more severely by those who experience long-term unemployment. Those who experience unemployment while in their teens or early 20s are particularly likely to be unemployed, have poor health, and have lower educational attainment when they are older than are those not affected by unemployment when young[12].

Key findings

- Brimbank worsened on this indicator. A larger percent of young people was unemployed in 2016 compared with in 2006. Over this time, the percentage increased from 13.8% to 19.2%.

- This increase in Brimbank was slightly worse than the increase across Greater Melbourne, but similar to the increases for Victoria and Australia as a whole.

- Youth unemployment increased in every PHA within Brimbank, from an increase of 14.7% in Cairnlea to 50.1% in Sydenham.

Youth unemployment: Brimbank compared with other regions (2006-2016)
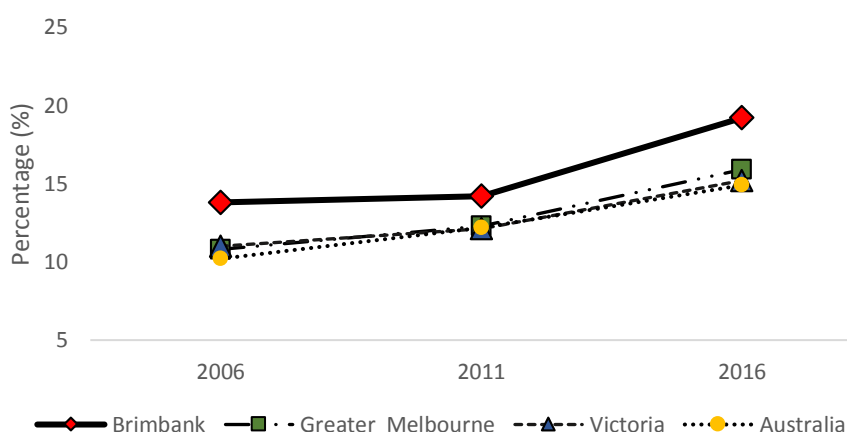
Youth unemployment: change in PHAs compared with change in Brimbank overall (2011-2016)
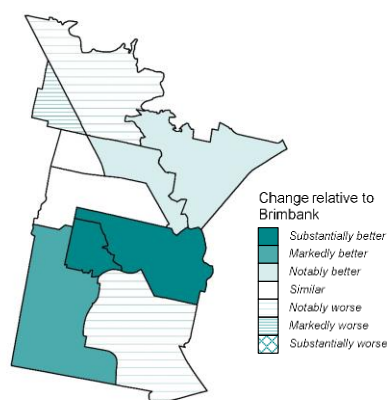
Youth unemployment: change in SLAs compared with change in Brimbank overall (2006-2016)
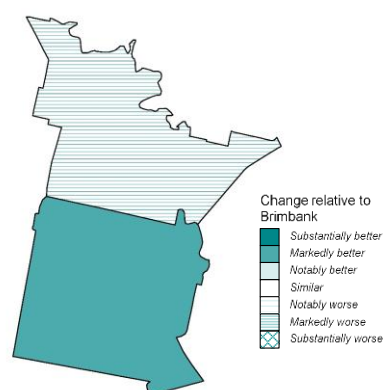
Internet not accessed at home

Indicator definition: *(2016): People living in dwellings where no one accessed the Internet; (2006 & 2011): People living in dwellings where there was no Internet access at home.* **Note** *that the 2016 question is narrower than the earlier question – a household may have access in theory but may not have actually accessed the Internet.*
Dates compared: 2006–2016; 2011-2016 (PHA)

A household can be considered disadvantaged if it lacks the resources to participate fully in society[13]. Access to the outside world through the Internet provides a means of communicating with friends and family, as well as services, employers, and schools, thereby increasing educational, employment, and other opportunities[14].

Key findings

- Brimbank improved on this indicator. A smaller percent of Brimbank households reported no internet access in 2016 compared with in 2006. This drop would have likely been even greater if the wording of the indicator had not changed in 2016 – from simply connection ('Internet access') to someone in the household accessing ('accessed the Internet') -- see 'indicator definition', above. Ignoring the wording change, the percentage dropped from 41.6% to 11.4%.

- Brimbank's improvement on this indicator was slightly better than that across Greater Melbourne, Victoria, and Australia, with the gap between Brimbank and the other regions narrowing.

- Every PHA within Brimbank improved on this indicator between 2011 and 2016, from a decrease of 29.2% in Keilor to 59.6% in Cairnlea.

No connection (2006 & 2011); No one accessed Internet (2016) from dwelling: Brimbank compared with other regions (2006-2016)
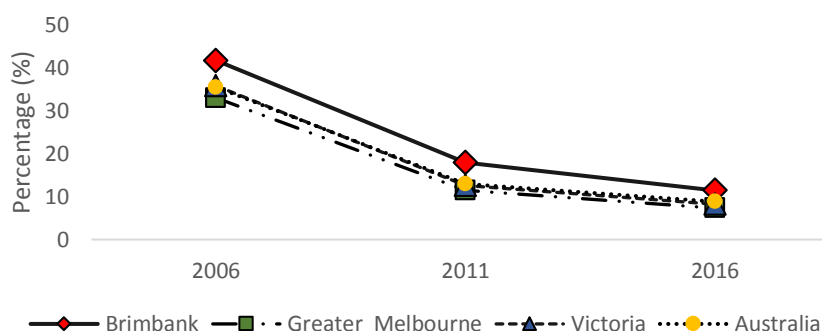
No connection (2011); No one accessed Internet (2016) from dwelling: change in PHAs compared with change in Brimbank overall (2011-2016)
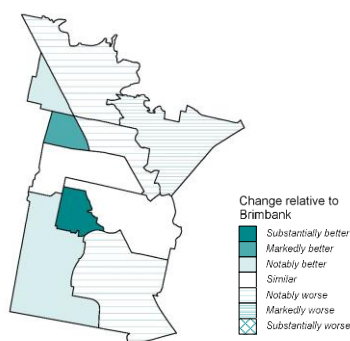
No connection (2006;2011); No one accessed Internet (2016) from dwelling: change in SLAs compared with change in Brimbank overall (2006-2016)
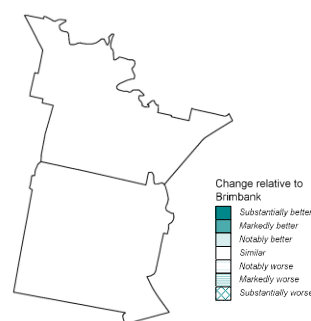
Participation in full-time secondary school (age 16 years)

Indicator definition: *Young people aged 16 years recorded in the Census as attending full-time secondary school*
Dates compared: 2006–2016; 2011-2016 (PHA)

Young people who complete Year 12 are more likely to make a successful initial transition to further education, training and work than are early school leavers [15]

Key findings

- Brimbank improved on this indicator. A greater percent of young people aged 16 in Brimbank participated in full-time secondary school in 2016 compared with in 2006. Over this time, the percentage increased from 77.6% to 84.3%.

- Brimbank's improvement on this indicator was similar to the improvement across Greater Melbourne and Victoria, but slightly worse than for Australia as a whole.

- Within Brimbank, each PHA except St Albans - South / Sunshine North (decrease of 1.9%) has improved on this indicator.

Participation in full-time secondary education (age 16 years):
Brimbank compared with other regions (2006-2016)

Participation in full-time secondary education (age 16 years): change in PHAs compared with change in Brimbank overall (2011-2016))
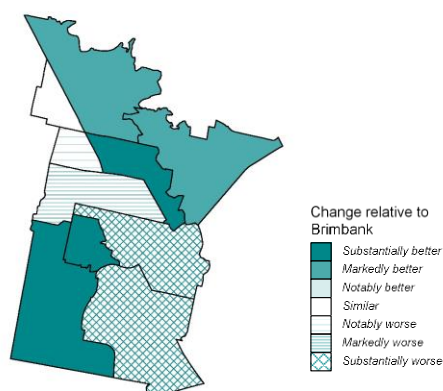
Participation in full-time secondary education (age 16 years): change in SLAs compared with change in Brimbank overall (2006-2016)

14
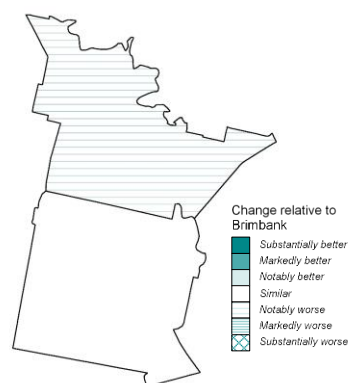
Early school leavers

Indicator definition: *People whose highest level of education was Year 10 or below, or who did not attend school*
Dates compared: 2006–2016; 2011 – 2016 (PHA)

Education increases opportunities for choice of occupation and for income and job security. Education also equips people with the skills and ability to control many aspects of their lives – key factors that influence wellbeing throughout the life course. People who leave school early and do not undertake further education or training may be at risk of social exclusion, poorer life chances, and socioeconomic disadvantage in the longer term[16,17].

Key findings

- Brimbank, as in the comparator regions, had little change on this indicator between 2006 and 2016, with a slightly higher percent of early school leavers in 2016 compared with in 2006 --31.2% compared with 30.2%.

- Over the years, the percentage of early school leavers was persistently higher in Brimbank than in Greater Melbourne and Vic, but comparable to the Australian average.

- Within Brimbank, all PHAs improved on this indicator between 2011 and 2016, from a decrease of 3.4% in Cairnlea to 11.0% in Taylors Lakes.

Early school leavers: Brimbank compared with other regions (2006-2016)

Early school leavers: change in PHAs compared with change in Brimbank overall (2011-2016)
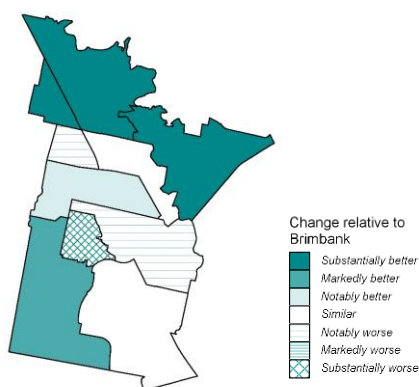
Early school leavers: change in SLAs compared with change in Brimbank overall (2006-2016)

15
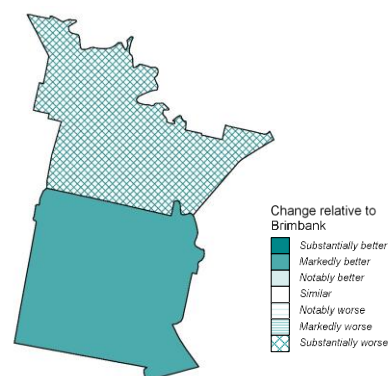
NAPLAN (Year 9) – reading & numeracy

Indicator definition: *Children in Year 9 with reading or numeracy scores below the national minimum standard, by PHA of the student's address.*
Dates compared: 2012–2018

A key outcome for schooling under the Council of Australian Governments (COAG) National Education Agreement is that 'young people are meeting basic literacy and numeracy standards, and overall levels of literacy and numeracy achievements are improving'[18]. Unfortunately, sub-Brimbank level data are not unavailable for these indicators.

Key findings

- Brimbank improved on reading standards with a small improvement in numeracy. A smaller percent of young people in Year 9 had reading scores below the minimum standard in 2018 compared with in 2012, and about the same percent on numeracy scores. Over this time, the percentages decreased from 9.0% to 7.4% in reading, and from 5.8% to 5.3% in numeracy.

- Brimbank's change on both indicators was better than the change across Greater Melbourne, which worsened for numeracy scores. Brimbank's change was about the same as those for Victoria as a whole on both reading and numeracy; they were similar on reading compared with all of Australia on reading, but worse than Australia on numeracy.

NAPLAN Yr 9 reading - failure to meet min: Brimbank compared with other regions (2009-2018)
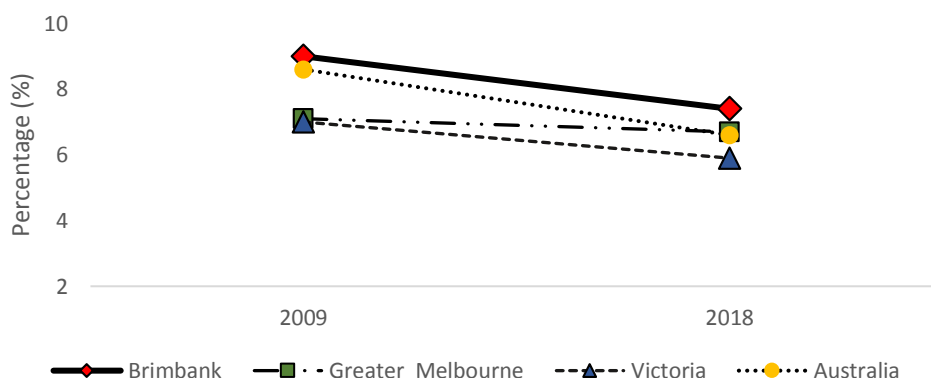
NAPLAN Yr 9 numeracy - failure to meet min: Brimbank compared with other regions (2009-2018)

16
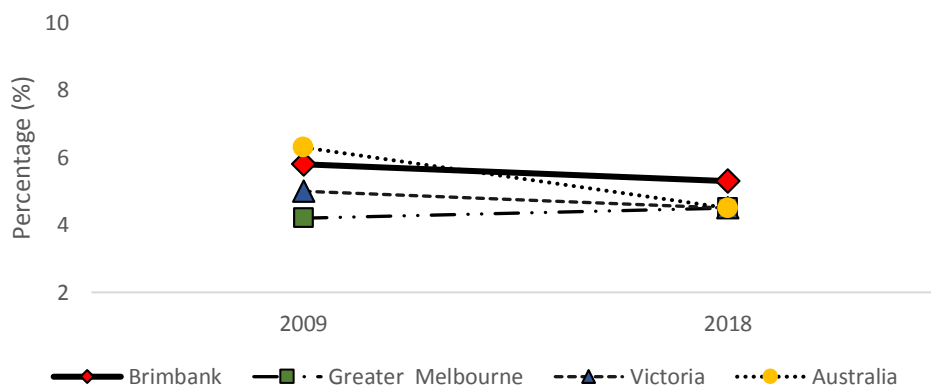
Population health

In this section of the report, we present the comparison data for seven key population health indicators, two of which are reported separately by gender:

- General health ('poor' or 'very poor')

- Psychological distress

- Diabetes Type 2

- Circulatory system diseases

- Smoking - men

- Smoking - women

- Obesity – men

- Obesity – women

- Electronic gaming machines (player losses in dollars)

The change over time in Brimbank on key population health indicators is mixed. Smoking rates improved (decreased) while self-reported general health, psychological distress, diabetes Type 2, and circulatory system diseases remained fairly stable. However, rates of obesity in both men and women, and per person player losses from electronic gaming machines, worsened.

Direction of change in Brimbank on key population health indicators

General health	Psychological distress	Diabetes Type 2	Circulatory system diseases	Smoking - men	Smoking - women	Obesity - men	Obesity - women	EGM player losses
Similar	**Similar**	**Similar**	**Similar**	**Better**	**Better**	**Worse**	**Worse**	**Worse**

On most indicators, the percentage changes for Brimbank, whether in a negative or positive direction, were similar to those across Greater Melbourne, Victoria, and Australia as a whole. Of concern, however, is the relative worsening of rates of Type 2 diabetes and per person electronic gaming machine losses. While rates of Type 2 diabetes increased somewhat in Greater Melbourne, Victoria, and Australia, Brimbank recorded a larger increase, however, given that this is modelled data, these results should be treated with caution. An obvious concern is electronic gaming machine losses, which have either decreased (Greater Melbourne and Victoria) or remained stable (Australia) in other geographic regions, but which have increased substantially in Brimbank. On a positive note, the rate of smoking among men dropped more rapidly in Brimbank than it did across the other geographic regions.

Direction of change in Brimbank compared with change in Greater Melbourne, Victoria, and Australia

	General health	Psychological distress	Diabetes Type 2	Circulatory system diseases	Smoking- men	Smoking- women	Obesity- men	Obesity- women	EGM player losses
Gr Melb	**Similar**	**Similar**	**Worse**	**Similar**	**Similar**	**Similar**	**Similar**	**Similar**	**Worse**
Vic	**Similar**	**Similar**	**Worse**	**Similar**	**Better**	**Similar**	**Similar**	**Similar**	**Worse**
Aus	**Similar**	**Similar**	**Worse**	**Better**	**Better**	**Similar**	**Similar**	**Similar**	**Worse**

General health

Indicator definition: *Estimated number of people aged 15 years and over who reported their health as 'fair' or 'poor'.*
Dates compared: 2007/08–2017/18

Self-assessed health is an important indicator of key aspects of quality of life[19].

Key findings

- After somewhat worsening on this indicator from 2007/08 to 2014/15, Brimbank almost returned to its 2007/08 level in 2017/18. In 2007/08, 18.2% of Brimbank residents reported their health as 'fair', 'poor', or 'very poor'; in 2017/18 this figure was 18.7%.

- Brimbank's trend on this indicator was similar to those across Greater Melbourne, Victoria, and Australia as a whole.

- Brimbank's residents consistently report worse health status over the years than residents from the comparison regions.

Health status: 'very poor' or 'poor': Brimbank compared with other regions (2007-08 - 2014-15)
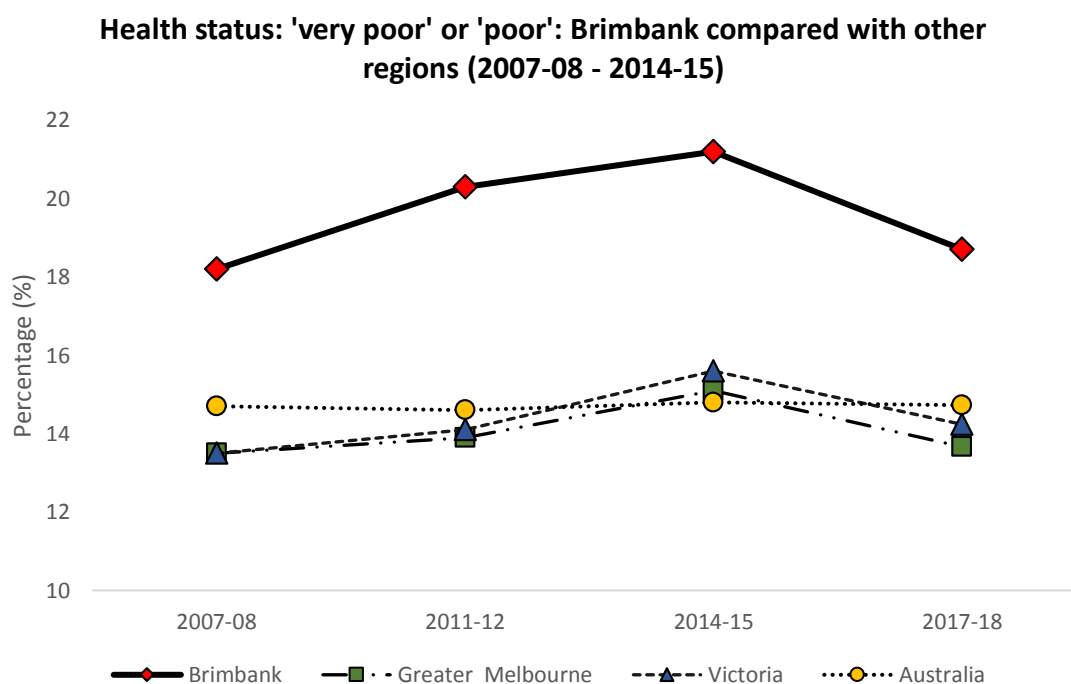
Psychological distress

Indicator definition: *Estimated number of people aged 18 years and over who were assessed as having 'high' or 'very high' levels of psychological distress, based on their responses to the Kessler Psychological Distress Scale-10 items (K10) questionnaire.*
Dates compared: 2007/08 – 2017/18

Key findings

- Brimbank had little overall change over time on this indicator. In 2007/08, 15.1% of Brimbank residents were self-assessed as having 'high' or 'very high' psychological distress, compared with 16.2% in 2017/18.

- Brimbank's results on this indicator are consistently higher than Greater Melbourne, Victoria, and Australia as a whole, with a similar pattern over time.

Psychological distress: Brimbank compared with other regions (2011-12 - 2014-15)
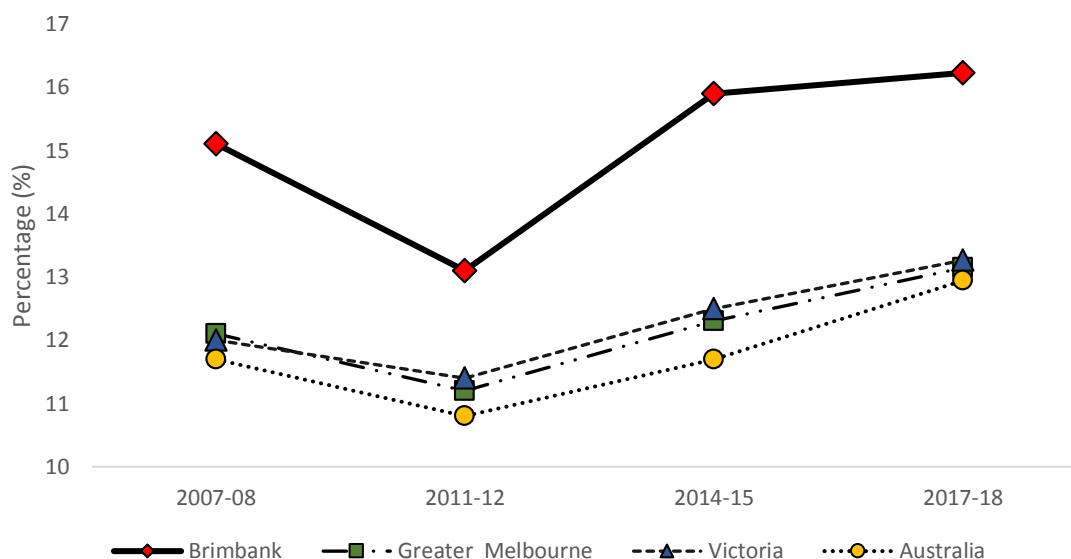
Electronic gaming machine player losses

Indicator definition: *Expenditure (i.e. amount of money lost by gaming patrons) at gaming venues on electronic gaming machines expressed as a rate per head per year of the population aged 18 years and over.*
Dates compared: 2007/08–2017/18

Problem gambling can severely affect peoples' quality of life, potentially leading to severe personal and family distress, including depression, suicide, unemployment, and family and relationship breakdown[20].

Key findings

- Brimbank worsened on this indicator. Per adult losses from electronic gaming machines increased from $851 in 2007/08 to $948 in 2017/18.

- Brimbank's worsening on this indicator is in sharp contrast with the comparator regions where losses decreased in Greater Melbourne and Victoria and remained stable across Australia as a whole.

- Gaming losses are consistently higher amongst Brimbank residents than in comparison to those of Greater Melbourne, Victoria and Australia.

EGM player losses ($ per person aged 18+): Brimbank compared with other regions (2007-08 - 2017-18)
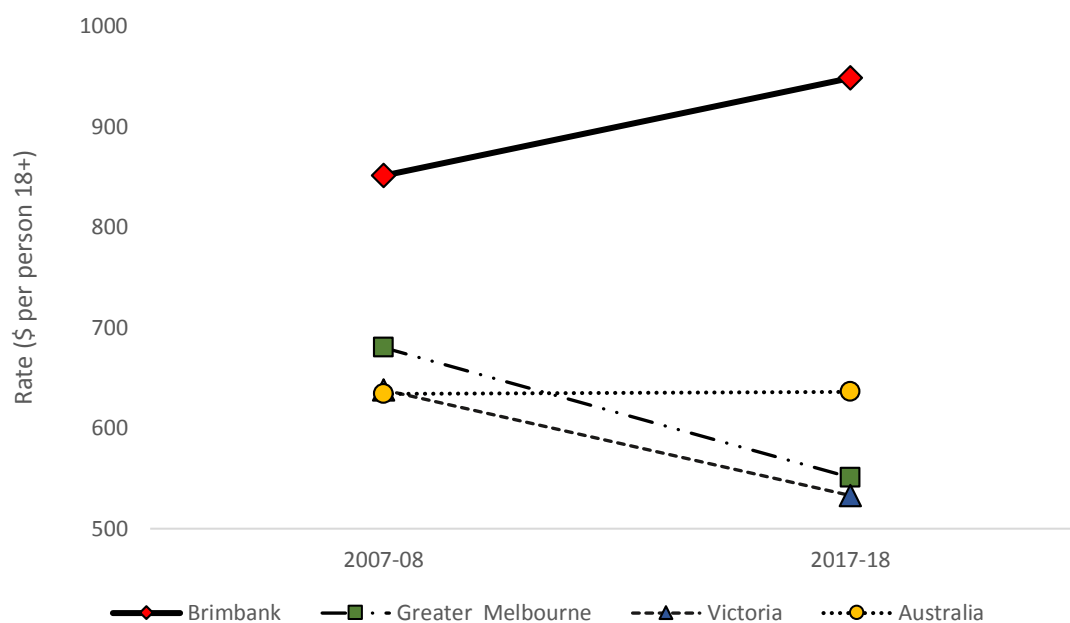
Diabetes Type 2

Indicator definition: *Estimated number of people aged 18 years and over with a glycated haemoglobin test (HbA1c) level of greater than or equal to 6.5% (the WHO recommended cut-off point for diabetes)[21].*
Dates compared: 2007/08–2017/18

Diabetes mellitus is a chronic disease characterized by high blood glucose levels resulting from defective insulin production, insulin action, or both[22]. Serious health complications stemming from this disease include cardiovascular, eye, and renal diseases. Aboriginal and Torres Strait Islander peoples and people who are socioeconomically disadvantaged are at higher risk of developing diabetes mellitus and have much greater hospitalization and death rates from diabetes as compared with all Australians[23].

Key findings

- Brimbank had an increase in the estimated prevalence of diabetes Type 2. It should be noted that the method of data collection and inclusion criteria for this indicator has varied over time. Self-reported data in 2007-08, 2014-15, and 2017-18 shows consistently rising rates over time, with the greater increase recorded in 2011-12 in all areas likely to be due to the data being based on blood samples rather than self-report.

- Although Greater Melbourne, Victoria, and Australia followed a similar pattern over time, the gap between Brimbank and these other areas increased. In 2007/08, Brimbank fared only 0.4 percentage points worse, whereas in 2017/18, this gap had increased to approximately 3.3 percentage points.

- Over 10 years, the percentage of Brimbank residents with Type 2 diabetes doubled.

Diabetes Type 2: Brimbank compared with other regions (2007-08 - 2014-15)
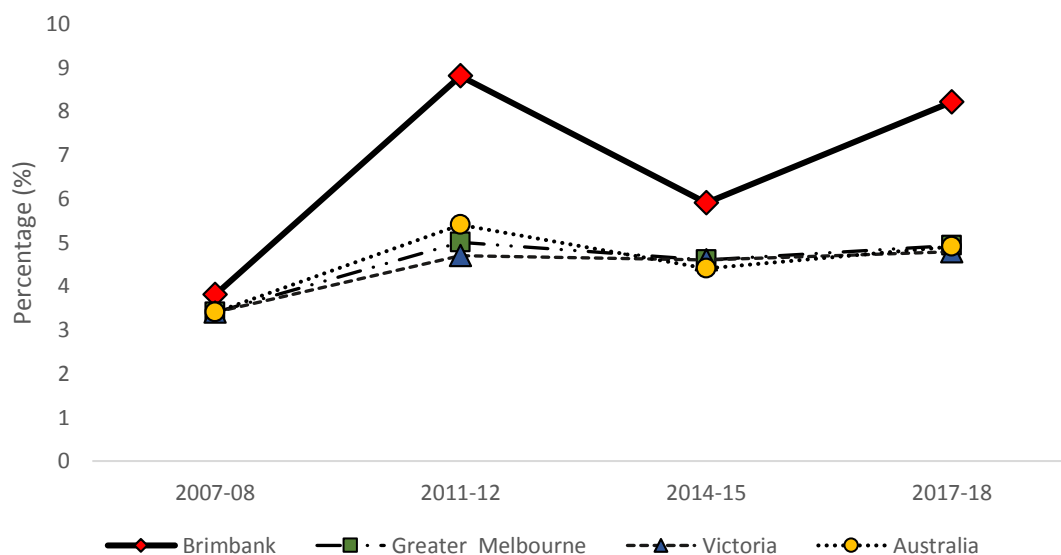
Circulatory system diseases

Indicator definition: *Estimated number of people aged two years and over who reported that they had a heart or circulatory condition, and who confirmed that a doctor, nurse, or other health practitioner had told them that they have the condition.*
Dates compared: 2007/08–2014/15

The heart, blood, and blood vessels make up the circulatory system. The leading conditions contributing to circulatory system disease burden and mortality are hypertension (high blood pressure), stroke, and ischaemic heart disease (coronary heart disease). These diseases are mainly caused by a damaged blood supply to the heart, brain, and/or limbs, and share several risk factors. Behavioural risk factors, such as poor diet and tobacco smoking, contribute significantly to the likelihood of developing a circulatory system disease. Those at greater risk for developing and dying from circulatory system diseases include Indigenous Australians, people of lower socioeconomic status, and males age 45 and older[24].

Key findings

- Brimbank remained relatively stable on this indicator. In 2007/08, approximately 17.9% of Brimbank residents reported a circulatory system condition with 18.6% in 2014/15.

- This is consistent with Greater Melbourne and Victoria. Australia as a whole worsened slightly between 2007/0-8 and 2014/15 – increasing from 16.0% to 18.3%.

**Circulatory system diseases: Brimbank compared with other regions (2007-08 - 2014-15)**

22
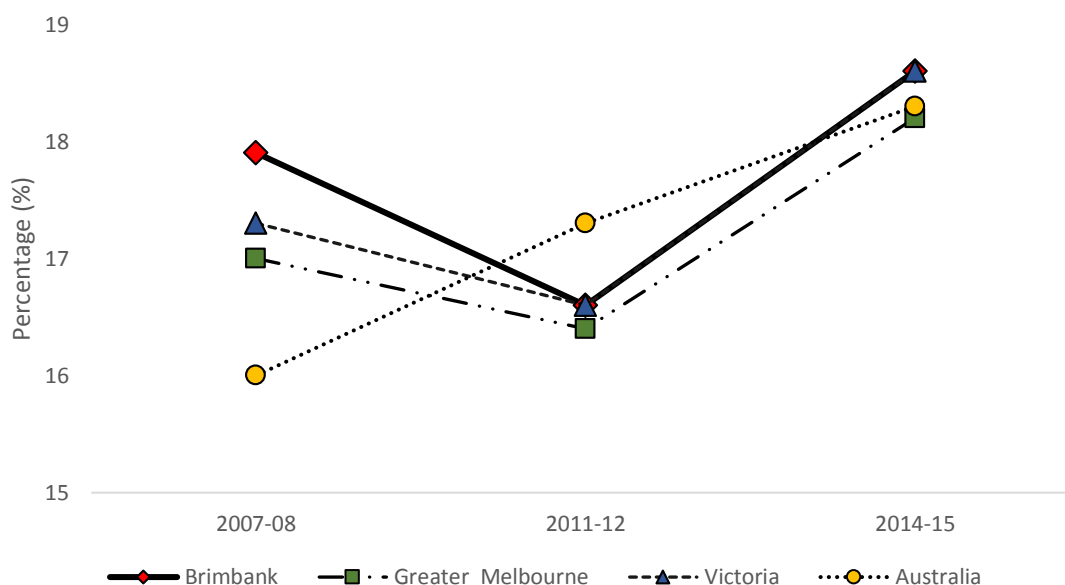
Smoking

Indicator definition: *Estimated number of people aged 18 years and over who reported being a current smoker.*
Dates compared: 2007/08–2014/15

Tobacco smoking is recognised as the largest single preventable cause of death and disease in Australia[25]. It is associated with an increased risk of heart disease, stroke, cancer, emphysema, bronchitis, asthma, renal disease, and eye disease[26]. The negative effects of passive smoking indicate that the risks to health of smoking affect more than just the smoker. Passive smoking increases the risk of heart disease, asthma, and some cancers. It may also increase the risk of Sudden Infant Death Syndrome (SIDS) and may predispose children to allergic sensitization[27].

Key findings

- Brimbank smoking rates decreased for both men and women, although men continue to smoke at higher rates. From 2007/08 to 2014/15, the percent of self-reported current smokers dropped from 24.9% to 20.0% among men, and from 18.7% to 14.4% for women.

- Smoking rates have similarly fallen across Greater Melbourne, Victoria, and Australia. However, Brimbank appears to be closing the gap for male smoking rates, particularly as compared with all of Victoria and Australia.

**Smoking - women: Brimbank compared with other regions
(2007-08 - 2014-15)**
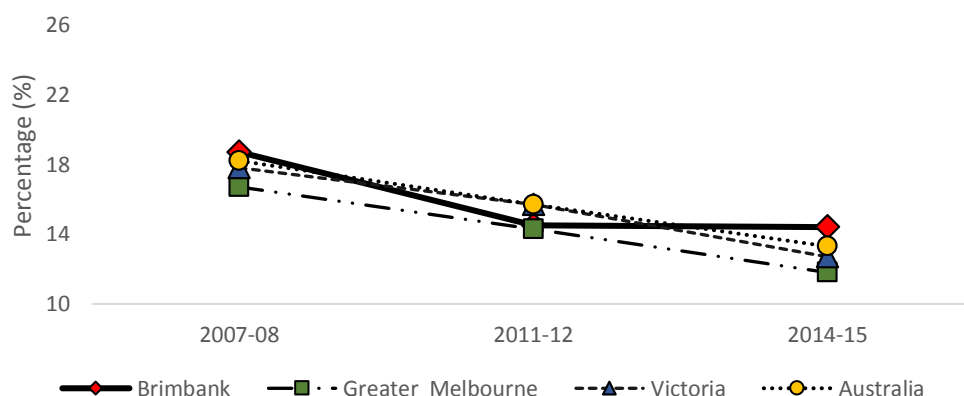
**Smoking - men: Brimbank compared with other regions
(2007-08 - 2014-15**
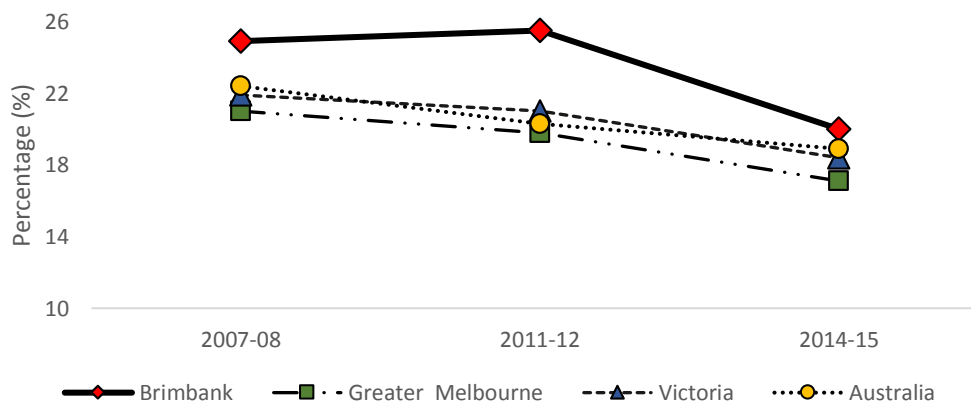
Obesity

Indicator definition: *Estimated number of people aged 18 years and over who were assessed as being obese, based on their measured height and weight. "Obesity" is classified as having a Body Mass Index (BMI) of 30 or over. BMI is calculated by dividing an individual's weight in kilograms by their height in metres squared (m²).*
Dates compared: 2007/08–2017/18

Obesity has been linked to higher mortality rates[28] and such diseases as Type 2 diabetes, CVD, osteoarthritis and some cancers[29].

Key findings
• Brimbank obesity rates increased for both men and women, with men reporting slightly higher rates. From 2007/08 to 2017/18, the percent of adult residents classified as 'obese' increased from 18.3% to 34.2% among men, and from 18.0% to 31.8% among women. Higher rates recorded in all areas in 2011-12 were likely to be due to direct measurement of a sample of the population, rather than self-report.
• These rates of increase were similar to those across Greater Melbourne, Victoria, and Australia.

Obesity - women: Brimbank compared with other regions (2007-08 - 2014-15)
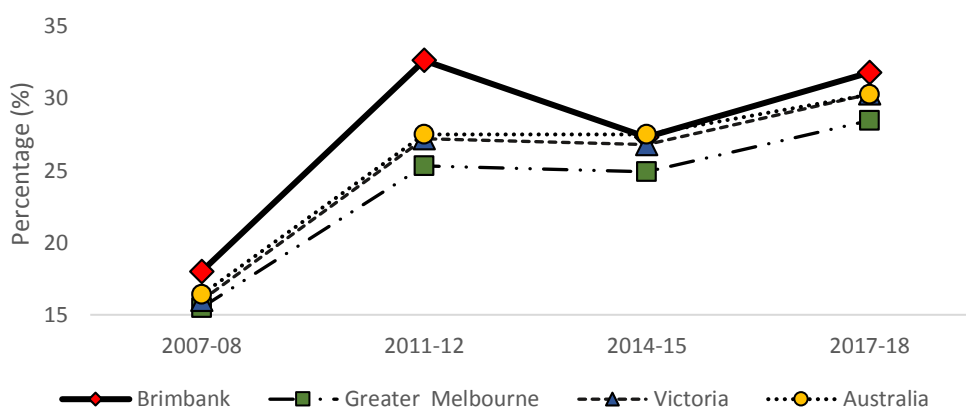
Obesity - men: Brimbank compared with other regions (2007-08 - 2014-15)

Conclusion

The City of Brimbank is home to a vibrant and diverse community, served by strong networks of community service organisations and a commitment to improving the lives of its citizens. This report is intended to assist in this endeavor, by providing data at various time points on key health and education indicators to indicate areas in which Brimbank is achieving gains and those which are of continuing or increasing concern. The report compares Brimbank rates on these indicators to those of Greater Melbourne, Victoria and Australia (the comparator regions), as well as within Brimbank by PHA and/or SLA where data is available.

The analyses contained in this report indicate that Brimbank has improved over time on several indicators, and particularly those associated with youth transitions. Of particular note are the positive shifts in the percentage of children in jobless families, young people learning or earning, household internet access, NAPLAN reading scores, and male smoking rates, all of which have improved and at a faster rate than Greater Melbourne, Victoria, or all of Australia.

Challenges remain, however. Brimbank has worsened over time on five indicators, and on others has failed to close the gap with the comparator regions. Brimbank has both worsened over time and increased the gap with Greater Melbourne, Victoria, or Australia as a whole on the following indicators: women smoking during pregnancy, youth unemployment, Type 2 diabetes, and electronic gaming machine player losses.

Within Brimbank, rates of change on indicators have varied, with no consistent patterns. An exception is the PHA of Deer Park–Derrimut, which stands out as having consistently had better than average positive change across all youth transition indicators for which there was PHA-level data.

This report is intended to support and enable understanding of the complex interactions between individuals and families, their environments and social structures over a lifetime. It also illustrates how place of residence characterizes the health, education and ultimately, the flourishing of current and future generations of Brimbank residents. This report is designed to provide the Mitchell Institute and the City of Brimbank with information to guide targeted health and education interventions and research strategies to improve or enhance outcomes within the City's communities.

As the city of Brimbank continues to strive towards improving the lives of its citizens, it is hoped that the data provided through these reports will facilitate planning for and monitoring of progress.

Appendix A. Data table

Indicator		PHA-Ardeer - Albion / Sunshine / Sunshine West				PHA - Cairnlea				PHA - Deer Park - Derrimut				PHA - Delahey				PHA - Keilor			
EARLY YEARS LEARNING AND DEVELOPMENT																					
		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
Children in jobless families*	Number	1,522	1,262			342	312			913	996			315	274			90	76		
	%	29.4	20.3	-30.9	1.84	16.3	14.2	-12.8	0.76	20.1	16.0	-20.7	1.23	18.3	18.9	3.1	-1.19	6.9	5.3	-23.5	1.39
		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
Children in families with mothers with low educational attainment*	Number	1,482	1,427			403	342			1,055	1,058			406	297			115	97		
	%	28.7	23.0	-19.7	1.05	19.2	15.6	-18.9	1.01	23.2	16.9	-27.1	1.44	23.6	20.5	-13.3	0.71	8.8	6.7	-23.4	1.25
		2010-12	2012-14	%Chg	PHA/LGA Ratio*****	2010-12	2012-14	%Chg	PHA/LGA Ratio*****	2010-12	2012-14	%Chg	PHA/LGA Ratio*****	2010-12	2012-14	%Chg	PHA/LGA Ratio*****	2010-12	2012-14	%Chg	PHA/LGA Ratio*****
Low birth weight babies	Number	131	132			36	33			92	87			24	33			16	10		
	%	7.6	7.6	0.7	-1.17	7.5	6.3	-15.9	3.97	5.9	6.2	5.3	-2.33	7.1	8.0	12.5	-4.13	6.1	4.1	-32.2	8.05
		2009-11	2012-14	%Chg	PHA/LGA Ratio*****	2009-11	2012-14	%Chg	PHA/LGA Ratio*****	2009-11	2012-14	%Chg	PHA/LGA Ratio*****	2009-11	2012-14	%Chg	PHA/LGA Ratio*****	2009-11	2012-14	%Chg	PHA/LGA Ratio*****
Women smoking during pregnancy	Number	147	146			39	59			168	146			31	43			27	23		
	%	8.8	8.5	-2.6	2.16	8.4	11.2	32.7		11.0	10.6	-4.3	2.26	9.6	10.5	8.9		10.5	9.8	-6.6	2.40
		2014	2018	%Chg	PHA/LGA Ratio*****	2014	2018	%Chg	PHA/LGA Ratio*****	2014	2018	%Chg	PHA/LGA Ratio*****	2014	2018	%Chg	PHA/LGA Ratio*****	2014	2018	%Chg	PHA/LGA Ratio*****
Participation in preschool#	Number	404	443			118	136			377	479			95	95			80	64		
	%	95.3	92.9	-2.6	-1.84	74.8	92.5	23.6	7.71	69.6	87.1	25.0	8.17	95.0	95.7	0.8	0.25	91.4	69.4	-24.1	-8.86
		2012	2018	%Chg	PHA/LGA Ratio*****	2012	2018	%Chg	PHA/LGA Ratio*****	2012	2018	%Chg	PHA/LGA Ratio*****	2012	2018	%Chg	PHA/LGA Ratio*****	2012	2018	%Chg	PHA/LGA Ratio*****
Children developmentally vulnerable **	Number	96	141			36	25			97	100			37	23			13	12		
	%	29.3	33.3	13.9	-3.56	26.7	16.3	-38.7	7.15	24.8	21.6	-12.8	2.37	34.6	30.3	-12.5	2.31	15.4	15.8	2.8	-1.52
YOUTH PATHWAYS																					
		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
Earning or learning (age 15-24)*	Number	3179	3,819			1005	1,336			2015	2,633			1006	1,163			886	926		
	%	69.1	80.8	17.0	1.06	77.5	87.5	13.0	0.81	66.5	83.3	25.3	1.58	73.0	85.6	17.3	1.08	80.8	90.4	12.0	0.75
		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
Participation in full-time secondary education (age 16)*	Number	310	310			91	137			182	250			137	101			106	96		
	%	80.3	81.2	1.0	0.21	80.5	86.7	7.7	1.54	72.5	82.0	13.0	2.62	83.5	87.1	4.2	0.85	80.9	86.5	6.9	1.38
		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
Internet not accessed at home* (and******)	Number	6839	4,997			809	371			3222	2,252			1132	667			1085	811		
	%	20.5	14.0	-31.8	0.88	12.4	5.0	-59.6	1.64	17.7	10.4	-41.1	1.13	16.4	9.0	-45.1	1.24	11.9	8.4	-29.2	0.80
		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
Unemployed youth*	Number	369	568			100	134			272	351			106	161			66	82		
	%	15.5	22.1	43.0	0.78	15.1	17.3	14.7	1.58	16.7	20.8	24.8	1.30	14.5	20.0	38.3	0.91	9.8	12.7	30.1	1.15
		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
Early school leavers	Number	9211	9329			1632	1825			5061	5363			2086	2103			2206	2091		
	%	35.5	0.0	-100.0	14.57	28.3	0.0	-100.0	14.57	33.8	0.0	-100.0	14.57	34.0	0.0	-100.0	14.57	30.1	0.0	-100.0	14.57

EARLY YEARS LEARNING AND DEVELOPMENT

Indicator		PHA - Keilor Downs				PHA - St Albans - North/Kings Park				PHA - St Albans - South / Sunshine North				PHA - Sydenham				PHA - Taylors Lakes			
Children in jobless families*		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
	Number	350	373			1,847	1,641			1,374	1,221			250	231			196	182		
	%	16.5	17.1	3.6	-1.22	33.4	27.0	-19.2	1.14	30.8	24.3	-21.3	1.27	10.2	9.9	-2.6	0.15	5.9	6.6	11.6	-1.69
Children in families with mothers with low educational attainment*		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
	Number	390	341			1,820	1,565			1,459	1,391			340	244			379	238		
	%	18.4	15.6	-15.0	0.80	32.9	25.7	-21.8	1.16	32.7	27.6	-15.6	0.83	13.9	10.5	-24.3	1.30	11.4	8.6	-24.5	1.31
Low birth weight babies		2010-12	2012-14	%Chg	PHA/LGA Ratio*****	2010-12	2012-14	%Chg	PHA/LGA Ratio*****	2010-12	2012-14	%Chg	PHA/LGA Ratio*****	2010-12	2012-14	%Chg	PHA/LGA Ratio*****	2010-12	2012-14	%Chg	PHA/LGA Ratio*****
	Number	48	30			126	116			99	98			50	45			28	33		
	%	10.1	7.2	-28.8	7.21	8.8	7.6	-13.8	3.45	7.4	7.5	1.0	-1.24	7.9	8.0	0.7	-1.17	6.7	7.0	3.6	-1.90
Women smoking during pregnancy		2009-11	2012-14	%Chg	PHA/LGA Ratio*****	2009-11	2012-14	%Chg	PHA/LGA Ratio*****	2009-11	2012-14	%Chg	PHA/LGA Ratio*****	2009-11	2012-14	%Chg	PHA/LGA Ratio*****	2009-11	2012-14	%Chg	PHA/LGA Ratio*****
	Number	55	54			123	174			91	127			35	58			23	64		
	%	12.1	13.0	7.3	1.56	8.8	11.5	30.7	0.16	7.1	9.8	38.4	-0.31	5.7	10.5	83.0	-2.98	5.8	13.9	140.6	-6.43
Participation in preschool#		2014	2018	%Chg	PHA/LGA Ratio*****	2014	2018	%Chg	PHA/LGA Ratio*****	2014	2018	%Chg	PHA/LGA Ratio*****	2014	2018	%Chg	PHA/LGA Ratio*****	2014	2018	%Chg	PHA/LGA Ratio*****
	Number	99	160			354	380			322	320			138	129			142	131		
	%	76.5	103.8	35.6	11.62	85.8	78.4	-8.6	-3.81	78.0	76.8	-1.5	-1.50	79.9	81.0	1.5	0.47	83.1	70.9	-14.7	-5.79
Children developmentally vulnerable *		2012	2018	%Chg	PHA/LGA Ratio*****	2012	2018	%Chg	PHA/LGA Ratio*****	2012	2018	%Chg	PHA/LGA Ratio*****	2012	2018	%Chg	PHA/LGA Ratio*****	2012	2018	%Chg	PHA/LGA Ratio*****
	Number	34	35			125	146			98	85			30	27			28	36		
	%	26.2	21.2	-19.1	3.53	32.4	33.0	1.6	-1.30	33.1	24.6	-25.5	4.72	28.8	22.5	-22.0	4.06	15.1	25.5	69.5	-13.84

YOUTH PATHWAYS

Indicator		PHA - Keilor Downs				PHA - St Albans - North/Kings Park				PHA - St Albans - South / Sunshine North				PHA - Sydenham				PHA - Taylors Lakes			
Earning or learning (age 15-24)*		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
	Number	1679	1,553			3133	3756			2712	3648			1274	1551			2706	2646		
	%	75.7	86.8	14.7	0.92	68.0	79.9	17.6	1.10	71.6	82.7	15.5	0.97	73.1	86.3	18.1	1.13	82.1	91.1	11.0	0.68
Participation in full-time secondary education (age 16)*		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
	Number	163	143			327	332			279	289			149	133			282	256		
	%	73.8	82.2	11.4	2.29	78.0	80.8	3.5	0.70	81.8	80.3	-1.9	-1.38	80.1	84.2	5.1	1.02	86.2	91.4	6.0	1.21
Internet not accessed at home* (and***)**		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
	Number	1738	1,246			7162	4,836			5776	3,846			1134	767			1586	1,111		
	%	13.7	9.5	-30.8	0.85	22.9	14.6	-36.0	0.99	20.8	13.3	-36.3	1.00	12.3	7.2	-41.3	1.14	10.4	7.0	-32.6	0.90
Unemployed youth*		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
	Number	166	177			365	521			306	469			120	184			192	245		
	%	12.5	16.3	30.2	1.14	16.1	22.1	37.0	0.95	17.7	20.6	16.2	1.54	11.5	17.3	50.1	0.58	9.0	12.9	42.8	0.79
Early school leavers		2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****	2011	2016	%Chg	PHA/LGA Ratio*****
	Number	3601	3419			9497	9324			8000	8078			2239	2285			3922	3664		
	%	32.7	0.0	-100.0	14.57	37.3	0.0	-100.0	14.57	36.9	0.0	-100.0	14.57	28.6	0.0	-100.0	14.57	27.9	0.0	-100.0	14.57

Indicator	Measure	SLA Keilor				SLA Sunshine				Brimbank LGA					Greater Melbourne					Victoria					Australia				
EARLY YEARS LEARNING AND DEVELOPMENT																													
Children in jobless families*	Year	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2011	2016		%Chg^	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg
	Number	3,483	2,777			4,866	3,791			8,349	7,203	6,572			85,597	81,703	81,909			124,317	119,798	114,194			543,978	541,792	503,293		
	%	19.7	21.5	9.1	-1.32	32.3	19.9	-38.3	1.35	25.5	22.0	18.3		-28.2	13.4	11.8	10.0		-25.4	13.8	12.7	10.5		-23.9	14.8	13.9	11.5		-22.3
Children in families with mothers with low educational attainment*	Year	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg
	Number	4,447	2,782			5,122	4,218			9,569	7,849	6,992			129,149	106,878	94,136			196,677	161,323	137,839			1,128,731	918,436	746,089		
	%	25.2	20.5	-18.7	0.56	34.0	22.4	-34.2	1.02	29.3	24.0	19.5		-33.4	20.2	15.2	11.5		-43.1	21.9	17	12.7		-42.0	30.6	23.5	17		-44.4
Low birth weight babies	Year	2004-06	2012-14	%Chg	SLA/LGA Ratio*****	2004-06	2012-14	%Chg	SLA/LGA Ratio*****	2004-06	2010-12	2012-14		%Chg	2004-06	2010-12	2012-14		%Chg	2004-06	2010-12	2012-14		%Chg	2004-06	2010-12	2012-14		%Chg
	Number	246	267			338	351			584	667	618			10,056	11,699	11,182			14,196	15,257	14,451			43,156	58,788	55,403		
	%	7.1	7.5	5.0	-4.62	7.6	7.1	-6.4	4.64	7.3	7.5	7.2		-1.4	6.9	6.8	6.3		-8.7	7.1	6.9	6.3		-11.3	6.8	6.6	6.1		-10.3
Women smoking during pregnancy	Year	2009-11	2012-14	%Chg	SLA/LGA Ratio*****	2009-11	2012-14	%Chg	SLA/LGA Ratio*****	2009-11	2012-14			%Chg	2009-11	2012-14			%Chg	2009-11	2012-14			%Chg	2009-11	2012-14			%Chg
	Number	294	416			445	478			780	895				15,679	19,868				24,231	34,152				119,868	110,865			
	%	8.5	11.7	37.7	-0.26	9.0	9.8	9.0	1.46	9	10.5			16.7	9.4	11.2			19.1	11.2	15.0			33.9	13.7	12.3			-10.2
Participation in preschool#	Year	2014	2018	%Chg	SLA/LGA Ratio*****	2014	2018	%Chg	SLA/LGA Ratio*****	2014	2018			%Chg	2014	2018			%Chg	2014	2018			%Chg	2014	2018			%Chg
	Number	908	959			1,221	1,378			2,129	2,326				47,210	53,303				61,276	68,527				254,533	274,574			
	%	84.6	83.1	-1.8	-1.58	79.5	87.1	9.5	3.11	81.6	84.1			3.1	81.5	84.2			3.3	80.8	83.8			3.7	81.3	86.3			6.2
Children developmentally vulnerable**	Year	2009	2018	%Chg	SLA/LGA Ratio*****	2009	2018	%Chg	SLA/LGA Ratio*****	2009	2012	2015	2018	%Chg	2009	2012	2015	2018	%Chg	2009	2012	2015	2018	%Chg	2009	2012	2015	2018	%Chg
	Number	297	279			252	351			549	594	673	630		8,522	8,234	9,885	10,503		11,832	12,399	13,465	14,232		59,599	59,902	62,960	63,448	
	%	25.6	28.6	11.5	-4.47	29.0	26.7	-8.0	2.42	27.1	27.7	31.0	26.2	-3.3	20.1	19.3	19.4	19.2	-4.5	20.3	19.5	19.9	19.9	-2.0	23.6	22.0	22.0	21.7	-8.1
YOUTH PATHWAYS																													
Earning or learning (age 15-24)*	Year	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg
	Number	10,073	11,595			8,089	11,436			18,162	19,608	23,036			386,826	428,474	525,671			508,632	549,476	664,148			1,963,409	2,094,525	2,519,692		
	%	74.2	85.7	15.5	0.95	70.0	82.8	18.3	1.12	72.3	72.5	84.1		16.3	76.3	77.5	87.3		14.4	75.5	76.3	86.2		14.2	72.6	73.1	84.3		16.1
Participation in full-time secondary education (age 16)*	Year	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg
	Number	1,136	1,061			841	986			1,977	2,035	2,062			37,989	41,166	44,800			54,094	56,496	59,565			208,200	225,240	237,292		
	%	79.3	85.1	7.3	0.84	75.3	81.9	8.7	1.01	77.6	80.3	84.3		8.6	80.4	82.9	87.4		8.7	79.9	81.8	86.1		7.8	74.8	79.1	84.1		12.4
Internet not accessed at home* (and*****)	Year	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg
	Number	9,851	9,438			12,728	11,466			22,579	30,480	20,904			422,340	443,275	316,334			635,423	670,655	483,213			2,531,018	2,789,109	2,055,962		
	%	36.3	11.5	-68.3	0.94	47.0	12.8	-72.9	1.00	41.6	17.9	11.4		-72.6	32.9	11.4	7.3		-77.8	35.7	12.6	8.2		-77.0	35.4	12.9	8.8		-75.1
Unemployed youth*	Year	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg
	Number	945	1,370			1,023	1,522			1,969	2,067	2,906			32,826	39,896	54,831			44,642	51,646	68,102			172,470	213,806	268,906		
	%	11.9	18.3	52.8	0.65	16.0	20.9	30.3	1.23	13.8	14.2	19.2		39.1	10.8	12.3	15.9		47.2	11	12.1	15.2		38.2	10.2	12.2	14.9		46.1
Early school leavers	Year	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2016	%Chg	SLA/LGA Ratio*****	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg	2006	2011	2016		%Chg
	Number	23,492	22,886			25,383	24,595			48,875	47,455	47,491			851,664	847,493	838,811			1,295,113	1,273,145	1,247,813			6,017,801	5,952,566	5,791,199		
	%	28.5	0.0	-100.0	32.20	31.9	0.0	-100.0	32.20	30.2	33.5	31.2		3.3	23.9	27.0	23.9		0.0	26.2	29.4	26		-0.8	30.4	34.3	30.4		0.0
NAPLAN: Yr 9 reading outcomes***	Year / Number	-	-	-	-	-	-	-	-	2009 N/A	2018 N/A			%Chg	2009 N/A	2018 N/A			%Chg	2009 N/A	2018 N/A			%Chg	2009 N/A	2018 N/A			%Chg
	%	-	-	-	-	-	-	-	-	9	7.4			-17.8	7.1	6.7			-5.6	7.0	5.9			-15.7	8.6	6.6			-23.3
NAPLAN: Yr 9 numeracy outcomes***	Number	-	-	-	-	-	-	-	-	N/A	N/A			%Chg	N/A	N/A			%Chg	N/A	N/A			%Chg	N/A	N/A			%Chg
	%	-	-	-	-	-	-	-	-	5.8	5.3			-8.6	4.2	4.5			7.1	5.0	4.5			-10.0	6.3	4.5			-28.5714
POPULATION HEALTH																													
Electronic gaming machines: player losses***	Year									2007-08	2017-18			%Chg	2007-08	2017-18			%Chg	2007-08	2017-18			%Chg	2007-08	2017-18			%Chg
	Losses ($m)	-	-			-	-			127.9	140				2,054	2,113				2,612	2,695				10,184	12,136			
	Rate#	-	-			-	-			851	948			11.4	680	551			-19.0	638	533			-16.5	634	636			0.3
Self-assessed health status ('fair' or 'poor')****	Year									2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg
	Number	-	-	-	-	-	-	-	-	24,855	30,526	32,864	30,234		412,535	462,660	530,630	513,585		579,040	638,323	730,022	717,282		2,508,879	2,620,662	2,753,437	2,875,700	
	%	-	-	-	-	-	-	-	-	18.2	20.3	21.2	18.7	2.8	13.5	13.9	15.1	13.7	1.2	13.5	14.1	15.6	14.2	5.5	14.7	14.6	14.8	14.7	0.2
Psychological distress****	Year									2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg
	Number									20,707	20,180	24,567	26,457		363,830	368,249	429,127	496,534		487,418	493,410	564,408	649,739		1,891,727	1,833,807	2,073,829	2,416,200	
	%									15.1	13.1	15.9	16.2	7.5	12.1	11.2	12.3	13.7	8.6	12.0	11.4	12.5	13.3	10.5	11.7	10.8	11.7	12.9	10.6
Diabetes Type 2****	Year									2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg
	Number									6,125	12,109	10,921	15,616		124,447	154,865	190,842	216,224		180,243	202,196	265,117	292,158		721,276	917,838	1,002,371	1,182,600	
	%									3.8	8.8	5.9	8.2	115.9	3.4	5.0	4.6	4.9	45.0	3.4	4.7	4.6	4.8	40.7	3.4	5.4	4.4	4.9	44.3
Circulatory system diseases	Year									2007-08	2011-12	2014-15		%Chg	2007-08	2011-12	2014-15		%Chg	2007-08	2011-12	2014-15		%Chg	2007-08	2011-12	2014-15		%Chg
	Number	-	-	-	-	-	-	-	-	29,459	28,858	34,614			635,105	642,168	769,206			915,371	900,395	1,068,498			3,383,308	3,721,333	4,196,970		
	%	-	-	-	-	-	-	-	-	17.9	16.6	18.6		3.9	17	16.4	18.2		7.1	17.3	16.6	18.6		7.5	16.0	17.3	18.3		14.4
Smoking - men	Year									2007-08	2011-12	2014-15		%Chg	2007-08	2011-12	2014-15		%Chg	2007-08	2011-12	2014-15		%Chg	2007-08	2011-12	2014-15		%Chg
	Number	-	-			-	-			17,341	19,723	15,448			313,924	324,160	294,306			435,529	447,751	400,742			1,779,203	1,702,898	1,646,784		
	%	-	-			-	-			24.9	25.5	20.0		-19.7	21.0	19.8	17.1		-18.6	21.9	21.0	18.4		-16.0	22.4	20.3	18.4		-15.6
Smoking - women	Number	-	-			-	-			13,184	11,222	11,258			258,651	242,028	212,337			367,910	343,735	293,215			1,495,094	1,356,339	1,195,985		
	%	-	-			-	-			18.7	14.5	14.4		-23.0	16.7	14.1	11.8		-29.3	17.8	15.7	12.7		-28.7	18.2	15.7	13.3		-26.9
Obesity - men	Year									2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg	2007-08	2011-12	2014-15	2017-18	%Chg
	Number	-	-			-	-			12,288	15,664	20,231	27,095		244,804	308,260	405,702	548,327		355,824	424,096	572,250	768,718		1,558,360	2,007,156	2,474,286	2,974,400	
	%	-	-			-	-			18.3	25.8	27.2	34.2	87.0	17.0	23.7	24.6	30.6	79.9	18.0	24.5	26.3	32.5	80.5	19.6	27.5	28.4	32.4	65.5
Obesity - women	Number	-	-			-	-			12,263	18,864	20,762	24,985		233,172	324,053	433,986	532,403		330,289	463,992	613,217	748,788		1,347,145	1,940,380	2,466,061	2,872,800	
	%	-	-			-	-			18.0	32.6	27.3	31.8	76.4	15.5	25.3	24.9	28.4	83.5	16.0	27.2	26.8	30.3	89.2	16.4	27.5	27.5	30.2	84.4

Appendix B. Data details

Most of the data in this report is also reported in the Atlases. Where more recent data were available, they are included in this report.

Modelled data

Six of the seven population health indicators included in this report (General health; Psychological distress; Diabetes Type 2; Circulatory system diseases; Smoking; Obesity) are modelled estimates based on survey data from the Australian Health Survey. As such, they are less precise (i.e. have larger error margins) than other data included in this report and therefore should be considered estimates only and interpreted with caution.

Trends

Brimbank was considered to have improved or worsened on an indicator if the change from the earliest available data point to the latest was 10 per cent or more. An exception was for Participation in full-time senior secondary education. Although the percentage increase for this indicator was only 9%, this change was deemed "better" as the starting percentage was already quite high. The choice of a 10% change threshold is somewhat arbitrary, particularly given that the modelled estimates for the population health indicators have large error margins.

Comparison ratios

The comparison ratios (PHA:LGA and SLA:LGA) upon which the maps in this report are based compare percentage change within the PHA/SLA with percentage change for the Brimbank LGA as a whole. Values, therefore, centre at 1.00 (identical %s of change). The descriptors are defined as follows:

Descriptor	Ratio	Descriptor	Ratio
'Notably better'	1.10 to <1.20	'Notably worse'	0.90 to <0.80
'Markedly better'	1.20 to <1.50	'Markedly worse'	0.80 to <0.50
'Substantially better'	>=1.50	'Substantially worse'	<= 0.50

Change in Brimbank was considered "better" than change in a comparative region if the comparison ratio was 1.10 or higher, and "worse" if this ratio was 0.90 or lower.

Notes on individual indicators:

Indicator	Data notes
Children in jobless families	2006 data at the PHA level were unavailable; therefore, two sets of Brimbank maps are provided – one at the PHA level comparing data from 2011 to 2016, and another at the SLA level comparing data from 2006 to 2016.
Children in families with mothers with low educational attainment	2006 data at the PHA level were unavailable; therefore, two sets of Brimbank maps are provided – one at the PHA level comparing data from 2011 to 2016, and another at the SLA level comparing data from 2006 to 2016.
Participation in preschool	Although the Atlas 1st edition (2014) includes data from 2011, these data were estimates from the Population Census and we have since been advised that they are unreliable. Therefore, this report compares 2014 and 2018 data. These data were collected from the new Preschool Census.

Due to the way in which these data are collected, participation percentages may be greater than 100. The age at which children commence preschool and leave preschool to enter primary school varies from three to six, although most are aged four or five. The percentages in this report are calculated based on the number of children in preschool divided by total number of four- and five-year old children. More information can be found at:

https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4240.0Explanatory%20Notes12018?Open Document accessed 24 September 2020. |
Children developmentally vulnerable	2009 data at the PHA level were unavailable.
Learning or earning (age 15-24)	2006 data at the PHA level were unavailable; therefore, two sets of Brimbank maps are provided – one at the PHA level comparing data from 2011 to 2016, and another at the SLA level comparing data from 2006 to 2016.
Youth unemployment	2006 data at the PHA level were unavailable; therefore, two sets of Brimbank maps are provided – one at the PHA level comparing data from 2011 to 2016, and another at the SLA level comparing data from 2006 to 2016.
Internet not accessed at home	2006 data at the PHA level were unavailable; therefore, two sets of Brimbank maps are provided – one at the PHA level comparing data from 2011 to 2016, and another at the SLA level comparing data from 2006 to 2016.

Change to indicator. 2006 & 2011: 'no connection at dwelling'; 2016: 'no-one accessed Internet from dwelling' |
| Participation in full-time secondary education (age 16) | 2006 data at the PHA level were unavailable; therefore, two sets of Brimbank maps are provided – one at the PHA level comparing data from 2011 to 2016, and another at the SLA level comparing data from 2006 to 2016. |
| Early school leavers | Given that rates of school completion beyond Year 10 have increased over the years, the data are age-standardised to remove expected differences between areas in the level of school attendance related to the age of the population. |
| NAPLAN | Data available only at the LGA and higher level

Data are by home location of student. |
| General health | Data not reported at the sub-LGA level. Modelled estimate data. |
| Psychological distress | Data not reported at the sub-LGA level. Modelled estimate data. |

Diabetes Type 2	Data not reported at the sub-LGA level. Modelled estimate data.
	Data for 2007-08 does not include persons who reported having diabetes but not currently, whereas later data include current and long-term.
Circulatory system diseases	Data not reported at the sub-LGA level. Modelled estimate data.
	2017/18 data not available
Smoking	Data not reported at the sub-LGA level. Modelled estimate data.
	2017/18 data not available.
Obesity	Data not reported at the sub-LGA level. Modelled estimate data.
Electronic gaming machines (player losses)	Data available only at the LGA and higher level
	Data are dollar loss per head, of population aged 18 years and over.

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