Town of Bassendean
Community Health Profile 2019

Prepared by East Metropolitan Health Service

Suggested Citation

East Metropolitan Health Service (2019).Town of Bassendean Community Health Profile 2019. EMHS, Department of Health, Perth WA.

Important disclaimer

All information and content in this material is provided in good faith by the Western Australian Department of Health and is based on sources believed to be reliable and accurate at the time of development. The State of Western Australia, the Department of Health and their respective officers, employees and agents, do not accept legal liability or responsibility for the material, or any consequences arising from its use.

Acknowledgment

East Metropolitan Health Service respectfully acknowledges the Aboriginal Noongar people both past and present, the traditional owners of the land on which we work.

Notes
In this report:

The terms 'Town of Bassendean' and 'Bassendean LGA' are used interchangeably. The use of the term 'Aboriginal' within this document refers to Australians of both Aboriginal and Torres Strait Islander people.

Contents

List of tables:

List of figures:

1.0 Introduction

The *Public Health Act 2016* requires local governments to prepare a local public health plan. Part of this process includes the assessment of data relating to health determinants and the health status of the local population (Government of Western Australia 2016).

This Community Health Profile, prepared by East Metropolitan Health Service (EMHS), supports this requirement of the Act. It sources data from a variety of databases including the Western Australian Health and Wellbeing Surveillance System (HWSS), the Australian Childhood Immunisation Register, the Australian Bureau of Statistics (ABS), the Registry of Births, Deaths and Marriages and the Settlement Database.

The purpose of this profile is to give an overall picture of the health of the population of the Town of Bassendean. This profile looks at population data relating to lifestyle and biomedical risk factors and social and economic determinants of health. In addition, it looks at current health conditions, deaths, immunisation and early childhood development.

2.0 What determines health and wellbeing?

The new *Public Health Act 2016* provides up-to-date legislation to regulate public health in Western Australia. The previous Health Act was enacted in 1911 (Government of Western Australia 2016). Since this time, priorities for public health have changed significantly and as a result, the focus of local government activities has shifted.

In the early 1900s, major causes of death in Australia included infectious diseases such as pneumonia, tuberculosis, diarrhoea and enteritis (Australian Institute of Health and Welfare 2005). To control these, attention was paid to the regulation of sanitation, housing standards, food safety, nuisance and offensive industries, the spread of infectious disease and the provision of primary health care services (access to medical, hospital and clinical services).

Today, the leading causes of death and disability in Western Australia are chronic diseases such as cancer, cardiovascular disease, diabetes and mental health conditions (Australian Institute of Health and Welfare 2018).

A range of risk factors increase the likelihood of a person developing chronic diseases such as cancer, diabetes and cardiovascular disease (Australian Institute of Health and Welfare 2016). These factors include:

- lifestyle or behavioural risk factors
- biomedical risk factors
- non-modifiable risk factors such as age, sex and genetics
- social and economic determinants
- physical environment determinants.

The five leading risk factors contributing to the greatest burden of disease in Western Australia in 2011 were tobacco use, alcohol use, high body mass, high blood pressure and physical inactivity (Epidemiology Branch 2017c).

Table 1 outlines the associations between the chronic diseases causing the majority of death and disability and the major modifiable lifestyle and biomedical risk factors.

Table 1: Associations between chronic diseases and risk factors

Chronic disease	Behavioural risks				Biomedical risks		
	Tobacco smoking	Insufficient physical activity	Alcohol	Dietary risks	Excess body weight	High blood pressure	Abnormal cholesterol
Coronary heart disease	•	•	–	•	•	•	•
Stroke	•	•	•	–	•	•	•
Type 2 diabetes	•	•	–	•	•	–	–
Colorectal cancer	•	–	•	•	•	–	–
Oral health	•	–	•	•	–	–	–
Breast cancer	–	–	•	–	•	–	–
Lung cancer	•	–	–	–	–	–	–
COPD	•	–	–	–	–	–	–

Source: Evidence for chronic disease risk factors (Australian Institute of Health and Welfare 2016).
• = Strong evidence in support of a direct association between the chronic disease and risk factor.
— = There is either not a direct association or the evidence for a direct association is not strong.

When considering public health priorities, it should be noted that some members of the community are more vulnerable to poor health and wellbeing (Australian Institute of Health and Welfare 2018). This might be the result of culture, ethnicity, gender, age, illness, injury, lack of mobility or even where they live. It might also result from lack of income or skills.

Vulnerable groups include:

- children (birth to 12 years)
- young people (13 to 25 years)
- older people (65 years and over)
- Aboriginal people
- people with a disability
- people from culturally and linguistically diverse backgrounds
- people with a mental illness
- economically disadvantaged people.

Section six in the resource, *Pathway to a healthy community: A guide for councillors* (Department of Health 2017) provides a series of questions for local governments to consider when planning for the health and wellbeing of vulnerable population groups within their community.
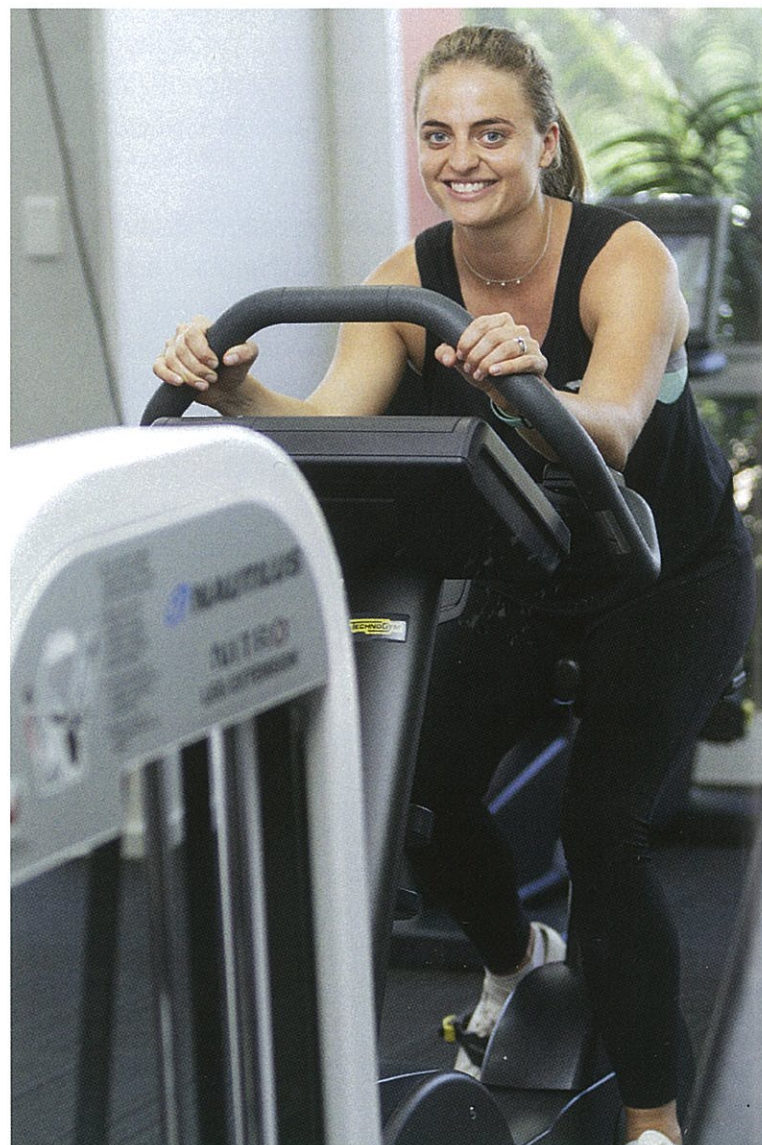
3.0 Population of Town of Bassendean

3.1 Population overview

The Bassendean Local Government Area (LGA) covers an area of 10 square kilometres. In 2016, its total population was 15,089 (Australian Bureau of Statistics 2016). Aboriginal people accounted for 2.6 per cent of the population and 15 per cent were from non-English speaking backgrounds.

Figure 1: Town of Bassendean resident profile 2016
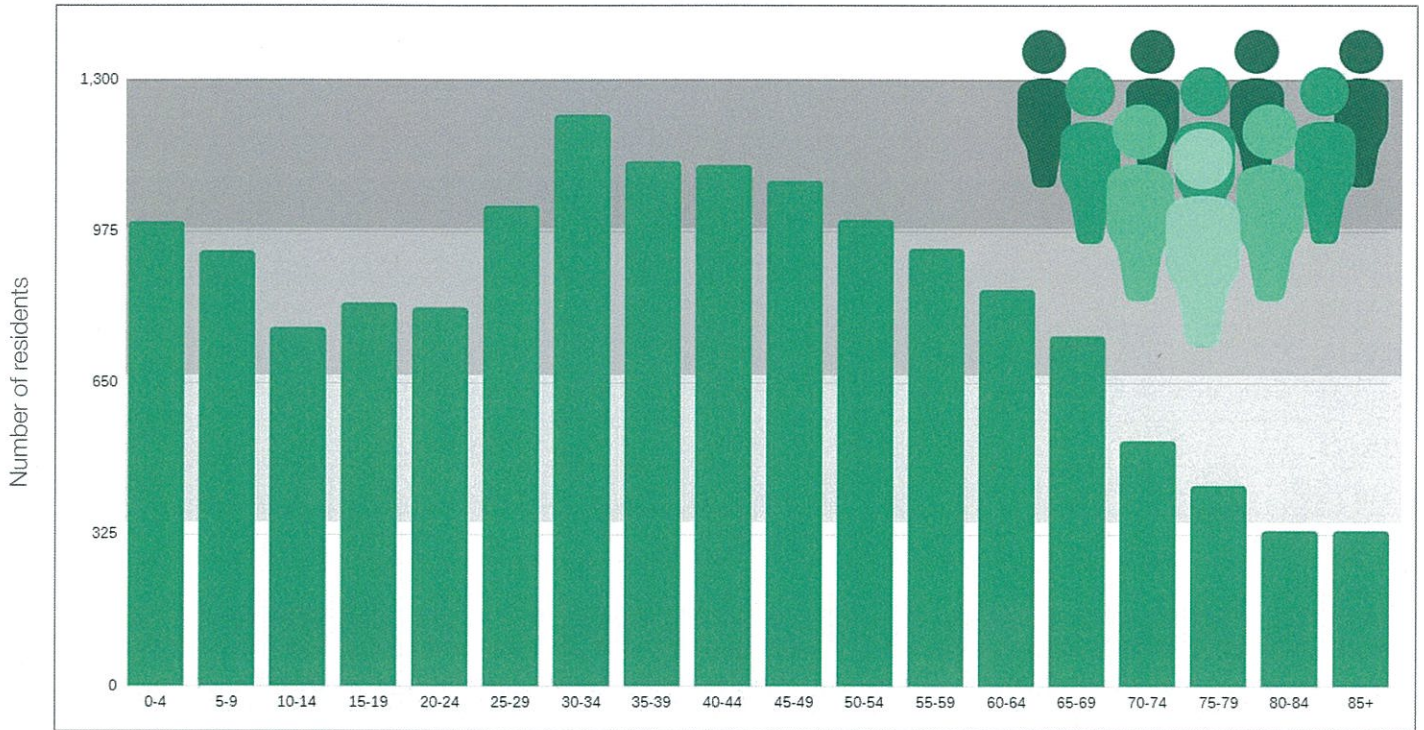
Five-year age groups (Australian Bureau of Statistics 2016)

28.6% were born overseas

15.0% from non-English speaking backgrounds

387 (2.6%) Aboriginal population

92.1% are employed

39 median age

27.0% residents renting

Top 5 languages spoken at home other than English: Italian, Mandarin, Vietnamese, Filipino/tagalog, French

Top 5 countries of birth (non-main English speaking): India, Italy, Philippines, Vietnam, China
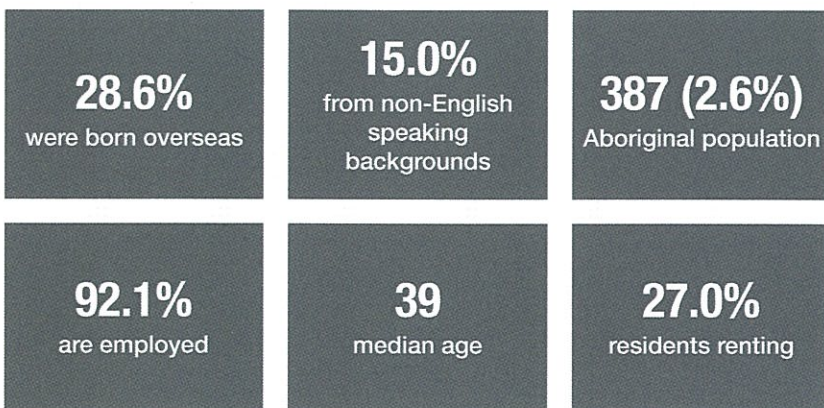
Source: Australian Bureau of Statistics, 2016

Table 2: Five-year age groups for the Town of Bassendean, 2016

Five-year age group (usual residence)	Town of Bassendean (usual residence)		Perth metropolitan area
	Estimated population	Persons (%)	Persons (%)
0 to 4	997	6.6	6.5
5 to 9	934	6.2	6.5
10 to 14	770	5.1	6.0
15 to 19	882	5.4	6.2
20 to 24	812	5.4	6.9
25 to 29	1031	6.8	7.7
30 to 34	1226	8.1	8.0
35 to 39	1126	7.5	7.1
40 to 44	1118	7.4	6.9
45 to 49	1084	7.2	6.9
50 to 54	1001	6.6	6.4
55 to 59	939	6.2	5.8
60 to 64	851	5.6	5.1
65 to 69	752	5.0	4.6
70 to 74	527	3.5	3.3
75 to 79	431	2.9	2.5
80 to 84	334	2.2	1.7
85 and over	334	2.2	1.8
Total population	15 089	100.0	100.0

Source: Census of Population and Housing General Community Profile, , Town of Bassendean LGA (Australian Bureau of Statistics 2016).
Note: Please note that there are small random adjustments made to all cell values to protect the confidentiality of data. These adjustments may cause the sum of rows or columns to differ by small amounts from table totals.

3.2 Aboriginal population

Aboriginal people have a reduced life expectancy compared to non-Aboriginal people. The considerable difference in life expectancy is mostly due to higher incidence of chronic disease and substantial inequalities in behavioural (lifestyle) and psychosocial risk factors (Australian Institute of Health and Welfare 2013). For this reason, consideration of health inequalities and cultural security when undertaking planning is important.

In 2016, there were 387 Aboriginal people within the Town of Bassendean. This made up 2.6 per cent of the population, which is higher than the Perth metropolitan average of 1.6 per cent of the population (Australian Bureau of Statistics 2016). A breakdown of health data for Aboriginal people is not available for the Town of Bassendean due to the small sample size.
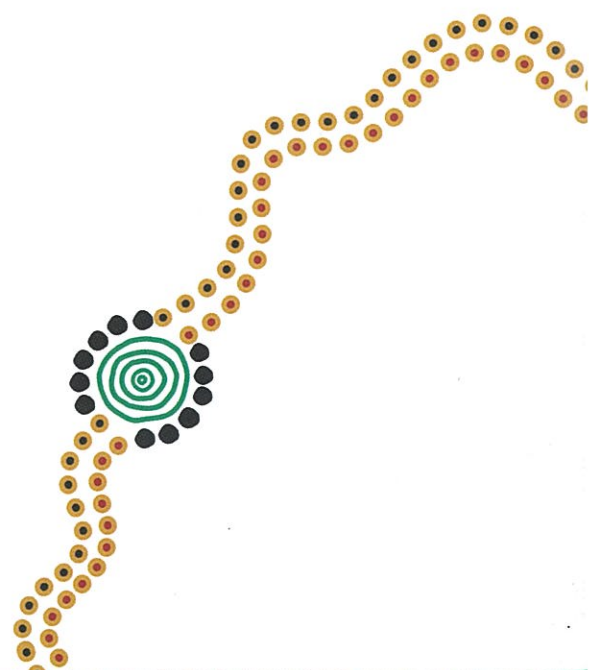
3.3 Culturally and linguistically diverse population

The Town of Bassendean is a culturally and linguistically diverse LGA with 15 per cent of the population from non-English speaking backgrounds (Australian Bureau of Statistics 2016). The top three countries of birth for non-main English speaking countries are India, Italy and Phillippines (Table 3). The top five languages other than English spoken at home are Italian, Mandarin, Vietnamese, Filipino/Tagalog and French (Table 4).

Most migrants enter Australia through the skilled and family streams of The Migration Program and a smaller number through The Humanitarian Program for refugees and others in humanitarian need (Phillips and Simon-Davies 2016). Humanitarian (refugee) arrivals are a highly vulnerable population, significantly more likely to experience post-traumatic stress disorder with multiple psychological concerns (Shawyer et al. 2017 in Australian Institute of Health and Welfare 2018).

Table 3: Top five non-main English speaking countries of birth, Town of Bassendean 2016

| Country	Town of Bassendean		WA
	Estimated population	Persons (%)	Persons (%)
India	299	2.0	2.0
Italy	170	1.1	0.8
Philippines	164	1.1	1.2
Vietnam	133	0.9	0.6
China	125	0.8	1.1

Source: Census of Population and Housing General Community Profile, Bassendean LGA (Australian Bureau of Statistics 2016).

Table 4: Top five languages other than other English spoken at home, Town of Bassendean 2016

Country	Town of Bassendean		WA
	Estimated population	Persons (%)	Persons (%)
Italian	251	1.7	1.2
Mandarin	169	1.1	1.9
Vietnamese	149	1.0	0.8
Filipino/Tagalog	138	0.9	1.0
French	94	0.6	0.4

Source: Census of Population and Housing General Community Profile, Bassendean LGA (Australian Bureau of Statistics 2016).

Table 5: Settlers in the Town of Bassendean by migration stream, 2009–14.

Settlers by migration stream	Town of Bassendean		WA
	Number	Stream (%)	Stream (%)
Humanitarian (refugee)	60	5.3	3.4
Family	406	35.7	25.0
Skilled	671	59.0	71.6
Total migrants	1137	100.0	100.0

Source: Settlement Reporting (Department of Social Services 2017).

3.4 Community and socioeconomic factors

Socioeconomic factors such as income level, appropriate housing and access to services are important determinants of health for individuals and the community (Mackenbach 2015). In general, people from lower socioeconomic groups are at increased risk of poor health, have higher rates of illness, disability and live shorter lives than those from higher socioeconomic groups.

Socioeconomic indexes for areas (SEIFA) uses a range of domains including income, education, employment, housing and other indexes to rank areas according to socio-economic advantage and disadvantage (Australian Bureau of Statistics 2013). There is an inverse association with the SEIFA score and the level of disadvantage experienced by the community, with a higher SEIFA score indicating a lower level of disadvantage, and a lower SEIFA score indicating a higher level of disadvantage experienced by that community. The percentile column indicates the approximate position of this area in a ranked list of Australia's suburbs and localities. For example, in Ashfield 20 per cent of Australia's suburbs have a lower SEIFA score of relative disadvantage (more disadvantaged) than this area, while 80 per cent of area have a higher SEIFA score and are less disadvantaged (Australian Bureau of Statistics 2018).

Table 6: SEIFA score of relative socioeconomic disadvantage for Town of Bassendean, 2016

Area	SEIFA	Percentile
Greater Perth	1026	61
Bassendean	1023	59
Western Australia	1015	54
Town of Bassendean	1009	50
Eden Hill	990	40
Ashfield	946	20

Source: 2016 Census of Population and Housing (Australian Bureau of Statistics 2016).

Figure 2: Map of the Town of Bassendean by SEIFA Score 2011

Map of 2011 SEIFA by SA1
Bassendean (T)

Legend
☐ Bassendean (T) Boundary
☐ Suburb Boundary
2011 SEIFA IRSD Quintile by SA1
🟥 Most disadvantage
🟧 2
🟨 3
⬜ 4
⬛ Least disadvantage
▨ No Data

Eden Hill

Bassendean

Ashfield

N

0   0.5   1 km

Government of Western Australia
Department of Health

Produced by: Spatial Services Unit
Epidemiology Branch,
Grace Yun
November 2017
Data sources: ABS and DoH

File reference:2017\November\Colby McGuire - EMHS LGA planning request

4.0 Health status of the Town of Bassendean

The health status takes into account the population's overall level of health including: lifestyle and biomedical risk factors, prevalence of disease conditions and injury and causes of death.

Chronic diseases are the leading cause of illness, disability and death in Australia.

4.1. Lifestyle risk factors

The four leading behavioural lifestyle risk factors are physical inactivity, poor nutrition, smoking and harmful alcohol use (Australian Institute of Health and Welfare 2018). The earlier these risky behaviours are adopted the greater the likelihood of developing a chronic disease later in life. An increasing number of children are developing risky behaviours, including physical inactivity and poor nutrition. This leads to increased incidence of chronic diseases such as type 2 diabetes in children and adults (Kao and Sabin 2016; Mihrshahi and Baur 2018; Chi, Luu, and Chu 2017).

For the Town of Bassendean, the prevalence of these risk factors are similar to those for Western Australia (Table 7).

Table 7: Prevalence of lifestyle risk factors for adults aged 16 years and over, Town of Bassendean and Western Australia 2010-16

Lifestyle risk factor	Town of Bassendean		WA	Significant differences from WA
	Estimated population^	Persons (%)	Persons (%)	
Currently smokes	1506	11.5	13.1	-
Eats less than two serves of fruit daily	6686	50.9	48.6	-
Eats less than five serves of vegetables daily	11 938	90.8	88.9	-
Eats fast food at least weekly	4220	32.1	33.8	-
Drinks at high risk levels for long term harm (a)	3283	25.0	31.5	-
Drinks at high risk levels for short term harm (b)	1037	7.9*	12.9	-
Less than 150 minutes of physical activity per week (c)	4697	36.8	36.5	-
Spends 21+ hours per week in sedentary leisure time	5217	39.7	32.4	-

Source: Bassendean (T) LGA Health Profile, 2010-16, HWSS, Western Australian Department of Health (Epidemiology Branch 2017b).
Notes: This information is based on responses from 217 adults within the Bassendean (T) Local Government Authority and 44379 adults within the State.
The level of stability around an estimate can be guided by the relative standard error (RSE). The RSE is a measure of the extent to which the survey estimate is likely to be difference from the actual population result.
* Result has a RSE between 25% and 50% therefore should be used with caution.
^ Estimated population refers to the estimated number of people with the risk factor/ condition. It is derived by multiplying the Estimated Resident Population by the persons prevalence estimate.
(a) Drinks more than 2 standard drinks on any one day.
(b) Drinks more than 4 standard drinks on any one day.
(c) Adults aged 18 years and over only. Refers to moderate minutes with minutes spent in vigorous physical activity doubled.

4.2 Biomedical risk factors

Biomedical risk factors are bodily states that can contribute to the development of chronic disease (Australian Institute of Health and Welfare 2016). The three major biomedical risk factors considered here are high blood pressure, cholesterol levels and body weight. They can be influenced by lifestyle risk factors, socioeconomic and psychological risk factors.

Modifying biomedical risk factors can reduce an individual's risk of developing chronic disease. The incidence of childhood obesity is increasing at concerning rates. In 2014–15, children and adolescents were significantly more likely to be overweight or obese from ages 10-17 than their counterparts 20 years ago (Australian Institute of Health and Welfare 2017).

Blood pressure

High blood pressure is a major risk factor for the development of ischaemic heart disease, stroke and renal failure.

Cholesterol

High blood cholesterol can be a major risk factor for ischaemic heart disease, ischaemic stroke and peripheral vascular disease.

Body weight

Being overweight or obese can contribute to the development of chronic conditions such as heart disease, type 2 diabetes, osteoarthritis and some cancers.

(Australian Institute of Health and Welfare 2016)

In the Town of Bassendean, over half of the adult population (61%) is overweight or obese (Table 8). Furthermore, over one in five (24.6%) children are overweight or obese (Table 9).

Table 8: Prevalence of biomedical risk factors for persons aged 16 years and over, Town of Bassendean and Western Australia, 2010-16

Biomedical risk factors	Town of Bassendean		WA	Significant differences from WA
	Estimated population^	Persons (%)	Persons (%)	
Current high blood pressure (as a proportion of adults who reported having been measured) (a)	2573	19.6	16.5	-
Current high cholesterol (as a proportion of adults who reported having been measured) (b)	2488	18.9	18.6	-
Overweight (BMI 25<30) (c)	4922	37.4	39.3	-
Obese (BMI 30+) (c)	3106	23.6	27.5	-

Source: Bassendean (T) LGA Health Profile, 2010-16, HWSS, WA Department of Health (Epidemiology Branch 2017b).
Notes: This information is based on responses from 217 adults within the Bassendean (T) Local Government Authority and 44379 adults within the State.
The level of stability around an estimate can be guided by the relative standard error (RSE). The RSE is a measure of the extent to which the survey estimate is likely to be difference from the actual population result.
* Result has a RSE between 25% and 50% therefore should be used with caution.
^ Estimated population refers to the estimated number of people with the risk factor/ condition. It is derived by multiplying the Estimated Resident Population by the persons prevalence estimate.
(a) Currently have high blood pressure or take medication for high blood pressure, of those who have had their blood pressure measured.
(b) Currently have high cholesterol or take medication for high cholesterol, of those who have had their cholesterol measured.
(c) Height and weight measurements have been adjusted for errors in self-report.

Table 9: Estimated population of children and adolescents (aged 2 to 17 years) who are overweight and obese in the Town of Bassendean and Western Australia, 2014-15

Risk factors	Town of Bassendean		WA
	Estimated population	Per 100 persons*	Per 100 persons*
Overweight	512	18.9	18.9
Obese	161	5.7	6.1

Source: Australia's Health Tracker Atlas, Data by LGA (Australian Health Policy Collaboration 2017).
*Figures are based on children's BMI cut off points and are age standardised per 100 population.

4.3 Health conditions (other than mental health)

The National Health Priority Areas for Australia are mainly chronic diseases. They include cancer, cardiovascular health, injury prevention and control, mental health, diabetes, asthma, arthritis, obesity and dementia. These areas were chosen because of their significant contribution to the burden of disease in Australia and their amenability to change (Australian Institute of Health and Welfare 2018).

Arthritis and other musculoskeletal conditions

Arthritis and other musculoskeletal conditions affect bones, muscles and joints, and include osteoarthritis, rheumatoid arthritis, juvenile arthritis, back pain and problems, gout and osteoporosis.

Asthma

Asthma is a disease of the airways and affects a large number of people.

Cancer

Cancer describes multiple diseases where abnormal cells have the potential to invade or spread to other parts of the body. Common cancers include melanoma and breast, prostate, colorectal and lung cancers.

Cardiovascular disease

Cardiovascular disease is a collective term for diseases of the heart and blood vessels, including coronary heart disease, heart failure, peripheral vascular disease and stroke. Cardiovascular disease is very common and is the leading cause of death in Australia.

Chronic obstructive pulmonary disease

Chronic obstuctive pulmonary disease includes emphysema and chronic bronchitis and mainly affects middle aged and older people.

Diabetes

Diabetes covers a range of conditions associated with high blood sugar levels over a prolonged period of time. There are three main types of diabetes: insulin dependent (type 1); non-insulin dependent (type 2); and gestational. Non-insulin dependent diabetes is the most common form and is largely preventable by maintaining a healthy lifestyle.

Injury

Injury, or physical trauma, is damage to the body caused by an external force, and accounts for almost 10 per cent of the total burden of disease in Australia. The most common causes of injury in Australia include falls, suicide and transport accidents.

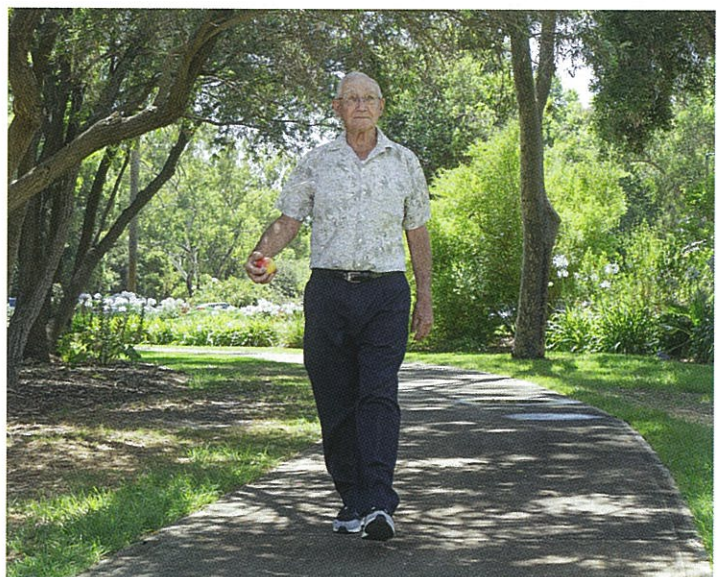(Australian Institute of Health and Welfare 2018)

Table 10 provides data on health conditions affecting Town of Bassendean residents in relation to self-reported doctor-diagnosed conditions.

Table 10: Prevalence of self-reported doctor-diagnosed conditions for persons aged 16 years and over, Town of Bassendean and Western Australia, 2010-16

Condition	Town of Bassendean		WA	Significant differences from WA
	Estimated population^	Persons (%)	Persons (%)	
Arthritis	3114	23.7	19.6	-
Injury (a)	2978	22.7	23.3	-
Current asthma	1195	9.1*	8.4	-

Source: Bassendean (T) LGA Health Profile, 2010-16, HWSS, WA Department of Health (Epidemiology Branch 2017b).
Notes: This information is based on responses from 217 adults within the Bassendean (T) Local Government Authority and 44379 adults within the State.
The level of stability around an estimate can be guided by the relative standard error (RSE). The RSE is a measure of the extent to which the survey estimate is likely to be difference from the actual population result.
* Result has a RSE between 25% and 50% therefore should be used with caution.
^ Estimated population refers to the estimated number of people with the risk factor/ condition. It is derived by multiplying the Estimated Resident Population by the persons prevalence estimate.
(a) Injury in the last 12 months requiring treatment from a health professional.

4.4 Mental health conditions

Mental health is defined as "a state of wellbeing in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (World Health Organization 2018).

Mental illness covers a broad spectrum of mental health and behavioural disorders, which vary in duration and/or severity (Australian Institute of Health and Welfare 2018). Mental health conditions, including anxiety and depression, are associated with higher rates of death, poorer physical health and increased exposure to lifestyle risk factors. Socioeconomic circumstances can also influence a person's mental health (Australian Institute of Health and Welfare 2018).

"Mental health is fundamental to the wellbeing of individuals, their families and the population as a whole" (Australian Bureau of Statistics 2017). Measuring levels of psychological distress provides an indication of the mental health and wellbeing of a population. The Kessler Psychological Distress Scale (K10)

questionnaire includes questions about an individual's level of nervousness, agitation, psychological fatigue and depression during the past four weeks, and is used as a global measure of psychosocial distress (Australian Bureau of Statistics 2017).

Table 11 outlines mental health indicators, including high and very high psychological distress and mental health conditions, for Town of Bassendean residents. Table 12 provides data on age standardised rates of youth suicides within the Town of Bassendean.

"Mental health is fundamental to the wellbeing of individuals, their families and the population as a whole"

Table 11: Prevalence of mental health indicators for persons aged 16 years and over, Town of Bassendean and Western Australia, 2010-16

Condition	Town of Bassendean		WA	Significant differences from WA
	Estimated population^	Persons (%)	Persons (%)	
High or very high psychological distress	1217	9.3*	8.2	-
Mental health problem (a)	2284	17.4	14.5	-
Stress related problem (b)	1396	10.6*	9.1	-
Anxiety (b)	1709	13.0*	8.0	-
Depression (b)	1327	10.1*	8.2	-

Source: City Health District Health Profile, 2010-16, HWSS, Western Australian Department of Health (Epidemiology Branch 2019).
Notes: This information is based on responses from 217 adults within the Bassendean (T) Local Government Authority and 44379 adults within the State.
The level of stability around an estimate can be guided by the relative standard error (RSE). The RSE is a measure of the extent to which the survey estimate is likely to be difference from the actual population result.* Result has a RSE between 25% and 50% therefore should be used with caution.
^ Estimated population refers to the estimated number of people with the risk factor/ condition. It is derived by multiplying the Estimated Resident Population by the persons prevalence estimate.
(a) Diagnosed by a doctor with a stress related problem, depression, anxiety or any other mental health problem in the last 12 months.
(b) Diagnosed by a doctor in the last 12 months.

Table 12: Age standardised rate of youth (15 to 24 years) suicides for Town of Bassendean, Perth metropolitan area and Western Australia, 2006-15

Youth suicides	Town of Bassendean	Perth metropolitan area	WA
	Per 100 000 persons*	Per 100 000 persons*	Per 100 000 persons*
Males (15 to 24 years)	57.2	15.1	19.6
Females (15 to 24 years)	11.1	6.5	7.7

Source/s: Summary of population characteristics and the health and wellbeing of residents of the Bassendean (T) LGA (Epidemiology Branch 2017d).
Notes: Registry of Births, Deaths and Marriages and the Australian Bureau of Statistics Mortality Database.
* These rates have been age standardised to the Australian 2001 standard population.

4.5 Alcohol and other drugs

From 2011-15, alcohol was responsible for an estimated 630 hospitalisations and illicit drugs were responsible for an estimated 191 hospitalisations in the Town of Bassendean (Table 13). Furthermore, from 2006-15 alcohol was responsible for an estimated 45 deaths and illicit drugs were responsible for an estimated 13 deaths (Table 14).
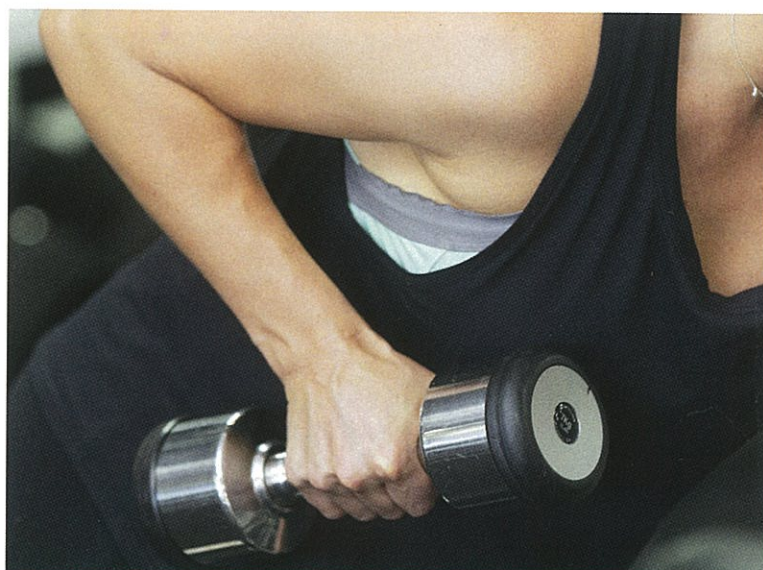
Table 13: Estimated number of alcohol and illicit drug-attributable hospitalisations in the Town of Bassendean by gender, 2011–15

Gender	Alcohol-attributable hospitalisations		Illicit drug-attributable hospitalisations	
	Number	Per cent (%)	Number	Per cent (%)
Male	362	55.1	93	93
Female	268	44.9	97	97
Total	630	100.0	191	191

Source: Alcohol-attributable hospitalisations and deaths by gender, LGA, WA. WA Department of Health (Epidemiology Branch 2017a).

Table 14: Estimated number of alcohol and illicit drug-attributable deaths in the Town of Bassendean by gender, 2006–15

Gender	Alcohol-attributable deaths		Illicit drug-attributable deaths	
	Number	Per cent (%)	Number	Per cent (%)
Male	33	74.1	<15	N/A
Female	12	25.9	<10	N/A
Total	45	100.0	13	N/A

Source: Alcohol-attributable hospitalisations and deaths by gender, LGA, WA. WA Department of Health (Epidemiology Branch 2017a).

4.6 Major causes of death

When considering causes of death, four main disease groups are responsible for three quarters of all chronic disease deaths: cardiovascular diseases; cancer; chronic obstructive pulmonary disease (COPD) and diabetes. See Table 1 for the associations between these diseases and lifestyle and biomedical risk factors. (Australian Institute of Health and Welfare 2018).

In the Town of Bassendean, ischaemic heart disease (or coronary heart disease) is the most common cause of death for males (15%) and for females (18.7%) (Table 15 and 16). For males, lung cancer is the second most common cause of death and, for females, chronic obstructive pulmonary disease was the third most common cause of death. These conditions both have a strong association with tobacco smoking (Australian Institute of Health and Welfare 2016).

Table 15: Top five causes of death, males, Town of Bassendean and Western Australia 2011–15

Condition	Town of Bassendean		WA
	Estimated population	All cases (%)	All cases (%)
Ischaemic heart diseases	41	15	14.3
Lung cancer	20	7.3	6.5
Intentional self-harm	17	6.2	3.6
Colorectal cancer	12	4.4	2.6
Prostate cancer	11	4.0	3.7

Source: Top fifteen causes of death for Bassendean (T) LGA residents (Epidemiology Branch 2017e). Generated using data from the Death Registrations, Registry of Births, Deaths and Marriages; Cause of Death, Australian Bureau of Statistics.
Notes: Cause of death data for 2014 (revised) and 2015 (preliminary) are subject to change until their status is flagged by the Australian Bureau of Statistics as "final".

Table 16: Top five causes of death, females, Town of Bassendean and Western Australia 2011–15

Condition	Town of Bassendean		WA
	Estimated population	All cases (%)	All cases (%)
Ischaemic heart diseases	46	18.7	12.0
Dementia (including Alzheimer's disease)	17	6.9	10.2
Chronic obstructive pulmonary disease	14	5.7	3.8
Cerebrovascular diseases	13	5.3	7.6
Diabetes & impaired glucose regulation	13	5.3	2.9

Source: Top fifteen causes of death for Perth (C) LGA residents (Epidemiology Branch 2017g).
Generated using data from the Death Registrations, Registry of Births, Deaths and Marriages; Cause of Death, Australian Bureau of Statistics.
Notes: Cause of death data for 2014 (revised) and 2015 (preliminary) are subject to change until their status is flagged by the Australian Bureau of Statistics as "final".

5.0 Immunisation

Immunisation is widely recognised as one of the most successful and cost effective public health interventions available. When enough people in the population are immunised against contagious diseases, it is called herd immunity. Herd immunity protects people who are unable to be immunised such as infants and those with medical conditions (Australian Government Department of Health 2018b).

A 95 per cent childhood immunisation target rate has been set in Australia to stop the spread of measles and other vaccine-preventable diseases (Australian Government Department of Health 2018a).

Table 17: Percentage of children fully immunised for total population, Town of Bassendean and Western Australia, 31 December 2017

Fully immunised at age	Town of Bassendean (%)	Perth metropolitan area (%)	WA (%)
12-<15 months	91.84	93.89	93.54
24-<27 months	93.88	88.51	88.36
60-<63 months	93.88	92.53	92.86

Source: Perth metropolitan region: Quarterly immunisation data from the Australian Immunisation Register (Metropolitan Communicable Disease Control 2018).

6.0 Australian Early Development Census

The Australian Early Development Census (AEDC) measures five areas, or domains, of early childhood development that form the foundation for later good health, education and social outcomes (Australian Early Development Census 2019). These domains are identified in Table 18.

When used with other socio-demographic data and community information, the AEDC is an important tool that supports planning and action for health, education and community support. A local government user guide has been developed to lead local government through the steps they might take when thinking about how to respond to AEDC data for their community.

Table 18: Percentage of children developmentally vulnerable in the Town of Bassendean, 2018

Geography	Physical	Social	Emotional	Language	Communication	Vuln 1	Vuln 2
Australia	9.6	9.8	8.4	6.6	8.2	21.7	11.0
WA	8.9	7.4	7.7	6.6	7.0	19.4	9.4
Bassendean	11.6	6.6	7.1	10.1	5.1	18.7	11.6

Source: Australian Early Development Census Community Profile 2018 (Perth) (Australian Early Development Census 2019).
Notes: Vuln 1 refers to "vulnerable on one or more domain(s)"
Vuln 2 refers to "vulnerable on two or more domains"

Table 19: Percentage of children developmentally vulnerable in the Town of Bassendean by community, 2018

Community	Physical	Social	Emotional	Language	Communication	Vuln 1	Vuln 2
Ashfield	23.5	0.0	5.9	11.8	0.0	29.4	10.5
Bassendean	11.1	7.4	7.4	8.1	5.9	18.5	3.3
Eden Hill	8.7	6.5	6.5	15.2	4.3	15.2	15.2

Source: Australian Early Development Census Community Profile 2018 (Bassendean) (Australian Early Development Census 2019b).
Notes:
AEDC data collection is greater than or equal to 60% and less than 80% of the ABS five-year-old population; interpret with caution.
* AEDC data collection is less than 60% of the ABS five-year-old population. The AEDC may not accurately reflect the population of children; interpret with caution.
Vuln 1 refers to "vulnerable on one or more domain(s)"
Vuln 2 refers to "vulnerable on two or more domains"

7.0 Notes

7.1 WA Health and Wellbeing Surveillance System

The Western Australian HWSS is managed by the Health Survey Unit in the Epidemiology Branch at the Department of Health Western Australia. Householders are selected at random to participate in a computer-assisted telephone interview. Questions are asked on a range of indicators related to health and wellbeing.

Since 2002, the HWSS has captured self-reported health and wellbeing data from over 6000 Western Australians each year. Information from the survey is used to:

- monitor the health status of all Western Australians
- inform and evaluate health promotion programs
- support health policy development
- identify emerging trends.

SMOKE FREE ZONE

7.2 Limitations of Health and Wellbeing Surveillance System data

It is important to be cautious when comparing the HWSS data in this profile to that in previous community health profiles because changes could be due to:

- a change in the demographic mix of the population, particularly as there have been some minor revisions to LGA boundaries over time and the data is weighted using a different Estimated Resident Population
- random variability (as there are only two time points to compare so it is difficult to determine whether any increase or decrease is due to a trend or to random variability).

Furthermore, results are not always comparable between LGAs because for each LGA, the minimum number of years necessary to make up a sufficient sample has been used. This means that the data collection time period for other LGAs may differ.

HWSS data can be considered representative of the general population, but will not be representative of small or specific groups such as Aboriginal people or people from non-English speaking backgrounds.

8.0 References

Australian Bureau of Statistics. 2013. Research Paper: Building on SEIFA: Finer Levels of Socio-Economic Summary Measures (Methodology Advisory Committee).   (First Issue).

---. 2016. *Census of Population and Housing General Community Profile, Bassendean LGA*. https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/LGA58050?opendocument

Compiled and presented in profile.id by .id, the population experts https://profile.id.com.au/emrc/about?WebID=100.

---. 2017. *National Health Survey*: Users' Guide, 2014-15. ABS (Canberra: ABS). http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4363.0~2014-15~Main%20Features~Kessler%20Psychological%20Distress%20Scale-10%20(K10)~35.

Australian Early Development Census. 2019. Australian Early Development Census Community Profile 2018, Bassendean WA. edited by Commonwealth of Australia. Canberra.

Australian Government Department of Health. 2018a. Childhood immunisation coverage.

---. 2018b. Immunisation.

Australian Health Policy Collaboration. 2017. Australia's Health Tracker Atlas, data by local government area.

Australian Institute of Health and Welfare. 2005. *Mortality over the twentieth century in Australia: Trends and patterns in major causes of death*. AIHW (Canberra: AIHW). https://www.aihw.gov.au/getmedia/e7aaefca-e725-4f2e-81bc-b594853ea4e8/motca.pdf.aspx?inline=true.

---. 2013. Aboriginal and Torres Strait Islander Health Performance Framework 2012 Report: Western Australia. edited by Australian Institute of Health and Welfare. Canberra.

---. 2016. Evidence for chronic disease risk factors. edited by Australian Institute of Health and Welfare. Canberra.

---. 2017. Overweight and obesity in Australia: a birth cohort analysis. edited by Australian Institute of Health and Welfare. Canberra.

---. 2018. Australia's health 2018. edited by AIHW. Canberra: Australian Institute of Health and Welfare.

Chi, Donald L, Monique Luu, and Frances Chu. 2017. "A scoping review of epidemiologic risk factors for pediatric obesity: Implications for future childhood obesity and dental caries prevention research." *Journal of Public Health Dentistry* 77, no. 1: S8-S31. http://findit.health.wa.gov.au.smhslibresources.health.wa.gov.au/smhs?sid=Entrez%3APubMed&id=pmid%3A28600842&issn=0022-4006.

Department of Health. 2017. Pathway to healthy community: a guide for councillors and local government, 2nd Edition. edited by South Metropolitan Health Promotion Service. Perth.

Department of Social Services. 2017. Settlement Reports, Local Government Areas by Migration Stream. edited by Australian Government. Canberra.

Epidemiology Branch, Public and Aboriginal Health Division. 2017a. Alcohol-attributable hospitalisations and deaths by gender, local government area, WA. edited by Western Australian Department of Health. Perth.

--. 2017b. *Bassendean (T) LGA Health Profile, 2010-16, HWSS.* (Perth: Western Australian Department of Health).

---. 2017c. Contribution of risk factors to disease burden in Western Australia, 2011. Perth: Western Australian Department of Health.

---. 2017d. *Summary of population characteristics and the health and wellbeing of residents of the Bassendean (T) LGA.* (Perth: Western Australian Department of Health in collaboration with the Coorperative Research Centre for Spatial Information (CRC-SI)).

---. 2017e. *Top fifteen causes of death for Bassendean (T) LGA residents.* (Perth: Western Australian Department of Health in collaboration with the Coorperative Research Centre for Spatial Information (CRC-SI)).

Government of Western Australia. 2016. Public Health Act 2016. edited by Parliamentary Counsel's Office. Perth: Government of Western Australia.

Kao, Kung-Ting, and Matthew Sabin. 2016. "Type 2 diabetes mellitus in children and adolescents." *Australian family physician* 45 (6): 401-406. http://findit.health.wa.gov.au/smhs?sid=Entrez%3APubMed&id=pmid%3A27622231.

Mackenbach, JP. 2015. "Socioeconomic inequalities in health in high-income countries: the facts and the options." In Oxford textbook of global public health, edited by R Detels, M Gulliford, QA Karim and CC Tan. Oxford.

Metropolitan Communicable Disease Control, Mental Health, Public Health and Dental Services. 2018. *Perth metropolitan region: Quarterly immunisation data from the Australian Immunisation Register (AIR: Date calculated 31 December 2017, Date processed 31 March 2018).* Western Australian Department of Health North Metropolitan Health Service, (Perth).

Mihrshahi, Seema, and Louise Baur. 2018. "What exposures in early life are risk factors for childhood obesity?" *Journal of Paediatrics and Child Health* 54 (12): 1294-1298. http://findit.health.wa.gov.au/smhs?sid=Entrez%3APubMed&id=pmid%3A30168229.

Phillips, J, and J Simon-Davies. 2016. Migration-Australian migration flows and population.

World Health Organization. 2018. Mental health: strengthening our response.