Health and Wellbeing Needs of Older People Living in the Eastern Region of Melbourne

January 2017

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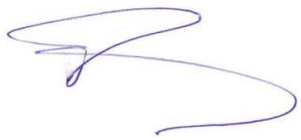
A Foreword from the Chair

With rising life expectancy, across the globe we are experiencing growing numbers of older people living in the community. This change is mirrored in the Eastern Metropolitan Region (EMR) with population projections showing an increase of over 56,000 people aged over 60 years in the next 10 years. As a community it is important that we are prepared for this significant change in our demographic and consider how we can best support the health and wellbeing of older people in the EMR, together with older people, within a positive ageing approach.

I am pleased to present the Health and Wellbeing Needs of Older People Living in the Eastern Region of Melbourne. This report contains extensive qualitative and quantitative data about older people in the EMR and presents a comprehensive picture of their health and wellbeing. The report is presented within the World Health Organisation Healthy Ageing Framework and includes: personal characteristics such as ethnicity, gender and education; health characteristics such as rates of cancer or dementia; health behaviours such as healthy eating and smoking rates; and environments such as social and community networks. This report provides an evidence base for agencies across the EMR to assist with policy and planning to support healthy ageing and will provide a platform for collaborative work to support healthy ageing across the region and into the future.

The report has been developed by Inner East Primary Care Partnership and ASDF consulting, with funding from the Department of Health and Human Services and input from a steering committee with representation of agencies across the East.

I recommend this report to all who are interested in promoting positive ageing and encourage you to use this resource to support your work in this area within your agencies and in collaboration with partner agencies.



Kevin Feeney
CEO, Bestchance

Chairperson, Inner East Primary Care Partnership

Acknowledgements

This report was written by Sharon Porteous, Integrated Care Coordinator, Inner East Primary Care Partnership and Christy Arnott, ASDF Research. The grey literature review was undertaken by Vivian Yin, and Kathleen Brasher, This Day and Age, contributed to the healthy ageing framework section.

We would like to acknowledge the contributions of a number of people to this project:

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Nikki Haar	Angliss Hospital and Yarra Valley Community Health
Tanya Styles	Boroondara Council
Michael Faneco and Sandra Sexton	Baptcare
Kim Torresi	Carrington Health
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Caroline Perry	Shire of Yarra Ranges
Sally Pearson	St Vincent's Health
Kathleen Brasher	This Day and Age
Kim Rosenfeld	Whitehorse Council

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Contents

Alphabetised list of topics

Glossary

ABS	Australian Bureau of Statistics
AHS	Australian Health Survey
ASR	Age Standardised Rate
BMI	Body Mass Index
CALD	Culturally and Linguistically Diverse
CIV	Community Indicators Victoria
DH	Department of Health (Federal)
DHHS	Department of Health and Human Services (Victoria)
EMR	Eastern Metropolitan Region
GP	General Practitioner
IEPCP	Inner East Primary Care Partnership
LGA	Local Government Area
OEPCP	Outer East Primary Care Partnership
OH&S	Occupational Health and Safety
PHIDU	Public Health Information Development Unit (The University of Adelaide until 2016 then Torrens University)
U3A	University of the Third Age
VAED	Victorian Admitted Episodes Dataset
VEMD	Victorian Emergency Minimum Dataset
VPHS	Victorian Population Health Survey
WHO	World Health Organisation

Regional definitions

Throughout the report, key regions are defined as follows:

Inner East	Local government areas of: Boroondara, Manningham, Monash, Whitehorse.
Outer East	Local government areas of: Knox, Maroondah, Yarra Ranges.
Eastern	Combined Inner and Outer regions as defined above.
Eastern Melbourne PHN	Eastern Melbourne Primary Health Network which covers a wider geographic area than just the inner east and outer east areas as defined above. This region also includes Banyule, Mitchell (partial), Murrindindi (partial), Nillumbik and Whittlesea.
Melbourne Metro or Greater Melbourne	Metropolitan area of Melbourne as outlined in Appendix 2.
Victoria	The entire state of Victoria.

Introduction

Primary Care Partnerships (PCPs) are funded by the state government to provide a partnership platform to support local health and community service agencies to work together to improve the health and wellbeing of the community within their catchment. The Eastern Metropolitan Region (EMR) of Melbourne is comprised of two PCP catchments: Inner East and Outer East. The Inner East PCP (IEPCP) covers four local government areas – Boroondara, Manningham, Monash and Whitehorse. The Outer East PCP (OEPCP) is comprised of three local government areas – Knox, Maroondah and Yarra Ranges.

PCP partner agencies identified the need for a systematic collection of data about the health and wellbeing, independence and safety needs of older people in order to provide an evidence base from which to identify issues with the view to future collaboration. Without this more detailed understanding, the catchment is at risk of a disjointed and uncoordinated approach to key health and wellbeing, independence and safety issues affecting our ageing population and of being unaware of significant and emerging issues for older people.

The two key reasons to undertake this project were:

1. An ageing population;
2. That older people have a strong desire to remain living independently in the community in their own homes.

This needs analysis of older people living in the Eastern Metropolitan Region (EMR) of Melbourne systematically addresses the research question of what older people in the EMR need to maintain health, wellbeing, independence and safety.

How to use this report

This report may be used by agencies across the EMR to assist with policy development, planning, grant writing and delivery of services. This could include local government in their health and wellbeing planning and development of positive ageing strategies, community health and other agencies with their strategic plans. It is hoped that the report will encourage and assist agencies to work collaboratively in the future on a range of healthy ageing activities that assist the community to age well.

We encourage agencies to use any relevant data to support your work and request that you acknowledge this report where it has served as a reference.

Suggested reference:

Arnott, C & Porteous, S. (2017). *Health and wellbeing needs of older people living in the Eastern region of Melbourne*, Inner East Primary Care Partnership, Melbourne.

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Context

a. An Ageing Population

The 21st century will see a global shift in the numbers and proportions of people in older age groups for the first time. Currently there are 900 million people or 12% of the population aged over 60. By 2030 this will rise to 1.4 billion and by 2050, 2 billion people or 22% of the total population will be aged over 60. By 2050 it is also estimated that the number of 80 plus year olds globally will triple from 125 million to 434 million. (United Nations Department of Economic and Social Affairs, 2015)

Australia is ranked equal first with Iceland for male life expectancy and fifth for female life expectancy. It is estimated that the number of people aged 65 to 84 years will more than double by 2055, from 3.1 million to 7 million, representing 18% of the population compared to 13% now. There will be even more rapid changes in the 85 years plus age group which will grow from 500,000 people currently (2% of the population) to 2 million people in 2055 (5% of the population). It is expected the number of people aged over 100 years will have a 9-fold increase. For every one person aged over 65 years there are currently 4.5 people of working age (15 to 64 years), down from 7.3 in 1975 and is expected to drop to 2.7 by 2055. (The Treasury, 2015)

Eastern Melbourne

It is estimated that the number of people aged over 65 years in the EMR in 2015 was 180,407, or 16.5% of the total EMR population, compared with an estimated 15.1% of the Victorian population. Based on population forecasts, it is expected that this will increase to 22.5% for the EMR catchment by 2025, compared to an estimated 17.5% in Victoria (Public Health Information Development Unit, 2015). In addition, the EMR is currently ranked 3rd out of 8 regions in Victoria for the prevalence of dementia and is forecasted to have the 3rd highest prevalence in 2050 (National Centre for Social and Economic Modelling, 2016b). In 2016, five of the EMR's LGAs were ranked in the top 15 for the prevalence of dementia (National Centre for Social and Economic Modelling, 2016a). The IEPCP catchment was also ranked 1 for females and 2 for males for life expectancy for people aged over 60 years in 2007. (Victorian Health Information Surveillance System, 2007)

Challenges and Strengths

There are strengths and challenges of an ageing population. Data from 2007 shows that most older people in Australia live in their own homes in the community. This includes 74% of people aged over 85 years. About one quarter of men and 13% of women aged 65 to 69 were still working and 24% were providing financial support to adult children or other relatives (Australian Institute of Health and Welfare (AIHW), 2007). Older people also contribute to the economy by consuming goods and paying taxes. While it is common to focus on the negatives or problems of ageing such as increasing demand for health services and cost of pensions, older people have a wealth of knowledge and experience and actively contribute to the wellbeing of our community in many ways, such as caring for grandchildren, children and partners, participating in paid and unpaid work, and being active members of their community.

With regard to the health of older people, there is some discussion about whether increased life expectancy will in fact correlate with healthier lives. If it does, there will be positive benefits but if not, the implications could be more negative. (World Health Organisation, 2015, p. 3) Better health treatments have saved lives but have also led to increases in people over 65 years living with chronic disease and disability.

From a social perspective, other strengths and challenges of meeting the needs of an ageing population include:

- A strong desire expressed by older people to stay living at home independently for as long as possible, with autonomy and choice, social inclusion, community participation, quality, equity, information and access to services (Productivity Commission, 2011).
- An increase in personal wellbeing with age with "Some of the happiest Australians (being) aged 76 and over, with an annual household income of between $61,000 and $90,000" (Australian Unity, 2015, p. 17), including older widows who have higher levels of personal wellbeing even with lower levels of health satisfaction (Australian Unity, 2015, p. 20).
- High participation of older people in volunteering and the positive benefits through community connection, engagement and making a contribution. Volunteers are one of the happiest groups of "workers" (Australian Unity, 2015, p. 34).

- Increasing diversity of older people, including culturally and linguistically diverse, Aboriginal and Torres Strait Islanders, homeless people, people living with a disability, war veterans, and people who identify as lesbian, gay, bisexual, transgender and intersex (LGBTI) as well as those living in rural and remote areas (Productivity Commission, 2011).
- Less availability of informal carers due to increased workforce participation, increasing numbers of single person households, and less willingness to take on a caring role; and the impact of caring on carer wellbeing due to the physical, financial and emotional demands. (Productivity Commission, 2011). (Carer wellbeing on the Australian Unity Wellbeing index rated 58.5 compared to an average range for the population of 73-76 (Australian Unity, 2015)).
- The prevalence of ageism which can result in discrimination, affecting older people's ability to participate in work, access appropriate supports and engage fully in their community. (World Health Organisation, 2015, p. 46)

b. A Positive Ageing Approach

This needs analysis will inform the development of prevention and service coordination activities, by building on existing community strengths of older people and supporting them to live in the community and maintain their health and wellbeing, independence and safety. Achievement of the highest standard of health is a human right (Office of the High Commissioner for human rights, 2002, p. 1) and the individual differences older people experience in their ageing are influenced by the environment and social circumstances in which they live, or the social determinants of health. (World Health Organisation, 2015, p. 25) As we age, social determinants such as housing, income and education can have a significant impact on our ability to have a good quality of life and age well.

There appears to be very little direction nationally on prevention and health promotion to respond to the ageing population. While the current policies emphasise person-centred care, independence, autonomy and choice, the focus is on addressing the demand for services and reducing costs. Of note, the National Partnership Agreement on Preventive Health between the States and Commonwealth ended in 2014-15 and the Australian National Preventive Health Agency, tasked with "promoting a healthy Australia" was defunded in June 2014 (Department of Health, 2014).

In Victoria, there has been more focus on prevention and health promotion actions with regard to ageing. In the 2015-19 Health and Wellbeing Plan, prevention through early years and adult life is emphasised but there is a lack of specific strategies that target older people in the plan which takes a "life course" approach (Victorian Government, 2015). The Home and Community Care (HACC, now known as the Commonwealth Home Support Program (CHSP)) active service model of restorative care does have a more positive ageing flavour, but it is targeted at those who need and receive services (Victorian Government, 2016). A result of an inquiry in 2012 into the opportunities for participation by senior Victorians resulted in the Age-friendly Victorian Partnership and Leadership declaration between the Victorian Government and Municipal Association of Victoria (MAV) (Family & Community Development Committee, 2012). This partnership outlined the need to work together on the goal of developing age friendly communities as a way of optimising opportunities for good health, participation and security for older people (Municipal Association of Victoria (MAV), 2005). In addition, the newly established Victorian Active Ageing Partnership formed in late 2015 will increase opportunities for older people who experience disadvantage and isolation to participate in physical activity to enhance their health and wellbeing.

Local government is also taking a lead in positive ageing and age friendly policies and plans for their local areas. Some councils in the EMR are actively seeking or have been approved as Age Friendly Cities, including actively seeking community feedback, development of ambassador programs and implementation of other initiatives. All of the EMR councils have positive/healthy ageing officers and plans.

Healthy ageing conceptual framework and indicators

The World Health Organisation (WHO) provides a philosophical perspective that aligns with the goals of this project. WHO defines healthy ageing as 'the process of developing and maintaining the functional ability that enables wellbeing in older age' (World Health Organization, 2015, p. 28).

This definition is rooted in a social determinants approach, recognising the diversity within the population of older people where any individual, depending on their course through life, will exhibit a range of physical and mental capacities that impact on their ability to function. A person's ability to live the life they value is determined by both their intrinsic capability—the personal, health and genetic characteristics within them—and the environment in which they live.

Healthy ageing, therefore, is the interdependent relationship between a person's intrinsic capacity, and the environment in which they live. The WHO Age Friendly Cities and Communities (World Health Organisation (WHO), 2007) initiative articulates the components of an environment most conducive to enhancing a person's functional ability:

- outdoor spaces and buildings
- transport
- housing
- social participation
- respect and social inclusion
- civic participation and employment
- communication and information
- community support and health services

A clear understanding of health in older age and other age-related issues and trends is needed as a starting point to formulate a response that engages all sectors of society in improving the experience of ageing for all parts of the community (World Health Organization, 2015). Our challenge is to determine a response to our ageing population that emphasises its strengths and abilities and uses a proactive approach to assist people to age well.

The healthy ageing framework constructed for this project adopts an ecological approach, consistent with the social determinants of health, explicitly considering the multiple levels of influence that have both shaped, and continue to effect, the health outcomes of people in later life. The framework recognises that the socio-economic, cultural and environmental influences throughout the lifespan mean that a person from a disadvantaged background is more likely to be in poor health when entering old age (World Health Organization, 2015).

a. Measuring Health and Wellbeing

Measuring the health, wellbeing, independence and safety needs of a community and the factors that contribute to those needs is complex. The development and use of wellbeing indicators occurred in response to the discontent with the use of traditional economic measures of progress such as Gross Domestic Product being used to reflect improvements in society, community wellbeing and quality of life. As the Report on economic performance and social progress stated: 'what we measure shapes what we collectively strive to pursue – and what we pursue determines what we measure'. (Stiglitz, Sen, & Fitoussi, 2009)

In Australia, community indicator work was led by Australian Unity with its **Australian Unity Wellbeing Index**. Based on psychological theory, the Index measures both Personal Wellbeing (subjective wellbeing) and National Wellbeing. The **personal wellbeing index** measures an individual's wellbeing with 8 domains: "standard of living; health; achieving in life; personal relationships; safety; community connection; future security; and spirituality or religion". The **national wellbeing index** "measures satisfaction with social conditions, the economic situation, the environment, business, national security and government" (Australian Unity, 2016, p. 5). This research found that to look after our own wellbeing we should connect with family and friends; save money for times when things go wrong; get involved in the community; do things that give us a sense of achievement; have a good work/life balance; and stay healthy.

Community Indicators Victoria (CIV) use the domains of healthy, safe and inclusive communities; dynamic resilient local economies; sustainable built and natural environments; culturally rich and vibrant communities, and democratic and engaged communities which align with the social determinants of health. (Community Indicators Victoria, 2016) As an extension of this work, the McCaughey VicHealth Community Wellbeing Unit uses the CIV

indicators to measure **liveability** which is defined as "safe, attractive, socially cohesive and inclusive, environmentally sustainable, with affordable and diverse housing, public transport, walking, and cycling linked to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities" (Davern M. G., 2015).

As Davern and colleagues note,

> The ultimate success of community indicator projects is the ability to connect evidence and knowledge to policy with the aim of developing better public policy (Dluhy and Swartz 2006). Indicator systems provide community level data with the objectives of stimulating change and improving society. (Davern, Gunn, Giles-Corti, & David, 2016)

A number of indexes have also been developed specifically to measure the ageing experience. They include a range of indicators determined to be relevant across a number of key domains which reflect the experiences of ageing as well as capability to age well. Domains include health, security, environments, participation and employment, relationships, social connection, culture, education, mobility and resources.

The **United Nations Economic Commission for Europe (UNECE) Active Ageing index** measures "the level to which older people live independent lives, participate in paid employment and social activities, and their capacity to actively age". The index has 22 indicators grouped into 4 domains – employment; participation in society; independent, healthy and secure living; and capacity and enabling environment for active ageing. (United Nations Economic Commission for Europe (UNECE), 2015).

The Benevolent Society released its **Small Area Indicators of Wellbeing for Older Australians** which used an extensive literature review and data search to develop 5 concepts and 6 domains of wellbeing based on place. The **concepts** are inequality, vulnerability, capabilities, resources, location and mobility and the **domains** of participation, education, health, security, resources, wealth and housing are measured across each of these concepts. The current index is based on available data sources at suburb level in metropolitan areas. Each real indicator is weighted according to an assessment of how much it contributes to wellbeing. The index resulted in maps that show wellbeing based on place (suburb in metro areas) for people aged over 65 years. The research can also identify the reason for the low wellbeing, or the factor that has the most impact, whether it is income, participation or something else (Tanton, 2016).

b. Indicator selection

In addition to the academic literature researched, the final list of indicators for this project was developed in consultation with the Steering Group and key informants such as Eastern Melbourne PHN and Helen Keleher, consultant for IEPCP.

It was important that indicators have data available through existing routine data sources, and be disaggregated by age groups, gender, and local government areas.

The final selection of indicators used in this needs analysis is presented below within the WHO Healthy Ageing Framework:

Intrinsic Capacity	
Personal characteristics	Age Gender Aboriginal and Torres Strait Islander Country of Birth and new arrivals Language and English Proficiency Income Education Employment and retirement
Health characteristics	Self-assessed health Body weight, high blood pressure, cholesterol Diabetes Asthma Incidence of disease (respiratory, cardiovascular, coronary, cerebrovascular, peripheral vascular), cancer prevalence, kidney disease Dementia Bone and joint diseases Injuries/falls Oral Health Mental Health Emergency department presentations, ambulatory care sensitive conditions Deaths Disability Need for assistance with core activities
Health Related Behaviours	Physical inactivity (sedentary or insufficient activity) Fruit and vegetable consumption Consumption of sugar-sweetened soft drinks Alcohol consumption Smoking Influenza vaccination rates Screening rates Avoidable mortality
Lifestyle behaviours	Gambling incidence

Environments	
Social and Community Networks	Live alone Presence of carer/unpaid carer status Religion Volunteering Incidence of elder abuse Participation activities Feeling part of the community Contact with family and friends
Age Friendly Cities	Housing – type, cost, affordability Public open space Food accessibility Transport access, walkability Community safety - perceptions Being comfortable to walk day/night Access to internet Use of technology Citizen engagement
Other socio-economic, cultural and environmental conditions	Disadvantage (SEIFA) Life Expectancy

It should be noted that there is some variation between this list and the data presented in this report which was dependent on availability and access. In addition, some additional data was included that may not have been identified initially.

Project Methodology

The findings in this report are informed by qualitative and quantitative data gathered through previous consultations, openly available data bases, and data collected by partner agencies.

For this project the following scopes were defined, and where possible, data was sought to meet these parameters:

- Geographic coverage: Boroondara, Knox, Manningham, Maroondah, Monash, Whitehorse and Yarra Ranges local government areas.
- People aged over 60 years, ideally in 10 year age ranges (60-69, 70-79 and 80+).

a. Qualitative Data - Grey Literature Review

The grey literature review identified, collected and synthesised existing unpublished reports that illuminate the health, wellbeing, independence and safety needs of older people in the EMR. The reports were analysed thematically in line with the health and wellbeing indicators chosen for this research.

The grey literature reviewed was of community consultations and evaluations since 2011 that included people aged over 55 years and completed by organisations located in the seven local government areas of the EMR. The types of services and organisations included were Local Government, Community Health Services, Neighbourhood Houses, Primary Care Partnerships, volunteer services, aged cared services, palliative care and the Eastern Melbourne PHN. More than 100 documents were collected from 28 services and organisations. As only 25 documents exactly matched the inclusion criteria, the criteria were adjusted, for example including documents that recorded the views of carers and support workers as well as community members.

Limitations of the Review

As the grey literature review was based on existing consultations, evaluations and program reports, the conclusions drawn need to be qualified by the limitations of the data:

- The scope of the reports was limited to the needs of the organisations' that contributed them, rather than the aim of this needs analysis, including the types of questions asked, the range of community members consulted and the reason for collecting the information.
- The number of collected documents is limited and only 25 documents matched the inclusion criteria exactly. Not all organisations had relevant reports and consultations to contribute and not all geographic areas were covered in the same depth.
- The gaps in the grey literature with regard to the scope of this needs analysis included risk factors for maintaining physical health (such as alcohol consumption and tobacco use); participation in prevention activities such as regular health checks and cancer screening; the impact of socio-economic disadvantage on health and wellbeing; and sexuality.

b. Quantitative Data Sources

Data was extracted from a range of sources, most of which are publicly available. In some cases, estimated rates per 100,000 or 1,000 have been calculated to assist with comparisons across regions.

A summary of the source data is provided at the beginning of each section.

Variations between results within a figure or table will only be mentioned as significant in the analysis if it is statistically significant at a 95% confidence interval.

The key data sources used for the quantitative data within this report are listed below. A full list of references and resources can be found in Appendix 3.

2011 Census

Many of the demographic population statistics have been drawn from the 2011 Australian Bureau of Statistics Census, using TableBuilder.

Victorian Population Health Survey (VPHS)

Many of the health and wellbeing items within this report are drawn from a data output request from the 2014 VPHS survey. (Department of Health and Human Services, 2014) This data provides a robust sample per LGA across a wide range of measures. The sample sizes per age range are in Table i below. Given some of these categories have small sample sizes, in some instances the error margins are quite large. This has been taken into account when conducting the analysis.

Table i Sample size per LGA and age for 2014 VPHS Survey

	60-69	70-79	80+	Total
Inner East	376	373	222	971
Boroondara	95	82	54	424
Manningham	103	114	49	440
Monash	86	95	64	437
Whitehorse	92	82	55	425
Outer East	326	230	121	677
Knox	113	76	38	426
Maroondah	95	78	53	427
Yarra Ranges	118	76	30	424
Eastern	702	603	343	1648
Melbourne Metro	3137	2314	1238	6689
Victoria	8511	6620	3690	18821

Where statistically significant variations are observed, these have been marked with a ⬆ to show higher than average result or ⬇ to show lower than average; the average being based on all ages from 18+ for the defined area.

Data is drawn from the Victorian Admitted Episodes Database (VAED) which collects morbidity data on all admitted patients from Victorian public and private acute hospitals including rehabilitation centres, extended care facilities and day procedure centres. LGA categorisation is based on the residential address of the patient.

Hospital data (HOSdata)

Another key data source within this document is the database of patient admissions in Victoria (Department of Health and Human Services, 2015-2016). This data was provided by the State Government of Victoria on request.

Data is drawn from the Victorian Admitted Episodes Database (VAED) which collects morbidity data on all admitted patients from Victorian public and private acute hospitals including rehabilitation centres, extended care facilities and day procedure centres. LGA categorisation is based on the residential address of the patient.

c. Quantitative Data particulars

Rank

Some data provides a ranking compared to other local government areas in Victoria. The ranking can be a useful tool to compare where the sub-region sits within a broader Victorian context and provide an indication of the need to address the issue being measured.

Projections

Data projections are provided for some indicators where available to give a more up to date picture of the current situation. Projections are drawn from reliable data sources that have used evidence based methods to provide the projected data.

Data Limitations

There are a number of limitations to consider when using this report:

- **Sample sizes:** Some of the data is based on survey results rather than census data. The survey results collect data from a subset of individuals, and therefore they cannot be considered to be wholly representative of the entire community. This being the case, statistical testing has been applied to survey findings to identify any variations that are likely to be true despite the results being based on a sample. Where statistical testing shows there to be a meaningful variation these have been marked. If variations have not been marked you can assume that they aren't statistically significant.
- **Age of data:** In a number of instances the data is a few years old. We have done our best to source the most up to date data available.

Note that some data items were either not available or were sourced but later removed from this document due to not having an adequate level of detail:

Table ii Unavailable data items

Data item	Source	Parameters
Ambulance call-outs	Ambulance Victoria	Available by LGA but a FOI request resulted in them saying that data is not available by age.
Long-term mental health and behavioural problems	2011–13 Australian Health Survey	Data only available by LGA. Sample wasn't large enough to run data by age within each LGA.
Premature mortality	Deaths data, supplied by ABS on behalf of State and Territory Registrars of deaths for 2003 to 2007	Only available for 0-74 year olds by LGA, no data available for just those aged 60 years or over.
Hospital presentations	VEMD	Data only available by LGA but not age range
Prostate screening	No data	
Asthma admissions	No data	
Use of medication	No data	
Incidence of peripheral vascular disease	No data	
Flu vaccinations	No data	
Oral health	No data	
Hearing impairment	No data	
Community Participation and engagement	No age specific data	
Contact with family and friends	No age specific data	

Major findings

This section provides an overview of the key findings within this document, in line with the WHO guidelines for healthy ageing.

With population projections showing a likely increase of over 56,000 60+ year olds in the Eastern Metropolitan Region (EMR) in the next 10 years, it is particularly important to understand the impact of this increase.

Intrinsic capacity

M1. Personal characteristics

The number of 60+ year olds in the EMR is projected to increase significantly in the next 10 years, particularly in Knox and Yarra Ranges. As is the case nationally, life expectancy is higher for females than males, therefore the gender distribution of 60+ year olds switches from relatively even for 60-79 year olds to female dominated amongst 80+ year olds.

An essential part of maintaining independence and receiving health messages in Australia is an understanding of the English language. Almost a quarter (23.9%) of EMR residents aged 60 years and over speak a language other than English at home, with the primary languages being Greek, Italian and Cantonese. Most profess to speak English well or very well (71%), which is higher than the Melbourne metropolitan average (64%). Therefore, language barriers are likely to be an issue for around a third of the 60+ year old population, with particular languages with high levels of not speaking English well, being Mandarin, Vietnamese, Cantonese, Turkish and Greek.

Financial Security

Older people face a unique set of potential financial stresses as they enter retirement, which can impact on their ability to live healthy and fulfilling lives.

According to the grey literature, the key issues impacting on financial security were housing affordability and housing costs, particularly for people living alone. Lack of disposable income also limits access to healthy food, physical activity and recreation, and services. The grey literature also points to an asset rich population but with potentially insufficient resources to finance daily expenses. More information is sought by older people about financial matters and affordable supports and services.

Having a fixed income can enable security and independence. In the EMR 45% of 60-69 year olds are still working, however over half (60%) of those aged 65 years or over are receiving an Aged Pension and 45.5% of those aged 60 years or over are on an income of less than $400 a week..

These reduced incomes may be manageable for the 66% of 60+ year olds who own their home outright, however almost one in five (19.1%) 60-69 year olds and even 4.4% of 80+ year olds still have a mortgage. Indeed, 7.3% 60+ year olds in the region pay a mortgage of over $1,000 a month and 3.7% pay more than $250 a week in rent. This finding illustrates that some older people may need to continue in the workforce beyond typical retirement age to pay off mortgages. Females are particularly susceptible to these financial stresses as they age; due to a longer life expectancy (females 85.4 compared to 82 for males) increasing proportions will be living on a single income once they are over the age of 75 (76.3% of 75+ year old females live alone).

Further financial stresses are potentially occurring for the 30% of EMR residents aged 60 years or over who provide unpaid assistance to a person with a disability; this is higher than recorded for the Melbourne metropolitan area (26.2%). The grey literature identified that carers need more financial support for their caring role.

Education

Older people in the EMR are more often educated at or beyond year 12 equivalent (36% year 12, 38% post-secondary) than the Victorian average (27.2% and 30.8% respectively), although the incidence does decrease with age. As the population ages, the average level of education amongst older people will improve.

M2. Health characteristics

It is important to view health characteristics holistically. Often there are comorbidities between separate health conditions and suffering from a particular negative health condition can often lead to further health conditions in the future.

A lower proportion of 60+ year olds in the EMR self-report their health as fair or poor than the average for Metropolitan Melbourne.

Nearly two in ten 60-79 year olds in the EMR are classified as obese (17%; dropping to 12% 80+ year olds) and almost 2% 60+ year olds are underweight.

There are a wide range of health complications that are more common amongst people aged 60 years and over, specifically high blood pressure (61% 70+ year olds), diabetes (15% 70-79 year olds, then decreasing to 12% amongst 80+ year olds+ year olds), heart disease (28% 80+ year olds), arthritis (58% 80+ year olds), vision impairment that can't be fixed with glasses/contacts (9% 80+ year olds) and dementia, for which there are predicted to be over 65,000 residents in the EMR with dementia by 2050 (up from 19,900 currently). Heart disease, high blood pressure, diabetes and arthritis are all related to overweight and obesity.

The incidence of doctor diagnosed depression in older people in the EMR is at 20% amongst 60-69 year olds and then decreases with age to 13% 80+ year olds. Less than one in ten (7% 60-69 down to 5% 80+ year olds) are categorised as having a high or very high level of psychological distress using the Kessler 10 scale.

Over a third (36.1%) of residents aged 65 years or over need assistance with one or more activities, and one in six (17.8%) need assistance with 3 or more activities, increasing to 38% amongst those aged 80 years or over. One in ten (11.8%) residents aged 65 years or over have a severe or profound disability. In many instances these people are cared for by their partners, with over 9,000 residents aged 65 years or over in the EMR who care for someone who needs assistance.

Falls are a significant risk for older people which increases with age and can impact on loss of independence and mortality; in the EMR it is estimated that around 11.2 in 1,000 60-69 year olds will present to hospital due to a fall, increasing to 16.9 in 1,000 70-79 year olds and 49.3 in 1,000 80+ year olds. Furthermore, around 50 EMR residents aged 65 or over are admitted to hospital each year for pedestrian related accidents.

Death

The primary causes of death amongst 55-75 year olds are cancer and coronary artery disease; then as people age the primary causes of death for 75-84 year olds are more commonly heart disease and stroke, and then for 85+ year olds it is dementia. In terms of cancer, the main cancers in 60-69 year olds are bowel, prostate and lung; then for 70+ year olds prostate and breast are the main cancers.

M3. Health Related Behaviours

There are a range of lifestyle factors which can lead to older people being at risk of reduced health and wellbeing. The following observations relating to older people in the EMR are all in line with state and Melbourne metropolitan averages. Specifically:

- More than one quarter of 70+ year olds don't meet physical activity guidelines (28%), which can lead to a reduction of strength and agility, resulting in falls and other health issues such as diabetes;
- Over four in ten don't meet fruit and vegetable consumption guidelines (43%);
- One in ten 80+ year olds consume sugar-sweetened drinks on a daily basis (10%); and
- Many don't participate in screening for key diseases such as breast cancer (43%), cervical cancer (49%) and bowel cancer (66%), and only 17% of 75+ year olds have regular health checks.

The grey literature also identified:

- The preferred physical activity type for older people is walking;
- Groups most at risk of physical inactivity are people over 80 years, carers, and people living with chronic conditions;
- Factors affecting physical activity levels include self-motivation, medical conditions, weather, time, cost and safety (such as a fear of falling);

Despite these areas of need for improved knowledge and behaviour, it is encouraging to note that both alcohol and cigarette consumption decreases with age amongst those aged 60 years and over.

Gambling is another lifestyle factor that can cause issues for older people, as it is perceived to be a social activity, yet can be severely detrimental for those on low incomes. Almost three quarters of 65-69 year olds gamble in some way (73%) and one in ten 65-79 year olds are at risk or currently problem gamblers (10%). This decreases with age, with 49% of 85+ year olds undertaking some form of gambling and 5% at risk or problem gamblers. The primary gambling activities for 65+ year olds are lotto, raffles and sweeps, electronic gambling machines and race betting.

Environments

M5. Social and Community Networks

According to the grey literature, people who are vulnerable to social isolation are those that live alone, live in retirement villages and nursing homes, carers and people with chronic conditions. Factors that contribute to social isolation are lack of time, financial stress, poor health, limited mobility, transport access, language and culture, lack of knowledge about activities and services available and feelings of stigma. There was a preference for affordable or free activities with accessible transport and a preference for more spaces with good facilities. Older people want to be involved in decision making about activities.

More than eight in ten 60+ year olds living in the EMR indicate that they are affiliated with a religion (primarily Christianity), which can provide community and social networks. Although, this is likely to decrease over time as younger people with lower instances of affiliation age.

Another key resource for connection to the community and seeking health information is the internet. At present, less than half of those aged 80+ have access to the internet, although this will increase as more internet savvy people age.

Living conditions can impact on an individual's ability to engage with other people and the community. This is particularly evident when older people are living alone, which is the case for a third of the population aged 75 years or over in the EMR (34%), increasing to three quarters of females aged 75 years or over (76.3%, highest incidence in the state).

The key positive community participation activity covered in the data is volunteering, which is common amongst those aged 60-79 (21%), however drops off significantly as people age over 80 years (12% 80-89 and 4% 90+). Participation in volunteering is considered to be a beneficial activity for social cohesion and the wellbeing of the volunteer.

A lower proportion of residents aged 65 years and over in the EMR identify as carers (18.4%) when compared to the state average (19.8%), however a higher proportion look after children (16%, 13% Victoria). Carers are a resource to the community, but being a carer can also be a challenge for the individual when they do not receive adequate support or face transport limitations.

M6. Age Friendly Cities

The EMR provides a number of living conditions at a higher standard when compared to the wider Melbourne metropolitan area. Three of the LGAs boast high land areas of green space (Yarra Ranges, Manningham and Knox), in the inner east a high proportion of the land area is in close proximity to public transport.

Whilst most 60+ year olds in the EMR live in private dwellings (91.8%), around 10,000 people across the region live in nursing homes or accommodation for the aged. Considering the projected population increase in the next 10 years, with around 5% of the 60+ aged population in nursing homes, there may be a need for another 2,800 places in nursing homes or accommodation for the aged by 2026.

In general (across all ages), the crime rate in the EMR is lower than the state average, however most of this occurs in the younger age ranges, particularly for crimes against the person (6.39 per 1,000 for under 60 year olds compared to 1.56 per 1,000 for 60+ year olds). For crimes against property, the rate for 60+ year olds is lower in the EMR (12.7 per 1,000) than the state average (18.5 per 1,000) suggesting that older people in the EMR are more at risk of crime directed against their property than against their person.

Access to spaces and activities is important to enable community engagement and participation. On average, residents in the EMR have access to 2 parklands or garden public open spaces per 1,000 population and 0.5 organised recreation areas per 1,000 population; this is on par with the Melbourne metropolitan average. On average residents in the region can travel for less than 1km to reach one of these open space resources.

Access to transport can have a significant impact on older people's ability to engage with the community and access health services, particularly for carers. Car ownership decreases significantly once residents enter their 80s (down to 56%, from 90% 60-69 year olds) and one in five EMR residents aged 55 years or over (23%) experience transport limitations, which is slightly lower than the Melbourne metropolitan average. Across the whole EMR, 12.1% of the total land area is within 400m of a bus or tram stop, or 800m of a train stop. This is low mostly due to poor public transport availability in Yarra Ranges (3.1%); however, most LGAs have very high levels of access, at more than 60%. According to the grey literature, people most likely to experience transport issues were carers, people with chronic conditions, people with mental health issues and people who are socially isolated. Issues identified were a lack of public transport options, particularly in the outer east. The community is concerned about cost, difficulties with MYKI, safety when boarding and disembarking and travelling at night. Taxis were viewed as unreliable and community transport is not well known as an alternate option. Improvements could be made by offering more transport options with greater frequency and reach and improved safety.

Health Literacy

Although health literacy was not identified as a separate indicator of health and wellbeing, it was a key theme identified in the grey literature review. Older people identified limited understanding of services, information about chronic conditions, lack of skills to access technology and a desire for a stronger understanding of the health system, health issues and keeping well. Language and culture particularly impacted on health literacy. It was recommended to provide more health information through councils, GPs, forums and events.

M7. Other socio-economic, cultural and environmental conditions

Whilst overall the region shows high SEIFA scores, there are clear pockets of disadvantage throughout which can result in inequality/inequity and in turn impact on social cohesion, health and wellbeing.

Life expectancy is higher than the average for the Melbourne metropolitan area.

Regional Specifics

Within the data there are some notable variations by region which can assist with place-based approaches to improving the health and wellbeing of older people.

a. Inner and outer east

The inner east region is generally showing better performance on a range of indicators than the outer east, likely due to the nature of better access to services and transport. The grey literature corroborates this with the inner east community identifying good access to public transport, social activities and quality parks and open spaces. People who live in the inner east have a higher life expectancy and lower levels of avoidable mortality than the outer eastern region.

The key area of need in the inner east is with regards to languages other than English. The inner east has a higher proportion of residents born overseas (43.1%, compared to 38% outer east), particularly non-English speaking locations; for outer east the main location of birth for those born overseas is England, whereas for inner east it is Greece and Italy. The main languages spoken in the inner east by those who speak a language other than English (29.4%, compared to 14.2% outer east) are Greek, Italian, Cantonese and Mandarin, and 32% of those who speak a language other than English say that they don't speak English well or at all (compared to 22% outer east).

In the outer east the data reveals a range of challenges for older people, mostly revolving around low incomes. This region has a higher incidence of 60+ year old lone person households with a low income and high housing costs, a high percentage of people aged 65+ on the aged pension (67% compared to 56% inner east), and a higher percentage of 60+ year olds on an income of less than $400 a week (48.7% compared to 43.6% inner east), and a higher crime rate (57.1 per 1,000 compared to 43.5 for inner east). The 2015-16 hospital data shows that outer east older adults also present to hospital at a higher rate. In particular, 80+ year olds in the outer east present to hospital for a range of complications at a higher rate than in the inner east, including diabetes, heart failure, circulatory and respiratory system diseases and disorders, kidney disease and musculoskeletal system diseases and disorders.

These challenges for the outer east are particularly important to address given that it is estimated that the number of 70-79 year olds in the outer east region will almost double from 2011-2026, from 21,700 to 42,000 (93.5%), and the number of 80+ year olds is estimated to increase from 14,400 to 25,000 (73.6%). Comparatively, the increase in the inner east is much smaller (70-79 year olds increase 31% from 44,149 in 2011 to 58,005 in 2026, and 80+ year olds increase by 41% from 31,593 in 2011 to 44,431 in 2026).

b. Boroondara

In Boroondara more than half of 60-69 year olds are still working (52%), compared to 45% average for the inner east region. This may be contributing to residents in this area being in a better financial position than most, with a lower incidence of residents aged 60+ who are on a low income of $400 or less a week (45.9% compared to a state average of 66.6%). However, a higher than average proportion of residents aged 60-69 provide unpaid assistance to people with a disability (19%, compared to 16% average across Melbourne metropolitan area) and the LGA is the second highest in the state for incidence of females aged 75 years or over living alone (79%). This LGA shows the highest incidence of residents aged 60 years or over who volunteer (22.6%).

A higher number of elder abuse incidences were recorded within this municipality (101 in 2015-16).

c. Manningham

The data relating to Manningham reveals a number of items that present unique challenges for the health and wellbeing of older people, potentially contributing to the higher incidence of 80+ year olds self-reporting fair or poor health (34%, EMR average 23%).

A high proportion of residents were born overseas (49.6%, EMR average 41.3%), primarily Italy, Greece and China; resulting in a higher than average incidence of 60+ year olds speaking a language other than English (37.9%, EMR average 23.9%) and potentially not having access to health information in a format that they understand. There is a low percentage of land area within 400m of a bus/tram or 800m of a train (37%, most other regions are above 60%), translating to 29% of 55+ year olds experiencing transport limitations compared to a Melbourne metropolitan average of 25%. These aspects are likely to be contributing to pockets of low SEIFA scores along Doncaster Rd and near the Thompson Rd and Manningham Rd intersection.

A relatively high 18% of residents aged 60 years and over care for children other than their own, compared to an average of 14% across the Melbourne metropolitan area.

d. Monash

Monash is predicted to have the smallest increase in 60+ year olds across the region in the 15 year period from 2011 to 2026 (17%, approximately 6,500 individuals), therefore this region will have less of a challenge to cater for significantly increased numbers of older people compared to the other regions in the EMR.

In this region there is a relatively high instance of 60+ year olds born overseas (49.5%, EMR average 41.3%) and consequently a high incidence of people who speak a language other than English (35.5%, EMR average 23.9%); primarily Greek, Italian and Cantonese.

Monash shows pockets of SEIFA disadvantage in Clayton and around Power Avenue in the North East of the Region, and has a notably high incidence of 60-69 year olds who are retired rather than staying in the workforce (59%, EMR average 54%).

In terms of the health of 60+ year olds, Monash may benefit from diabetes services and information for older residents. Trends regarding diabetes show that incidence usually increases as people reach 60 years and over, then fall in their 80s. However in Monash the incidence of diabetes continues to increase with age, from 14% 60-69 year olds through to 20% 80+ year olds.

e. Whitehorse

As was observed in Monash, the incidence of diabetes in Whitehorse doesn't follow the usual trend of decreasing once people pass the age of 80 years; instead the incidence amongst 80+ year olds (18%) is similar to 70-79 year olds (19%) and 60-69 year olds (18%).

The only other key variations within the City of Whitehorse when compared to regional averages were a slightly higher incidence of residents in public housing (2.4%, EMR average 1.7%) and a slightly higher incidence of those aged 60 years or over volunteering (21.3%, compared to 19.3% across the EMR).

f. Knox

From 2011 to 2026 the 60+ aged population in Knox is predicted to increase by approximately 18,000 individuals, or 64%. This increase is being primarily driven by 70+ year olds, which is expected to double, from 13,193 in 2011 to 26,431 in 2026.These population increases will result in a significant increase in the number of cases of dementia, from 2,491 cases in 2016 to an estimated 12,711 in 2050.

Most demographic indicators for Knox are on par with regional averages, with the exception of 80+ year olds who need assistance with 3 or more activities which is notably high at 42% (EMR average 38%).

Knox residents of all ages show higher incidences of self-reported poor dental health (8.6%, EMR average 4%) and show lower levels of participation in cervical screening (46% of 60-69 year old female population, EMR average 51%) and bowel screening (32% 50-65 year olds, EMR average 34%).

g. Maroondah

When compared to most other regions, Maroondah shows a notably high incidence of 60+ year olds who live in public or social housing (2.5%, EMR average 1.7%). This region also registers a higher incidence of 60+ year olds in lone person households with low incomes and high living costs (1.3%, EMR average 0.8%) and 41% 80+ year olds need assistance with 3 or more activities (EMR average 38%).

Within Maroondah, there are pockets of SEIFA disadvantage near the Ringwood exit to the Eastern freeway and the Eastern region bordering the Lilydale train line.

Health data suggests that 80+ year olds in Maroondah may need additional assistance with a range of health issues. A relatively high proportion of 80+ year olds self-reported fair or poor health (33%, EMR average 23%) and/or vision difficulties that can't be fixed with glasses or contact lenses (14%, EMR average 9%). This 80+ age group in Maroondah also recorded a higher incidence of falls (68.1 per 1,000 population, EMR average 49.3) and a higher rate of being admitted to hospital for diabetes (2.4 per 1,000 population, EMR average 1.5).

Maroondah older residents (65+ years) also show a higher rate of alcohol related ambulance attendances (21.6 per 100,000) than other regions, with this rate remaining high in recent years whilst it falls in other regions.

Furthermore, the rate per 100,000 of deaths from cardiovascular disease is highest of all regions in the EMR (9.2 per 100,000).

h. Yarra Ranges

Yarra ranges varies a great deal from the other regions mostly due to the regional nature of much of the municipality. It also has the highest number of Aboriginal and Torres Strait Islander residents (172).

From 2011 to 2026 the 60+ aged population in Yarra Ranges is predicted to increase by approximately 15,500 individuals, or 56%. This increase is being primarily driven by 70-79 year olds, which is expected to more than double, from 7,435 in 2011 to 15,550 in 2026. As a result the estimated number of dementia cases will increase significantly in the near future, from 2,118 in 2016 to 15,656 in 2050.

Given the regional nature of this area, it takes longer for residents to travel to recreation areas and only 3% of the land area is within 400m of a bus/tram or 800m of a train station (EMR average 12.1%). However, this does not translate to perceived transport limitation, perhaps due to car reliance.

There are pockets of SEIFA disadvantage in the outer regional centres around Healesville and Warburton.

A range of health issues are more common in Yarra Ranges, including poor dental health (7.6%, EMR average 4%), 80+ year olds with poor vision that can't be fixed by glasses or contact lenses (18%, EMR average 9%), and incidence of 80-89 year olds being admitted to hospital for a fall (70.9 per 1,000 population, EMR average 49.3). This region also shows lower incidences of participation in cervical cancer screening (46% of 60-69 year old female population, EMR average 51%). The 2015-16 hospital admissions data shows that 80+ year olds in Yarra Ranges present to hospital emergency departments at a notably higher rate than other LGAs monitored (141.5 per 1,000 population, EMR average 102.9), and show a higher rate of being admitted to hospital for heart failure, circulatory and respiratory diseases and disorders , and musculoskeletal diseases and disorders.

Population and Health Data

This section contains detailed health and demographic data specific to older people in the Eastern Metropolitan Region of Melbourne.

Intrinsic Capacity

1 Personal Characteristics





2 Health Characteristics






3 Health Behaviours




4 Lifestyle Behaviours

1. Personal characteristics

1.1 Age

Source: (Australian Bureau of Statistics (ABS), 2015) ABS Population Estimates by Age and Sex 2009 to 2014

The proportion of the population within each age range is typically determined by the Australian Census, which runs every 5 years; the most recent Census for which results are available at this time was conducted in 2011. For interim years, the Australian Bureau of Statistics calculates estimated residential populations (ERP) based on a number of factors post census. The most recent data available by age and gender is for 2014.

Table 1.1a Percentage of population by 10 year age groups by LGA based on 2014 ERP

	0 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 plus
Boroondara	10.6%	13.1%	16.4%	12.0%	14.1%	13.2%	9.8%	5.9%	4.9%
Manningham	10.0%	12.1%	12.5%	11.0%	14.0%	14.0%	11.8%	9.3%	5.2%
Monash	10.4%	11.4%	18.2%	13.0%	13.3%	11.7%	9.5%	7.5%	5.1%
Whitehorse	11.4%	11.4%	16.1%	13.1%	13.7%	12.1%	9.5%	7.2%	5.6%
Knox	11.8%	12.7%	13.7%	13.1%	14.3%	14.2%	10.8%	5.9%	3.5%
Maroondah	12.7%	12.0%	13.6%	14.3%	14.2%	12.8%	10.0%	6.2%	4.3%
Yarra Ranges	12.8%	13.4%	12.3%	12.1%	14.7%	14.3%	11.5%	5.8%	3.2%

Table 1.1b Percentage of population by 10 year age groups by Region based on 2014 ERP

	0 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 plus
Inner East	10.6%	12.0%	16.1%	12.4%	13.7%	12.6%	10.0%	7.3%	5.2%
Outer East	12.4%	12.8%	13.2%	13.0%	14.4%	13.9%	10.8%	5.9%	3.6%
EMR	11.3%	12.3%	15.0%	12.6%	14.0%	13.1%	10.4%	6.8%	4.6%
Victoria	12.5%	11.9%	14.9%	14.3%	13.8%	12.5%	9.9%	6.1%	4.0%

The following charts draw out these figures by LGA and region for just those aged 60 years and over. These charts show that the proportion of the population aged over 70 years is slightly higher in the inner eastern region when compared to the outer region and Victoria as a whole.

Figure 1.1a Percentage of population aged over 60 years by LGA based on 2014 ERP by region

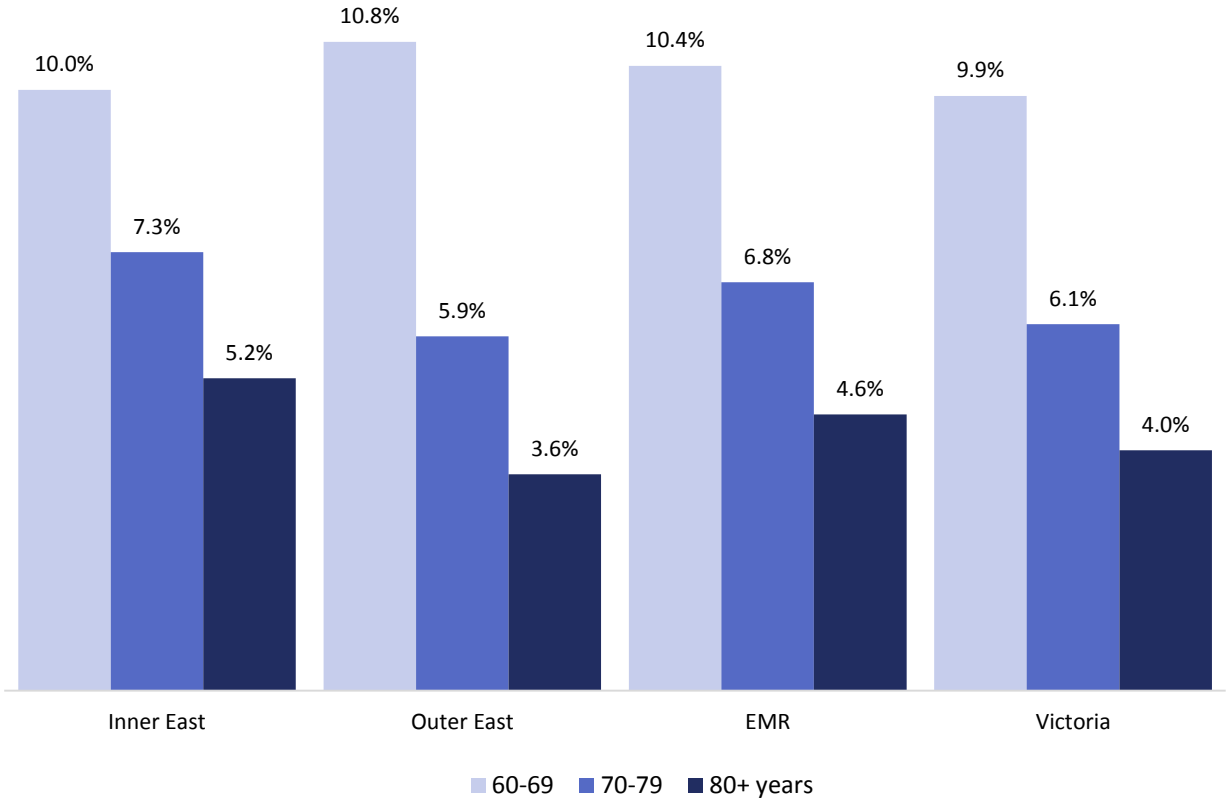
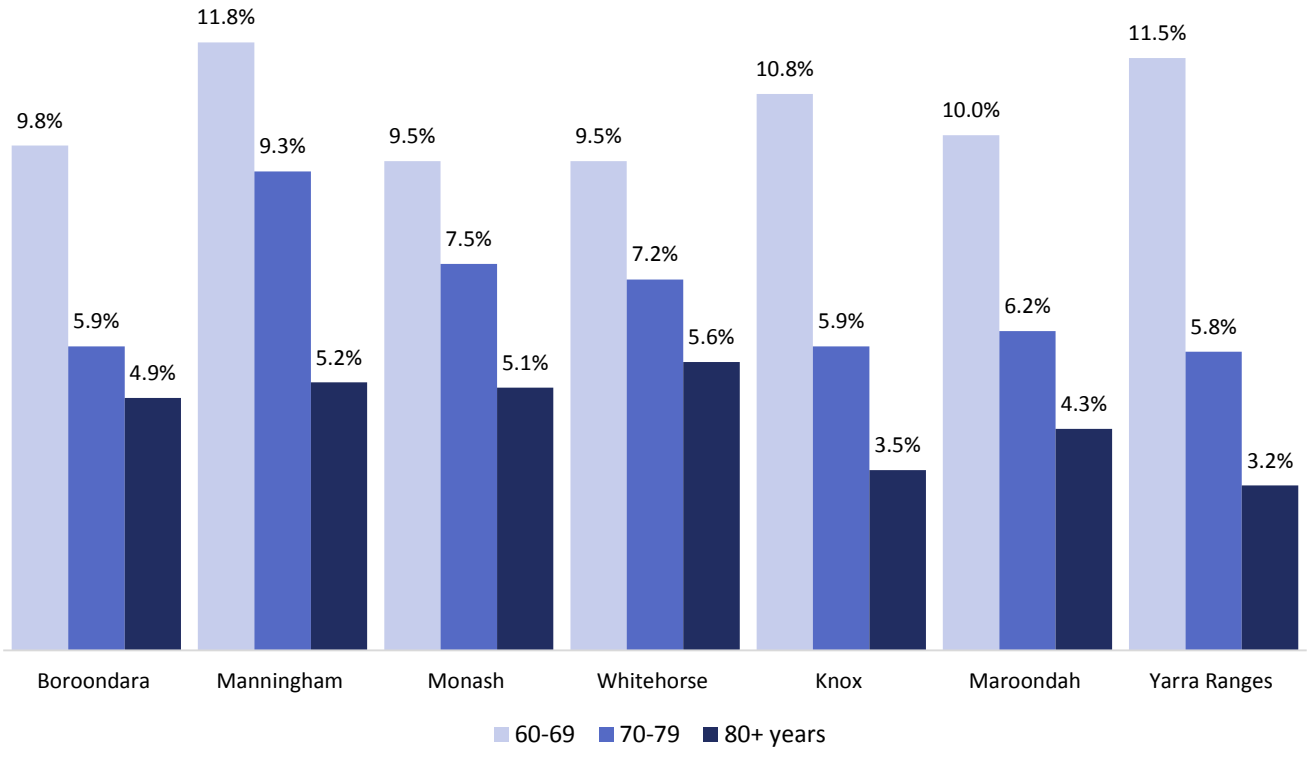


Figure 1.1b Percentage of population aged over 60 years by LGA based on 2014 ERP by LGA



Based on the ABS 2014 Estimated Residential Population data, 5 of the 7 LGAs in the EMR are ranked in the top 10 LGAs in Victoria for the *number* of people aged over 60 years (Yarra Ranges is ranked 11th and Maroondah 23rd). However, when considering the *proportion* of the overall population within this 60+ year age group, these LGAs rank much further down the list. The highest ranked LGA in the EMR for the percentage of the population aged over 60 years is Manningham, with 26.3% of the Manningham population in this group; considerably higher than the figure for Victoria which is 20.1%. Furthermore, despite relatively high rankings with regards to *number* of 60+ year olds, as a percentage of the population, Knox and Yarra Ranges show relatively low rankings (56, down from 9 for Knox and 55 down from 11 in Yarra Ranges).

Table 1.1c Number, percentage and rank of 60 years plus population based on 2014 ERP

	Number people 60 to 69 years	Number people 70 to 79 years	Number people 80 years plus	Total number people 60 years plus	Vic RANK Number people 60 plus	% of total population 60 plus	Vic RANK % 60 plus
Inner East	64171	46747	33239	144157	n/a	22.5%	n/a
Boroondara	16946	10104	8383	35433	7	20.5%	53
Manningham	14001	10986	6212	31199	10	26.3%	32
Monash	17657	13899	9445	41001	3	22.2%	46
Whitehorse	15567	11758	9199	36524	5	22.3%	45
Outer East	45206	24709	15012	84927	n/a	20.4%	n/a
Knox	16731	9222	5449	31402	9	20.2%	56
Maroondah	11141	6847	4830	22818	23	20.5%	54
Yarra Ranges	17334	8640	4733	30707	11	20.5%	55
EMR	109377	71456	48251	229084	n/a	21.7%	n/a
Victoria	580894	357091	234782	1172767	n/a	20.1%	n/a

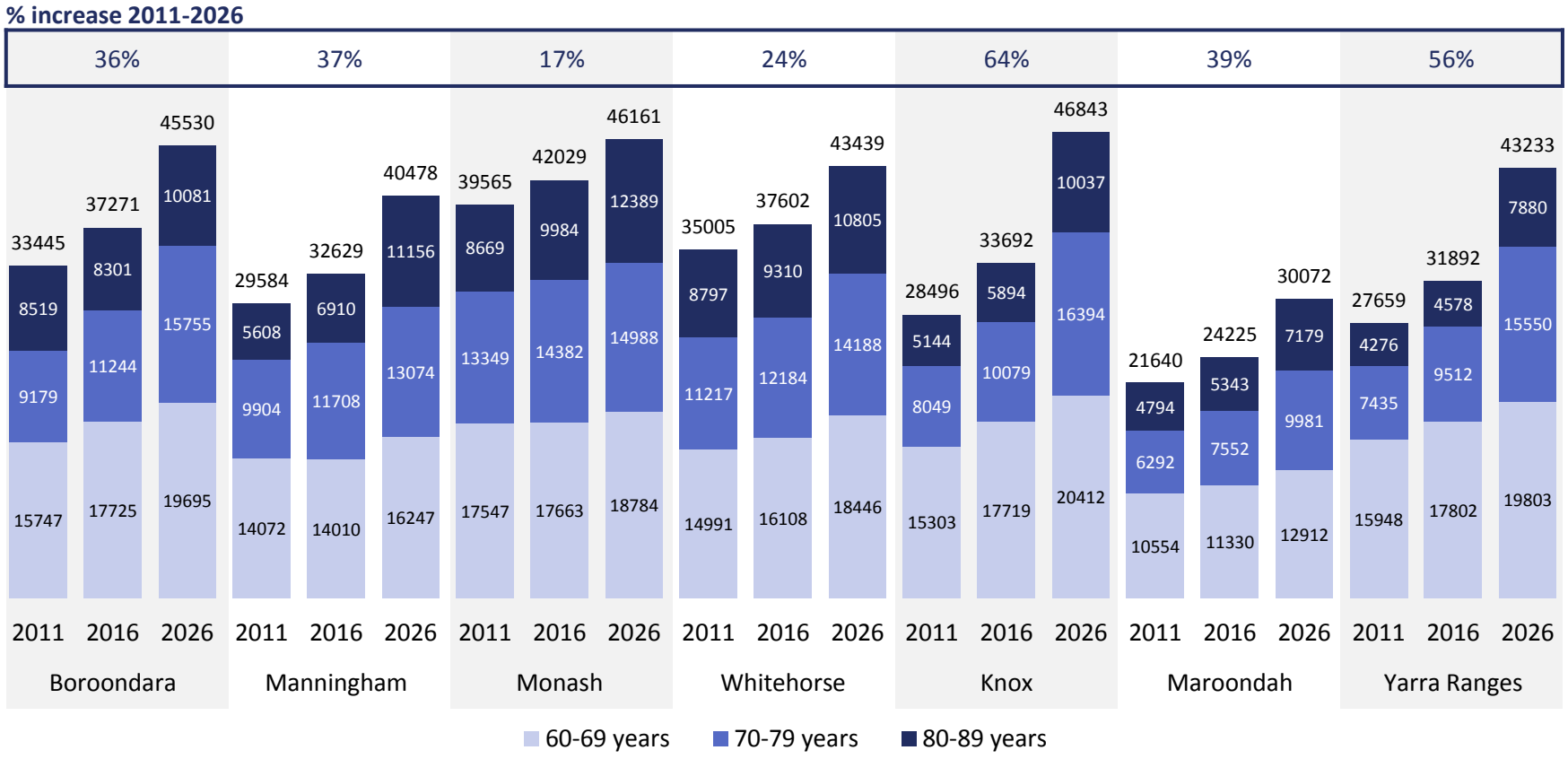
Compared with Victoria, all LGAs in the EMR have a higher estimated proportion of the population aged over 60 years, but the difference is quite small for four of these. Overall, the inner east has 2.4% more of the population aged over 60 years than for Victoria (22.5% compared to 20.1%).

1.2 Population Ageing Forecast

Source: (Victoria in Future, 2016) Estimated Resident Population (ERP) for Local Government Areas (LGAs) and Victoria in Future Small Areas (VIFSAs) by five year age group and sex, for every fifth year from 2011 to 2031. Projections are based exclusively on demographic components at the state and regional level, while local level projections take account of current and future land use, dwelling capacity, and development opportunities in addition to local demographic factors.

Victorian Government projections show that by 2026 significant increases in the number of residents aged 60+ years should be expected in Knox (69% increase on 2011 population) and Yarra Ranges (59% increase on 2011 population).

Figure 1.2 Population projections for those aged 60+



Within these *Victoria in Future* projections, it is expected that, across the EMR, the total population increase from 2011 to 2026 will be between 9.6% (Yarra Ranges) and 17.7% (Whitehorse). As figure 1.2 highlights, the expected increase in the population of just those aged over 60 years (21%-69%) is significantly higher than the overall estimated population increase. Points to note when comparing 2011 to 2026 are:

- The *Victoria in Future* base 2011 data (specified as 2011 Census data) differs slightly from the ABS age reports for the 2011 Census;
- Monash will increase by 7.1% for the 60-69 years age group and 12.3% for the 70-79 age group;
- Boroondara will increase by 18.3% for the 80 years plus age group;
- Knox and Yarra Ranges will increase by more than 100% for 70 to 79 years age group;
- Manningham, Knox and Yarra Ranges will increase by more than 85% for 80 years plus;
- The inner east area will increase by 17.3% from 2011 to 2026 for the 69 to 69 years age group;
- The outer east area will increase by 92.5% for the 70 to 79 years age group; and
- The EMR will increase by just over 50% for 70 to 79 years and 80+ years age groups (52.7% and 51.8% respectively).

Table 1.2 *Victoria in Future* projections by region for 2011, 2016 and 2026

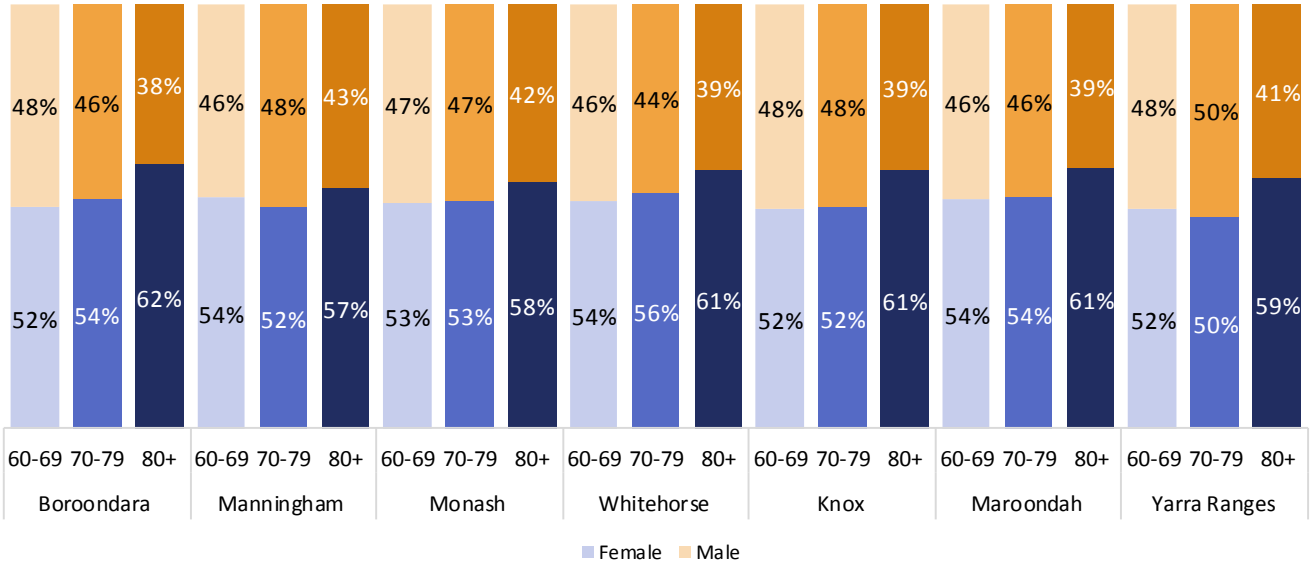
	2011			2026			% change		
	60-69	70-79	80+	60-69	70-79	80+	60-69	70-79	80+
Inner East	62357	43649	31593	73173	58005	44430	17%	33%	41%
Outer East	41805	21776	14214	53128	41925	25096	27%	93%	77%
EMR	104162	65425	45807	126300	99930	69527	21%	53%	52%

1.3 Gender

Source: (Victoria in Future, 2016) Estimated Resident Population (ERP) for Local Government Areas (LGAs) and Victoria in Future Small Areas (VIFSAs) by five year age group and sex, for every fifth year from 2011 to 2031.

As per the *Victoria in Future* projections, the gender split across the 60+ year old age ranges are in line with overall averages (52-54%) until the 80+ age range, where the incidence of females increases to 60%. This is understandable given that females have a longer life expectancy, as discussed in section 6.1 of this report. There is no notable variation in gender distribution across the region, or compared to the Victorian average.

Figure 1.3 Gender by LGA based on 2016 *Victoria in Future* projections



1.4 Aboriginal and Torres Strait Islanders

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, place of usual residence

The Victorian State Government recognises that people of Aboriginal and Torres Strait Islander background more commonly suffer from health problems, often at an earlier age than the wider population. This is reflected in policy where the eligibility age for assistance for older persons is lower for Aboriginal and Torres Strait Islanders (50 years compared to 65) (Department of Social Services, 2015).

Approximately 0.74% of the total Victorian population identified as Aboriginal and Torres Strait Islander at the 2011 Census. The percentage of the population in the Eastern Metro Region who identified as Aboriginal or Torres Strait Islander was only 0.31% of the population. Yarra Ranges is the only LGA in the EMR with a percentage similar to the Victorian average.

The Yarra Ranges had the highest number of Aboriginal and Torres Strait Islander people aged over 50 years in the EMR with 172 in this group, including 144 aged between 50 and 69 years and 25 aged 70 to 89 years. Whitehorse had the next highest with 87 people who identified as Aboriginal and Torres Strait Islander aged over 50 years, including 64 aged between 50 and 69 years. Knox was close to Whitehorse with 81 aged over 50 years including 75 aged between 50 and 69 years.

Table 1.4 Number of people who identified as Aboriginal, Torres Strait Islander or both at the 2011 Census

	Less than 50 years	50-59	60-69	70-79	80 years plus	Total 50 years plus
Inner East	830	101	66	26	26	219
Boroondara	178	22	14	6	5	47
Manningham	114	18	13	3	7	41
Monash	303	27	9	10	8	54
Whitehorse	235	34	30	7	6	77
Outer East	1614	166	97	34	16	313
Knox	464	44	31	3	3	81
Maroondah	350	30	14	16	0	60
Yarra Ranges	800	92	52	15	13	172
EMR	2444	267	163	60	42	532
Greater Melbourne	15319	1474	784	291	155	2704
Victoria	32303	3044	1655	700	290	5689

1.5 Country of Birth

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, place of usual residence

Settlement data: (Australian Government, 2013-16) 2 way report set to report settlers by country of birth by age on arrival from 1 January 2013 to 1 January 2016. Data reported for those aged 65 years or over on date of arrival.

When compared to the Melbourne metropolitan area, the Eastern region has a slightly lower incidence of residents aged 60 years or over who were born in a country other than Australia. Despite this, it is still evident that a significant proportion (41%) were born overseas. Manningham and Monash LGAs show the highest proportion of 60+ year olds born overseas, whilst Maroondah has the lowest.

Table 1.5a Percentage of age group born overseas (includes English speaking and non-English speaking countries)

	60-69 years	70-79 years	80 years plus	60 years plus
Inner East	45.1%	46.0%	35.7%	43.1%
Boroondara	34.8%	39.4%	29.3%	34.5%
Manningham	50.9%	50.7%	44.9%	49.6%
Monash	53.2%	51.1%	40.1%	49.5%
Whitehorse	41.1%	41.0%	31.7%	38.6%
Outer East	36.5%	41.8%	37.5%	38.1%
Knox	42.9%	48.1%	45.3%	44.8%
Maroondah	32.7%	36.8%	30.7%	33.4%
Yarra Ranges	32.8%	39.3%	35.7%	35.0%
EMR	41.6%	44.6%	36.2%	41.3%
Greater Melbourne	45.5%	50.1%	40.9%	45.9%
Victoria	37.2%	40.6%	33.6%	37.5%

The top 10 countries of birth vary slightly by region, with Greece and Italy being more dominant in the inner region, whilst English migrants are more common in the outer region.

Table 1.5b Top 10 Countries of Birth for people aged 60 plus years by region

	Inner East		Outer East		EMR	
1	Greece	8476	England	9079	England	15677
2	Italy	7872	Netherlands	2433	Italy	9806
3	England	6582	Germany	2168	Greece	9007
4	China	4645	Italy	1922	China	5300
5	Malaysia	2734	Scotland	1482	Germany	4098
6	Germany	1930	New Zealand	713	Netherlands	3484
7	Sri Lanka	1822	Sri Lanka	700	Malaysia	3320
8	India	1690	India	697	Scotland	2858
9	Scotland	1373	China	645	Sri Lanka	2522
10	Hong Kong	1273	Malaysia	586	India	2387

Table 1.5c Top 10 Countries of Birth for people aged 60 plus years by LGA

	Boroondara		Manningham		Monash		Whitehorse		Knox		Maroondah		Yarra Ranges	
1	England	3117	Italy	2870	Greece	3375	England	1918	England	2940	England	2398	England	3740
2	Italy	2684	Greece	2280	Italy	2300	Greece	1476	Germany	971	Netherlands	537	Netherlands	1166
3	Greece	2684	China	1342	England	1858	Italy	1340	Italy	764	Germany	453	Italy	756
4	China	1572	England	1206	China	1278	China	1236	Netherlands	737	Scotland	431	Germany	748
5	Malaysia	1163	Malaysia	678	Sri Lanka	979	Malaysia	567	Scotland	560	Italy	401	Scotland	492
6	New Zealand	903	Hong Kong	470	Malaysia	904	Germany	527	Sri Lanka	520	New Zealand	195	New Zealand	258
7	Germany	767	Germany	420	India	696	Scotland	433	Malaysia	451	China	170	Ireland	164
8	India	639	India	284	Germany	595	Sri Lanka	402	India	428	Ireland	149	Poland	134
9	Scotland	568	Cyprus	281	Egypt	426	India	387	China	417	India	147	South Africa	128
10	Hong Kong	482	Egypt	281	Scotland	417	Vietnam	373	Greece	316	Greece	139	India	127

In the three years from 1 January 2013 to 1 January 2016 a total of 833 persons aged 65 years or over migrated to the EMR region from countries outside of Australia. Settlement statistics show that some LGAs in the region have new migrants aged 65 years and over from specific cultures, such as migrants who were born in Myanmar (previously Burma) moving into Maroondah and migrants who were born in Sri Lanka moving into Monash. This information can assist with identifying where there might be specific cultural support needs.

Table 1.5d Top Countries of Birth with 4 or more people aged 65 plus years migrating from 1 Jan 2013- 1 Jan 2016 by LGA

Boroondara		Manningham		Monash		Whitehorse		Knox		Maroondah		Yarra Ranges	
China	75	China	65	China	130	China	135	China	49	China	30	China	6
India	8	India	4	India	19	India	16	Malaysia	8	Burma	13	Burma	5
				Sri Lanka	19	Malaysia	12	Sri Lanka	7	South Africa	6		
				Malaysia	14	Sri Lanka	4	India	6	India	5		
Total	**122**	**Total**	**98**	**Total**	**223**	**Total**	**192**	**Total**	**90**	**Total**	**79**	**Total**	**29**

1.6 Language

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, place of usual residence

Lower English proficiency levels in certain communities can impact on their ability to seek help as well as health literacy. One in five older people in the region speak a language other than English.

The inner east region shows a notably higher incidence of residents aged 60 years or older who speak a language other than English; this higher incidence mostly occurs in Manningham and Monash. The incidence of 60+ year olds residents speaking a language other than English is particularly low in Yarra Ranges and Maroondah.

Table 1.6a Percentage of age group who speak a language other than English at home

	60-69 years	70-79 years	80 yrs plus	Total 60 yrs plus
Inner East	29.7%	33.4%	23.6%	29.4%
Boroondara	18.4%	26.2%	18.1%	20.5%
Manningham	37.3%	40.7%	34.3%	37.9%
Monash	37.5%	38.5%	26.9%	35.5%
Whitehorse	25.1%	26.9%	18.9%	24.1%
Outer East	12.4%	16.7%	15.6%	14.2%
Knox	19.7%	23.3%	23.9%	21.5%
Maroondah	10.1%	13.0%	9.0%	10.7%
Yarra Ranges	6.8%	12.7%	13.2%	9.4%
EMR	22.6%	27.8%	21.1%	23.9%
Melbourne Metropolitan	27.4%	34.6%	26.6%	29.4%
Victoria	20.4%	26.0%	20.5%	22.1%

Table 1.6b Top 10 Languages other than English for people aged 60 plus years by region

	Inner East		Outer East		EMR	
1	Greek	9723	Italian	1776	Greek	10327
2	Italian	7845	German	1581	Italian	9623
3	Cantonese	5246	Dutch	1088	Cantonese	6021
4	Mandarin	3132	Cantonese	773	Mandarin	3650
5	German	1269	Greek	604	German	2853
6	Polish	712	Mandarin	515	Dutch	1489
7	Arabic	689	Hungarian	407	Polish	1092
8	Croatian	674	Polish	379	Hungarian	970
9	Vietnamese	605	Spanish	279	Arabic	938
10	Tamil	600	Arabic	249	Croatian	916

Table 1.6c Top 10 Languages other than English for people aged 60 plus years by LGA

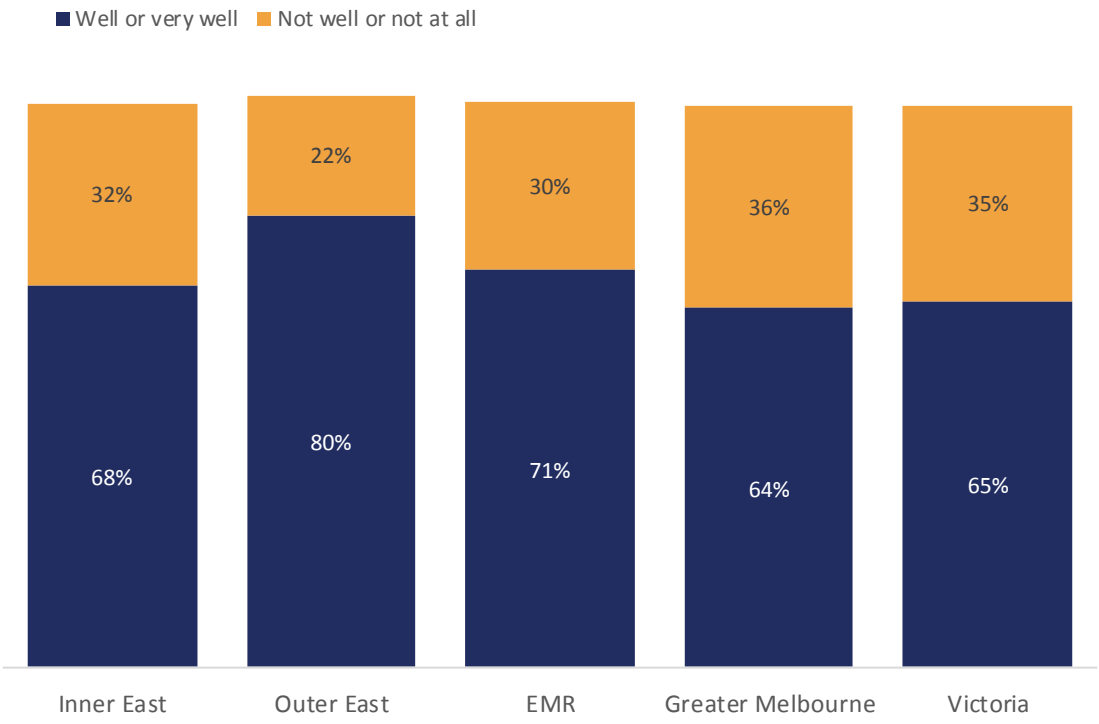
	Boroondara		Manningham		Monash		Whitehorse		Knox		Maroondah		Yarra Ranges	
1	Greek	1577	Italian	2850	Greek	3864	Greek	1714	German	852	Italian	374	Italian	680
2	Italian	1347	Greek	2567	Italian	2294	Italian	1351	Italian	727	German	254	Dutch	548
3	Cantonese	898	Cantonese	1765	Cantonese	1352	Cantonese	1232	Cantonese	592	Dutch	247	German	472
4	Mandarin	593	Mandarin	675	Mandarin	994	Mandarin	866	Greek	390	Cantonese	141	Polish	103
5	German	217	Arabic	302	German	423	German	364	Mandarin	366	Greek	132	Greek	83
6	Polish	143	German	271	Tamil	353	Vietnamese	203	Dutch	297	Mandarin	118	Hungarian	71
7	Hungarian	129	Macedonian	256	Polish	304	Polish	164	Hungarian	264	Spanish	93	Croatian	63
8	Vietnamese	127	Croatian	169	Croatian	269	Hungarian	152	Arabic	193	Polish	91	French	55
9	Min Nan	108	Persian	142	Sinhalese	260	Dutch	147	Polish	186	Hungarian	69	Cantonese	41
10	Croatian	90	Min Nan	123	French	238	Croatian	145	Spanish	163	Croatian	60	Mandarin	38

1.6.1 English Proficiency

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, place of usual residence

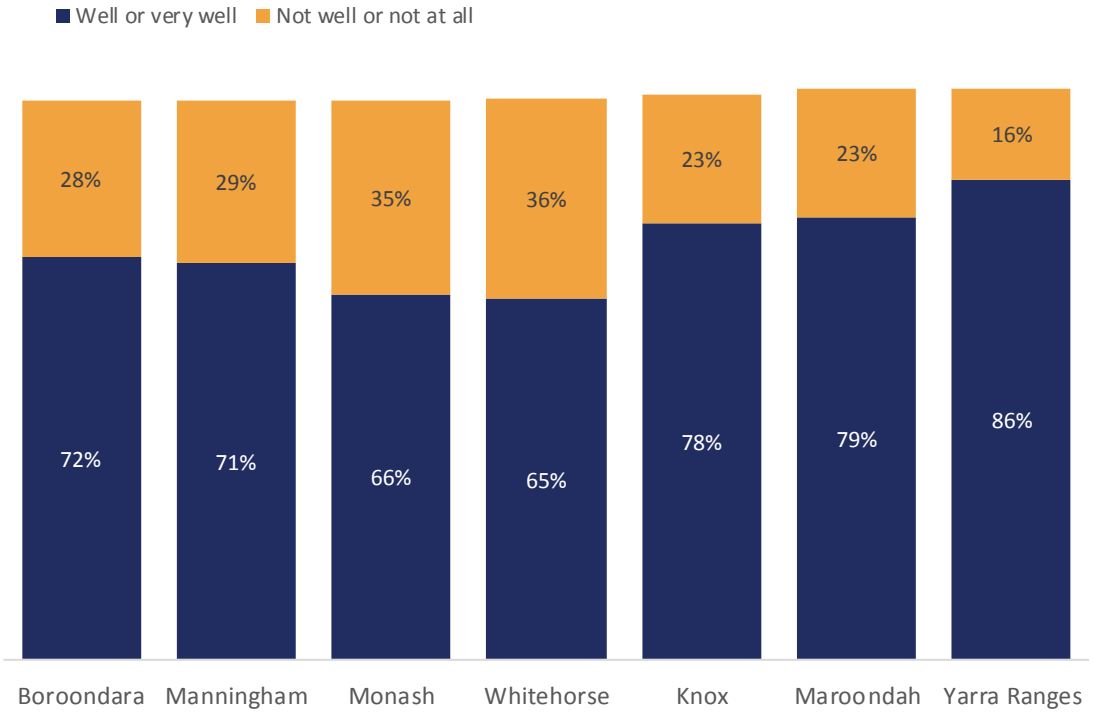
In the inner east area 12,646 people aged over 60 years speak English not well or not at all, representing one third (32.3%) of the non-English speaking population over 60 years, or 8.7% of the overall inner east 60+ population. In the outer east 2,320 non-English speaking people aged over 60 years speak English not well or not at all, representing 21.5% of the non-English speaking population over 60 years or 2.7% of the overall outer east 60+ population.

Figure 1.6.1a Level of English proficiency of non-English speaking people aged 60 years by region
(Percentage of non-English speaking people who speak English well/very well or not well/not at all)



Whitehorse council has the highest proportion of non-English speaking people aged 60 years plus who speak English "not well" or "not at all" with 36% of that group in this category. Monash closely follows with 34.5% of the non-English speaking people aged 60 years plus who speak English not well or not at all.

Figure 1.6.1b Level of English proficiency of non-English speaking people aged 60 years by LGA
(Percentage of non-English speaking people who speak English well/very well or not well/not at all)



When calculating the incidence of *not well or not at all* English proficiency by primary language amongst those aged 60 years or older living in the EMR, it is clear that those whose primary language is Mandarin, Vietnamese, Cantonese, Turkish or Greek are most likely to require support in their native language.

Table 1.6.1 English proficiency by language spoken at home for 60+ year olds living in the EMR

	% who indicated English spoken not well or not at all	Number of 60+ year olds in the EMR who speak this language who indicated their English proficiency
Mandarin	63%	3629
Vietnamese	61%	717
Cantonese	45%	5982
Turkish	43%	203
Greek	40%	10265
Italian	24%	9497
Arabic	20%	932
Indonesian	20%	246
Croatian	19%	907
Polish	19%	1081
Hungarian	14%	965
Hindi	13%	429
Tamil	10%	745
Burmese	6%	51
Dutch	5%	1477
French	5%	642
German	3%	2804

1.7 Income and Financial Security

1.7.1 Pensions and benefits

Source: (Department of Social Services, 2016) June 2016 Centrelink Payment data

Aged Pension recipient data as reported by PHIDU.

Rates calculated using ABS Estimated Residential Population (Australian Bureau of Statistics (ABS), 2015), Victoria in Future (Department of Environment, Land, Water and Planning, 2016) and id.forecast (id.com.au, 2016).

The Age Pension provides income support and access to a range of concessions for eligible older Australians. Eligibility is based on age (65 to 67 years depending on year of birth) and income and assets tests (Department of Human Services, 2016).

The Commonwealth Seniors Health Card provides discounts on prescription medicines, some medical services and other government provided services. It is available for people who do not receive a government payment such as the Age Pension and if they have an annual income less than $52,273 for singles or $83,636 for couples (Department of Human Services, 2016).

The most current count of residents receiving aged pension at time of writing was June 2016, as summarised in table 1.7.1a below. When using this figure to calculate rates per 1,000 population the result varies depending on the population estimate used. The ABS Estimated Residential Population (ERP) population figure typically used for this rate calculation hasn't been updated since 2014, therefore may be over-reporting. Both Victoria in Future and forecast.id have produced 2016 population projections. The following table shows the comparative rates using these three population estimates.

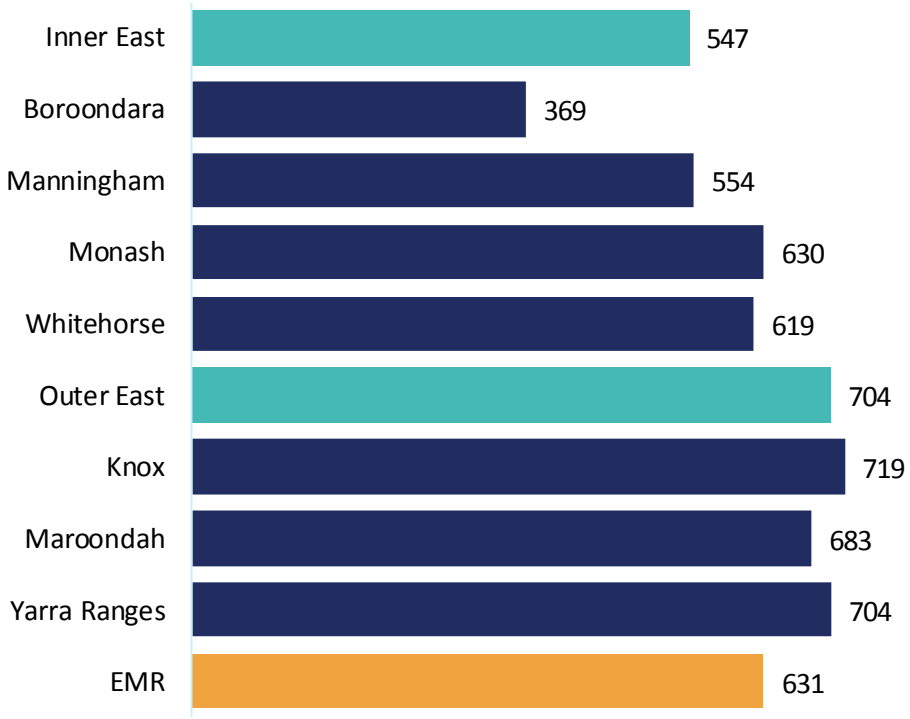
Regardless of the population estimate used, Boroondara and the entire inner east region have lower rates of 65+ year olds receiving an aged pension than in the outer east area.

Table 1.7.1a Rate per 1,000 of 65+ year olds receiving the aged pension

	Number receiving Age Pension June 2016	2014 ABS ERP		Victoria in Future 2016 estimate		Forecast.id 2016 estimate	
		65+ population	Rate per 1,000	65+ population	Rate per 1,000	65+ population	Rate per 1,000
Inner East	62358	111006	562	115835	538	113921	547
Boroondara	10114	26395	383	28062	360	27433	369
Manningham	14052	24269	579	25536	550	25385	554
Monash	20175	31944	632	33042	611	32011	630
Whitehorse	18017	28398	634	29195	617	29092	619
Outer East	45593	60568	753	64968	702	64777	704
Knox	17209	22243	774	24077	715	23932	719
Maroondah	12185	17030	716	18331	665	17849	683
Yarra Ranges	16199	21295	761	22559	718	22996	704
EMR	153544	171574	895	245770	625	243475	631

For charting, we have selected the forecast.id rates and these sit between the 2014 ERP and 2016 *Victoria In Future* population numbers.

Figure 1.7.1 Rate of Age Pension recipients per 1,000 eligible population June 2016 using forecast.id projections



For more data about recipients of the Carers Allowance and Carers Payment please refer to the section on *Need for Support*.

The 2014 ABS ERP figure has been used to calculate pension rates so that a comparison can be made to Metropolitan and State averages. As can be seen in Table 1.7.1a, the rate of receiving an aged pension is lower in the inner east than the Melbourne Metropolitan area and Victoria, but higher in the outer east. With regards to Commonwealth Seniors Health Cards, the inner east shows a higher rate when compared to Metropolitan Melbourne and Victoria, whilst the outer east shows a lower rate.

Table 1.7.1a Income support and benefit recipients as at June 2016 and rates based on estimated residential population 2014

	Number receiving Age Pension	Rate per 1,000 eligible population (65+)	Number receiving Commonwealth Seniors Health Card	Rate per 1,000 eligible population (65+)
Inner East	62358	562	15864	143
Boroondara	10114	383	4695	178
Manningham	14052	579	3786	156
Monash	20175	632	3971	124
Whitehorse	18017	634	3412	120
Outer East	45593	753	4757	79
Knox	17209	774	1584	71
Maroondah	12185	716	1532	90
Yarra Ranges	16199	761	1641	77
EMR	107951	629	20621	222
Metro Melbourne	391672	689	51090	90
Victoria	620254	717	74886	87

1.7.2 Personal income

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, place of usual residence

Ideally, economic wellbeing should be measured using household income but this is difficult to breakdown by age as a household may include people of several age ranges. As a more crude measure of economic wellbeing, this research considers personal income with a caution that this measure may not tell the whole story.

The definition of $400 per week as low income is accepted by local government and DHHS and is used for this analysis. The next income range of $400 to $599 is also included. The current Age Pension rate is just under $400 per week.

When compared to Victoria as a whole, the Eastern region shows consistently lower instances of residents aged 60+ on an income of less than $400 a week. The inner east has a lower proportion of 60+ year olds residents on less than $400 a week than the outer east.

Table 1.7.2 Percentage of people with personal income less than $400 or between $400 and $599 per week

	60-69 years		70-79 years		80-89 years		90 years plus		60 years plus	
	<$400	$400-$599	<$400	$400-$599	<$400	$400-$599	<$400	$400-$599	<$400	$400-$599
Inner East	36.6%	14.3%	51.6%	17.9%	47.8%	17.2%	38.1%	14.5%	43.6%	16.1%
Boroondara	24.9%	11.9%	36.9%	17.5%	37.9%	16.5%	35.1%	15.2%	31.4%	14.5%
Manningham	38.4%	15.0%	52.6%	18.0%	51.2%	16.5%	39.3%	13.4%	45.3%	16.2%
Monash	42.9%	14.9%	57.9%	17.3%	53.8%	17.0%	45.8%	14.1%	50.1%	16.1%
Whitehorse	39.6%	15.7%	55.3%	19.0%	48.6%	18.5%	34.4%	14.8%	46.4%	17.3%
Outer East	41.8%	15.7%	60.2%	18.6%	53.5%	16.9%	41.7%	12.3%	48.7%	16.6%
Knox	43.4%	14.9%	61.9%	18.1%	55.4%	17.1%	48.1%	11.3%	50.6%	16.0%
Maroondah	40.2%	16.7%	57.9%	19.3%	50.1%	17.0%	35.1%	12.7%	47.0%	17.3%
Yarra Ranges	41.4%	15.9%	60.3%	18.6%	55.1%	16.8%	41.5%	13.2%	48.2%	16.7%
EMR	38.7%	14.9%	54.5%	18.2%	49.6%	17.1%	39.2%	13.9%	45.5%	16.3%
Victoria	44.9%	14.5%	60.1%	16.3%	54.6%	16.7%	46.7%	14.8%	51.2%	15.4%

Monash and Knox LGAs have a similar percentage of the 60 plus population with a personal income of less than $400 per week. Boroondara has the lowest percentage of 60 plus with an income less than $600 with 45.9% of this age group in this category, compared to more than 60% for all other local government areas.

The outer east has a higher proportion of the 60 plus age group with a personal income of less than $600 per week than the inner east (65.3% in the outer east compared to 59.7% in the inner east).

Figure 1.7.2a Percentage of people aged over 60 years with personal income of less than $400 per week or $400 to $599 per week by region

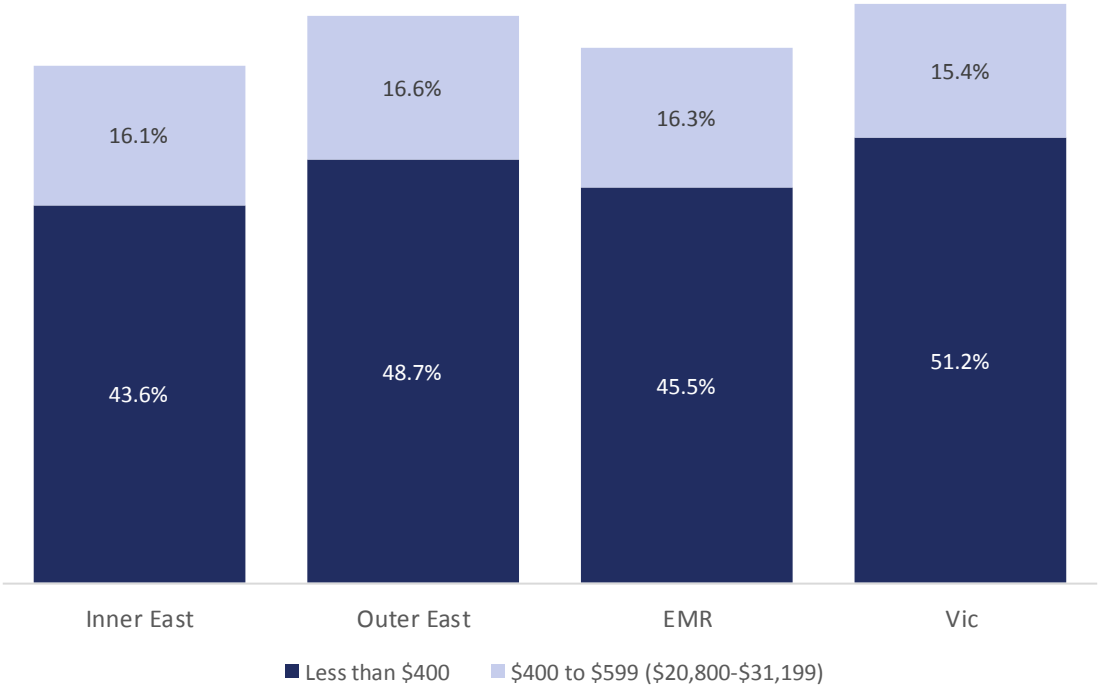
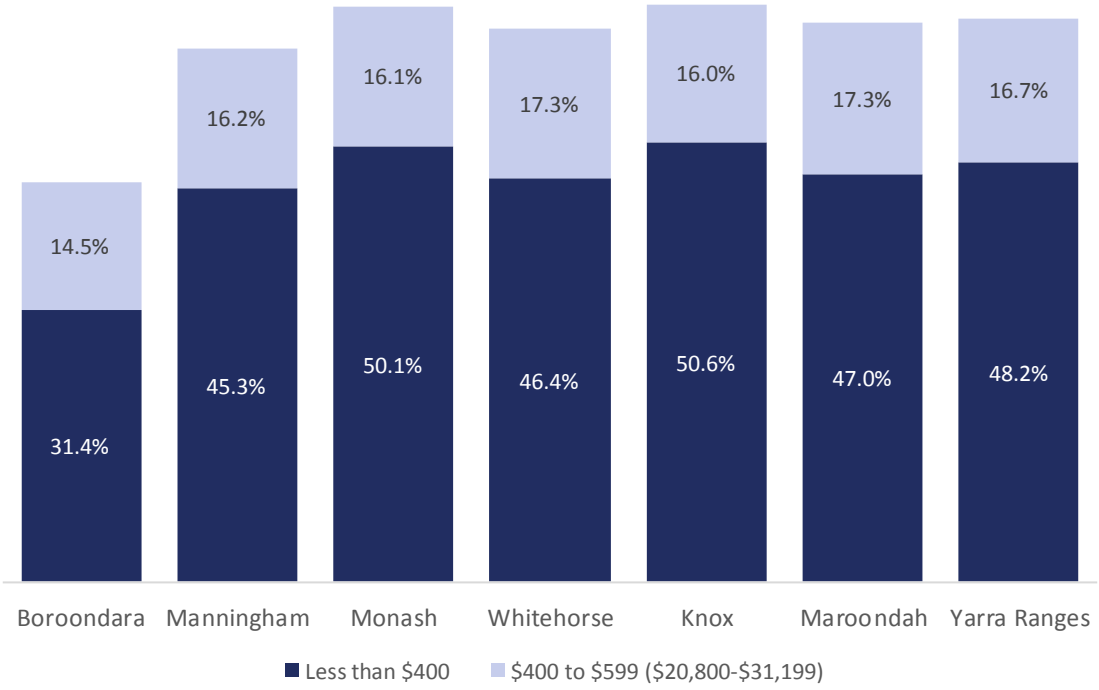


Figure 1.7.2b Percentage of people aged over 60 years with personal income of less than $400 per week or $400 to $599 per week by LGA



1.8 Education

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, place of usual residence. Post-secondary qualifications include Doctorates, Masters, Bachelors, Graduate Diplomas, Graduate Certificates, Associate Diplomas, Certificates.

It is generally accepted that those in the older age groups will have lower levels of completion of year 12 and post-secondary education, as the education system was quite different when they were younger; therefore, many undertook other types of trade and/or education. This will likely change over time as those who had further education opportunities in their youth enter these age ranges. It should also be noted that there are a wide range of education opportunities for those over the age of 60, such as the Centre for Adult Education (CAE), University of the Third Age (U3A) and short courses.

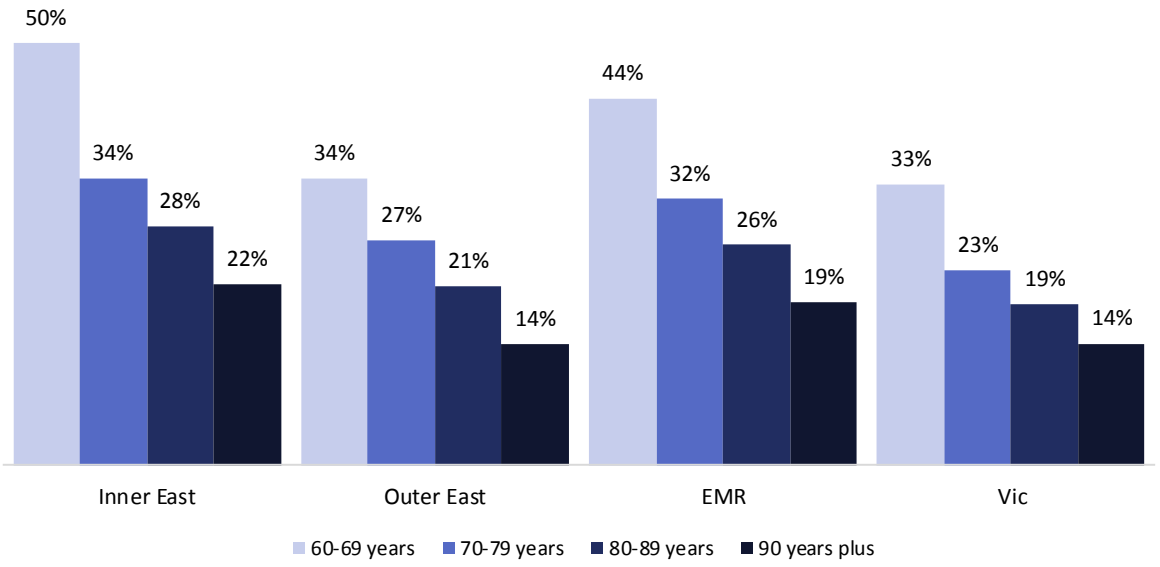
Residents in the inner eastern region aged 60 years or over register a notably higher incidence of completing year 12 or equivalent or undertaking post-secondary qualifications than the state average.

Table 1.8 Percentage of people aged 60 plus and their education levels

	Year 12 or equivalent	Post-secondary qualification
Inner East	39.7%	40.0%
Boroondara	53.3%	50.7%
Manningham	35.7%	38.0%
Monash	31.5%	34.7%
Whitehorse	39.2%	37.6%
Outer East	29.5%	35.6%
Knox	29.2%	34.0%
Maroondah	30.2%	35.1%
Yarra Ranges	29.2%	37.8%
EMR	36.0%	38.4%
Victoria	27.2%	30.8%

The incidence of completing year 12 or equivalent is consistently higher amongst those aged 60-69 and then decreases with age.

Figure 1.8a Percentage of age group who have attained Year 12 or equivalent by region



Boroondara has the highest percentage of people who have completed Year 12 in all age groups.

Figure 1.8b Percentage of age group who have attained Year 12 or equivalent by LGA

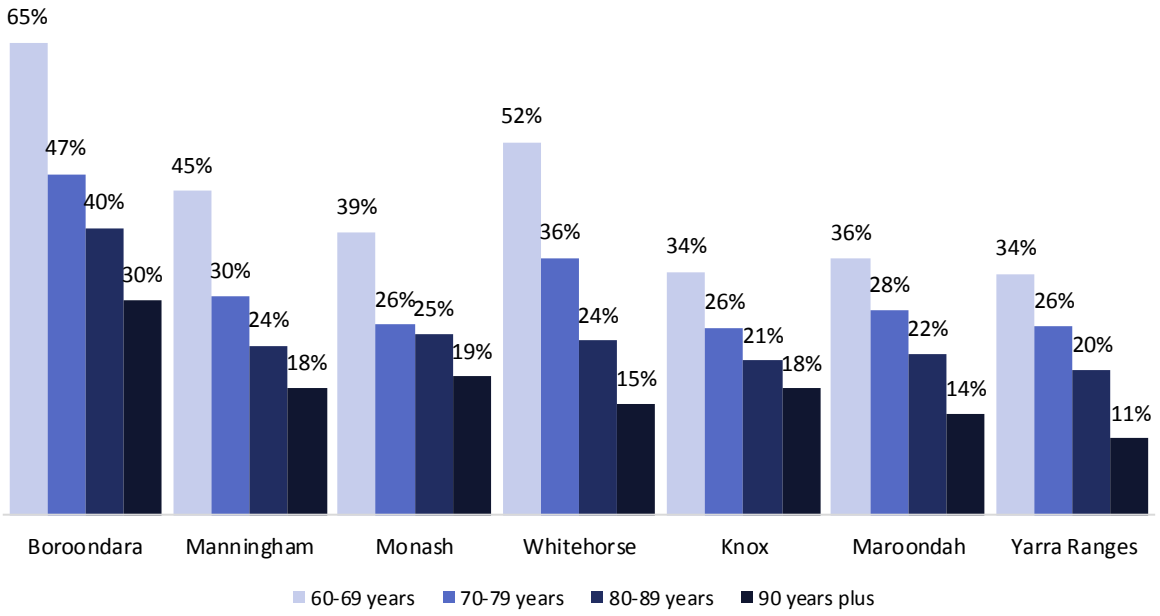
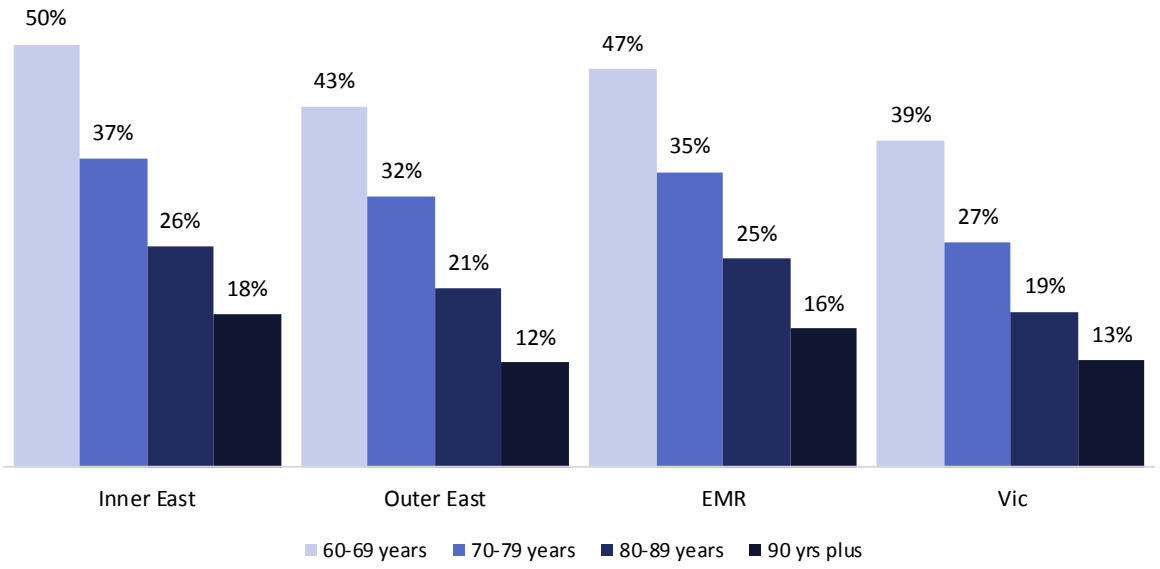
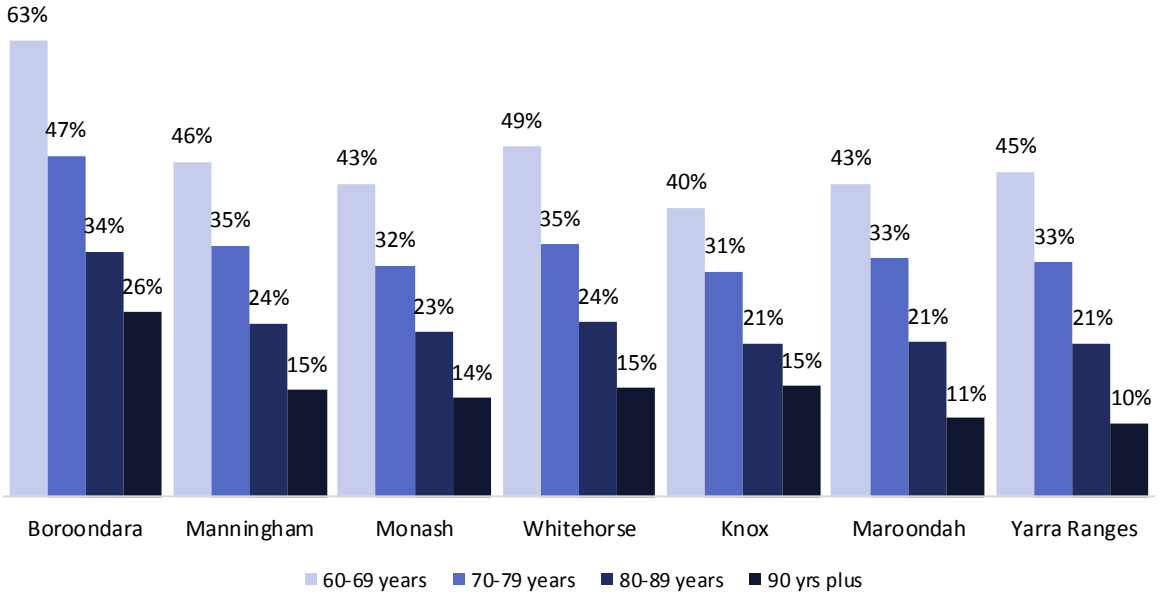


Figure 1.8c Percentage of age group who have a post-secondary qualification by region



Boroondara also shows a notably higher incidence of all age groups having completed post-secondary qualifications.

Figure 1.8d Percentage of age group who have a post-secondary qualification by LGA



1.9 Employment and retirement

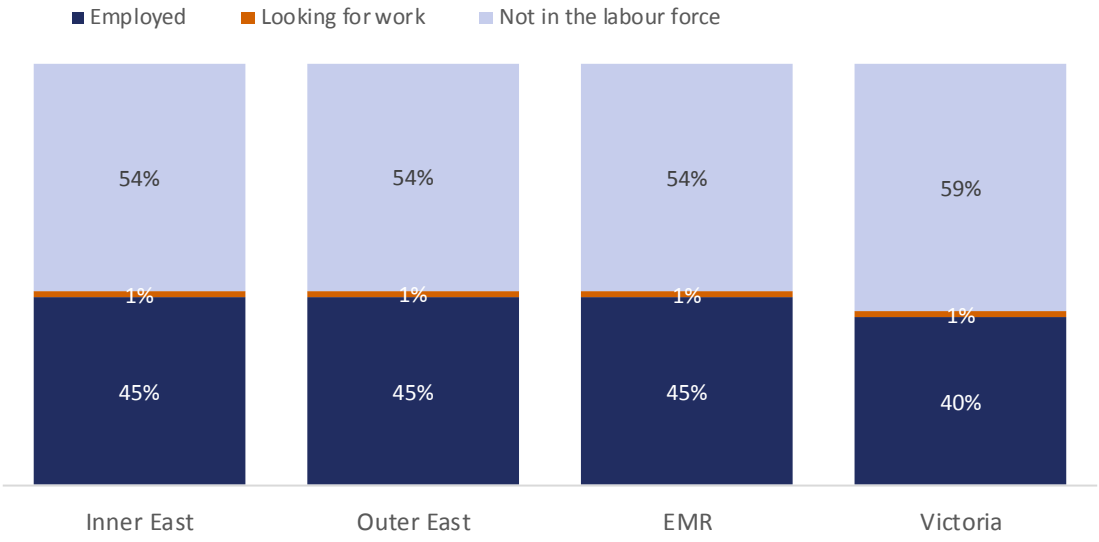
Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing.

Just over one in ten (23,817 people and 11.4%) of the total population aged over 60 years in the EMR are employed full time, which is higher than the Victorian figure of 10.5%. 23.7% (49,439) are employed either full-time or part-time, again higher than the Victorian percentage. Most people who are employed are between the ages of 60 and 69 years with 43% (43,284) of those in this age group in the EMR employed. This is more than 5% above the Victorian figure of 37.8%. Less than 1% (1,341) of the population over 60 years indicated they are looking for work.

Table 1.9 Percentage of people aged 60 plus in employment

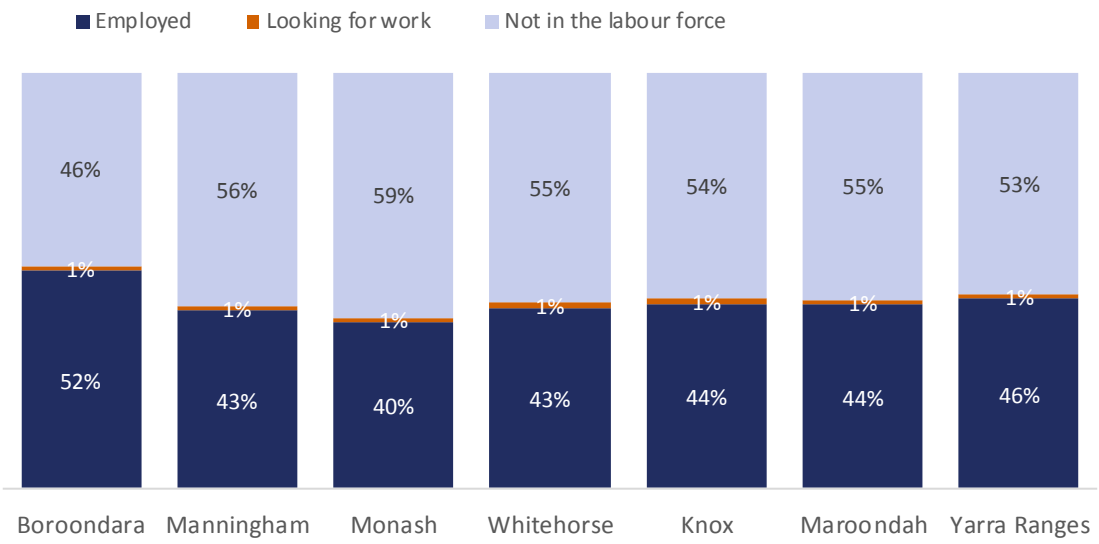
	60 years plus employed	60 years plus employed full time	60 years plus looking for work	60 years plus not in the labour force
Inner East	22.6%	10.7%	0.6%	70.5%
Boroondara	27.9%	13.3%	0.7%	65.6%
Manningham	23.2%	10.9%	0.6%	70.4%
Monash	19.8%	9.5%	0.6%	73.5%
Whitehorse	20.3%	9.4%	0.7%	72.0%
Outer East	25.4%	12.6%	0.7%	68.0%
Knox	24.9%	13.2%	0.7%	69.0%
Maroondah	23.0%	11.0%	0.7%	69.9%
Yarra Ranges	27.8%	13.2%	0.7%	65.4%
EMR	23.7%	11.4%	0.6%	69.6%
Victoria	21.2%	10.5%	0.7%	70.8%

Figure 1.9a Employment status of 60-69 year olds by region



60-69 year olds residing in Boroondara show a higher than average incidence of still working.

Figure 1.9b Employment status of 60-69 year olds by LGA



Across all LGAs, the incidence of 60+ year olds who are still working is higher amongst those who completed year 12 than those who completed year 10 or less.

2. Health Characteristics

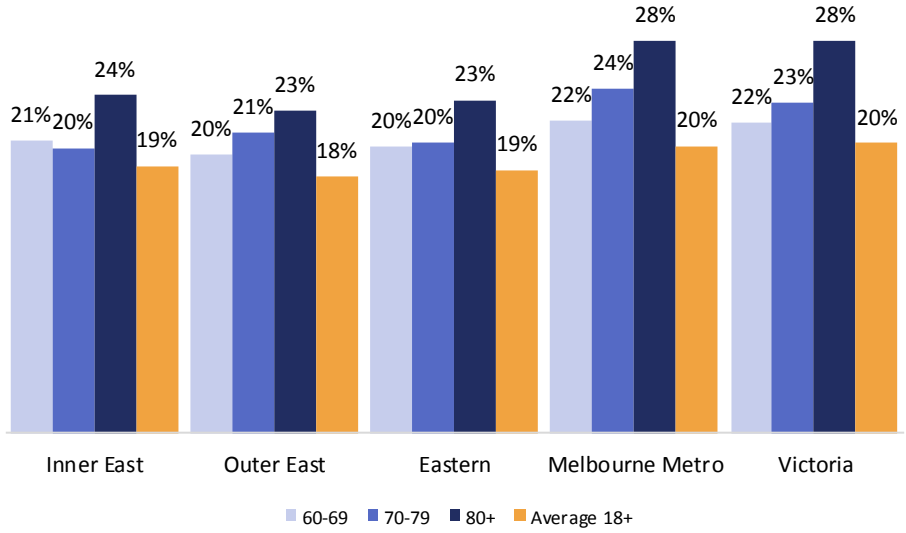
2.1 Self-assessed health status

Source: (Victorian Population Health Survey, 2014)

The percentage of persons in the LGA who reported their general health was “fair” or “poor”, as opposed to “excellent”, “very good” or “good”

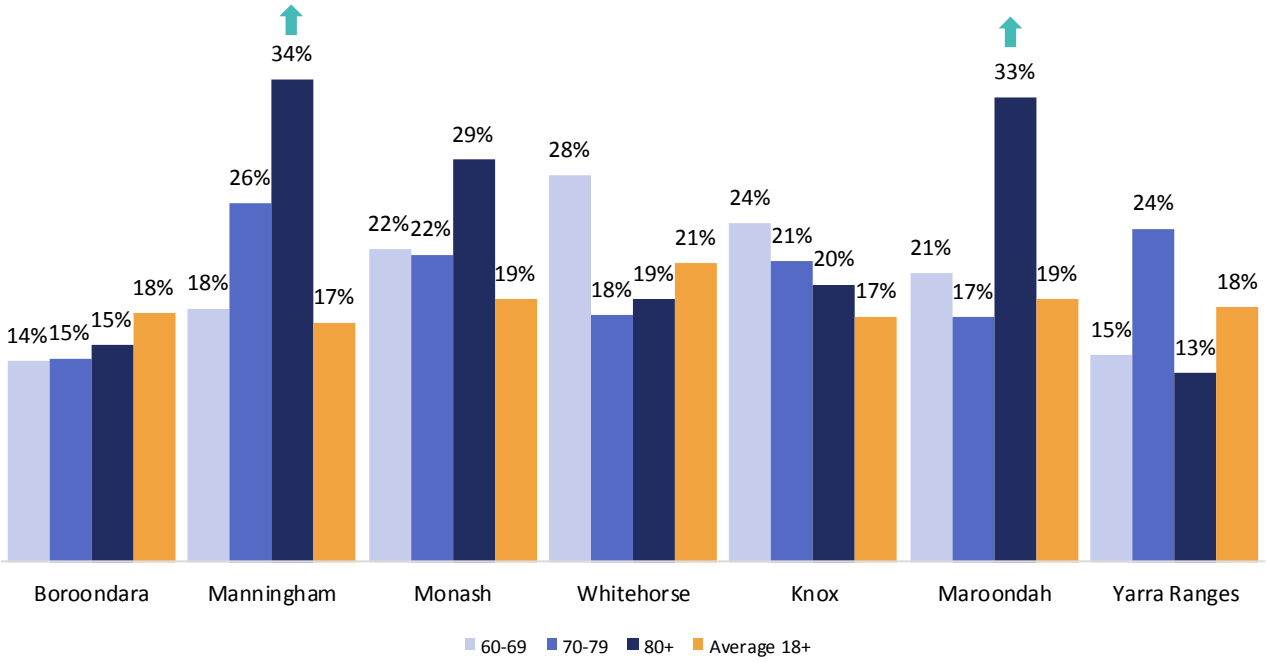
Overall, around one in five residents aged 60+ self-report fair or poor health status.

Figure 2.1a Percentage of 60+ year olds who self-report fair/poor health by region



Notably high instances of 80+ year olds self-reported fair or poor health in Manningham and Maroondah. No other variations are statistically significant.

Figure 2.1b Percentage of 60+ year olds who self-report fair/poor health by LGA



2.2 Unhealthy body weight

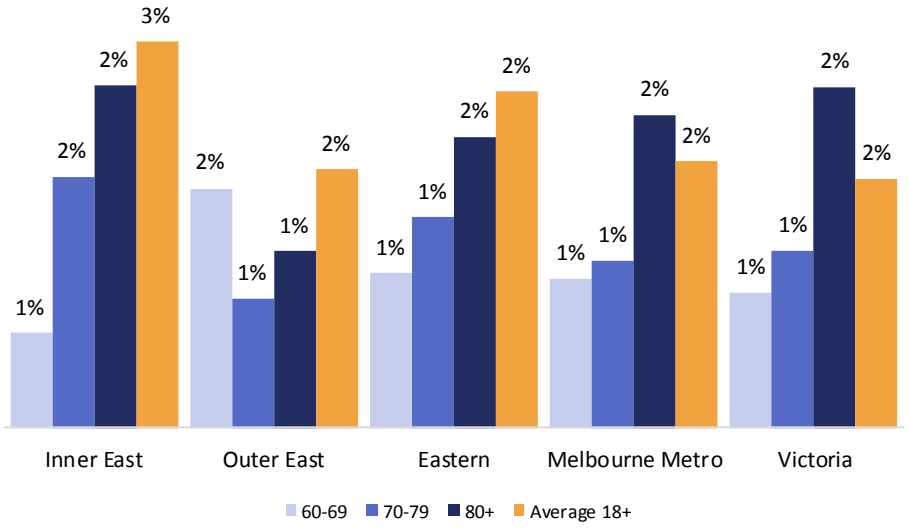
Source: (Victorian Population Health Survey, 2014)

The percentage of persons whose reported height and weight indicates their Body Mass Index (BMI) is classified as underweight.

BMI is calculated as weight in kilograms divided by height in metres squared. A BMI of between 25 and 30 is classified as overweight while a BMI of 30 or over is classified as obese. Note that studies comparing self-reported height and weight with actual height and weight indicate people tend to under-estimate their weight and over-estimate their height. Self-reported data is therefore likely to result in an underestimate of overweight and obesity in the community. It is also not possible to determine whether a high BMI relates to body fat or muscle, so a very muscular individual could be classified as overweight or obese.

The incidence of persons with a calculated body mass index (BMI) defined as underweight is very low across the region, consistent with metropolitan and state averages.

Figure 2.2a Percentage of 60+ year olds with a BMI categorised as underweight by region



Incidences by individual age range are too low to draw any meaningful regional conclusions from the sample size for this data. However, if combining 60+ ages, it is evident that the incidence of a BMI categorised as underweight is lower than average amongst 60+ year old residents in the inner eastern region.

Table 2.2 Percentage of 60+ year olds with a BMI categorised as underweight by LGA

	60+	Total 18+	Commentary
Inner East	1.5%	2.7%	60+ lower than average
Boroondara	1.3%	3.7%	
Manningham	1.9%	1.2%	
Monash	1.2%	2.7%	
Whitehorse	1.7%	2.7%	
Outer East	1.3%	1.8%	
Knox	2.6%	2.0%	
Maroondah	0.9%	3.3%	
Yarra Ranges	0.4%	0.5%	
Eastern	1.5%	2.4%	60+ lower than average
Melbourne Metro	1.5%	1.7%	
Victoria	1.6%	1.6%	

2.3 Obesity

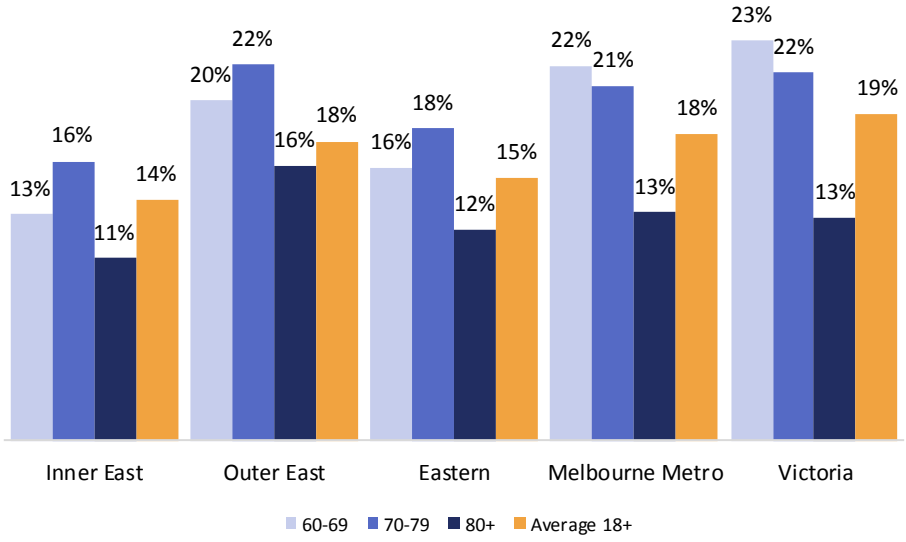
Source: (Victorian Population Health Survey, 2014)

The percentage of persons whose reported height and weight indicates their Body Mass Index (BMI) is classified as obese.

BMI is calculated as weight in kilograms divided by height in metres squared. A BMI of between 25 and 30 is classified as overweight while a BMI of 30 or over is classified as obese. Note that studies comparing self-reported height and weight with actual height and weight indicate people tend to under-estimate their weight and over-estimate their height. Self-reported data is therefore likely to result in an underestimate of overweight and obesity in the community. It is also not possible to determine whether a high BMI relates to body fat or muscle, so a very muscular individual could be classified as overweight or obese.

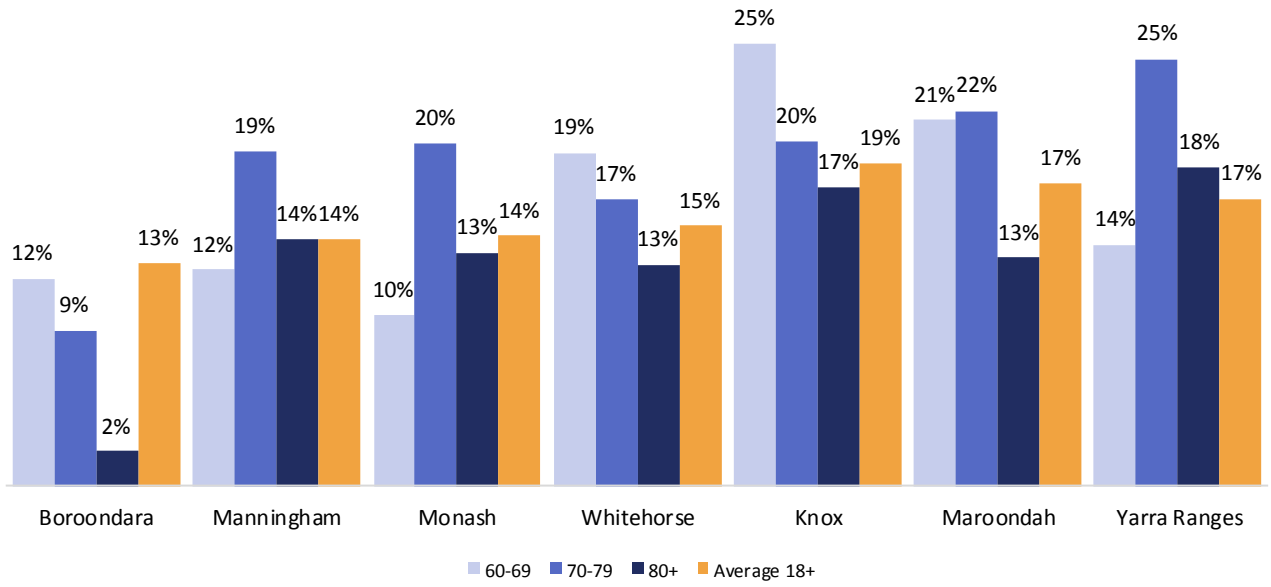
In Victoria just over one in five 60-69 year olds can be classified as obese, dropping to just over one in ten 80+ year olds. The instance of obesity is lower in the inner east for 60-79 year olds, and higher in the outer east for 80+ year olds.

Figure 2.3a Percentage of 60+ year olds with a BMI categorised as obese by region



Due to small sample sizes, none of the variations by LGA are statistically significant.

Figure 2.3b Percentage of 60+ year olds with a BMI categorised as obese by LGA



2.4 High blood pressure

Source: (Victorian Population Health Survey, 2014)

The percentage of persons who reported they have been told by a doctor that they have high blood pressure.

According to the 2011/12 Australian Health Survey (Australian Bureau of Statistics (ABS), 2011-12) and reported by the Heart Foundation Australia (High blood pressure statistics), the incidence of having unmanaged high blood pressure in Australia is higher amongst men than women and increases with age (total 48.0% of persons aged 75 years or over; 43.9% females 75+ and 51.8% males 75+).

This finding is reflected in the age specific data by region which shows an increase in doctor diagnosed high blood pressure with age, with the key spike in incidence occurring between the ages of 70-79.

Figure 2.4a Percentage of 60+ year olds with high blood pressure by region

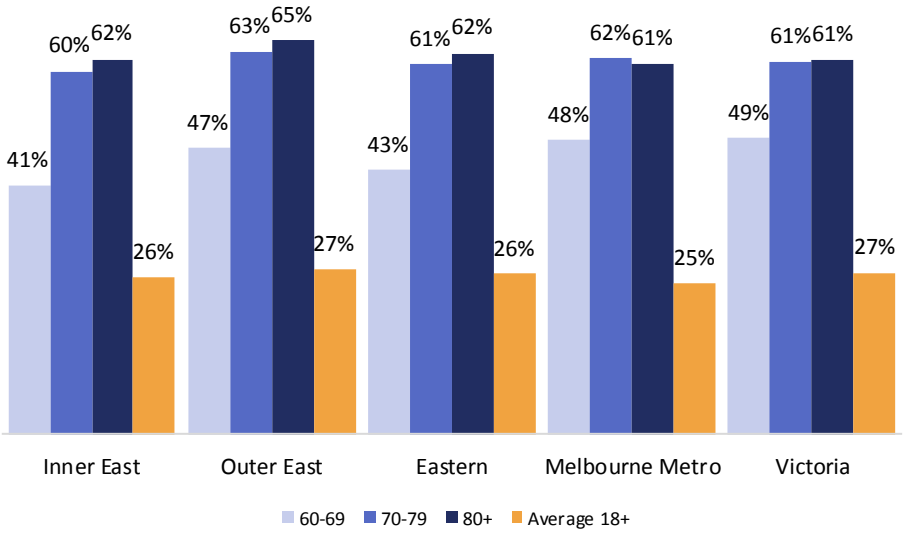
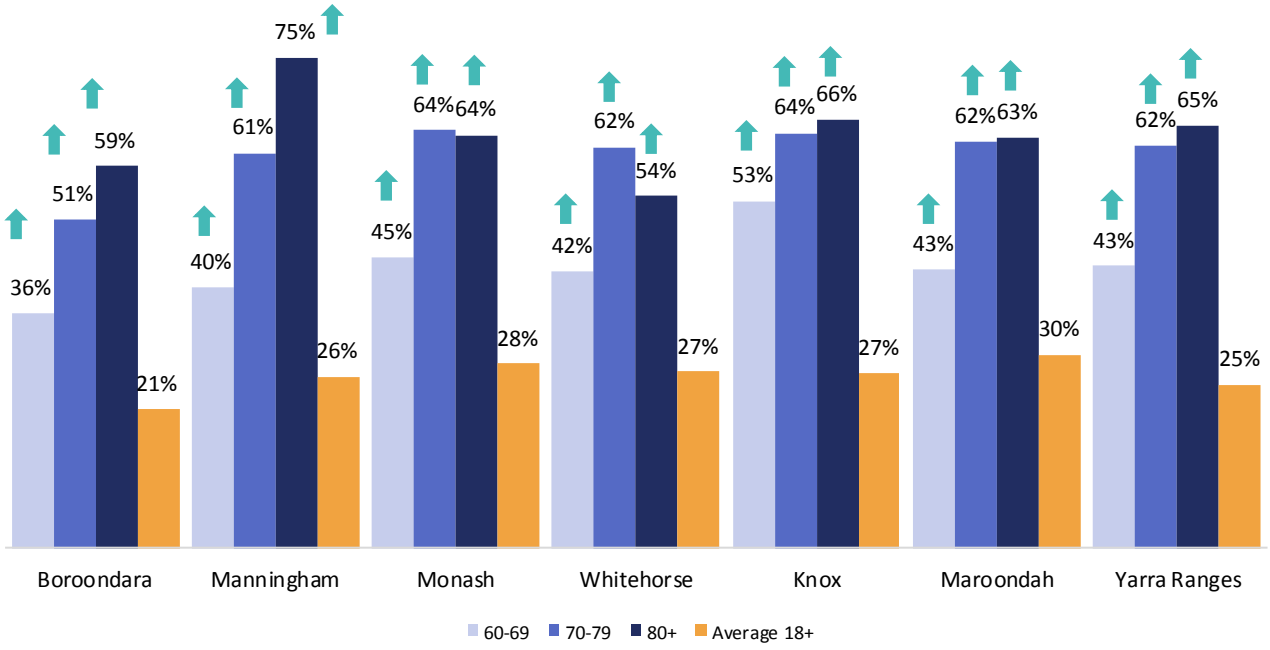


Figure 2.4b Percentage of 60+ year olds with high blood pressure by LGA



2.5 High blood cholesterol

Source: (Public Health Information Development Unit (PHIDU), 2010-14)

Estimated population, aged 18 years and over, with high blood cholesterol, 2011–13.

Total cholesterol results were obtained for selected persons aged 12 years and over, who agreed to participate in the National Health Measures Survey (NHMS) component of the Australian Health Survey (AHS) and provided a blood sample. The total cholesterol test measures the combined amount of lipid (fat) components circulating in the blood at the time of the test. Fasting was not required. In the NHMS, the following definition for high serum total cholesterol was used: abnormal total cholesterol indicated by levels ≥ 5.5 mmol/L. This was based on epidemiological data and publications of major clinical trials, and advice from the National Heart Foundation Australia and the Cardiac Society of Australia and New Zealand. The data therefore refer to persons with a total blood cholesterol level ≥ 5.5 mmol/L.

Cholesterol by age from (Australian Bureau of Statistics (ABS), 2011-12) Australian Health survey: Table 1.1 Chronic disease biomarkers by age then sex(a), Persons (estimate), Cardiovascular disease biomarkers, LDL (bad) cholesterol(b)(e), Abnormal (≥3.5 mmol/L).

The incidence of individuals registering high levels of bad cholesterol increases with age until people reach their late 60's, then it declines.

Figure 2.5a Incidence of abnormal levels of bad cholesterol by age (Australia-wide)

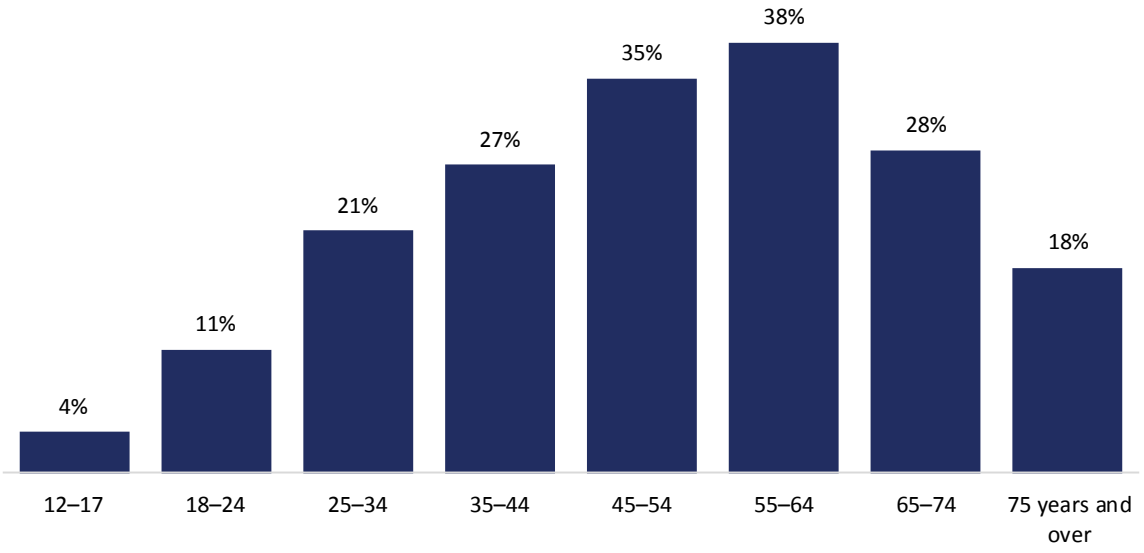
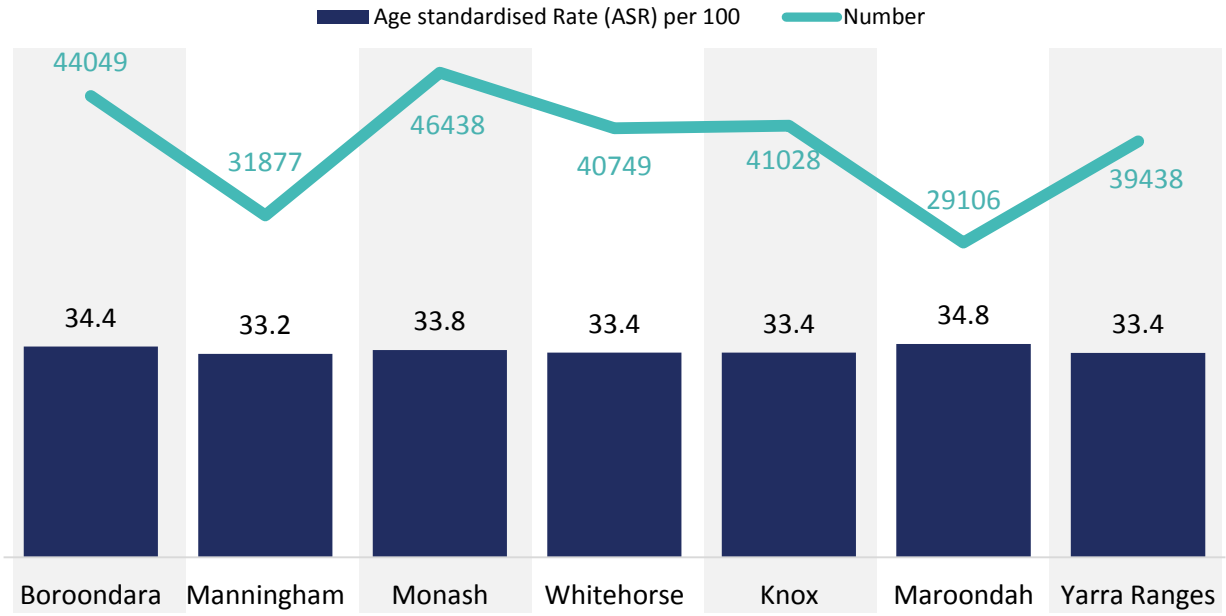


Figure 2.5b shows the estimated number of adults aged 18 years or over within each LGA who have high blood cholesterol (light blue line) and also the age standardised rate per 100 adults (dark blue bar). The number is useful for estimating the quantity of cases, whilst the rate can assist with comparing incidence across LGAs.

The age standardised rate for high blood cholesterol is similar for the inner east (33.7) and the outer east (33.9), sitting at a rate slightly higher than the Melbourne metropolitan area (as defined as 'major cities'; 32.3).

Figure 2.5b Rate and count of High Blood Cholesterol instances per LGA



2.6 Diabetes

2.6.1 Risk factors

Diabetes Australia states that the risk factors for the development of type 2 diabetes are as follows (Diabetes Australia, 2010). These risk factors have been covered in the referred sections of this report.

Table 2.6.1 Diabetes risk factors

Risk factor	See section
Physical inactivity	3.1 Physical Activity
Poor nutrition	3.2 Food and Drink
Overweight	2.3 Obesity
Smoker	3.4 Smoking
High blood pressure	2.4 High blood pressure
Family history of diabetes and genetics	No data available

2.6.2 Prevalence

Source: (Victorian Population Health Survey, 2014)

The percentage of persons who reported they have been told by a doctor they have type 2 diabetes. Type 2 diabetes is the most common form of diabetes, and occurs mostly in people over 50 who are overweight, sedentary and/or or have a family history of the condition.

(Australian Bureau of Statistics (ABS), 2011-12) Australian Health survey data, updated results 2011-2012. Table 8.1 Selected long-term health conditions, persons (estimate) for all instances of diabetes: Total diabetes mellitus (a) per 1,000 people.

As would be expected given that this type of diabetes mostly occurs in those aged over 50, reported incidences amongst 60+ year olds are higher than average across all regions and LGAs, with the exception of the outer east region where the incidence amongst 80+ year olds is close to average; this is caused by low rates amongst 80+ year olds with diabetes in Knox and Maroondah.

Figure 2.6.2a Percentage of 60+ year olds with type 2 diabetes by region

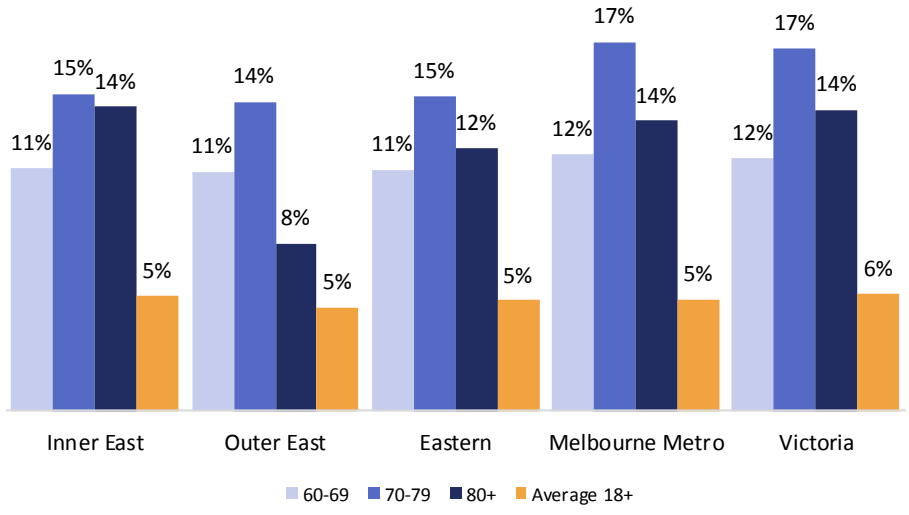
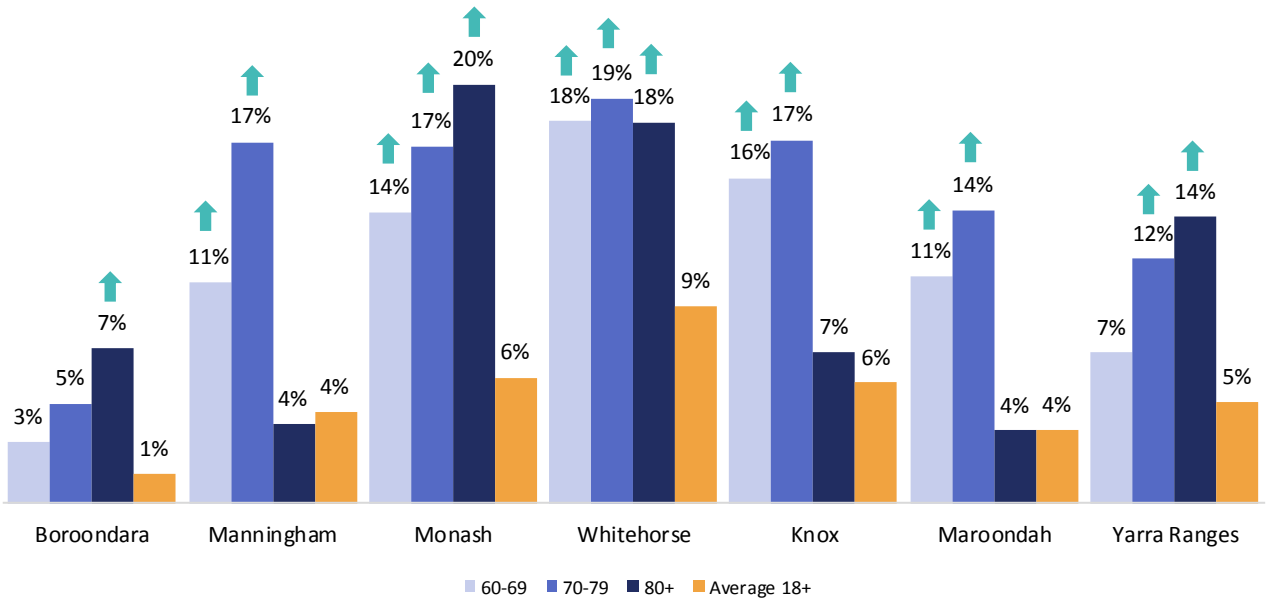


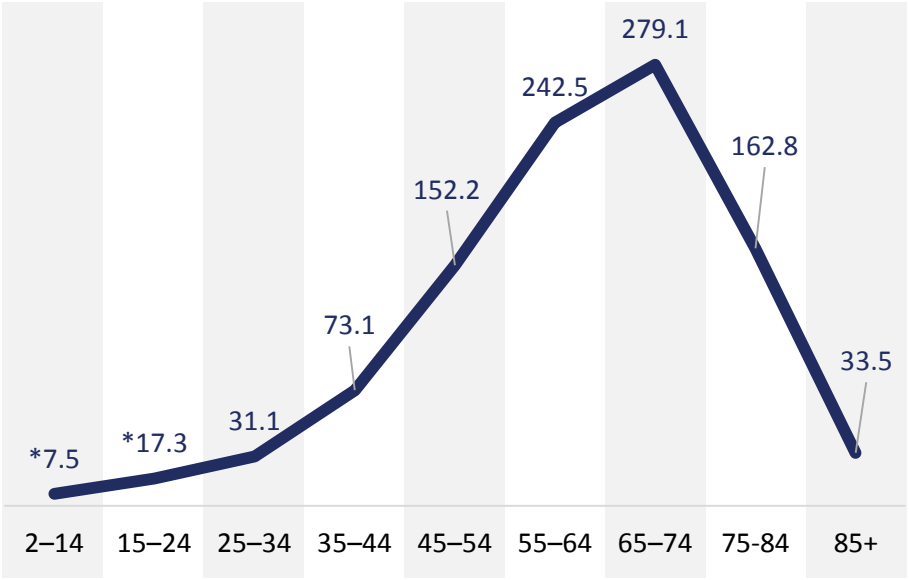
Figure 2.6.2b Percentage of 60+ year olds with type 2 diabetes by LGA



Monash, Whitehorse and Yarra Ranges show notably high instances of type 2 diabetes being reported amongst those aged 80 years and over. However, due to the low incidence, 80+ results for Manningham and Knox may be impacted by small sample sizes (Manningham n=49 and Knox n=38).

National figures from the Australian Health Survey (Australian Bureau of Statistics (ABS), 2011-12) reveal that the incidence of all types of diabetes per 1,000 people peaks amongst those aged 55-74:

Figure 2.6.2c Rate per 1,000 of all diabetes nationally by age



** estimate has a relative standard error of 25% to 50% and should be used with caution*

2.6.3 Diabetes Related Hospitalisations

Source: (Department of Health and Human Services, 2015-2016). A specific data set was requested through HOSdata to generate this information. Hospital presentations for diabetes during the 2015-2016 financial year were counted for each LGA using the following variables, and then extrapolated as a rate per 1,000 using the forecast.id 2016 population projections. This calculation and rate were performed by ASDF Research for the purpose of this report.

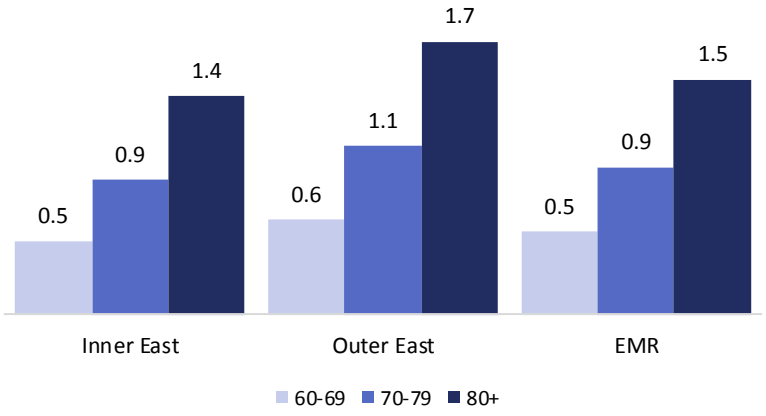
The variables were taken from the Victorian Adjusted Australian Revised Diagnosis Related Group 6.0x which is the same as AR-DRG v6 except where adjustments are made utilising the VIC-DRG v6.0x field, for the purposes of casemix payments:

- K60A-Diabetes W Catastrophic or Severe CC
- K60B-Diabetes W/O Catastrophic or Severe CC
- K60C-Diabetes Management, Sameday

Counts were generated by individual rather than presentations. That is, if an individual presented 3 times in the given year, they were only counted once in this calculation. This allows us to estimate the number of people in the region with this health complication.

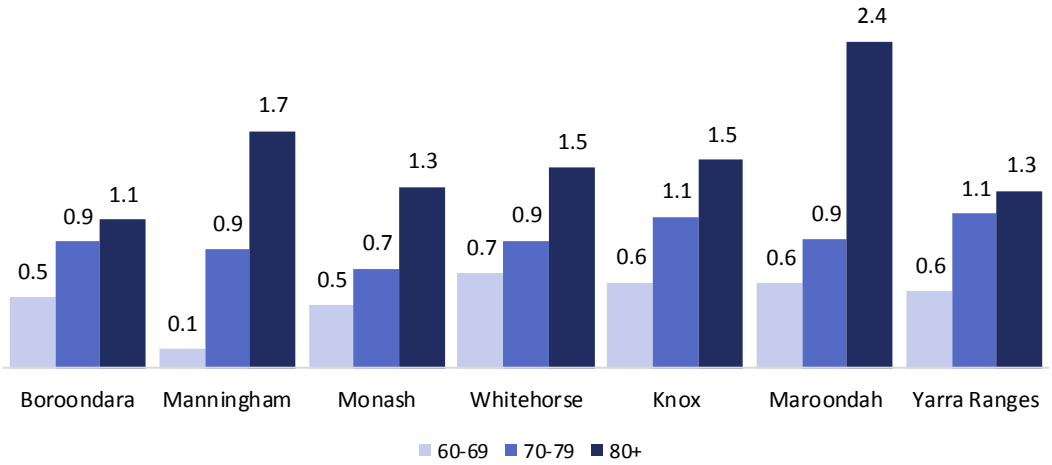
The incidence of residents presenting to hospital for diabetes is higher in the outer eastern region.

Figure 2.6.3a Diabetes hospitalisation rates 2015-16 per 1,000 population by 60+ age ranges and Region



Across all LGAs, the incidence of residents presenting to hospital for diabetes increases with age, with the highest incidence recorded for 80+ year olds in Maroondah.

Figure 2.6.3b Diabetes hospitalisation rates 2015-16 per 1,000 population by 60+ age ranges and LGA



2.7 Respiratory disease

Source: (Department of Health and Human Services, 2015-2016). A specific data set was requested through HOSdata to generate this information. Hospital presentations for diseases and disorders of the respiratory system during the 2015-2016 financial year were counted for each LGA using the following variables, and then extrapolated as a rate per 1,000 using the forecast.id 2016 population projections. This calculation and rate were performed by ASDF Research for the purpose of this report.

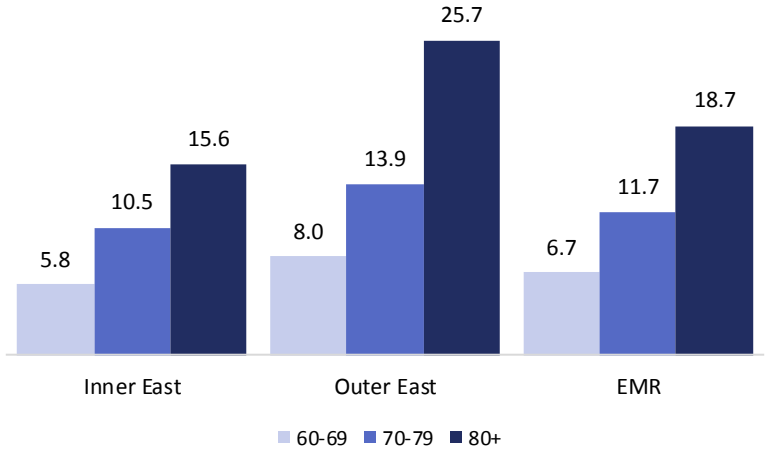
The variables were taken from the Australian Revised Major Diagnostic Category (AR-MDC) Version 6.0 as derived through the same grouping process as the AR-DRG v6:

- 04-Diseases & Disorders of the Respiratory System

Counts were generated by individual rather than presentations. That is, if an individual presented 3 times in the given year, they were only counted once in this calculation. This allows us to estimate the number of people in the region with this health complication.

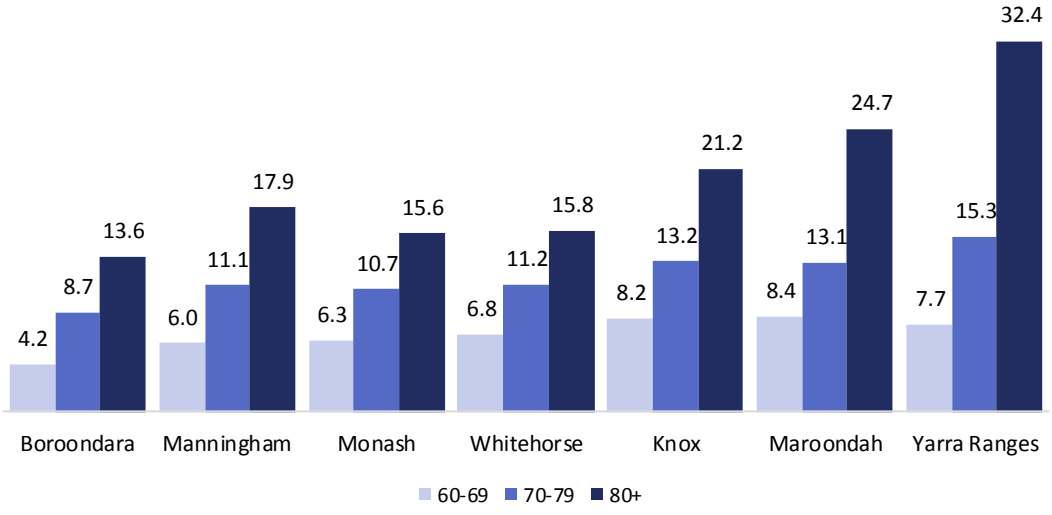
Rates of presentation to hospital for respiratory disease are higher in the outer eastern region.

Figure 2.7a Rate per 1,000 of hospitalisations in 2015-16 for respiratory disease by 60+ year olds and region



Yarra Ranges and Maroondah show particularly high rates of hospitalisation for respiratory disease among 80+ year olds.

Figure 2.7b Rate per 1,000 of hospitalisations in 2015-16 for respiratory disease by 60+ year olds and LGA



2.8 Asthma

Sources: (Victorian Population Health Survey, 2008) Incidence of reporting being diagnosed by a doctor as having asthma by age.

(Victorian Population Health Survey, 2011) Incidence of reporting being diagnosed by a doctor as having asthma by LGA.

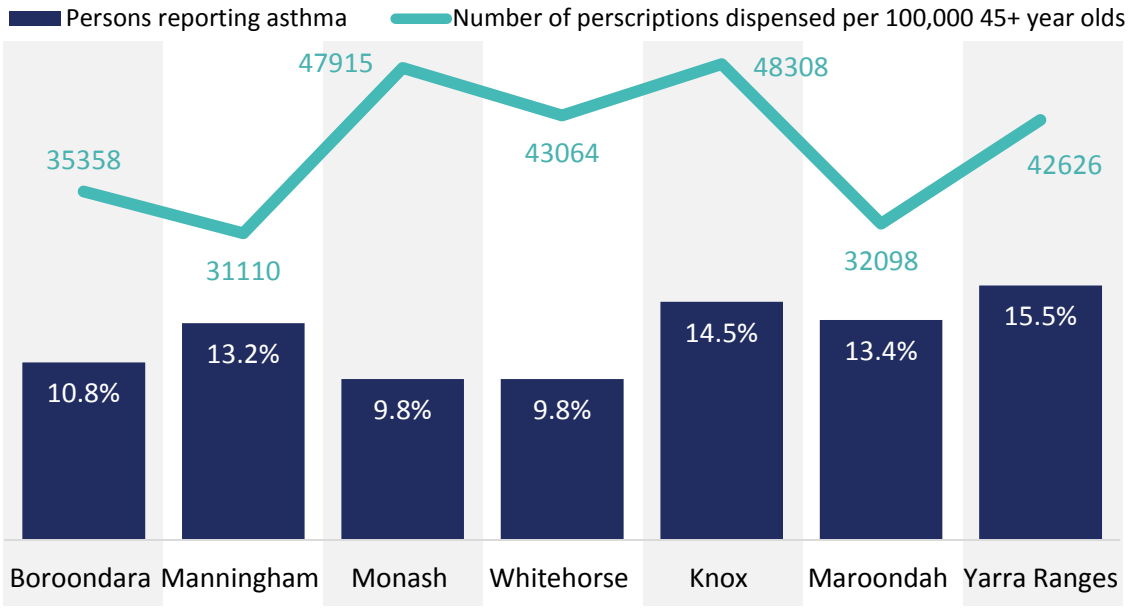
(Public Health Information Development Unit (PHIDU), 2010-14) Estimated population with asthma.

(National Health Performance Authority, 2013-14) Number of prescriptions dispensed for asthma and COPD medicines per 100,000 people aged 45 and over in 2013-14 by SA3. SA3's were matched to LGA as outlined in Appendix 1.

In the 2008 VPHS survey it was determined that the incidence rate of having doctor-diagnosed asthma amongst those aged 65 years and over in Victoria was 17.05%.

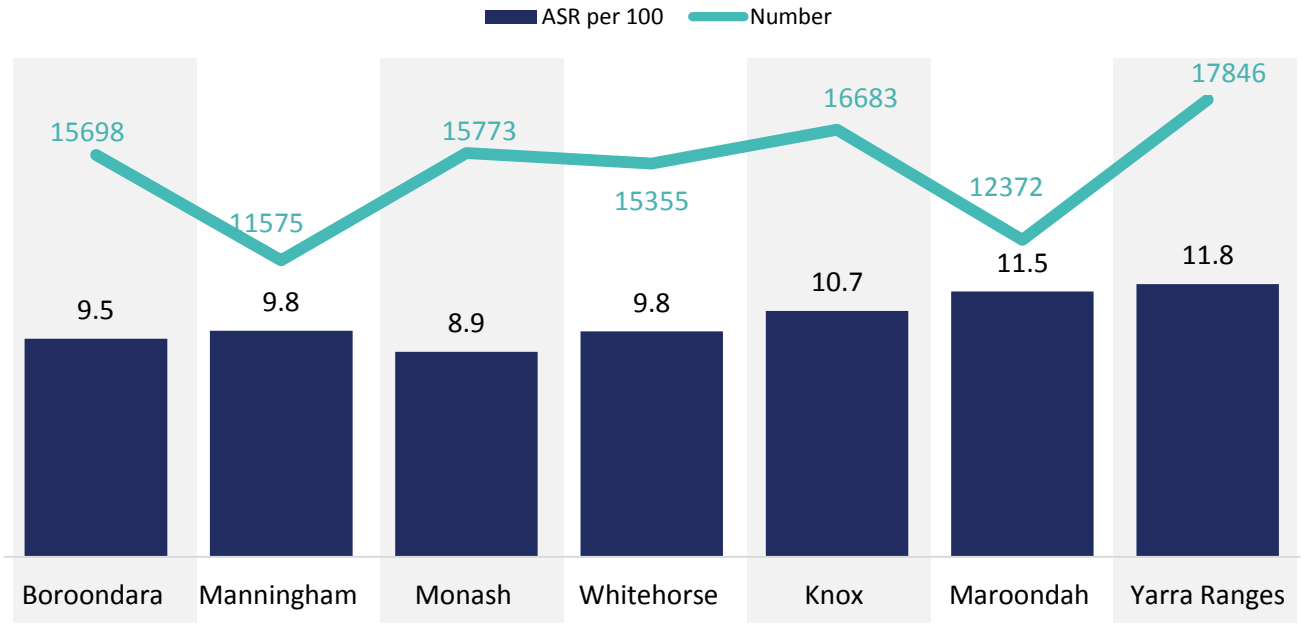
In the 2011 data this measure was presented by LGA as a percentage of total adults, showing that Yarra Ranges and Knox have higher prevalence than other LGAs in the Eastern region, ranking 9th and 5th respectively of all LGAs in the state.

Figure 2.8a Asthma prevalence and number of perscriptions dispensed for asthma and COPD



It was estimated by PHIDU in 2011-13 that the number of people of all ages with asthma in Greater Melbourne was 10.4 per 100. Similar rates were estimated across the eastern region.

Figure 2.8b Rate and count of Asthma prevalence



2.9 Circulatory system diseases and disorders

Source: (Department of Health and Human Services, 2015-2016). A specific data set was requested through HOSdata to generate this information. Hospital presentations for diseases and disorders of the circulatory system during the 2015-2016 financial year were counted for each LGA using the following variables, and then extrapolated as a rate per 1,000 using the forecast.id 2016 population projections. This calculation and rate were performed by ASDF Research for the purpose of this report.

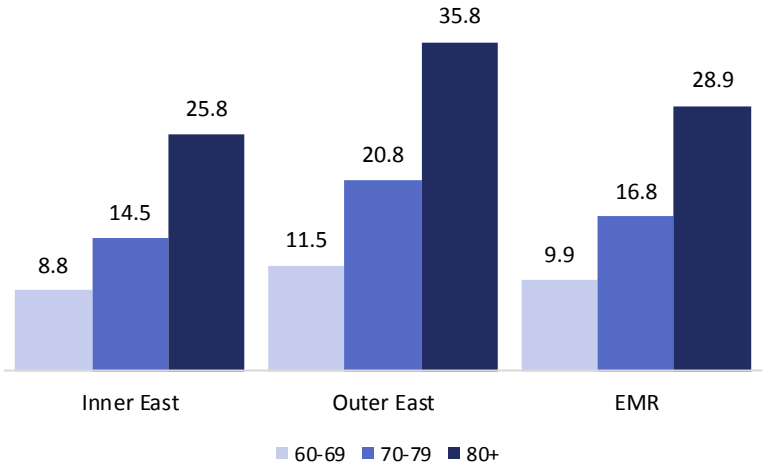
The variables were taken from the Australian Revised Major Diagnostic Category (AR-MDC) Version 6.0 as derived through the same grouping process as the AR-DRG v6:

- 05-Diseases & Disorders of the Circulatory System

Counts were generated by individual rather than presentations. That is, if an individual presented 3 times in the given year, they were only counted once in this calculation. This allows us to estimate the number of people in the region with this health complication.

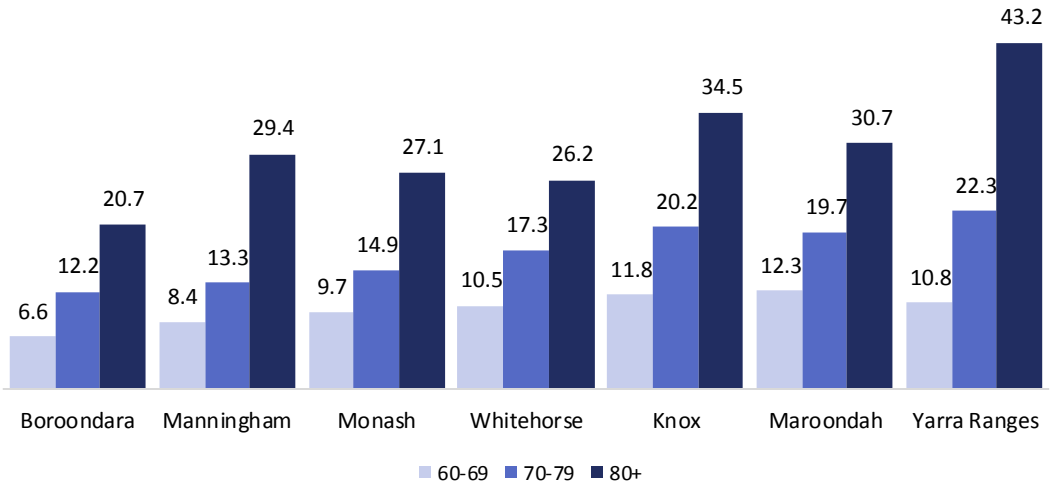
The rate per 1,000 of hospitalisation for circulatory system complications is higher in the outer eastern region.

Figure 2.9a Rate per 1,000 of presentations to hospital in 2015-16 for circulatory system diseases and disorders by region



A notably high rate of presentation to hospital for circulatory system complications is evident among 80+ year olds in the Yarra Ranges.

Figure 2.9b Rate per 1,000 of presentations to hospital in 2015-16 for circulatory system diseases and disorders by LGA



2.10 Heart disease

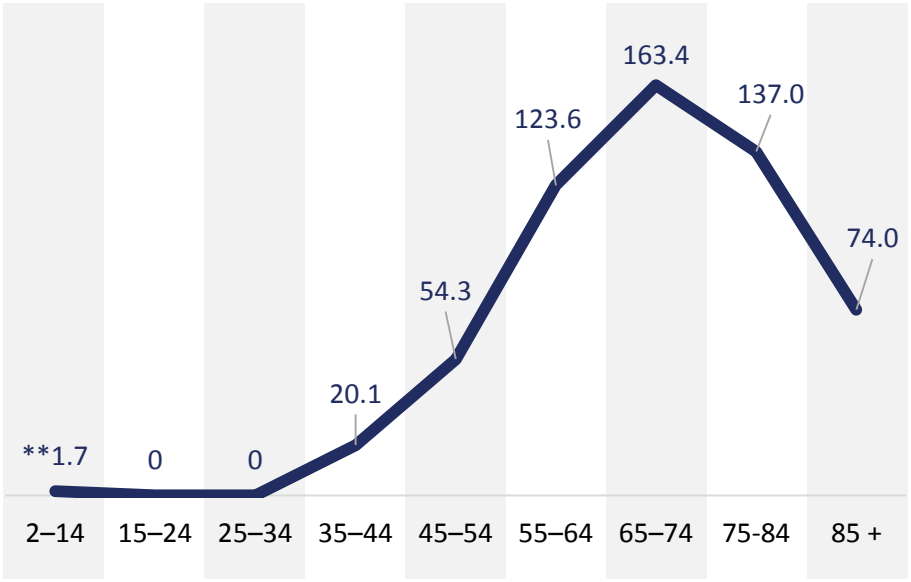
Source: (Victorian Population Health Survey, 2014)

The percentage of persons who reported they have been told by a doctor that they have heart disease.

(Australian Bureau of Statistics (ABS), 2011-12) Australian Health survey data, updated results 2011-2012. Table 8.1 Selected long-term health conditions, persons (estimate) for all instances of diabetes: total ischaemic heart diseases per 1,000 people.

The 2011-12 Australian Health Survey (Australian Bureau of Statistics (ABS), 2011-12) clearly shows that heart disease is an age related issue, with incidence per 1,000 population nationally peaking in the 65-74 age group.

Figure 2.10a Incidence per 1,000 of heart disease nationally by age



** estimate has a relative standard error greater than 50% and is considered too unreliable for general use
0 scores are measures not available for publication

This being the case, it is unsurprising that when assessing available data by region/LGA and age there is a clear increase in reported incidences or heart disease for the 60+ age range in the eastern region.

However, the national incidence by age data shows a decrease amongst those aged over 85 years (figure 5.4a), whereas across the eastern regions and LGAs the Victorian Population Health Survey data shows the incidence continues to increase after the age of 85 (figures 2.10b and 2.10c). Given these two data sources are based on completely different data collection methods it is possible that differences in sample error and selection may be impacting on this, rather than it being an issue for the region.

(NOTE: Where statistically significant variations are observed, these have been marked with a ⬆ to show higher than average result or ⬇ to show lower than average; the average being based on all ages from 18+ for the defined area.)

Figure 2.10b Percentage of 60+ year olds with heart disease by region

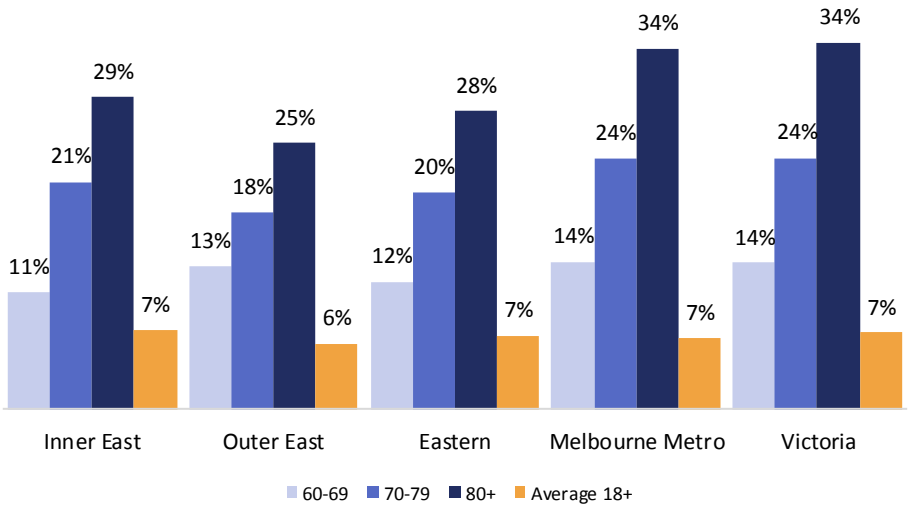
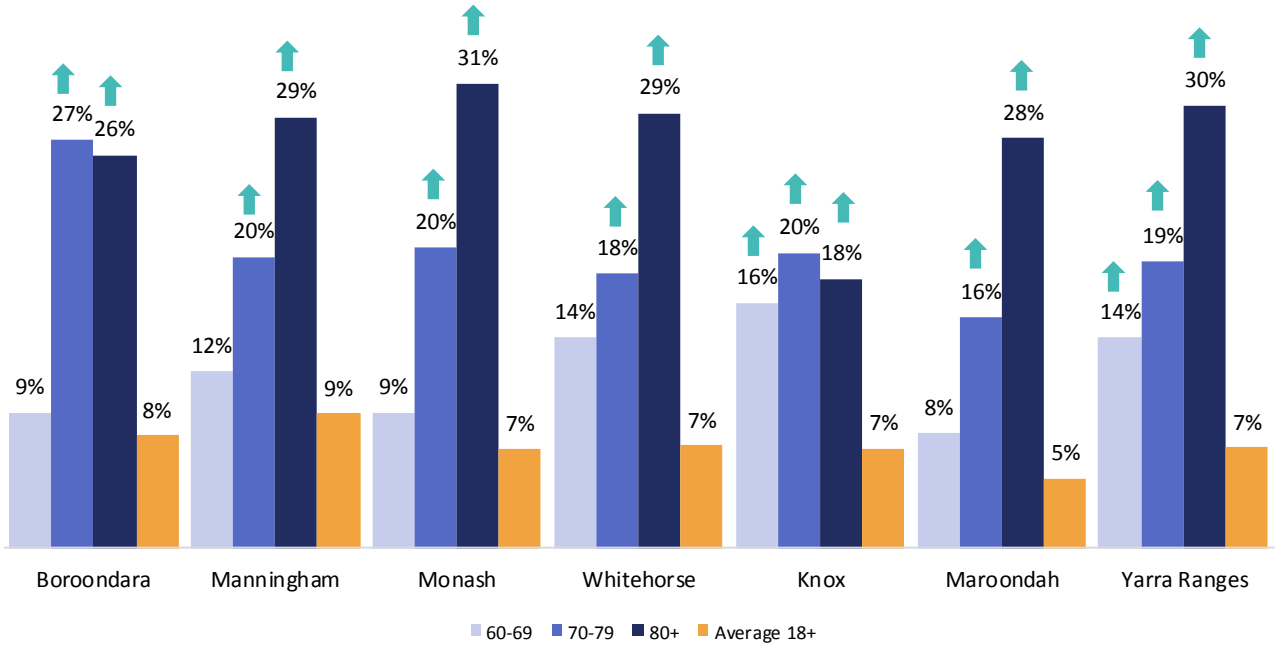


Figure 2.10c Percentage of 60+ year olds with heart disease by LGA



2.11 Heart failure

Source: (Department of Health and Human Services, 2015-2016). A specific data set was requested through HOSdata to generate this information. Hospital presentations for heart failure during the 2015-2016 financial year were counted for each LGA using the following variables, and then extrapolated as a rate per 1,000 using the forecast.id 2016 population projections. This calculation and rate were performed by ASDF Research for the purpose of this report.

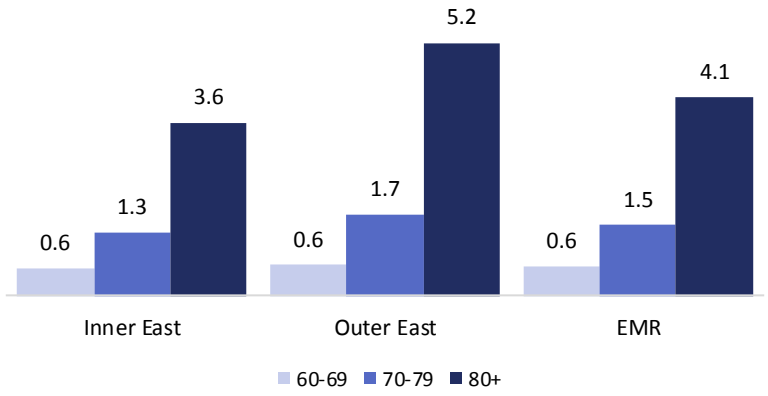
The variables were taken from the Victorian Adjusted Australian Revised Diagnosis Related Group 6.0x which is the same as AR-DRG v6 except where adjustments are made utilising the VIC-DRG v6.0x field, for the purposes of casemix payments:

- F62A-Heart Failure and Shock W Catastrophic CC
- F62B-Heart Failure and Shock W/O Catastrophic CC
- F62C-Heart Failure and Shock, Died or Transferred to Acute Facility <5 Days

Counts were generated by individual rather than presentations. That is, if an individual presented 3 times in the given year, they were only counted once in this calculation. This allows us to estimate the number of people in the region with this health complication.

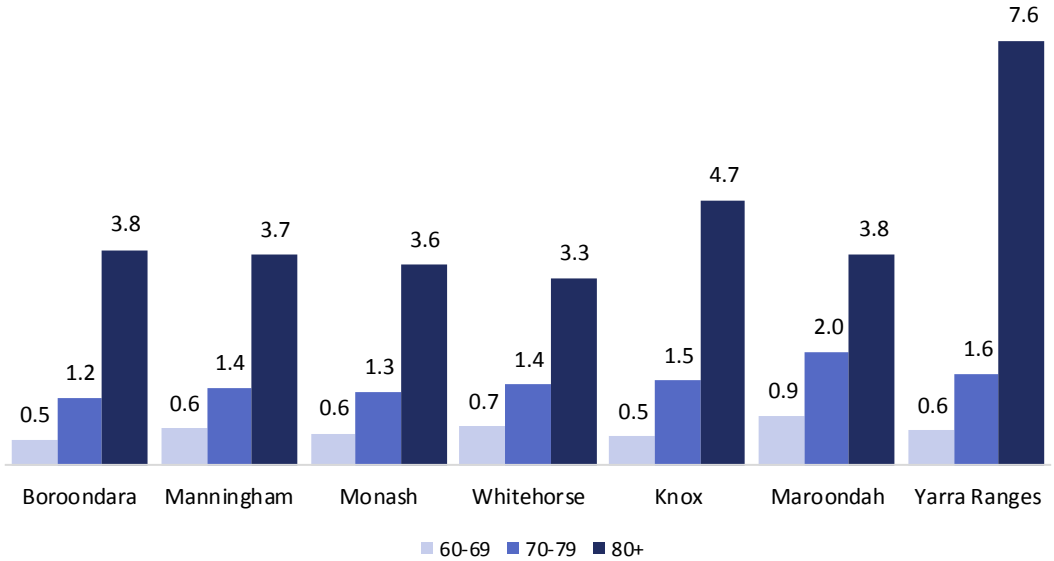
The incidence of presentation to hospital for heart failure is higher in the outer eastern region.

Figure 2.11a Heart failure hospitalisation rates 2015-16 per 1,000 by 60+ age ranges and region



Hospitalisation rates for heart failure increases by age across all LGAs, with the highest incidence recorded amongst 80+ year olds in Yarra Ranges.

Figure 2.11b Heart failure hospitalisation rates 2015-16 per 1,000 by 60+ age ranges and LGA



2.12 Cerebrovascular disease

Sources:

Hospital admissions for stroke: (Australian Atlas of Healthcare Variation, 2012-13)**.** National Health Performance Authority analysis of Admitted Patient Care National Minimum Data Set 2012–13 (data supplied 09/04/2014) and Australian Bureau of Statistics Estimated Resident Population (ERP) 30 June 2013. Item 6.9: Stroke average length of stay in hospital by peer group - 65 years and over. Only hospitals in the major and large peer groups and which had at least 10 separations were included in the analysis.

Incidence of Deaths: (Public Health Information Development Unit (PHIDU), 2010-14). Deaths from cerebrovascular disease, persons aged 0 to 74 years, 2009 to 2013. ICD-10 codes: I60-I69.

Data compiled by PHIDU from deaths data based on the 2009 to 2013 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population at the small area level (Statistical Area Level 2) is the ABS ERP, 30 June 2009 to 30 June 2013; the population standard is the ABS ERP for Australia, 30June 2009 to 30 June 2013.

Data presented are the average annual indirectly age-standardised rates per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratios, based on the Australian standard.

The primary risk factors for stroke are high blood pressure, physical inactivity, high hip-to-waist ratio and smoking, all of which have been covered in other sections of this report (Australian Institute of Health and Welfare (AIHW), 2013). Stroke is not always linked to age, with a third of Australian stroke survivors under the age of 65 years (Health Partners).

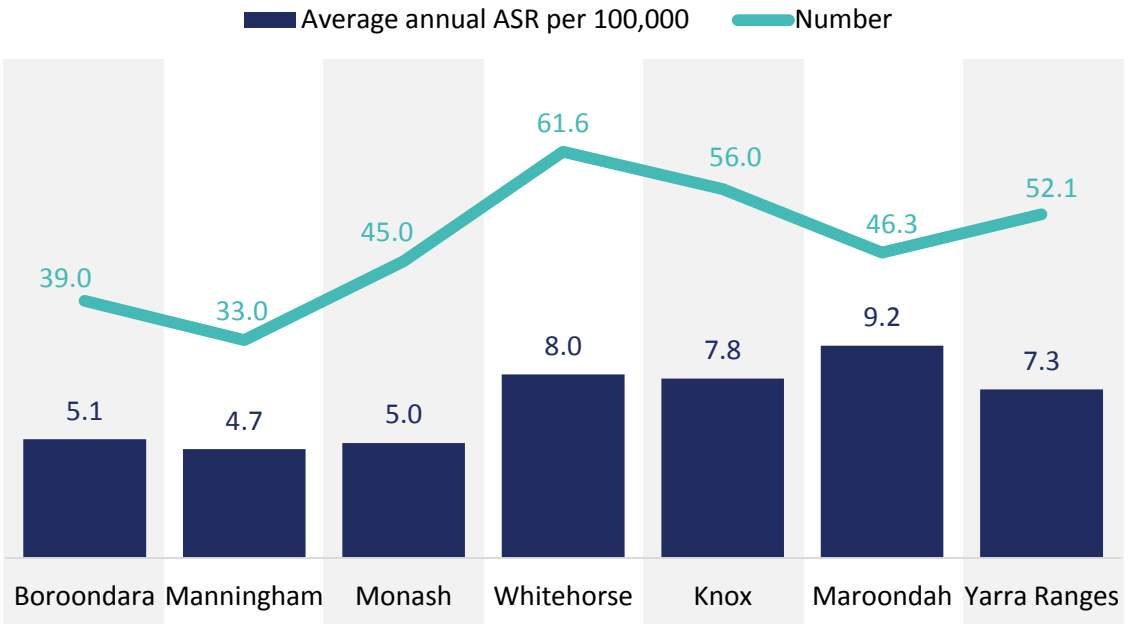
In 2012-13 there were a high number of admissions of 65+ year olds for cerebrovascular disease to a range of hospitals in the region:

Table 2.12 Number of 65+ year olds admitted to hospital for cardiovascular disease in 2012-13 by Hospitals in the region

Hospital	Region	Admissions in 2012-13
Box Hill Hospital	Whitehorse	335
Monash Hospital, Clayton	Monash	379
Austin Hospital	close to Manningham and Boroondara	353
Dandenong Hospital	close to Knox & Monash	95
Maroondah Hospital	Maroondah	82
Angliss Hospital	Knox	31

In the Greater Melbourne area from 2009 to 2013 the rate per 100,000 of deaths from cerebrovascular disease was 7.6. When compared to individual LGA rates for the same time period it is evident that Manningham, Boroondara and Monash have lower than average rates.

Figure 2.12 Rate and count of deaths from cerebrovascular disease, 2009 to 2013



2.13 Kidney disease

Sources:

Risk Factors (Kidney Health Australia, 2016)

Number of Aboriginal and Torres Strait Islander people aged 60+ (Australian Bureau of Statistics (ABS), 2011)

Hospitalisation: (Department of Health and Human Services, 2015-2016). A specific data set was requested through HOSdata to generate this information. Hospital presentations for kidney disease during the 2015-2016 financial year were counted for each LGA using the following variables, and then extrapolated as a rate per 1,000 using the forecast.id 2016 population projections. This calculation and rate were performed by ASDF Research for the purpose of this report.

The variables were taken from the Australian Revised Major Diagnostic Category (AR-MDC) Version 6.0 as derived through the same grouping process as the AR-DRG v6:

- 11-Diseases & Disorders of the Kidney & Urinary Tract

Counts were generated by individual rather than presentations. That is, if an individual presented 3 times in the given year, they were only counted once in this calculation. This allows us to estimate the number of people in the region with this health complication.

The risk factors for kidney disease, as outlined by Kidney Health Australia (Kidney Health Australia, 2016) are summarised below, with references to sections of this report outlining data relating to these risk factors.

Table 2.13a Kidney disease risk factors

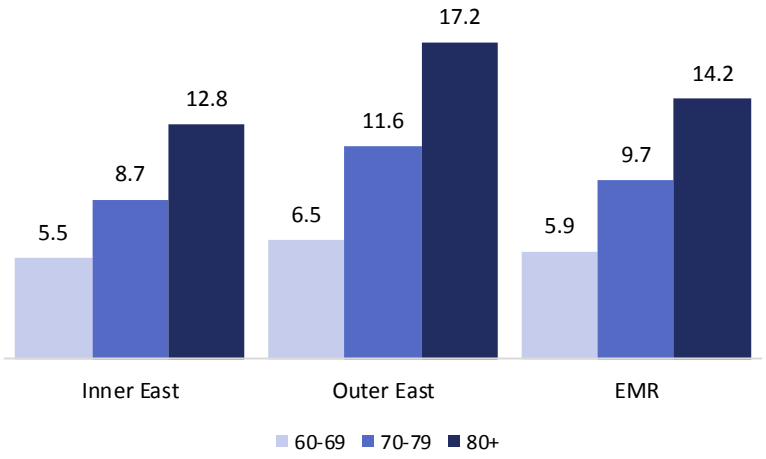
Risk factor	See section
Diabetes	2.6 Diabetes
High blood pressure	2.4 High blood pressure
Heart problems or stroke	2.10 Heart disease 2.12 Cerebrovascular disease
Obese	2.3 Obesity
Smoker	3.4 Smoking
60 years or older	1.2 Population Ageing Forecast
Aboriginal or Torres Strait Islander	1.4 Aboriginal and Torres Strait Islander
History of acute kidney injury	No data available
Family history of kidney failure	No data available

Table 2.13b Number of Aboriginal and Torres Strait Islander people aged 60+ in the region

	Number 60+ people who identify as Aboriginal or Torres Strait Islander
Inner East	110
Outer East	151
Eastern	261

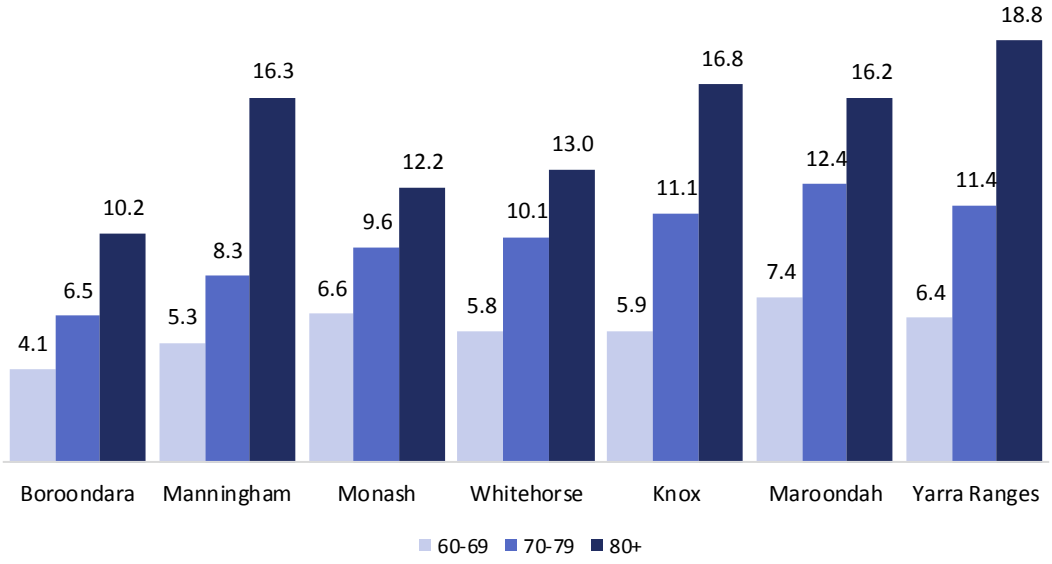
The rate of hospitalisation for kidney disease is higher in the outer eastern region, particularly for residents aged 70 years or over.

Figure 2.13a Kidney disease hospitalisation rates 2015-16 per 1,000 by 60+ age ranges and region



The rate of hospitalisation for kidney disease increases with age across all LGAs, with the highest rate occurring among 80+ year olds in the Yarra Ranges.

Figure 2.13b Kidney disease hospitalisation rates 2015-16 per 1,000 by 60+ age ranges and LGA



2.14 Cancer

2.14.1 Most common

Sources: (Cancer Council Victoria, 2012-2014) Cancer incidence by type for new diagnosis 2012-2014.

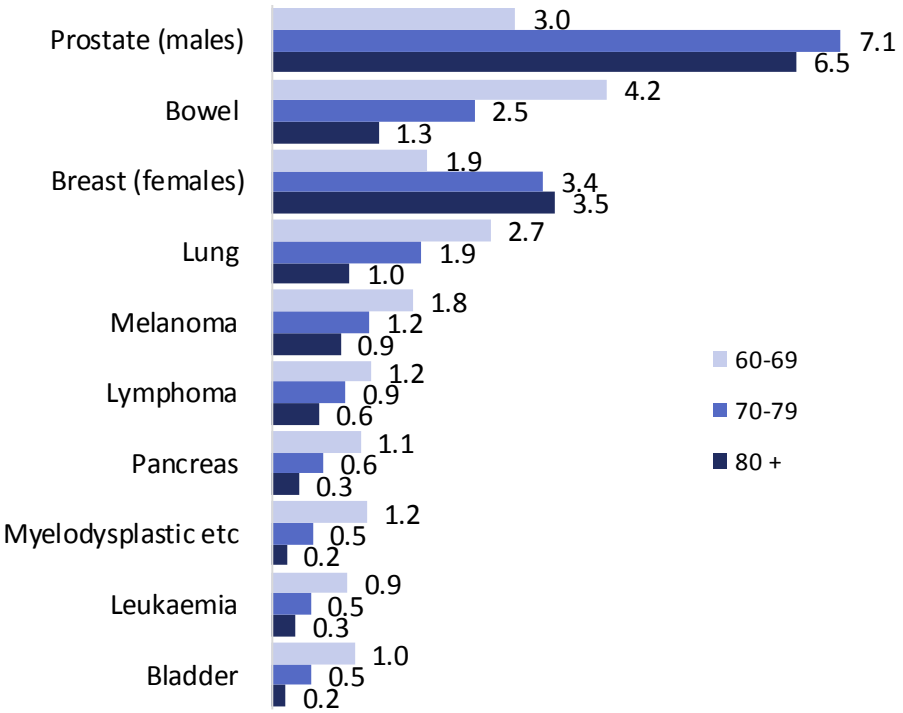
Annual rates per 1,000 population have been calculated using the formula: (Incidence / ((2016 *Victoria in Future* population)/1000)).

The top 5 newly diagnosed cancers amongst 60+ year olds in the EMR from 2012 to 2014 were prostate, bowel, breast, lung and melanoma.

The estimated annual rate of new cancer diagnoses per 1,000 in the EMR, as extrapolated from the 3 years data 2012-2014 using the *Victoria in Future* 2016 estimated resident population, is 12.8 for 60-69 year olds, 18.0 for 70-79 year olds and 25.9 for 80+ year olds.

Of the 10 most commonly diagnosed cancers in the region, most show increases of incidence by age, with the exception of prostate and breast cancers, where the incidence is fairly consistent across the three 60+ age ranges, and bladder cancer where incidence decreases by age.

Figure 2.14.1 Estimated annual rate per 1,000 population of new cancer diagnosis in the EMR 2012-14



The most common type of cancer by age doesn't vary a great deal across regions, with the exception of Yarra Ranges where lung cancer is as common amongst 70-79 year olds as bowel cancer.

Table 2.14.1 New diagnoses of cancer by type 2012-2014

	60-69	70-79	80+
Boroondara	Prostate (155) Breast (91)	Prostate (110) Bowel (78)	Bowel (119) Prostate (78)
Manningham	Prostate (133) Breast (82)	Prostate (110) Bowel (84)	Bowel (70) Prostate (53)
Monash	Prostate (129) Breast (100)	Prostate (158) Bowel (104)	Bowel (100) Prostate (87)
Whitehorse	Prostate (154) Breast (84)	Prostate (135) Bowel (127)	Bowel (120) Prostate (79)
Knox	Prostate (181) Breast (94)	Prostate (94) Bowel (75)	Bowel (76) Lung (51)
Maroondah	Prostate (102) Breast (73)	Prostate (70) Bowel (51)	Bowel (70) Prostate (55)
Yarra Ranges	Prostate (181) Breast (103)	Prostate (60) Lung and Bowel (60 each)	Bowel (74) Prostate (62)

2.14.2 Cancer Prevalence

Sources:

Number of diagnosed cancers by LGA: (Cancer Council Victoria, 2012-2014) The total number of cancers newly diagnosed in 2012, 2013 and 2014. Incidence data was extrapolated to a rate per 1,000 using the formula: (Incidence / ((2016 Victoria in Future population)/1000)).

Number of new cancer cases by age: (Australian Institute of Health and Welfare (AIHW), 2016) Estimated age-specific incidence rates for all cancers combined, 2016.

Cancer prevalence by gender: (Department of Health and Human Services, 2014)

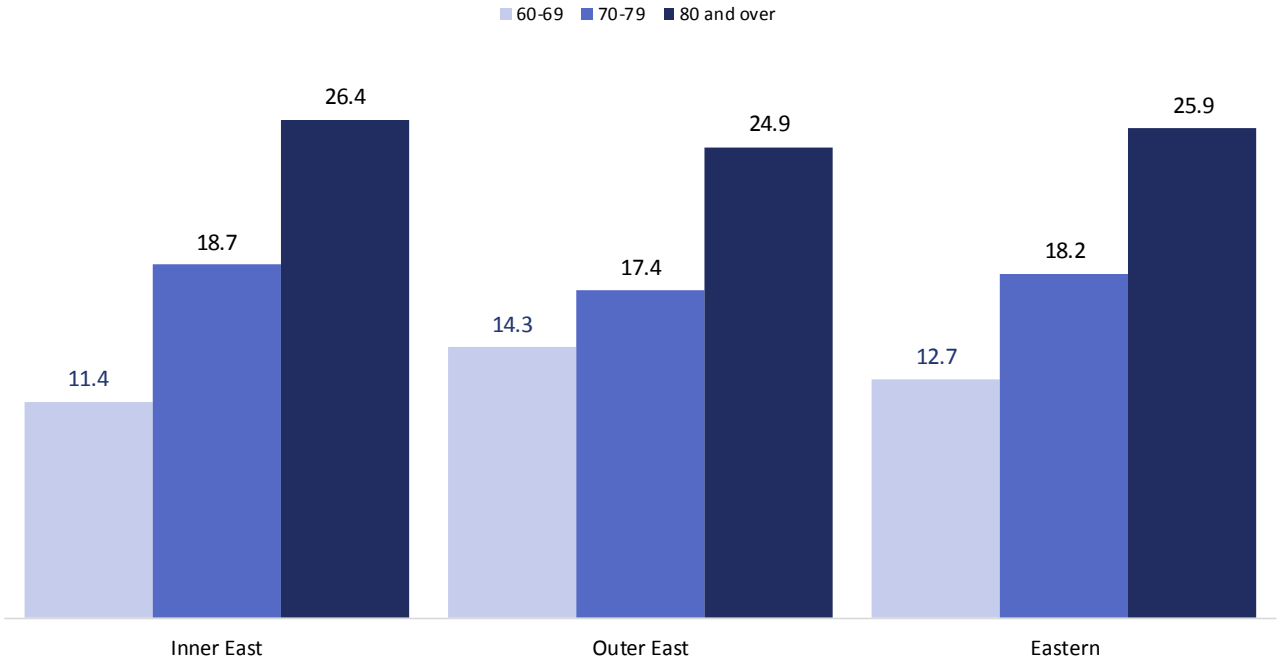
All cancers combined incorporates ICD-10 cancer codes C00–C97 (Malignant neoplasms of specific sites), D45 (Polycythaemia), D46 (Myelodysplastic syndromes), and D47.1, D47.3, D47.4 and D47.5 (Myeloproliferative diseases); but excludes basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) of the skin. BCC and SCC, the most common skin cancers, are not notifiable diseases in Australia and are not reported in the Australian Cancer Database.

Cancer incidence indicates the number of new cancers diagnosed during a specified time period (usually one year). The 2016 estimates are based on 2002–11 incidence data. Due to rounding of these estimates, male and female incidence may not sum to person incidence.

Incidence rates expressed per 100,000 population are age-standardised to the Australian population as at 30 June 2001.

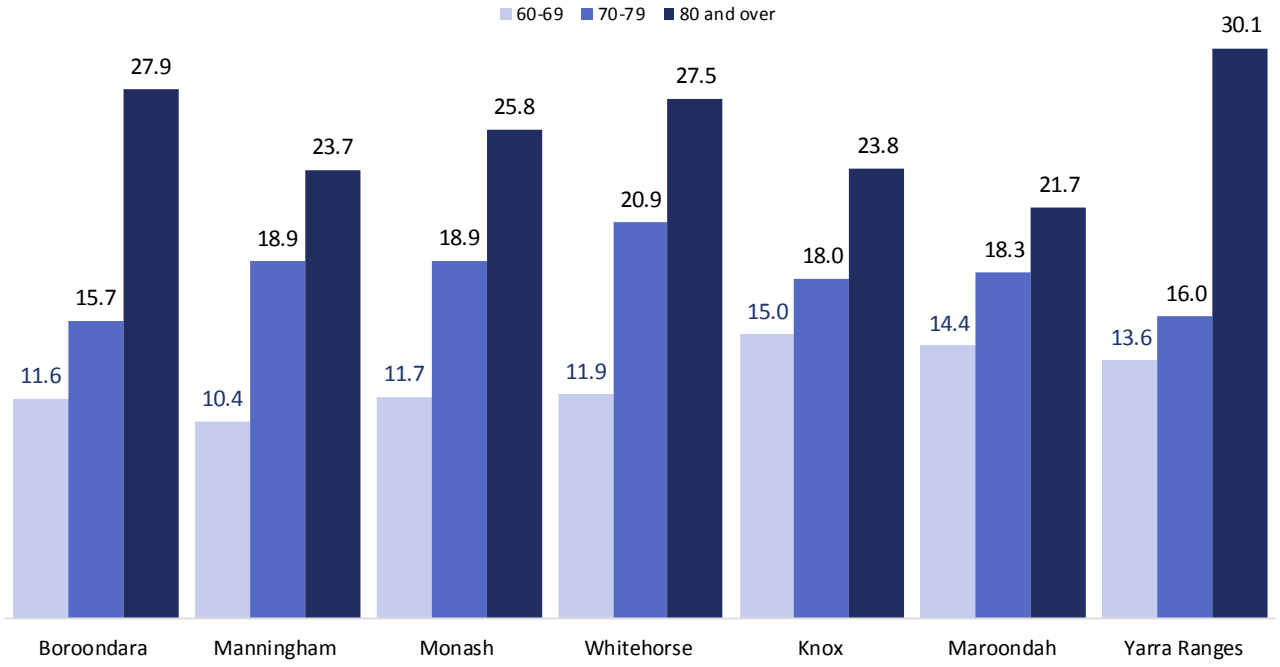
The incidence of cancer per 1,000 population is consistent across the region.

Figure 2.14.2a Rate per 1,000 population of cancers diagnosed in 2014 by region



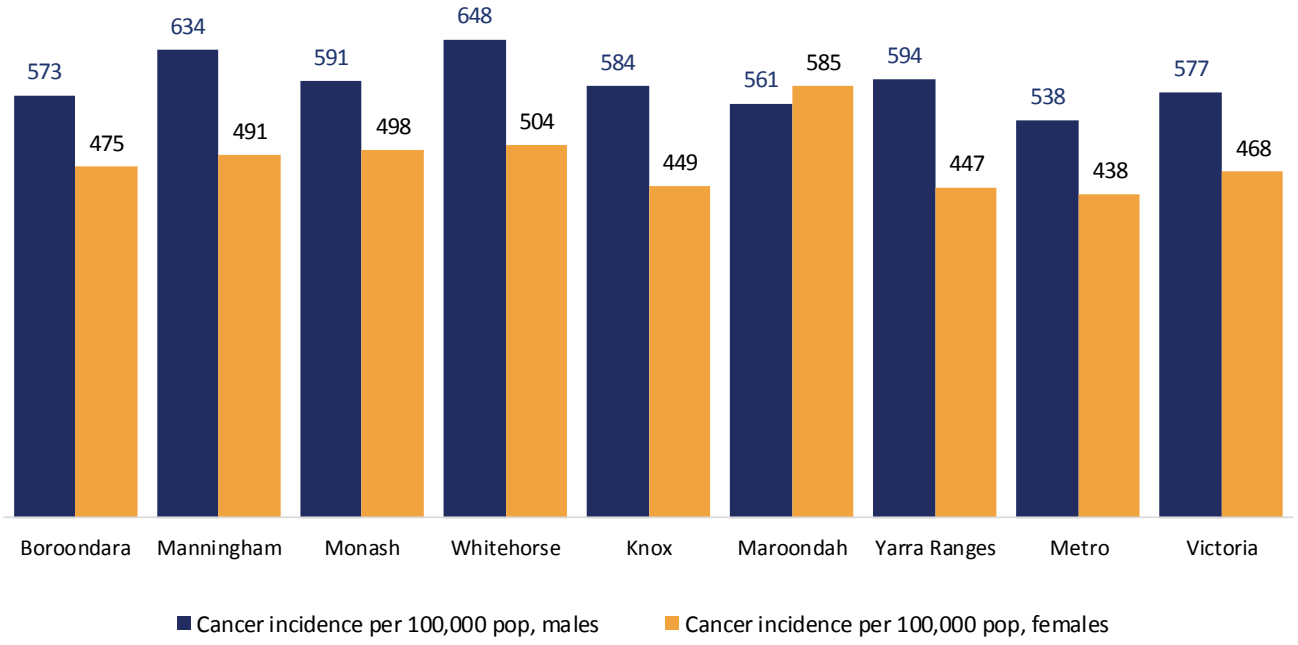
The rate per 1,000 of cancer is slightly higher amongst 60-69 year olds in Knox and Maroondah, yet lower for80+ year olds in these LGAs.

Figure 2.14.2b Rate per 1,000 population of cancers diagnosed in 2014 by LGA



Cancer prevalence per 100,000 population is higher amongst males than females in all regions with the exception of Maroondah.

Figure 2.14.2c Rate per 100,000 population of incidence of cancer by gender (all ages)



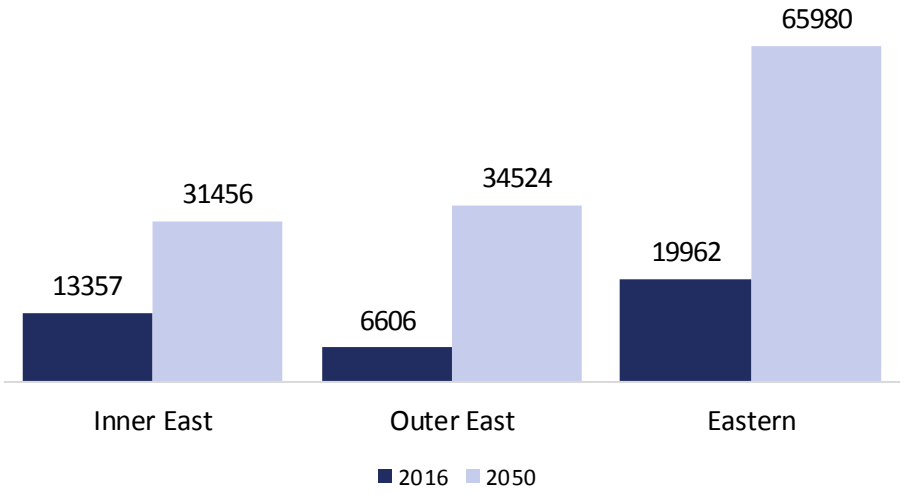
2.15 Dementia

2.15.1 Prevalence, present and future

Source: (National Centre for Social and Economic Modelling (NATSEM), 2016). Number of persons with Dementia by LGA.

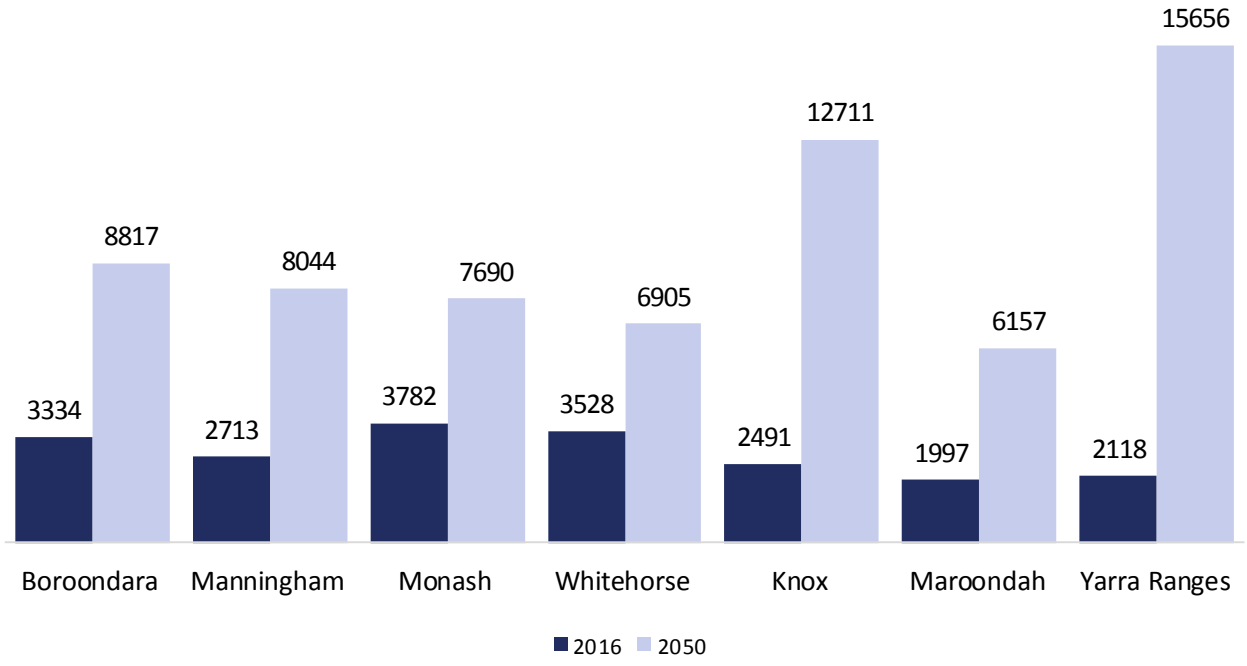
Significant projected 60+ aged population increases across the region will be accompanied by significant increases in the number of residents with dementia by 2050.

Figure 2.15.1a Estimated number of people with dementia in 2016 and 2050 by region



These projected increases in dementia cases are particularly high in LGAs with higher estimated population increases, such as Knox and Yarra Ranges.

Figure 2.15.1b Estimated number of people with dementia in 2016 and 2050 by LGA



Other research conducted by Access Economics (Access Economics Pty Ltd, 2005) shows that prevalence peaks amongst those in their 80s.

At present, Monash, Whitehorse and Boroondara are ranked within the top 10 LGA's in terms of Alzheimer's' prevalence. By 2050 these regions will have moved out of the top ten, with Yarra Ranges and Knox entering. In terms of growth rate, Yarra Ranges has one of the highest growth rates in the state (ranked 8), whereas the other LGAs are ranked much lower down the list. (National Centre for Social and Economic Modelling, 2016a)

Table 2.15.1 Ranking of prevalence of Alzheimer's by LGA

	Ranking of prevalence in 2016	Ranking of prevalence in 2050	Ranking of growth rate
Boroondara	5	11	59
Manningham	10	14	48
Monash	3	17	72
Whitehorse	4	21	74
Knox	15	9	17
Maroondah	22	24	44
Yarra Ranges	20	3	8

2.16 Bone and joint diseases

2.16.1 Arthritis

Source: (Victorian Population Health Survey, 2014) Doctor diagnosed arthritis

Given that Arthritis is a disease that is more common amongst older age groups (Australian Institute of Health and Welfare, 2010), it is understandable that the incidence is higher than average amongst those aged 60 years and over across all regions and LGAs. This trend is apparent across all regions. Both the inner and outer eastern regions have similar proportions of older people with arthritis, which is in line with state and metropolitan averages.

Figure 2.16.1a Percentage of 60+ year olds with arthritis by region

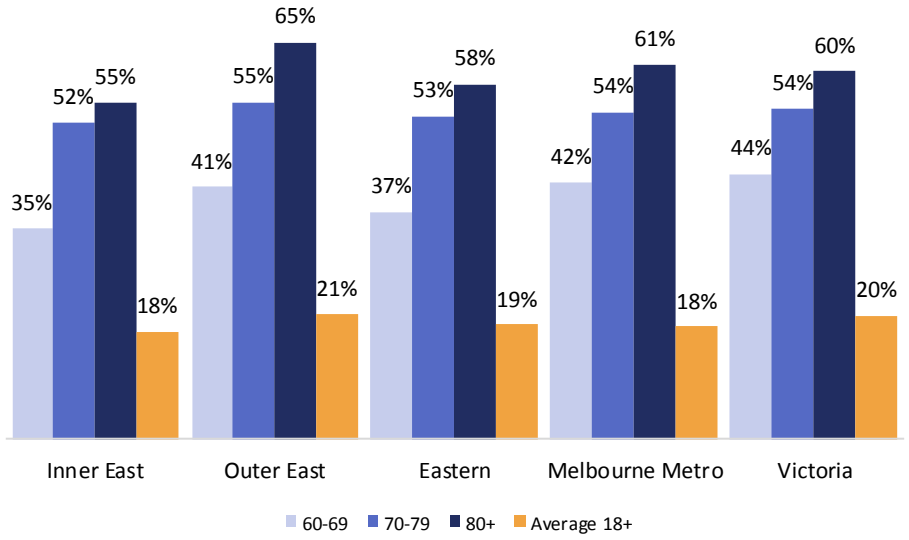
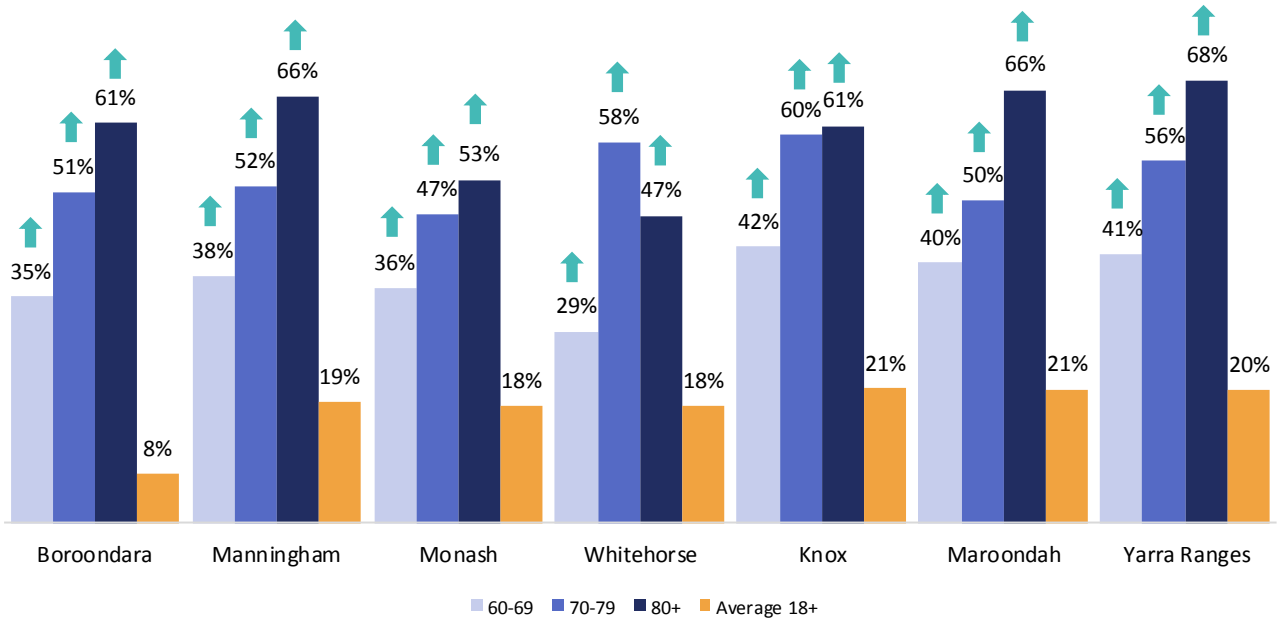


Figure 2.16.1b Percentage of 60+ year olds with arthritis by LGA



2.16.2 Musculoskeletal diseases

Source: (Department of Health and Human Services, 2015-2016). A specific data set was requested through HOSdata to generate this information. Hospital presentations for diseases and disorders of the musculoskeletal system during the 2015-2016 financial year were counted for each LGA using the following variables, and then extrapolated as a rate per 1,000 using the forecast.id 2016 population projections. This calculation and rate were performed by ASDF Research for the purpose of this report.

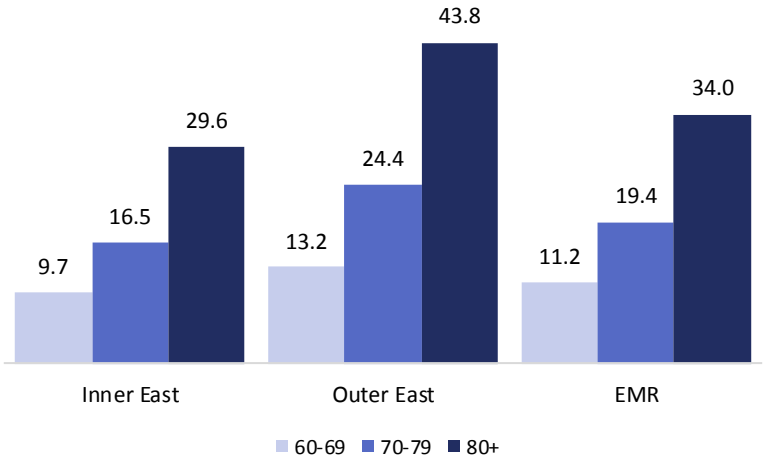
The variables were taken from the Australian Revised Major Diagnostic Category (AR-MDC) Version 6.0 as derived through the same grouping process as the AR-DRG v6:

- 08-Diseases & Disorders of the Musculoskeletal System

Counts were generated by individual rather than presentations. That is, if an individual presented 3 times in the given year, they were only counted once in this calculation. This allows us to estimate the number of people in the region with this health complication.

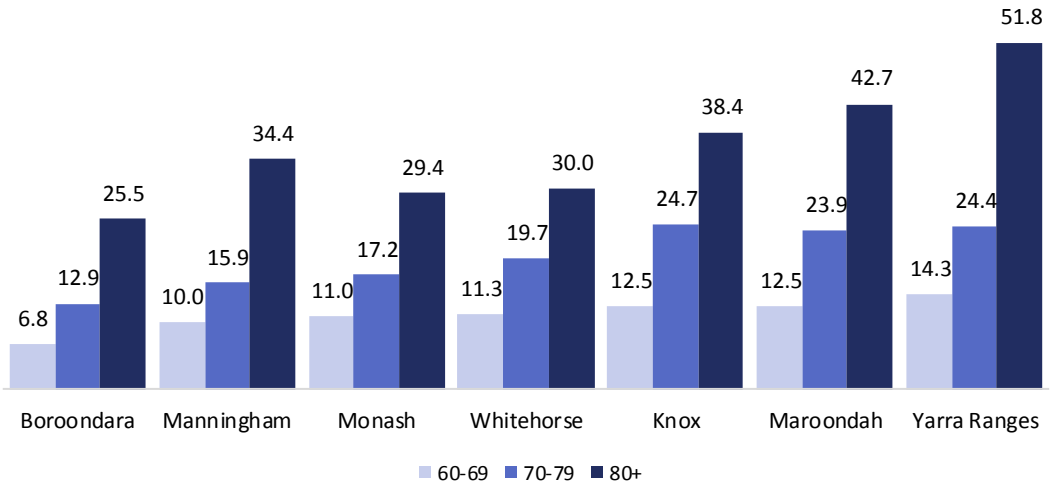
The rate of presentation to hospital for musculoskeletal disease increases with age and is highest in the outer eastern region.

Figure 2.16.2a Rate per 1,000 of presentation to hospital in 2015-16 for musculoskeletak related disease by 60+ age ranges and region



The rate of presentation to hospital for musculoskeletal disease is notably high among 80+ year olds in Yarra Ranges.

Figure 2.16.2b Rate per 1,000 of presentation to hospital in 2015-16 for musculoskeletak related disease by 60+ age ranges and LGA



2.17 Unintentional injuries caused by falls

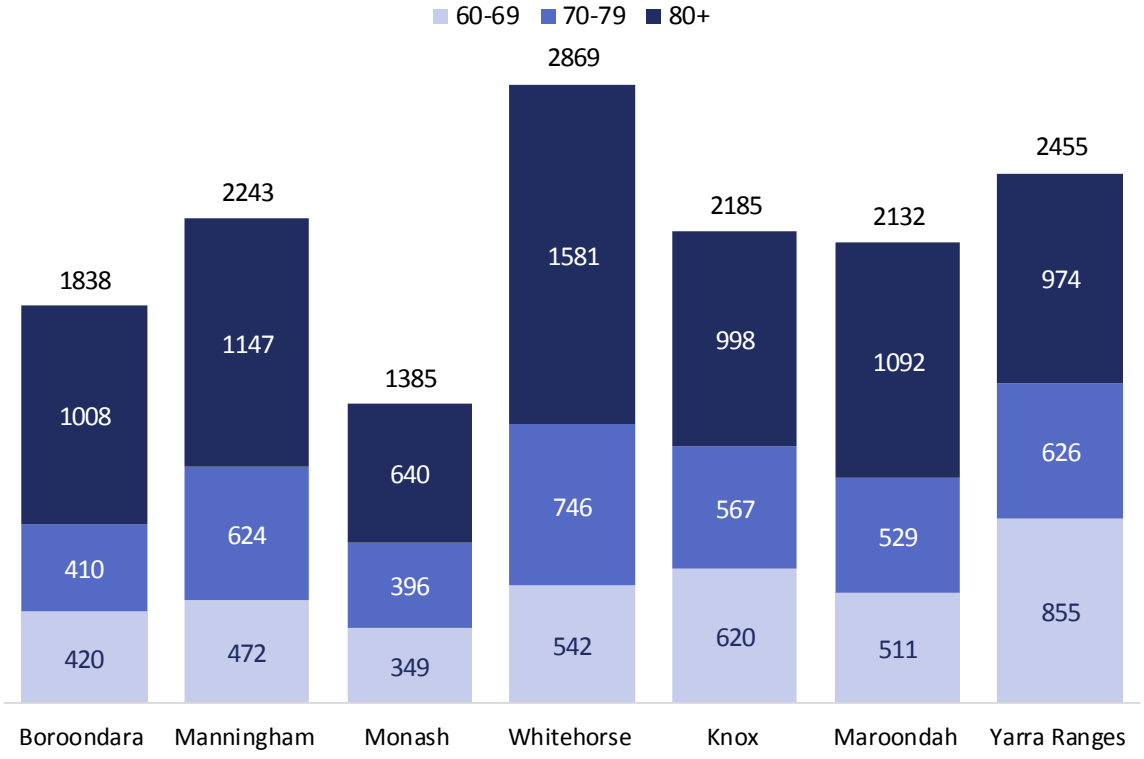
Source: (Ambulatory Care Sensitive Conditions - acute/chronic/vaccine preventable admissions per 1,000 population, 2012-13) Emergency department presentations related to falls of those aged 60 years and above resident in the eastern metropolitan region , Victoria 2012/13 - 2014/15 (3 years)

Victoria Emergency Minimum Dataset (VEMD) data for the period July 2012-June 2015 was analysed for this report. Each record represents the first presentation for treatment of injuries arising from an incident. The VEMD collects data from Victorian public hospitals with 24-hour emergency departments. 100% state wide coverage of these hospitals applies. LGA counts are based on region of patient residence.

Cases were selected if the financial year of ED presentation was 2012/13-2014/15 and are limited to incidence (excludes return visits and pre-arranged visits). VEMD records were extracted if the "Injury Cause" variable codes were 9 (Fall -low (Same level or less than 1 metre, or no information on height) & 10 (Fall – high (greater than 1 metre). Human Intent was coded to "Non-intentional harm".

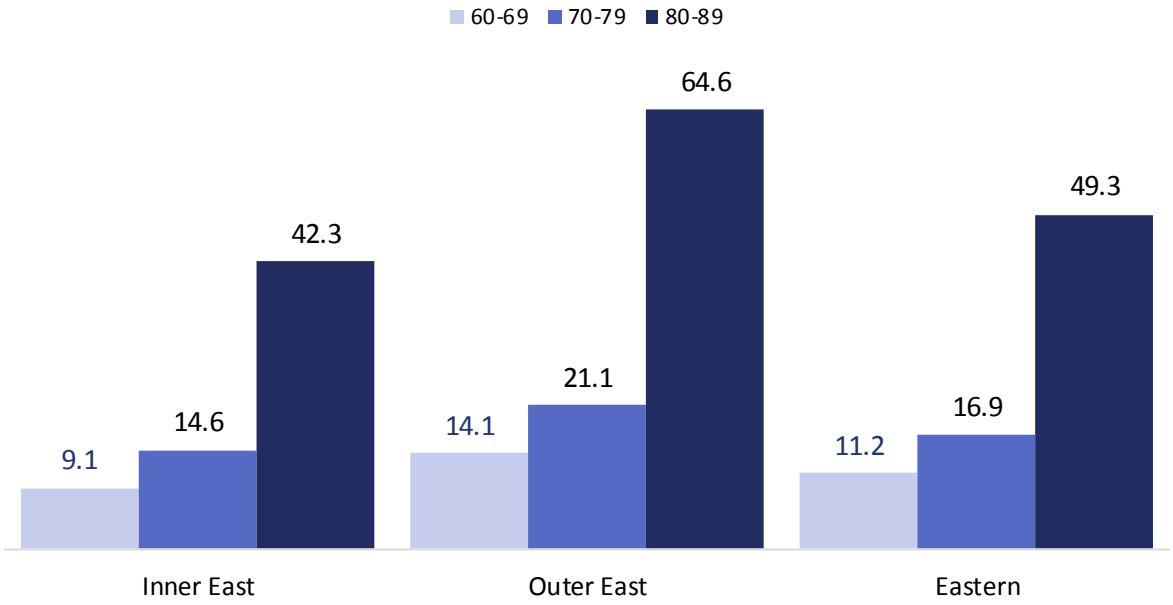
As an absolute figure, Whitehorse records the highest number of emergency department presentations relating to falls for the 60+ age range.

Figure 2.17a Number of emergency department presentations related to falls from 2012-2015



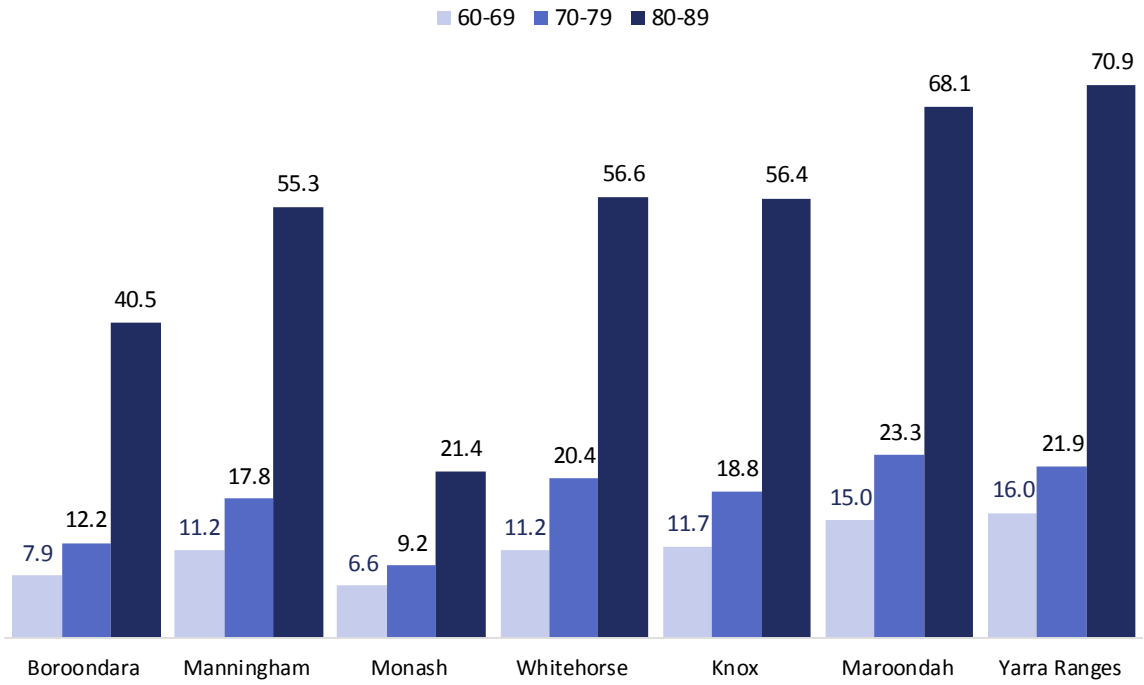
When combining this data with the estimated residential population for each LGA for 2016 (Victoria in Future, 2016) it is possible to calculate the estimated annual rate of presentations to the emergency department for falls for each age range within each LGA. Across all regions the rate clearly increases with age.

Figure 2.17b Estimated annual rate of presentations to emergency for falls by age 60+ per 1,000 population



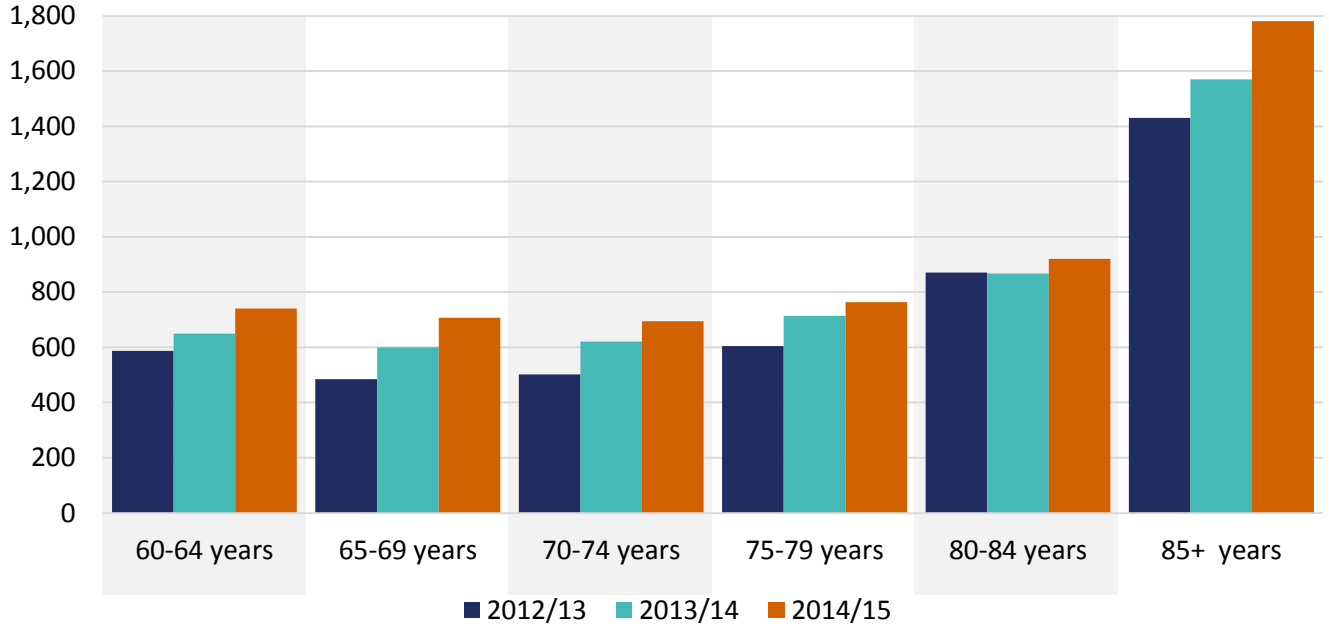
Monash shows notably lower rates amongst 80-89 year olds.

Figure 2.17c Estimated annual rate of presentations to emergency for falls by age 60+ per 1,000 population



The number of emergency department presentations for falls in the EMR is increasing over time, particularly amongst 85+ year olds.

Figure 2.17d Number of emergency department presentations related to falls in the EMR by year and age



2.18 Vision

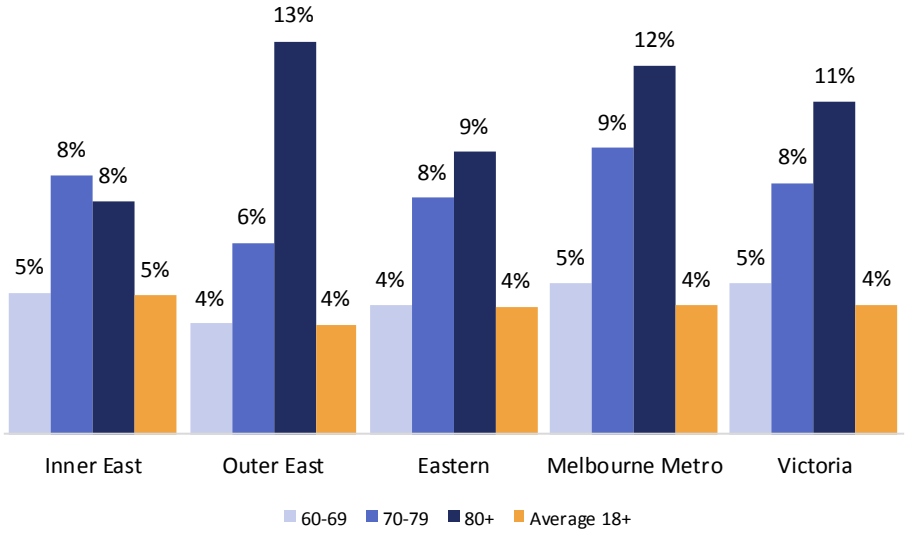
2.18.1 Difficulties with vision

Source: (Victorian Population Health Survey, 2014)

The percentage of persons who reported they have difficulties with vision that limit activities of daily life that glasses or contact lenses won't fix.

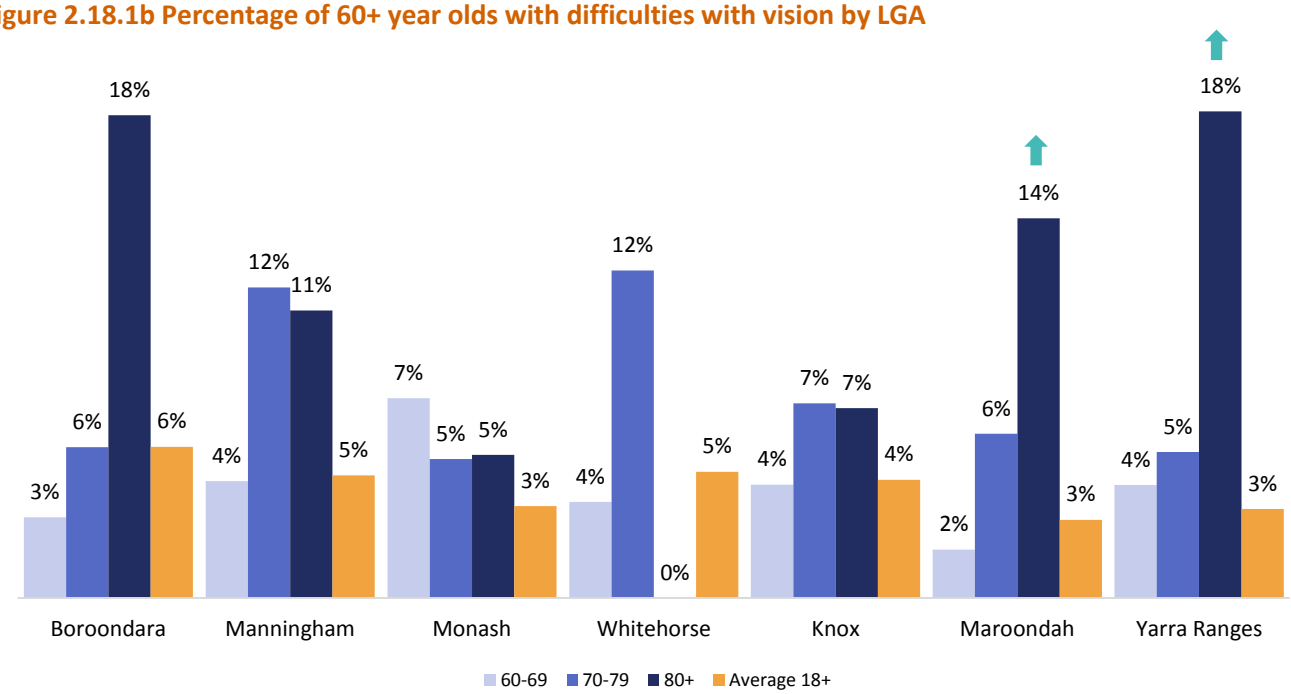
Experiencing difficulty with vision that can't be fixed with glasses or contact lenses increases with age. Incidences are too low to reveal any statistically notable variations by region.

Figure 2.18.1a Percentage of 60+ year olds with difficulties with vision by region



In Maroondah and Yarra Ranges, notably high incidences of those aged 80 years and over experience vision difficulties that can't be fixed with contact lenses or glasses. Other observable variations by age range within LGA are not statistically significant.

Figure 2.18.1b Percentage of 60+ year olds with difficulties with vision by LGA



2.18.2 Eye disease

Source: (Department of Health and Human Services, 2015-2016). A specific data set was requested through HOSdata to generate this information. Hospital presentations for diseases and disorders of the eye during the 2015-2016 financial year were counted for each LGA using the following variables, and then extrapolated as a rate per 1,000 using the forecast.id 2016 population projections. This calculation and rate were performed by ASDF Research for the purpose of this report.

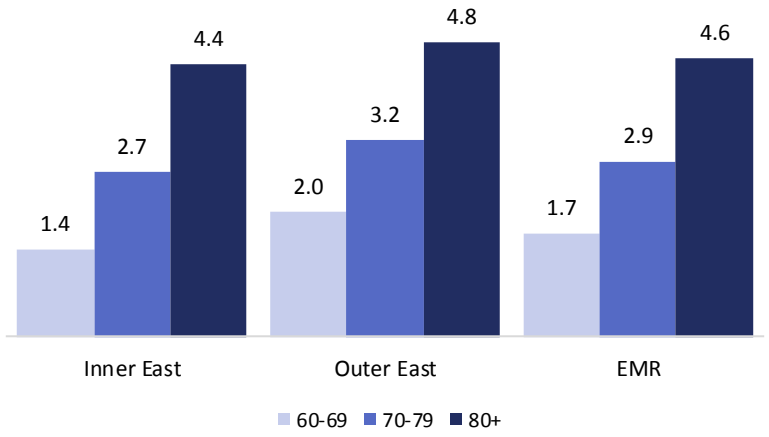
The variables were taken from the Australian Revised Major Diagnostic Category (AR-MDC) Version 6.0 as derived through the same grouping process as the AR-DRG v6:

- 02-Diseases & Disorders of the Eye

Counts were generated by individual rather than presentations. That is, if an individual presented 3 times in the given year, they were only counted once in this calculation. This allows us to estimate the number of people in the region with this health complication.

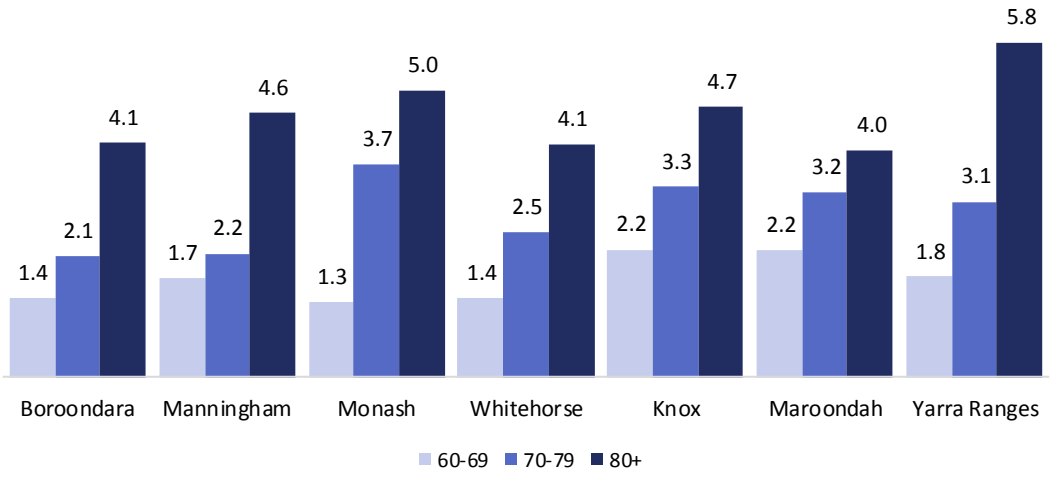
The rate of presentation to hospital for eye disease increases with age across the region.

Figure 2.18.2a Rate per 1,000 of presentation to hospital in 2015-16 for eye disease by 60+ age ranges and region



Monash and Yarra Ranges show notably high incidences of residents aged 70+ presenting to hospital with eye related diseases.

Figure 2.18.2b Rate per 1,000 of presentation to hospital in 2015-16 for eye disease by 60+ age ranges and region



2.19 Oral health

Source: (Victorian Population Health Survey, 2011) Proportion of persons reporting their dental health as poor, 2011

The 2014 VPHS survey didn't include the oral health question. The last time this question was asked in this survey was in 2011, therefore only LGA level data is available.

Tooth decay by age from (Department of Health, 2013-17)

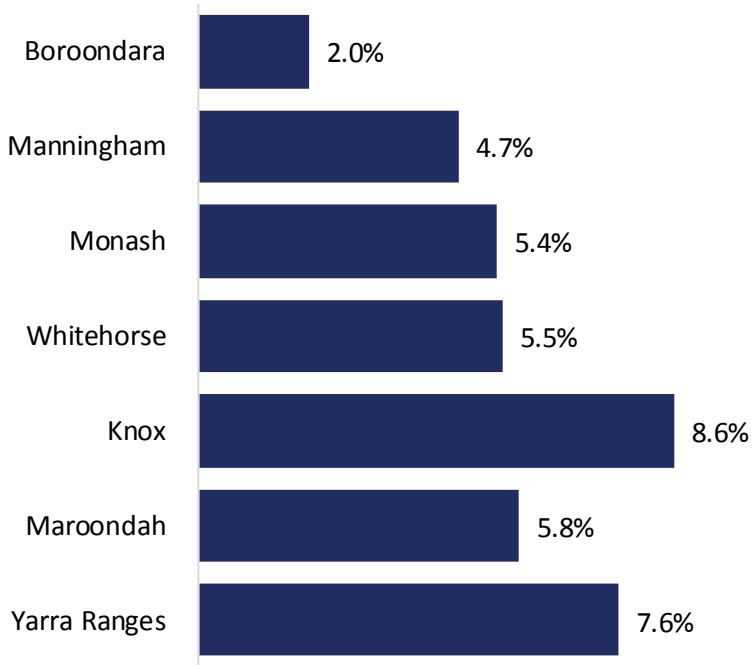
Links to other diseases reported in (Dental Health Services Victoria, 2011)

As people age, the incidence of tooth decay increases, with 100% of those aged over 55 with tooth decay. The incidence of oral cancer and gum disease also increases by age. The World Oral Health Report (2003) finds that poor oral health is significantly associated with major chronic diseases (such as respiratory diseases, diabetes and even Alzheimer's), can cause disability, shares common risk factors with other major diseases and can trigger the worsening of other health conditions.

There is a significant gap in statistics relating to this topic, with no age specific data relating to oral health available at regional levels.

Knox and Yarra Ranges residents show slightly higher instances of reporting poor dental health, although these figures are for all ages, not just 60+ year olds.

Figure 2.19 Percentage of persons reporting their dental health as poor by LGA



When breaking out this VPHS data by age range for the whole state it is apparent that Victoria-wide, those aged 65 years and over show a higher than average incidence of selecting 'not applicable', likely due to having dentures / no natural teeth (22% compared to 6% average). 65+ year olds register lower than average incidences of indicating their dental health is excellent (10% compared to 16% average), very good (19% compared to 27% average), or good (29% compared to 32% average). The incidence of 65+ year olds rating their dental health as poor is on par with average across all age ranges (6%).

2.20 Mental health

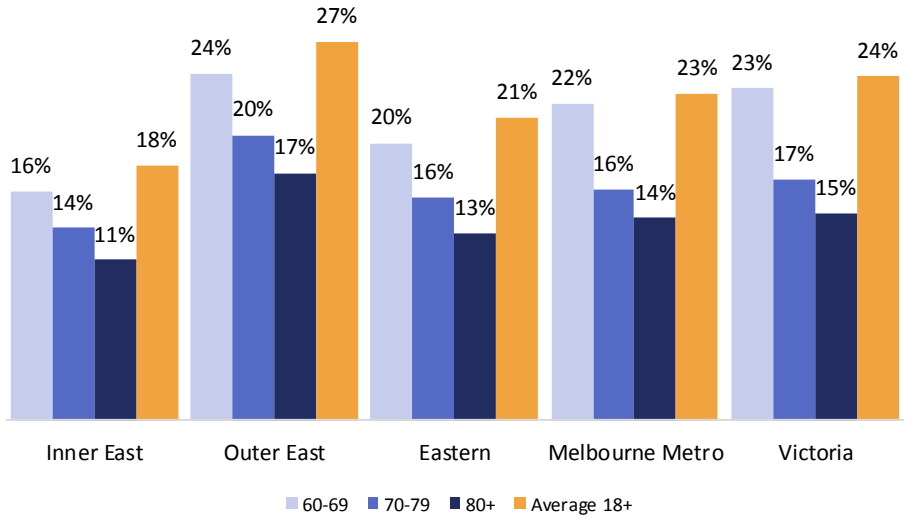
2.20.1 Prevalence of diagnosed depression

Source: (Victorian Population Health Survey, 2014)

The percentage of persons who reported they have ever been told by a doctor that they have depression.

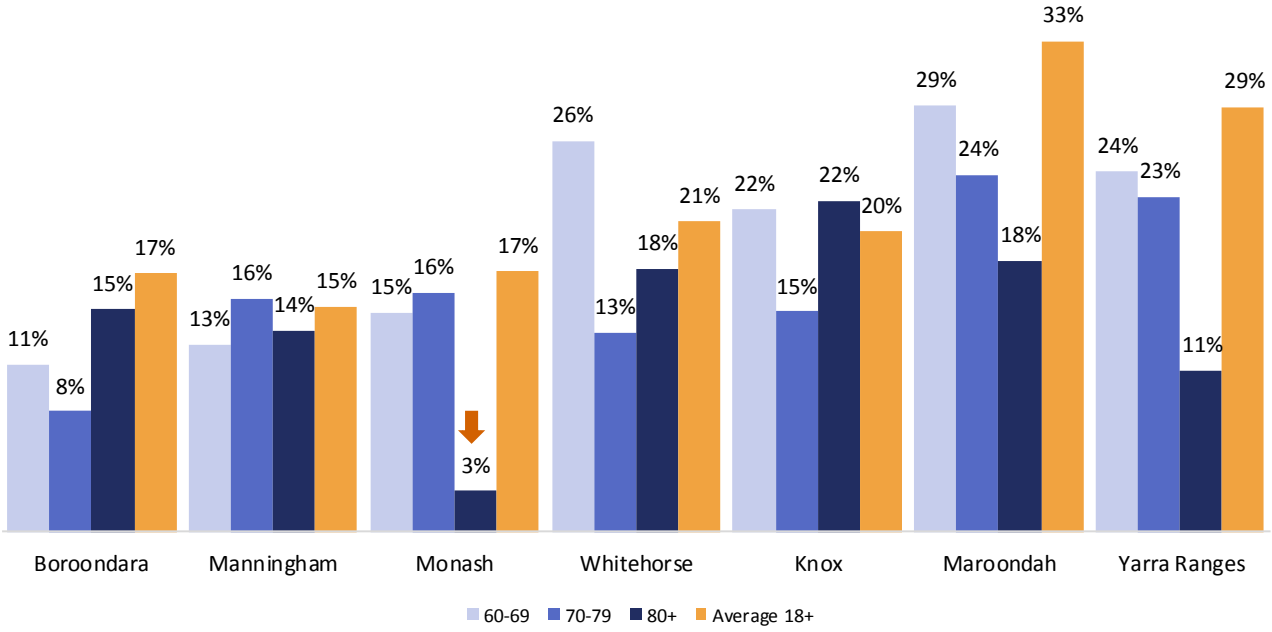
One in five 60-69 year olds in the EMR have been diagnosed with depression by their doctor. The incidence of depression diagnoses decreases with age.

Figure 2.20.1a Percentage of 60+ year olds diagnosed with depression by region



When breaking out this data by LGA the only statistically significant variation is a low incidence of depression diagnosis amongst 80+ year olds in Monash. The seemingly notable variations amongst 60-69 year olds in Whitehorse and Maroondah are not statistically significant.

Figure 2.20.1b Percentage of 60+ year olds diagnosed with depression by LGA



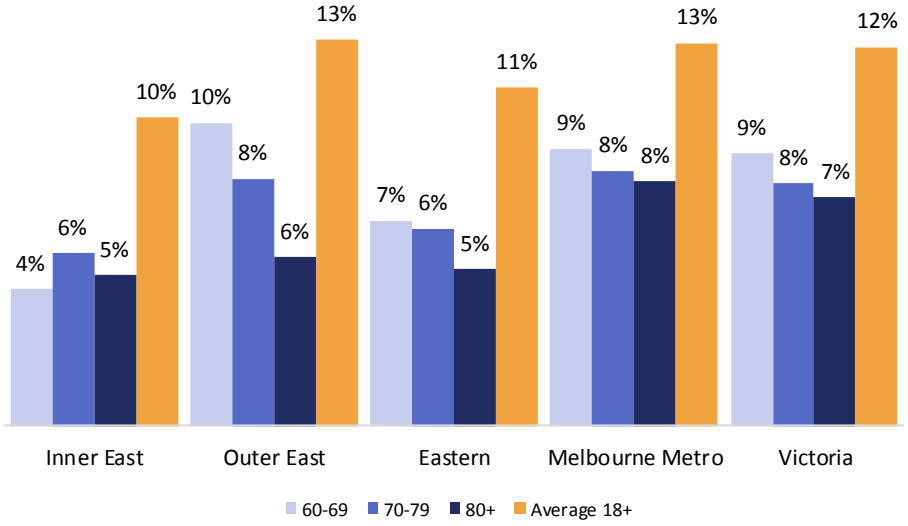
2.20.2 Self-reported psychological distress

Source: (Victorian Population Health Survey, 2014)

The percentage of persons who were categorised as experiencing high or very high psychological distress. The Kessler 10 Psychological Distress Scale (K10) was used during survey interviews. The K10 is a set of 10 questions designed to categorise the level of psychological distress over a 10 week period, and is a simple measure of anxiety, depression and worry. Individuals are categorised to four levels of psychological distress based on their score: low, moderate, high and very high.

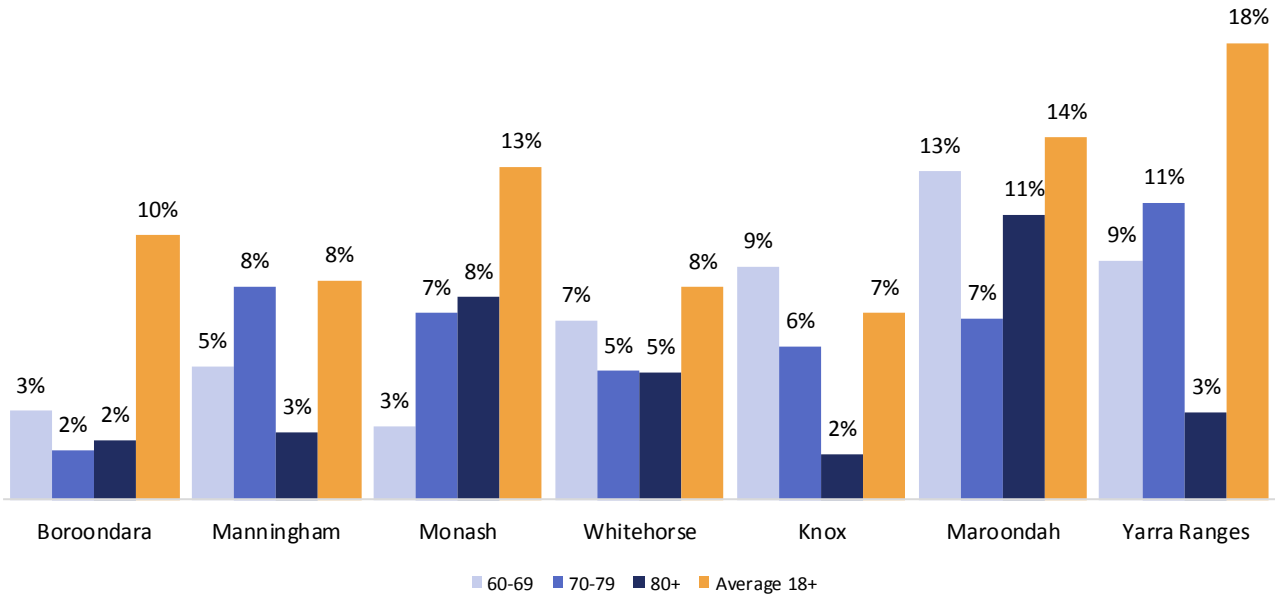
Using the Kessler 10 scale for psychological distress it is clear that a lower proportion of 60+ year olds suffer from high or very high levels of distress than is the average for all 18+ year olds. The rates in the EMR are similar to those recorded across the Melbourne metropolitan area and the state.

Figure 2.20.2a Percentage of 60+ year olds with high or very high psychological distress (Kessler 10) by region



When breaking out this data by LGA there are no statistically significant variations.

Figure 2.20.2a Percentage of 60+ year olds with high or very high psychological distress (Kessler 10) by LGA



2.20.3 Hospitalisation for mental disorders and diseases

Source: (Department of Health and Human Services, 2015-2016). A specific data set was requested through HOSdata to generate this information. Hospital presentations for mental diseases and disorders during the 2015-2016 financial year were counted for each LGA using the following variables, and then extrapolated as a rate per 1,000 using the forecast.id 2016 population projections. This calculation and rate were performed by ASDF Research for the purpose of this report.

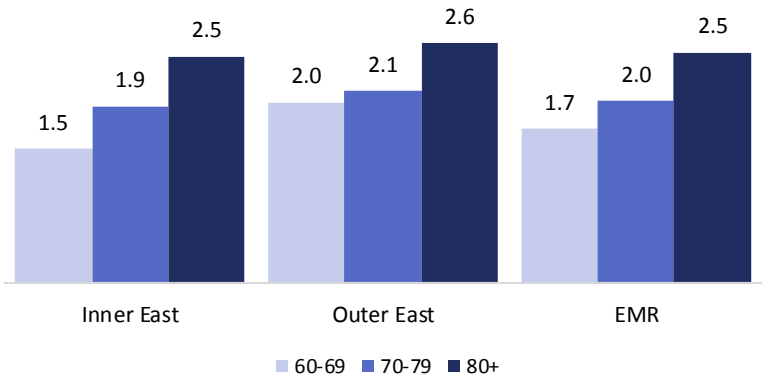
The variables were taken from the Australian Revised Major Diagnostic Category (AR-MDC) Version 6.0 as derived through the same grouping process as the AR-DRG v6:

- 19-Mental Diseases & Disorders (including schizophrenia, paranoia, anxiety, eating disorders, personality disorders, and major affective disorders).

Counts were generated by individual rather than presentations. That is, if an individual presented 3 times in the given year, they were only counted once in this calculation. This allows us to estimate the number of people in the region with this health complication.

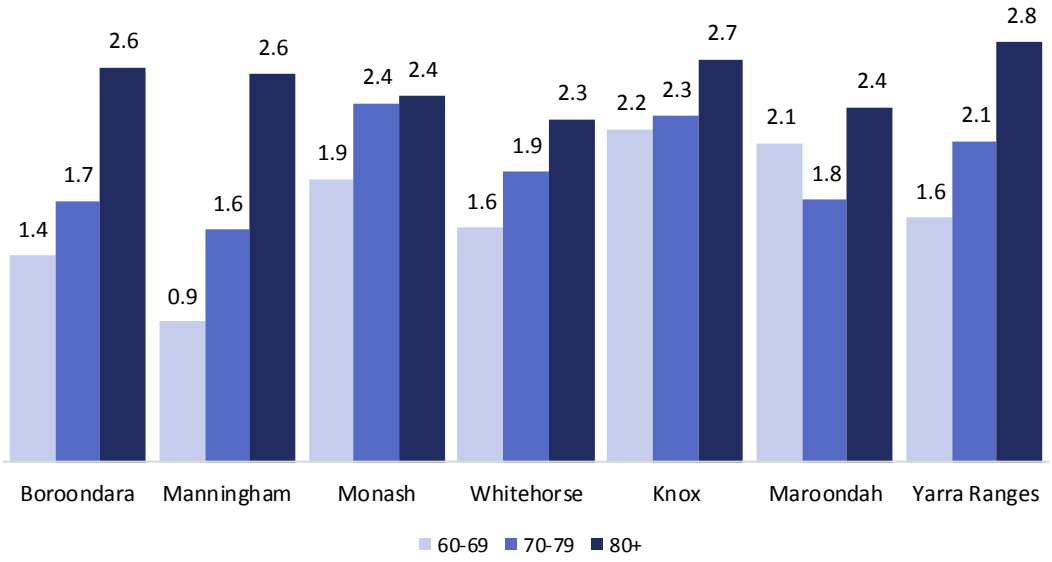
The rate of admissions for mental disorders or diseases increases notably in the 80+ age range and is relatively consistent across the broader region.

Figure 2.20.3a Rate of admissions per 1,000 for mental health related conditions 2015-16 by region



Relatively low rates of admissions were recorded in Manningham for those aged 60-69 years.

Figure 2.20.3b Rate of admissions per 1,000 for mental health related conditions 2015-16 by region



2.21 Hospital presentations and admissions

Source: (Department of Health and Human Services, 2015-2016). A specific data set was requested through HOSdata to generate this information. Emergency Department presentations during the 2015-2016 financial year were counted for each LGA using the following variables, and then extrapolated as a rate per 1,000 using the forecast.id 2016 population projections. This calculation and rate were performed by ASDF Research for the purpose of this report.

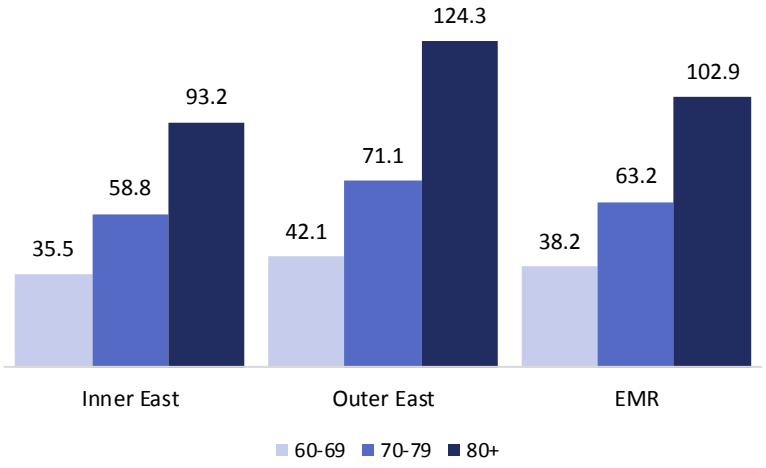
The variables were taken from the Admission type indicator derived from Admission Type:

- C-Emergency Admission from ED at this hospital

Counts were generated by individual rather than presentations. That is, if an individual presented 3 times in the given year, they were only counted once in this calculation. This allows us to estimate the number of people in the region with this health complication.

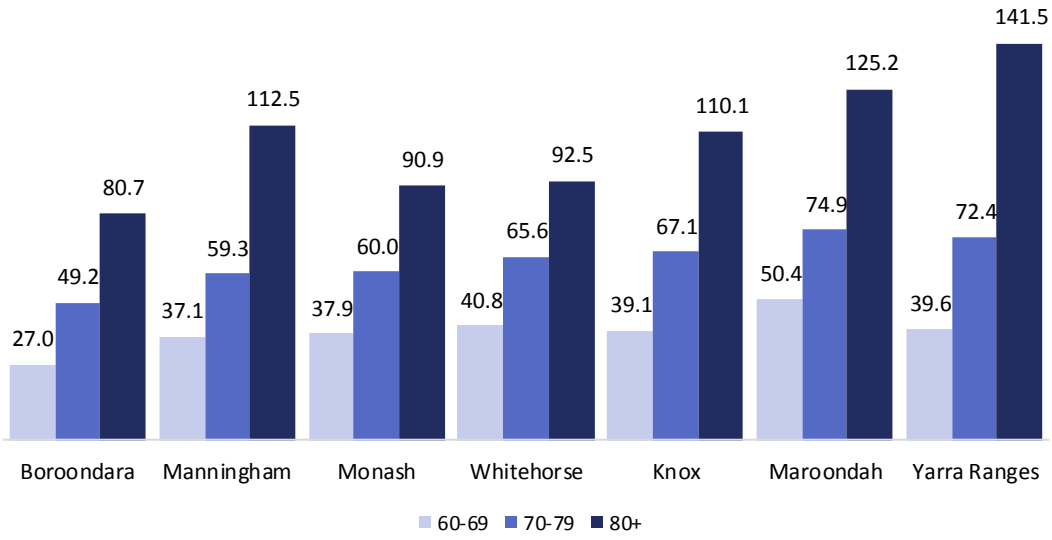
The rate of emergency department presentations per 1,000 population is higher in the outer eastern region.

Figure 2.21.1a Rate of emergency department presentations per 1,000 population by 60+ year olds and Region



Maroondah and Yarra Ranges show notably high rates of emergency department presentations for 80+ year olds.

Figure 2.21.1b Rate of emergency department presentations per 1,000 population by 60+ year olds and LGA



2.22 Death

2.22.1 Mortality rates

Source: (Australian Bureau of Statistics (ABS), 2014)

Reports a count of deaths by age group and gender by the International Classification of Diseases (ICD) which is the international standard classification for epidemiological purposes. It is designed to promote international comparability in the collection, processing, classification, and presentation of causes of death statistics. Versions of the 10th edition of the ICD as used in this data can be found online at this link.

As at 2014, the top three underlying causes of death amongst older people in Victoria were as follows (IDC10 codes included):

Table 2.22.1 Top three causes of death per age range in Victoria

55-64 year olds	
Male	Female
Cancer in digestive systems (C15-C26) Heart disease (Coronary Artery) (I20-I25) Cancer of ear, nose, throat or lung (C30-C39)	Cancer in digestive systems (C15-C26) Cancer of ear, nose, throat or lung (C30-C39) Breast cancer (C50)
65-74 year olds	
Male	Female
Cancer in digestive systems (C15-C26) Heart disease (Coronary Artery) (I20-I25) Cancer of ear, nose, throat or lung (C30-C39)	Cancer in digestive systems (C15-C26) Cancer of ear, nose, throat or lung (C30-C39) Chronic obstructive pulmonary disease (COPD - emphysema or chronic bronchitis)(J40-J47)
75-84 year olds	
Male	Female
Heart disease (Coronary Artery) (I20-I25) Cancer in digestive systems (C15-C26) Cancer of ear, nose, throat or lung (C30-C39)	Heart disease (Coronary Artery) (I20-I25) Stroke (cerebrovascular diseases) (I60-I69) Cancer in digestive systems (C15-C26)
85-94 year olds	
Male	Female
Heart disease (Coronary Artery) (I20-I25) Other forms of heart disease (I30-I52) Chronic obstructive pulmonary disease (COPD - emphysema or chronic bronchitis)(J40-J47)	Heart disease (Coronary Artery) (I20-I25) Stroke (cerebrovascular diseases) (I60-I69) Dementia (F00-F09)
95+ year olds	
Male	Female
Heart disease (Coronary Artery) (I20-I25) Other forms of heart disease (I30-I52) Dementia (F00-F09)	Heart disease (Coronary Artery) (I20-I25) Dementia (F00-F09) Stroke (cerebrovascular diseases) (I60-I69)

2.22.2 External cause fatalities

Source: (National Coronial Information System (NCIS), 2016) DR16-29 External Cause Fatalities closed cases 2008-2016.

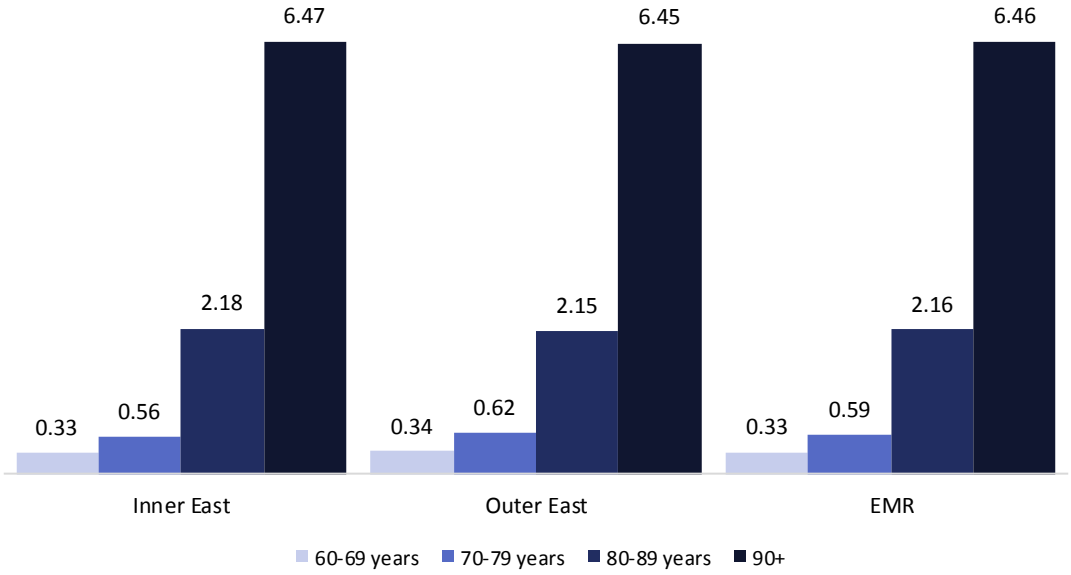
Rate per 1,000 population where the deceased died as a result of an external cause death between 2008 and2013. Rates were calculated using 2011 Census data.

The calculation to estimate the rate per 1,000 per year was ((Number of fatalities/5)/2011 population)/1000.

The top external cause of death for 60+ year olds across all LGAs was related to falls, followed by vehicle incidents. In the inner east region aspiration-related is one of the top 5, however this cause isn't in the top 5 in the outer east. Conversely, asbestosis appears as one of the top 5 in the outer east, but not the inner east.

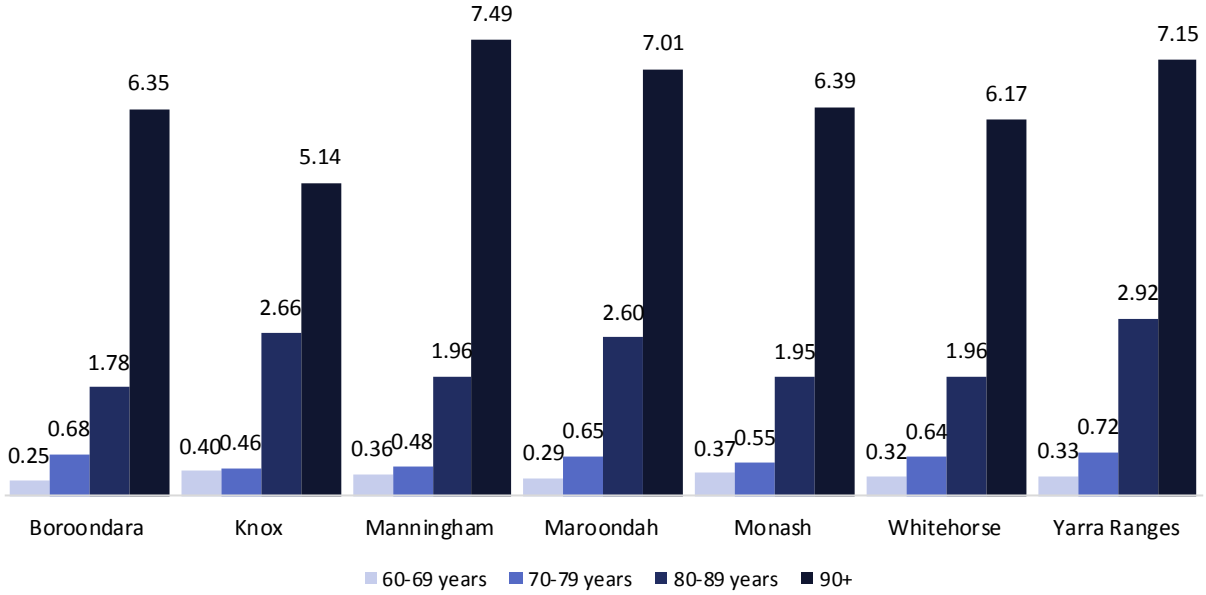
The rate of external cause fatalities by age group is relatively consistent across the region. The rate is relatively consistent between 60-79 years then increases significantly in the 80-89 and 90+ age ranges.

Figure 2.22.2a Estimated external cause fatalities per 1,000 per year by region



The rate per 1,000 population of external cause fatalities is higher for 90+ year olds in Manningham and Yarra Ranges, yet lower in Knox. Yarra Ranges also shows a higher rate amongst 80-89 year olds.

Figure 2.22.2b Estimated external cause fatalities per 1,000 per year by LGA



2.22.3 Deaths from Diabetes

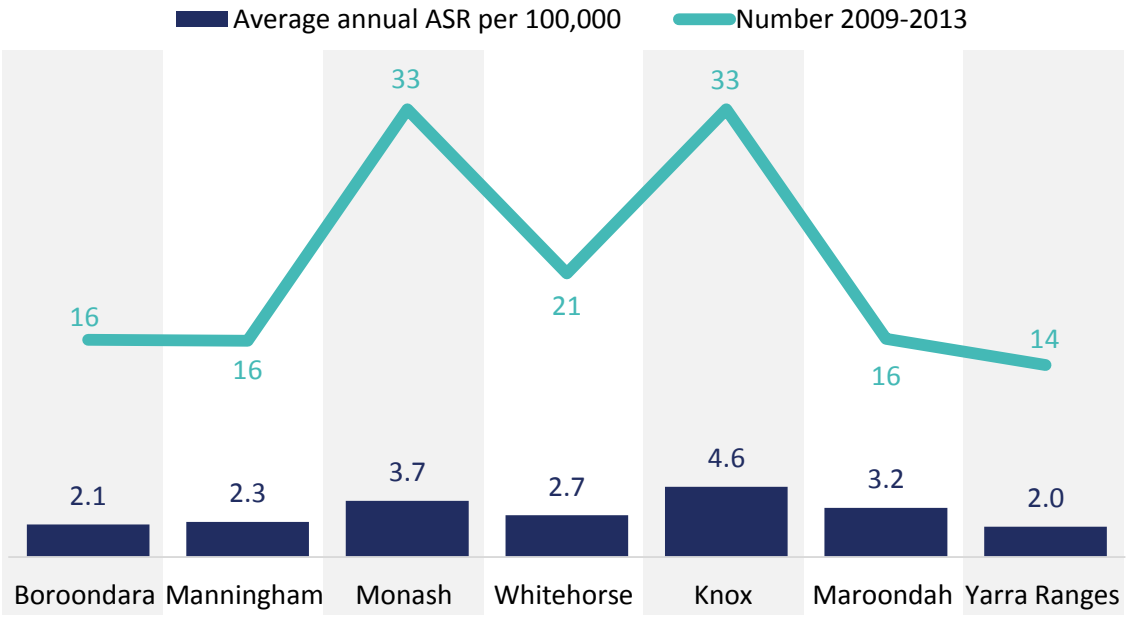
Source: (Public Health Information Development Unit (PHIDU), 2010-14) Diabetes deaths are classified as ICD-10 codes: E10-E14.

Data compiled by PHIDU from deaths data based on the 2009 to 2013 Cause of Death Unit Record Files supplied by the Australian Coordinating Registry and the Victorian Department of Justice, on behalf of the Registries of Births, Deaths and Marriages and the National Coronial Information System. The population at the small area level (Statistical Area Level 2) is the ABS Estimated Resident Population (ERP), 30 June 2009 to 30 June 2013; the population standard is the ABS ERP for Australia, 30June 2009 to 30 June 2013.

Data presented are the average annual indirectly age-standardised rates per 100,000 population (aged 0 to 74 years); and/or indirectly age-standardised ratios, based on the Australian standard.

Based on available data it is estimated that approximately 17 people aged 0-74 in the inner eastern region and approximately 13 people aged 0-74 in the outer will die of diabetes each year. The rate per 100,000 for Greater Melbourne is 4.8, suggesting that many of these regions have fewer deaths than average.

Figure 2.22.3 Rate and count of deaths from diabetes by LGA



2.22.4 Deaths from suicide and self-harm injuries

Source: (National Coronial Information System (NCIS), 2016) DR16-29 External Cause Fatalities intentional self-harm closed cases 2008-2016.

Rate per 100,000 population where the deceased died as a result of an external cause death between 2008 and-2013. Rates were calculated using 2011 Census data.

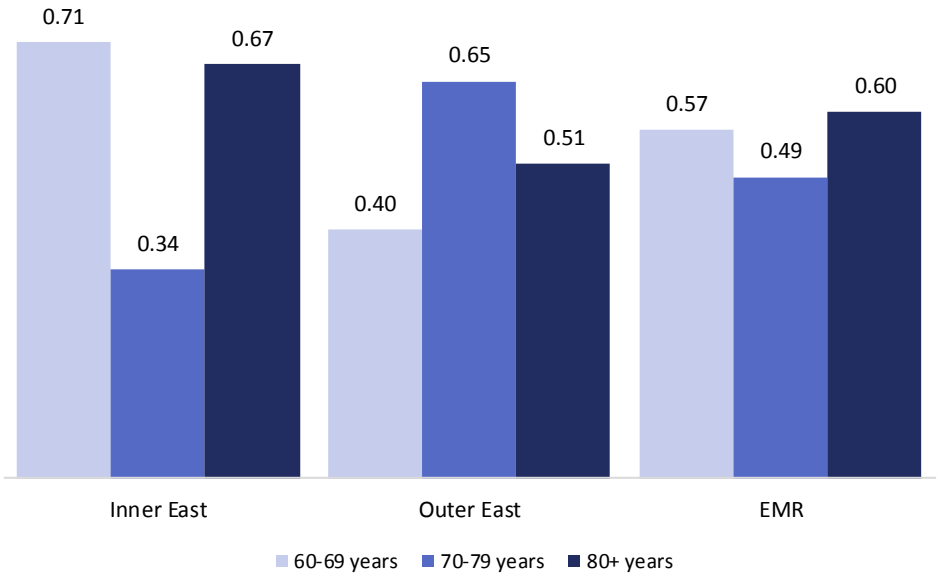
The calculation to estimate the rate per 1,000 per year was ((Number of fatalities/5)/2011 population)/1000.

The determination of the 'intent' of a deceased person is subject to the individual determination of the Coroner investigating each fatality. In some cases, a statement as to intent will not be made by the Coroner. In these instances, only where the mechanism of death (e.g. hanging, car exhaust gassing) is highly indicative of an intentional act, or where a suicide note was present, will the death be coded as "Intentional Self-Harm" on the NCIS. The non-standard nature of intent determination may influence the classification of deaths which are identified in this report.

Part of the condition of use for the NCIS data was that we would only report it as a rate per 1,000. As such, we have not been given permission to report the actual numbers due to privacy concerns (they are very small numbers).

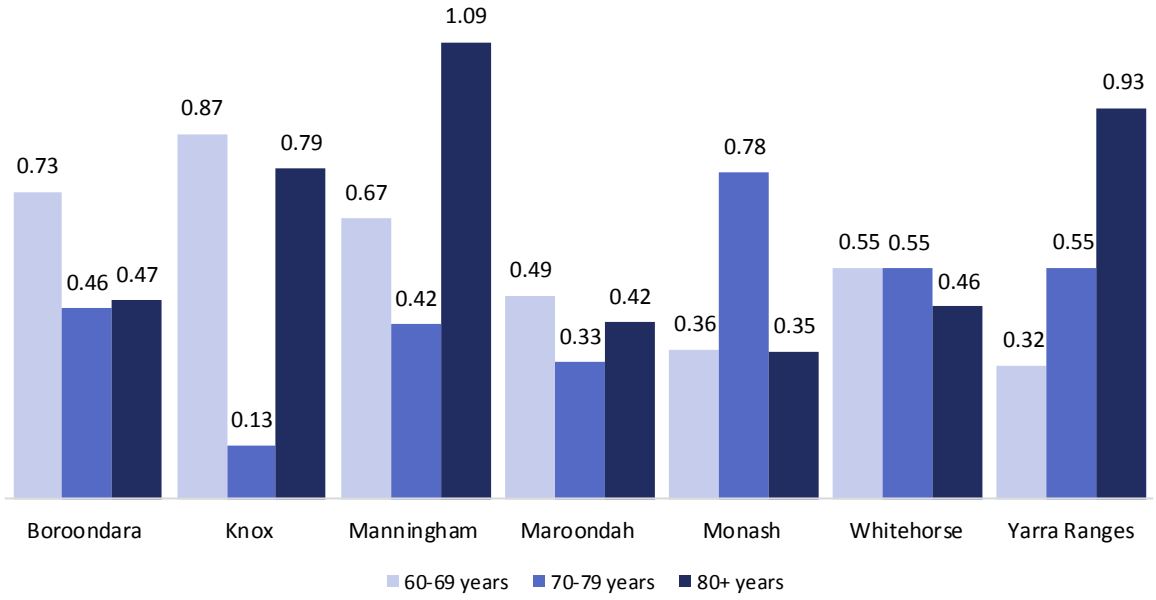
The rate of deaths from self-harm between 2008 and 2013 sits at around 0.55 per 1,000 60+ year olds in a 5 year period. In the 5 years from 2008 to 2013 twice as many 70-79 year olds in the outer eastern region were registered as a self-harm death than the inner east, whilst the inner east registered almost double the rate of 60-69 year old self-harm deaths.

Figure 2.22.4a Rate per 1,000 population in 5 years 2008-2013 of deaths for 60+ from self-harm by region



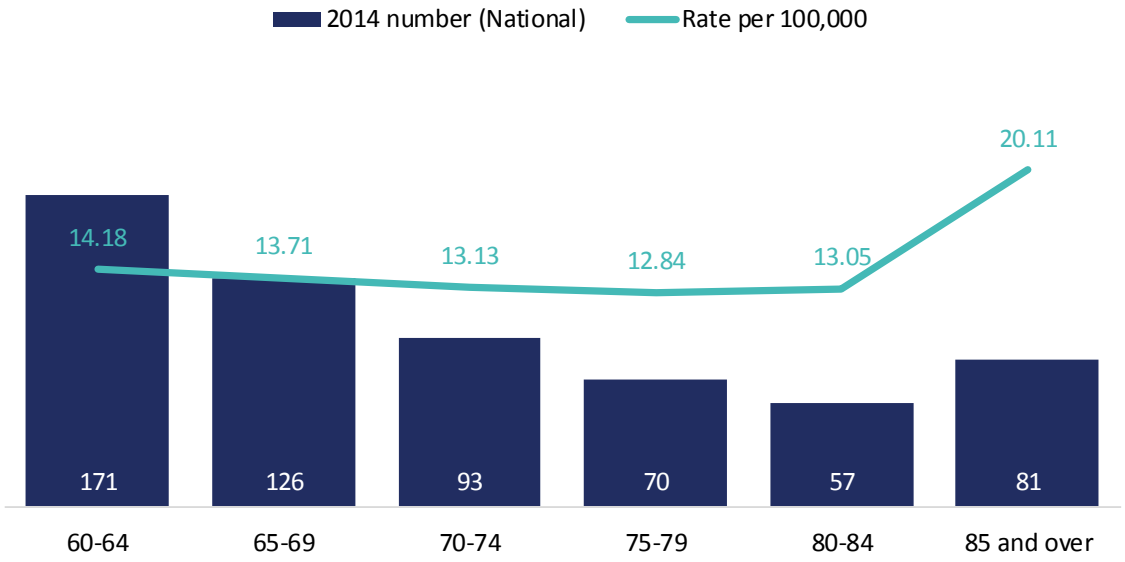
The rate of self-harm deaths per 1,000 in the five years from 2008 to 2013 was notably higher amongst 80+ year olds in Manningham and Yarra Ranges, and higher for 60-69 year olds in Knox and Boroondara.

Figure 2.22.4b Rate per 1,000 population in 5 years 2008-2013 of deaths from self-harm by LGA



National data by age shows that the rate per 100,000 increases notably amongst those aged 85 and over.

Figure 2.22.4c Estimated suicide rate per 1,000 persons by age



2.23 Need for Support and Disability

Source: : (PHN, 2012) Modelled estimates based on the Survey of Disability by DSS 2015 population projections and (Department of Social Services, 2016)

Note: The 'Core Activity Need for Assistance' variable was developed by the Australian Bureau of Statistics (ABS) for use in the five-yearly population Census to measure the number of people with a profound or severe disability, and to show their geographic distribution. A person with profound or severe limitation needs help or supervision always (profound) or sometimes (severe) to perform activities that most people undertake at least daily, that is, the core activities of self-care, mobility and/or communication, as the result of a disability, long-term health condition (lasting six months or more), and/or older age. Fewer people are reported under this measure as having a profound or severe disability as are measured in the ABS Survey of Disability, Ageing and Carers (SDAC). The reasons for this are definitional (the SDAC approach, which uses a filtering approach to determine whether the respondent has a disability, and the severity) as compared to the self-report approach in the Census; and the large not-stated category in the Census data, with more people not responding to this set of questions than are reported as having a profound or severe disability. (Public Health Information Development Unit, 2015).

Projected percentage of population aged over 65 years who need assistance modelled estimates for small areas based on the Survey of Disability, Ageing and Carers (Australian Bureau of Statistics (ABS), 2012) and Department of Social Services population projections for June 2015.

Monash Council area has the highest percentage of people aged 65 years plus living in the community with a severe and profound disability at 13.2% which is lower than the figure for Victoria of 13.7%. All other local government areas in the EMR are below the percentage for Victoria with Maroondah the lowest at 10.5%.

Table 2.23a Percentage of Population with a severe and profound disability living in the community who are 65 years plus

	Percentage of People 65+ with severe and profound disability living in the community	Rank against all LGAs, People 65+ with severe and profound disability living in the community
Inner East	12.10%	12
Boroondara	10.90%	59
Manningham	12.10%	39
Monash	13.20%	25
Whitehorse	12.00%	40
Outer East	11.30%	15
Knox	12.60%	32
Maroondah	10.50%	68
Yarra Ranges	10.60%	65
EMR	11.80%	n/a
Victoria	13.70%	n/a

Table 2.23b 2015 Projected percentage of population aged over 65 years who need assistance

	Need assistance with 1 or more activities	Need assistance with 3 or more activities
Inner East	35.7%	17.8%
Boroondara	36.2%	16.1%
Manningham	36.9%	16.4%
Monash	38.4%	18.5%
Whitehorse	36.1%	19.6%
Outer East	36.7%	18.0%
Knox	36.6%	18.8%
Maroondah	38.0%	18.9%
Yarra Ranges	30.6%	16.4%
EMR	36.1%	17.8%
Victoria	40.1%	19.7%

The type of activities that the person needs assistance with may include: self–care, mobility, communication, cognitive or emotional tasks, health care, reading/writing, transport, household chores. People are more likely to need assistance with one activity than three activities. An assumption could be made that people who need assistance with one activity may be able to manage with support from family or friends. People who need assistance with three or more activities are more likely to need support services to assist them with some of these. Figure 2.23a shows the age break-down of people who need assistance with three activities. As people age they are more likely to fall into this category with between 33 and 42% of people aged 80 years plus needing assistance with three or more activities.

Figure 2.23a Projected percentage of age group that needs assistance with three or more activities by region

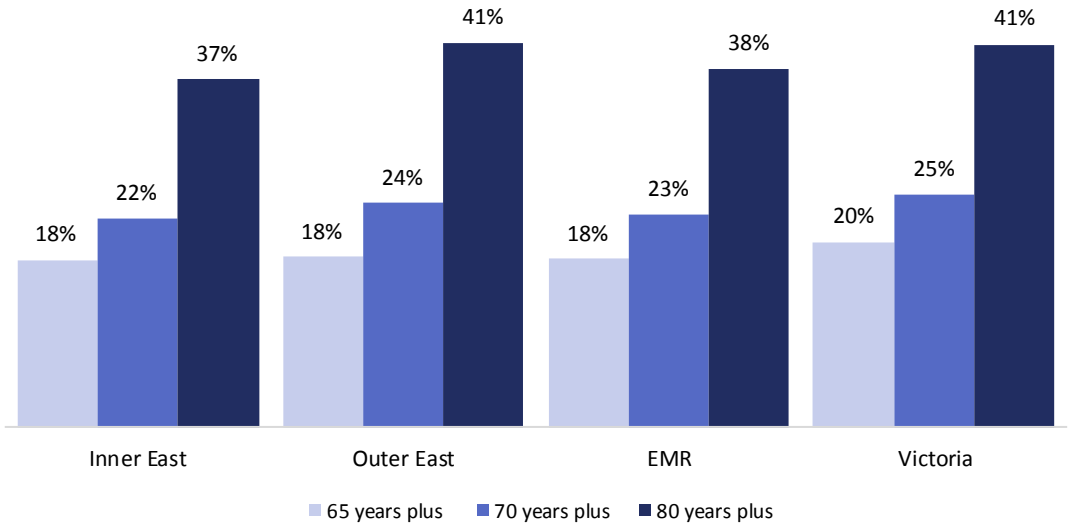
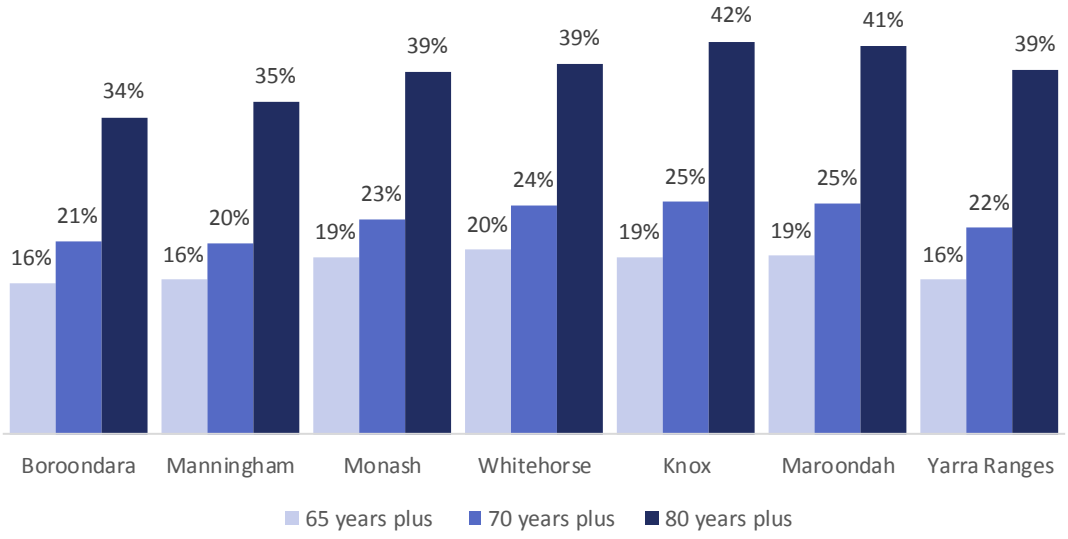


Figure 2.23b Projected percentage of age group that needs assistance with three or more activities by LGA



3. Health Related Behaviours

3.1 Physical activity

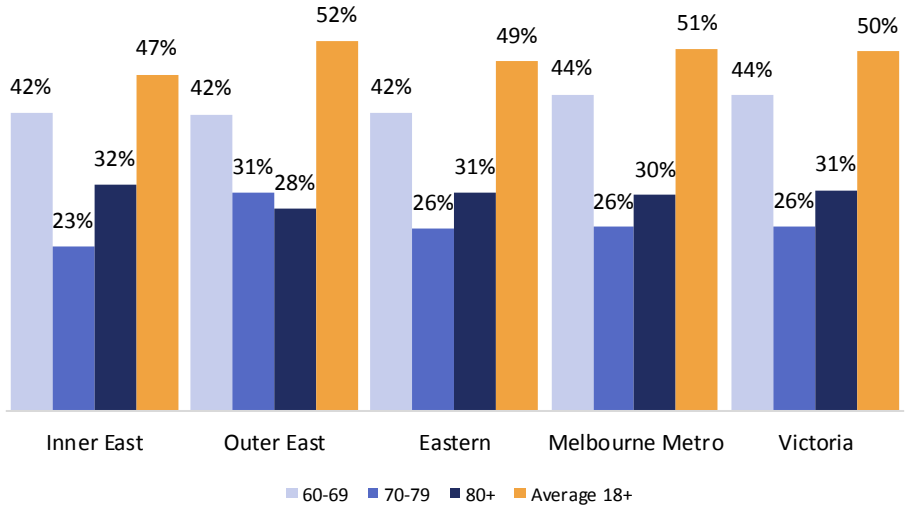
3.1.1 Don't meet physical activity guidelines

Source: (Victorian Population Health Survey, 2014)

The percentage of persons who do not meet the National Physical Activity Guidelines for Australians (Department of Health, 2014). These guidelines recommend at least 30 minutes of moderate intensity physical activity every day for persons aged 65+ on most, preferably all, days.

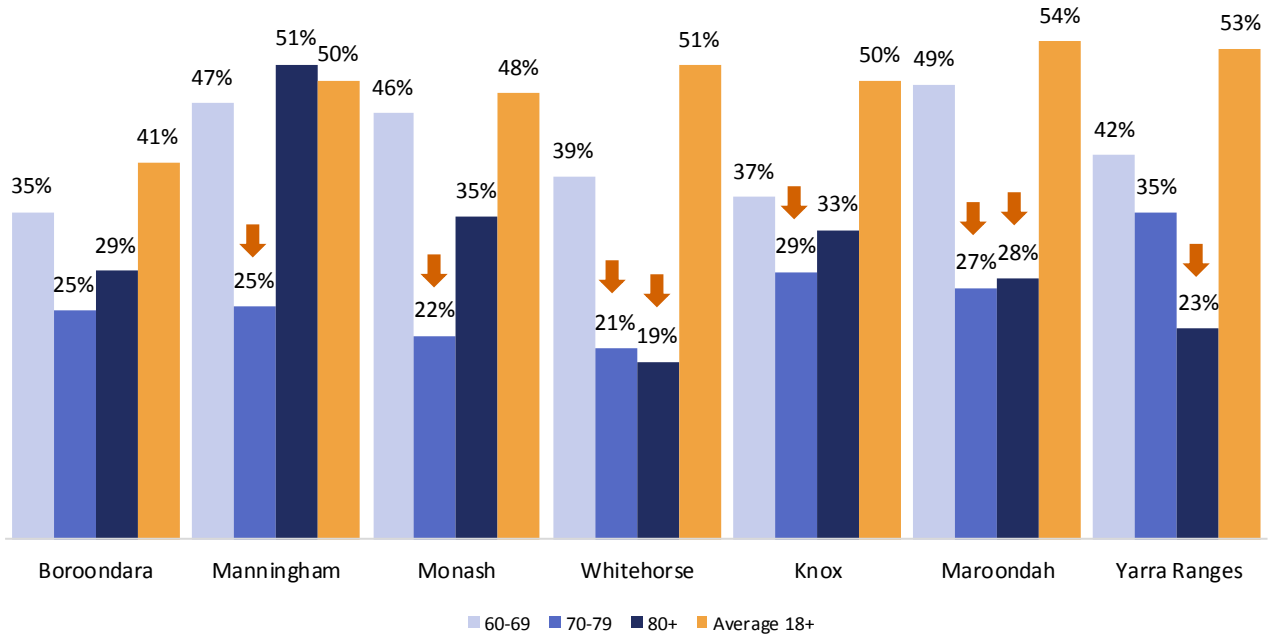
Four in ten 60-69 year olds in the region don't meet physical activity guidelines. This falls to around a quarter to a third for those aged over 70.

Figure 3.1.1a Percentage of 60+ year olds who don't meet physical activity guidelines by region



There are three potential classifications for physical activity; meeting guidelines, not meeting guidelines and sedentary. In Figure 3.1.1b it can be seen that a number of age groups across a number of regions show low instances of not meeting the guidelines. For most, this is due to higher instances meeting the guidelines; over 55% 70+ year olds in Whitehorse , over 47% in Maroondah, 52% 70-79 year olds in Manningham , and 64% 70-79 year olds in Monash 64%. However, in Yarra Ranges the notably low incidence of not meeting guidelines for 80+ year olds is often due to being classified as sedentary instead (25%).

Figure 3.1.1b Percentage of 60+ year olds who don't meet physical activity guidelines by LGA



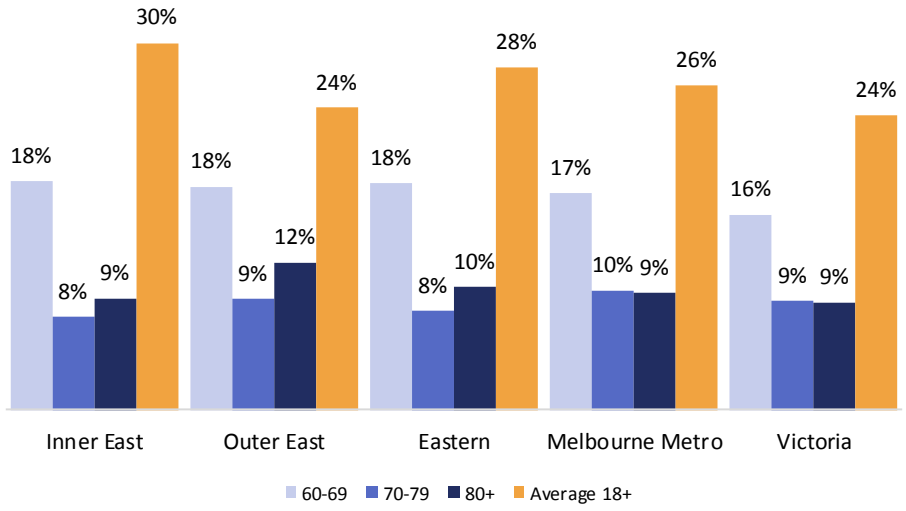
3.1.2 Sit for 8+ hours per day

Source: (Victorian Population Health Survey, 2014)

The percentage of persons who reported they on average sit for 8 or more hours per day on weekdays.

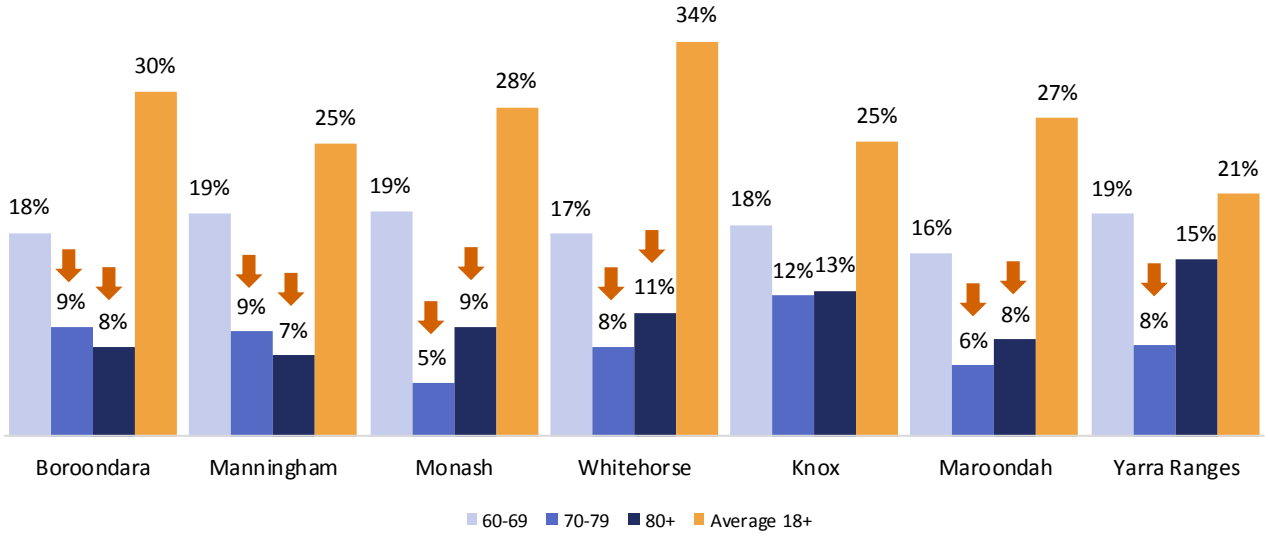
Given that those aged 70+ are often retired, it is understandable that the rates of sitting for 8 hours or more on weekdays is lower than average, as many will no longer be in employment that requires sitting at a desk.

Figure 3.1.2a Percentage of 60+ year olds who sit for 8+ hours on weekdays by region



Knox is the only region where there isn't a significantly low incidence of 60+ year olds who sit for 8+ hours a day.

Figure 3.1.2b Percentage of 60+ year olds who sit for 8+ hours on weekdays by LGA



3.2 Food and drink

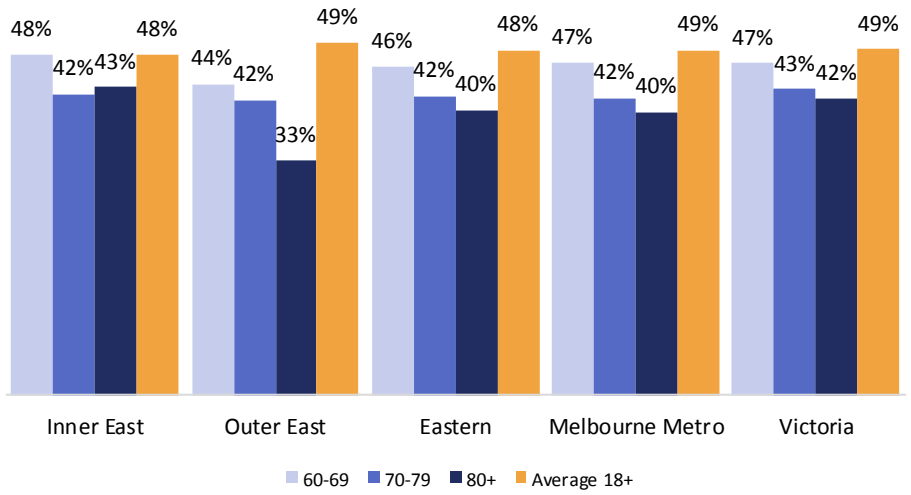
3.2.1 Fruit and vegetable consumption

Source: (Victorian Population Health Survey, 2014)

The percentage of persons who indicate they do not meet the current Australian guidelines for fruit and vegetable consumption. The guidelines recommend that males aged 51-70 have 5.5 serves of vegetables and 2 serves of fruit. Males 71+ and females 51+ should have 5 serves of vegetables and 2 serves of fruit. (National Health and Medical Research Council, 2013)

Almost half of 60+ year olds living in the region don't eat the recommended amount of fruit or vegetables each day.

Figure 3.2.1a Percentage of 60+ year olds who don't meet either fruit or vegetable consumption guidelines by region



In Boroondara, a higher than average proportion of 70-79 year olds indicated that they meet the fruit and vegetable consumption guidelines (17%, compared to 5% average 18+); as a result a lower proportion of 70-79 year olds in this region didn't meet the guidelines. No other variations by age across LGA were statistically significant. These figures are primarily driven by a lack of vegetable consumption, as around half meet the fruit consumption requirements.

Figure 3.2.1b Percentage of 60+ year olds who don't meet either fruit or vegetable consumption guidelines by LGA

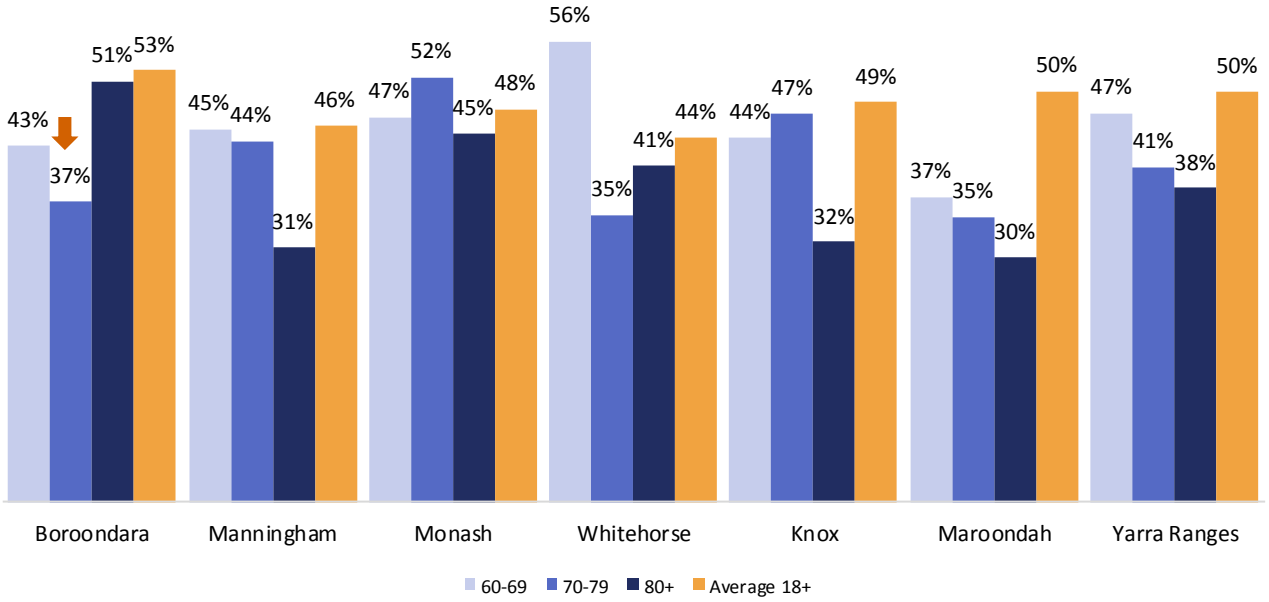


Table 3.2.1 Percentage of 60+ year olds who meet fruit and vegetable consumption guidelines by fruit and vegetables separately

	Both	Vegetable only	Fruit only
Inner East	7%	2%	44%
Boroondara	9%	3%	44%
Manningham	6%	2%	45%
Monash	4%	2%	45%
Whitehorse	9%	0%	43%
Outer East	5%	3%	48%
Knox	3%	4%	45%
Maroondah	5%	3%	55%
Yarra Ranges	8%	3%	44%
EMR	6%	2%	46%
Melbourne Metro	6%	2%	46%
Victoria	7%	3%	43%

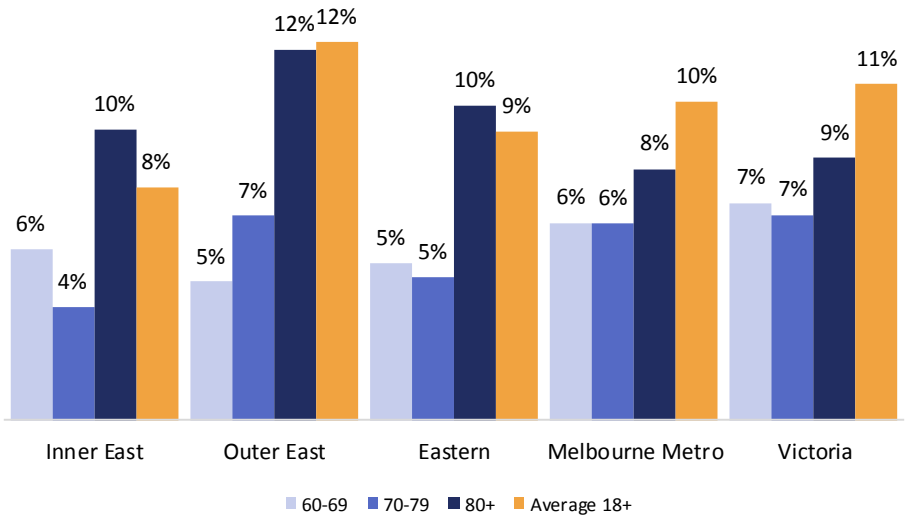
3.2.2 Daily consumption of soft drinks

Source: (Victorian Population Health Survey, 2014)

The percentage of people who indicated they consumed sugar-sweetened soft drinks (for example Coke, Solo and energy drinks like Red Bull) every day over the last 7 days. Other options were every 2-3 days, every 4-6 days, once or not at all. Respondents who didn't know or refused to answer the question have been excluded from the analysis.

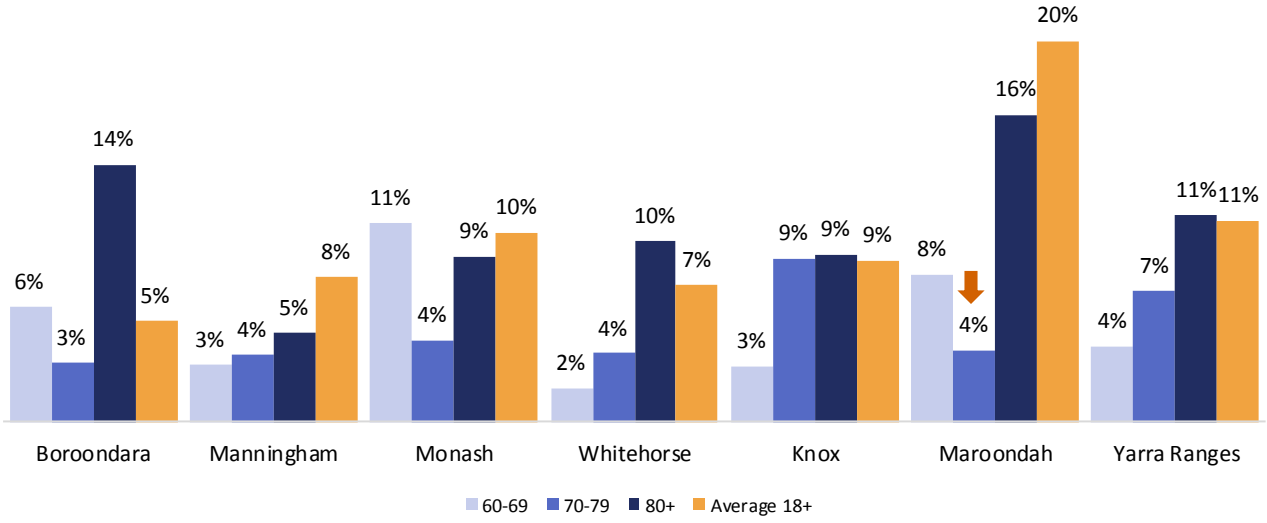
Less than one in ten 60+ year olds drink sugar-sweetened drinks daily. Far fewer 60-79 year olds drink sugar-sweetened drinks than 80+ year olds.

Figure 3.2.2a Percentage of 60+ year olds who consume sugar-sweetened soft drinks daily by region



In Maroondah in general, the incidence of consuming sugar-sweetened soft drink is higher than the other regions, however consumption amongst 70-79 year olds remains low. All other variations are not statistically significant.

Figure 3.2.2b Percentage of 60+ year olds who consume sugar-sweetened soft drinks daily by LGA



3.3 Alcohol

3.3.1 Alcohol consumption

Source: (Victorian Population Health Survey, 2014)

The percentage of residents of the LGA who indicated that they consume alcohol at risky or high risk levels at least once per week. The survey data was analysed relative to the 2001 National Health and Medical Research Council (NHMRC) guidelines for alcohol consumption. These guidelines indicate that males who drink more than six standard drinks and females who drink more than four standard drinks per drinking occasion are at risk of alcohol-related harm in the short-term. The consequences of heavy, regular use of alcohol may include cirrhosis of the liver, cognitive impairment, heart and blood disorders, ulcers, cancers and damage to the pancreas.

One in three 60-69 year olds consumes alcohol at least once per week at levels considered at-risk of short term harm, dropping to one in five 70-79 year olds and less than one in ten 80+ year olds. This lower incidence of at-risk consumption in older age groups is consistent across all regions, the state and LGAs.

Figure 3.3.1a Percentage of 60+ year olds who consume levels of alcohol at risk of short term harm by region

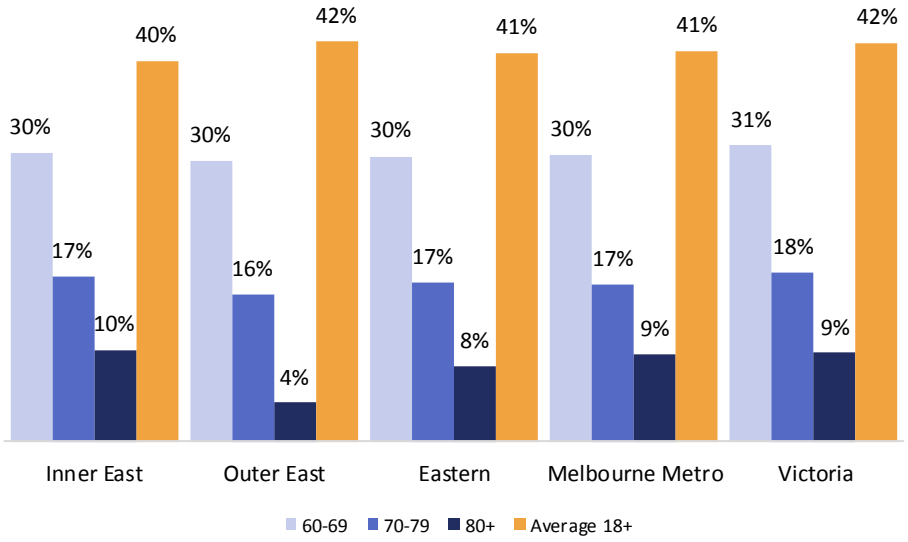
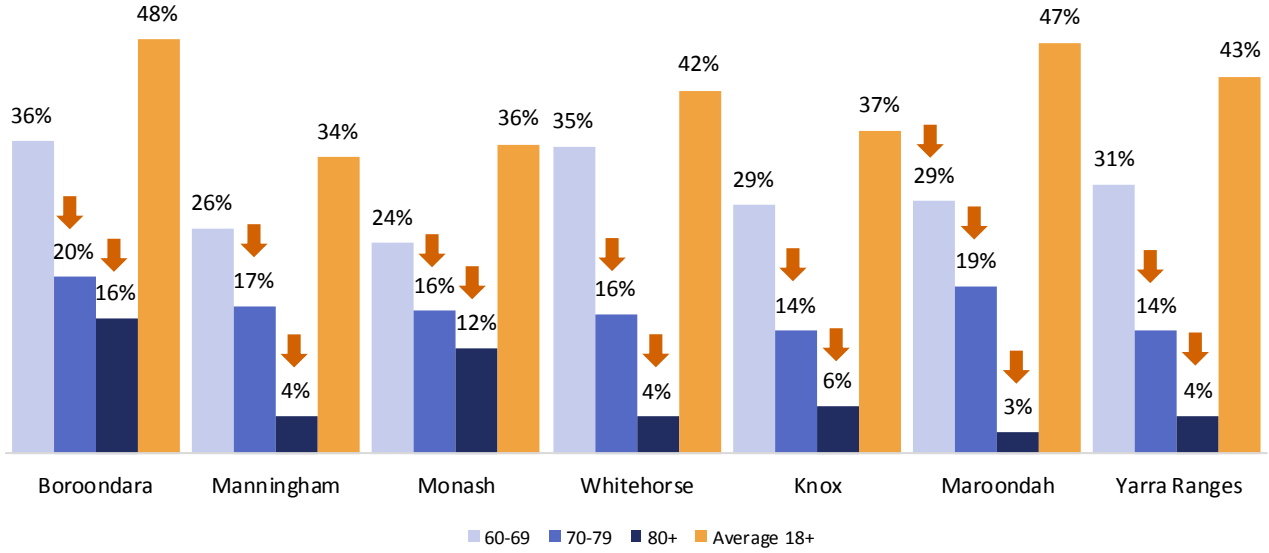


Figure 3.3.1b Percentage of 60+ year olds who consume levels of alcohol at risk of short term harm by LGA



3.3.2 Hospital admissions related to alcohol use

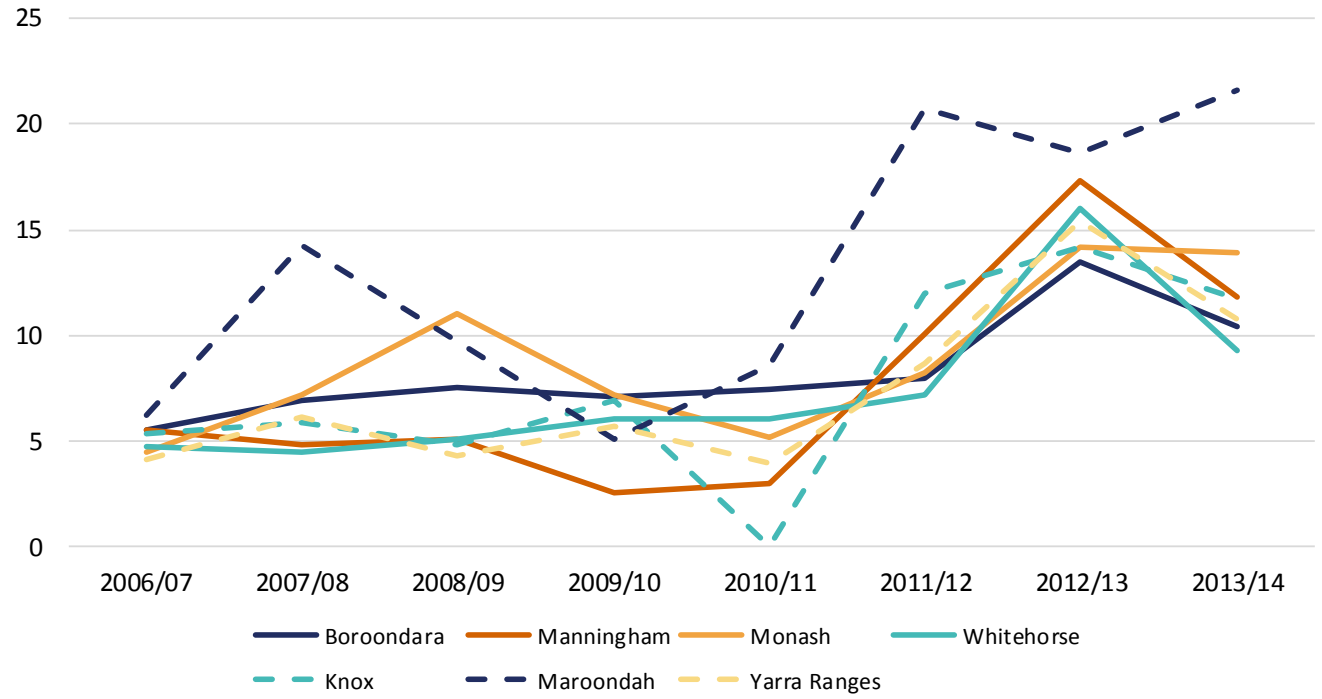
Source: (Turning Point, 2012-13)

AODstats provides information on the harms related to alcohol, illicit and pharmaceutical drug use in Victoria. The data were obtained from numerous sources, ranging from government departments to drug and alcohol treatment agencies.

Alcohol ambulance attendance: Sourced through 'The Ambo Project' database which is maintained by Turning Point. This is a database of alcohol and other drug related attendances by Ambulance Victoria. The database contains information from the patient care records completed by the attending ambulance paramedics. There are three categories of alcohol-related ambulance attendances: (1) alcohol mentions, (2) alcohol intoxication with other drugs, and (3) alcohol (intoxication) only. The alcohol mentions category includes those cases where alcohol was mentioned as being involved but may or may not be the primary reason for attendance and may not have contributed to the ambulance attendance.

When analysing the rate per 100,000 of ambulance attendances for 65+ year olds for alcohol related incidences over time it is clear that attendances across all LGAs increased from 2010/11-2012/13, and then fell for all regions in 2013/14 except Maroondah which continued to rise and Monash which remained at the same level. Since 2010/11, Maroondah shows the highest rate per 100,000 of ambulance call-outs for alcohol related incidences of all LGAs covered.

Figure 3.3.2a Rate of alcohol related Ambulance attendances per 100,000 65+ year olds 2006-2014



Hospital admission data is not broken out by age range, and there doesn't appear to be any clear trends over time.

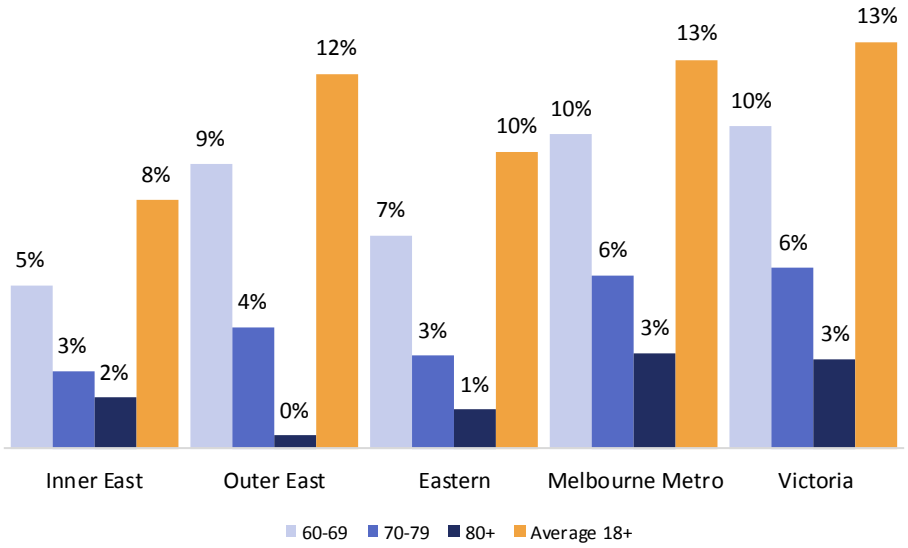
3.4 Smoking

Source: (Victorian Population Health Survey, 2014)

The percentage of persons aged 18 years or older who indicate they are current smokers (i.e. they smoke daily or occasionally).

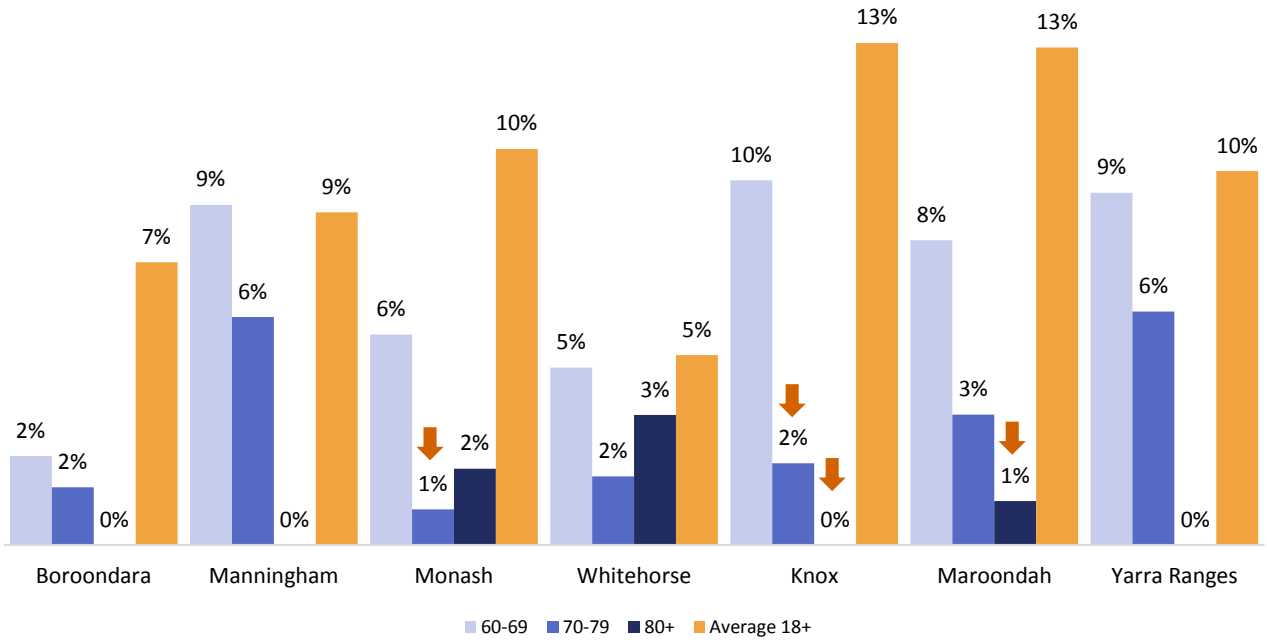
Around one in ten 60-69 year olds in Victoria smokes, with this rate dropping significantly with age. The inner east region shows consistently lower incidence of smokers.

Figure 3.4a Percentage of 60+ year olds who smoke by region



The incidence of those aged over 70 or 80 years who smoke is significantly lower than the rate for the whole adult population in Monash, Knox and Maroondah. Due to low instances and sample size limitations, any other variations by LGA are not statistically significant.

Figure 3.4b Percentage of 60+ year olds who smoke by LGA



The lack of any smokers amongst 80+ year olds in Manningham, Knox and Yarra Ranges can be explained by the small sample sizes for those areas, given the incidence is also very small (Manningham 80+ n=49, Knox 80+ n=38 and Yarra Ranges 80+ n=30). In general there would appear to be a trend in lower incidences of smoking amongst this age group.

Given the incidence is too low to draw out meaningful variations by 10-year age groups, an overall category of 60+ has been drawn out, as summarised in Table 3.4. When grouping all three 60+ age categories it is clear that this age group commonly has a lower instance of smoking than the general adult population. This trend is observable across the state.

Table 3.4 Percentage of 60+ year olds who smoke

	60+	Total 18+	Commentary
Inner East	3.8%	8.0%	60+ lower than average
Boroondara	2.2%	7.5%	
Manningham	6.4%	8.8%	
Monash	2.9%	10.5%	60+ lower than average
Whitehorse	3.5%	5.0%	
Outer East	5.8%	12.1%	60+ lower than average
Knox	5.7%	13.3%	60+ lower than average
Maroondah	4.4%	13.2%	60+ lower than average
Yarra Ranges	7.1%	9.9%	
Eastern	4.6%	9.6%	60+ lower than average
Melbourne Metro	7.7%	11%	60+ lower than average
Victoria	7.9%	11.6%	60+ lower than average

3.5 Screening participation

3.5.1 Breast cancer

Source: (Public Health Information Development Unit (PHIDU), 2010-14) Breast screening participation, females aged 50 to 69 years, 2010 and 2011.

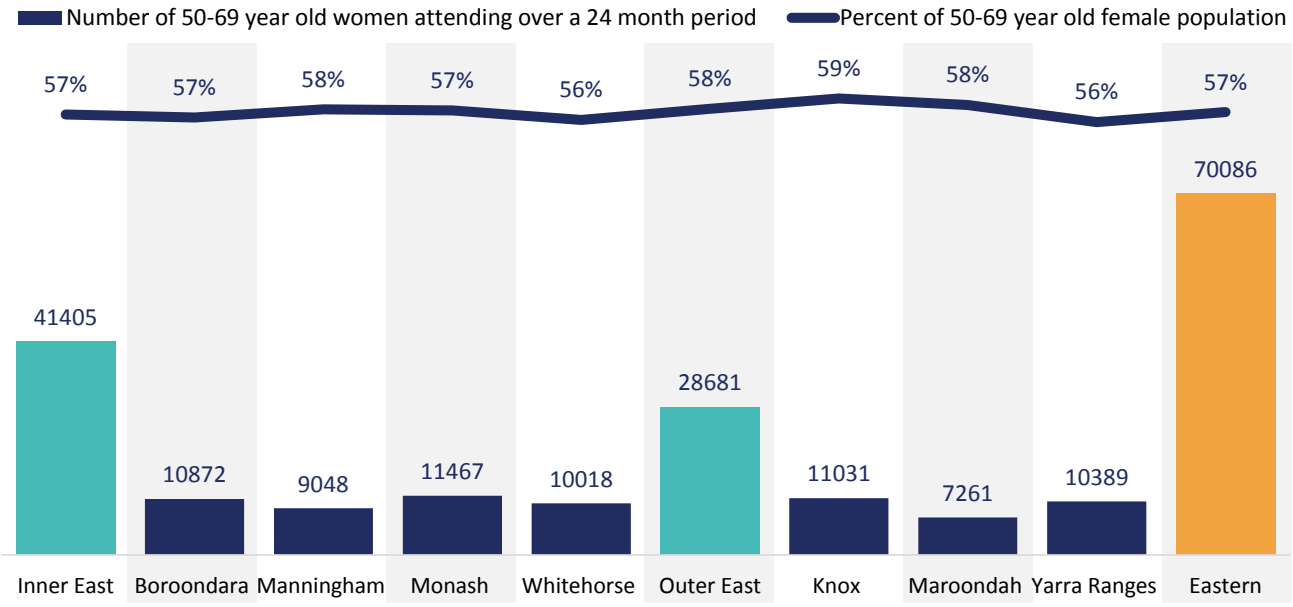
Compiled by PHIDU based on data from BreastScreen Vic and average of the ABS Estimated Resident Population (ERP), 30 June 2010 and 30 June 2011.

The participation rate for the 24 month period to the end of each calendar year is based on the actual number of women screened as a percentage of the average of the ABS ERP for the two corresponding calendar years. If a woman has attended more than once in the 24 months, she is counted once only, and the age is taken from the first visit.

The data do not include women who undergo private screening; the impact of such services is estimated to be quite small.

More than half of women aged 50-69 participate in breast screening in a 2 year period. Participation rates are fairly consistent across the region.

Figure 3.5.1 Number and percent of breast screening participation, females 50-69 in a 2 year period



3.5.2 Cervical cancer

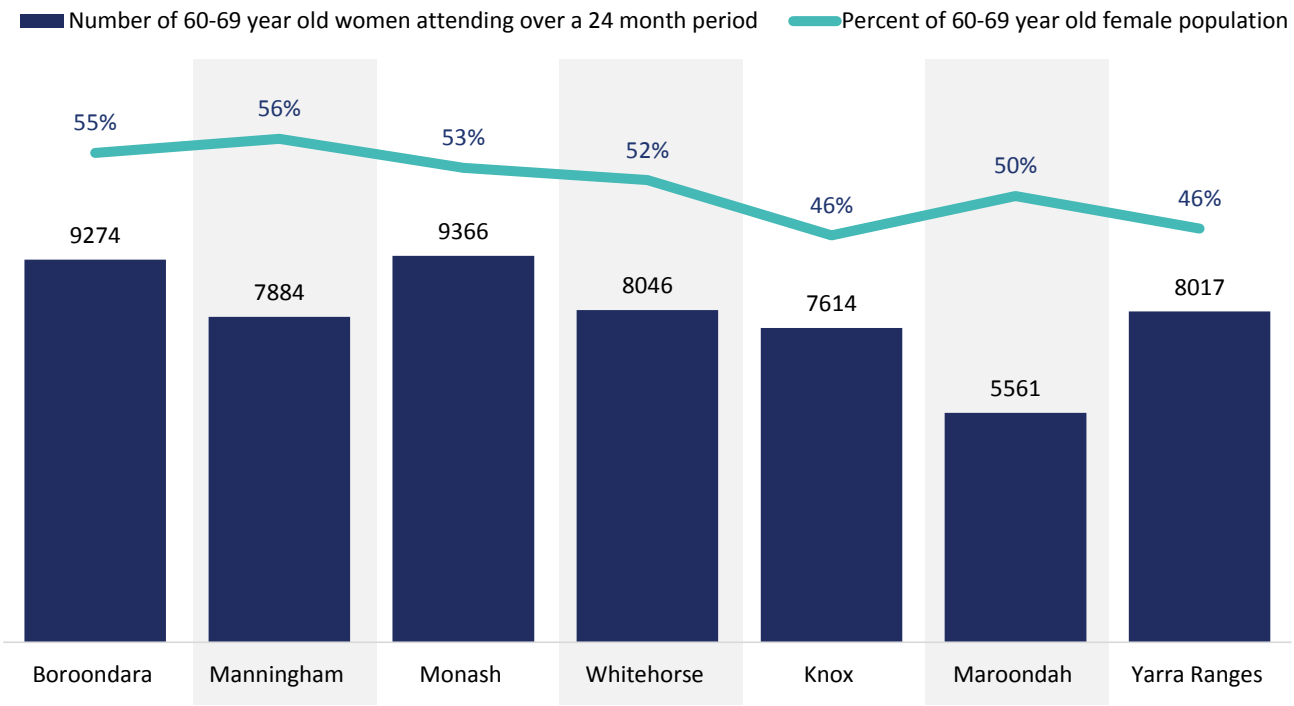
Source: (Victorian Cervical Cytology Registry (VCCR), 2012-2014) Cervical screening participation, females aged 60 to 69 years, 2012 to 2014.

Compiled by ASDF Research based on data from Victorian Cervical Cytology Registry and the ABS Estimated Resident Population (ERP) for 2014.

The participation rate for the 24 month period 2012-2014 is based on the actual number of women screened as a percentage of the average of the ABS ERP for 2014.

Across the whole of Victoria in the 2 year period from 2012-2014, it is estimated that 45% of women aged 60-69 were screened for cervical cancer, increasing to 48% in the Metropolitan area of Melbourne. The proportion of the 60-69 year old female population being screened in the eastern region (51%) is higher than the state average, particularly in the inner east (54%).

Figure 3.5.2 Number and percent of cervical screening participation, females 60-69 in a 2 year period (2012-2014)



3.5.3 Bowel cancer

Source: (Public Health Information Development Unit (PHIDU), 2010-14) Participation in the National Bowel Cancer Screening Program (NBCSP).

The original source of this data is the Department of Health.

Formal publication and reporting of the NBCSP data is undertaken by the Australian Institute of Health and Welfare on behalf of the Department of Health. NBCSP data included in this report provided by the Department of Health is not part of the formal publication and reporting process for NBCSP data.

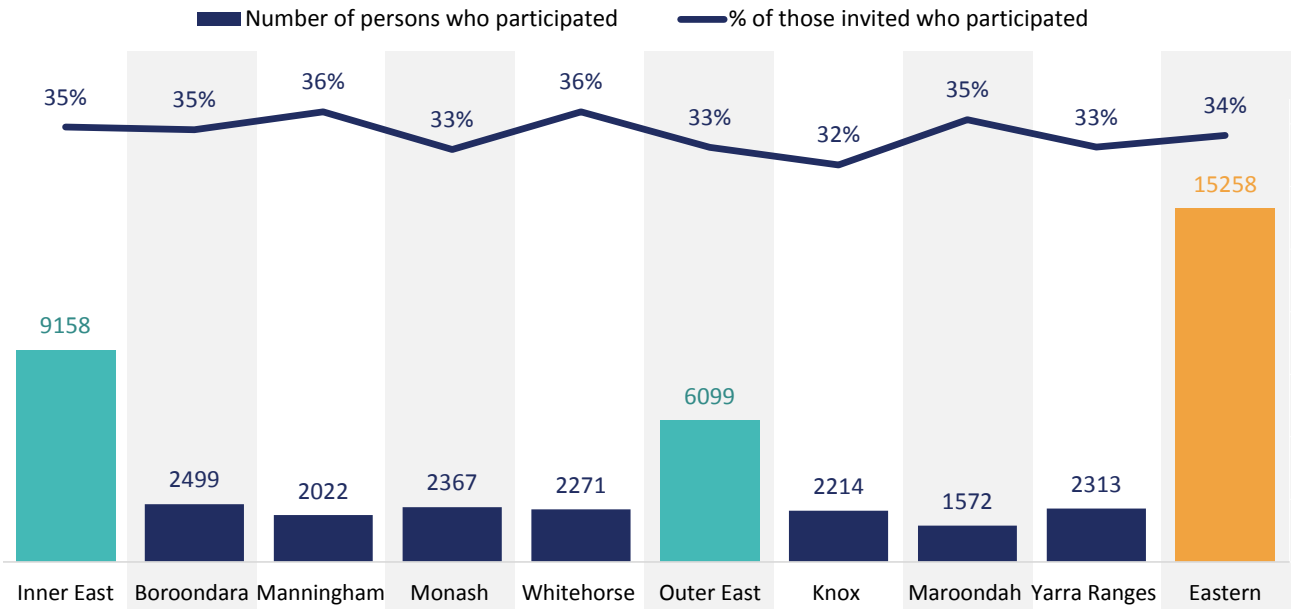
Cautionary note about small numbers - due to a larger degree of statistical fluctuation in small numbers, great care should be taken when assessing apparent differences involving small numbers and measures based on small numbers.

Compiled by PHIDU based on data provided by the Department of Health from the National Bowel Cancer Screening Program, 2012/13.

The data comprise the number of males/ females/ persons aged 50, 55 or 65 years who participated in the National Bowel Cancer Screening Program between July 2012 and June 2013, expressed as a proportion of the number of males/ females/ persons aged 50, 55 or 65 years who were invited to participate in the National Bowel Cancer Screening Program between July 2012 and June 2013. Where there are fewer than five events (invitees, participants) in an area, the data have been suppressed to protect confidentiality.

When offered to opportunity to undertake screening for bowel cancer, only a third of 50-65 year olds undertook the screening. The rate of participation in screening was lower in Knox, Monash and Yarra Ranges, yet higher in Manningham and Whitehorse.

Figure 3.5.3 Number and percent of bowel cancer screening participation 50 -65 year olds



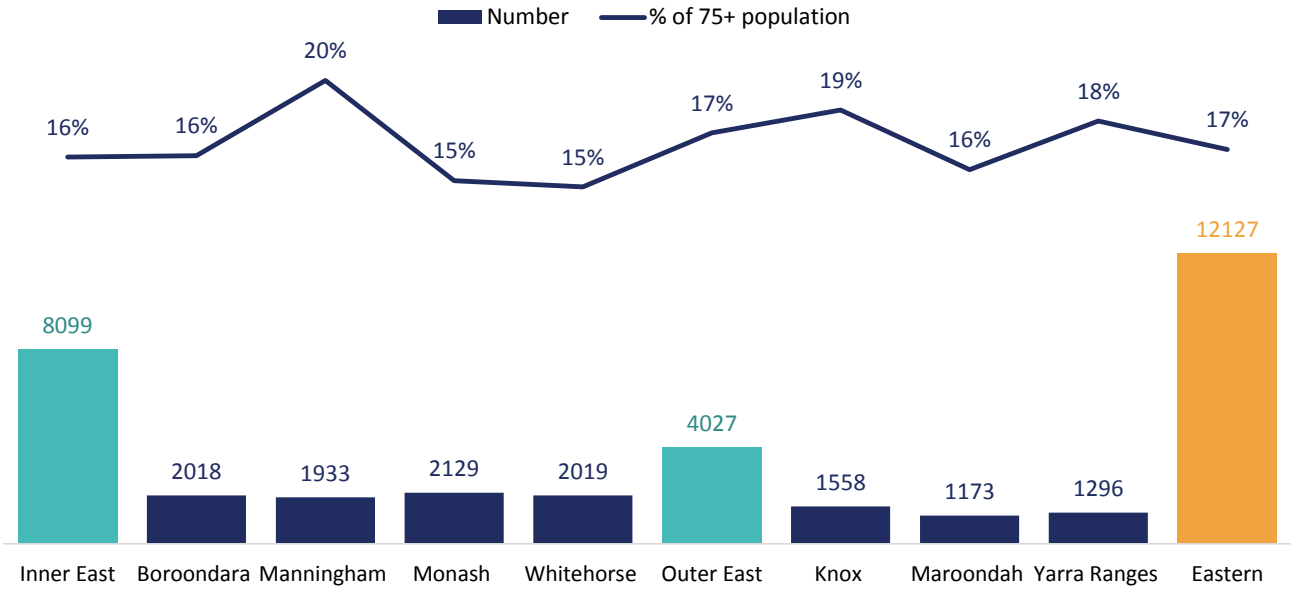
3.5.4 75+ year old regular checks

Source: (Public Health Information Development Unit (PHIDU), 2010-14) Annual health assessments by GPs, persons aged 75 years and over 2009-10. Based on MBS Item Nos: 700, 702.

Compiled by PHIDU based on data from the Department of Health and Ageing, 2009/10; and the average of the ABS Estimated Resident Population (ERP), 30 June 2009 and 30 June 2010.

Around one in six 75 year olds undergo annual health assessments by their doctor. This rate fluctuates across the region, with higher levels of participation in Manningham and lower levels in Monash and Whitehorse.

Figure 3.5.4 Number and percent of 75+ year old health checks



4. Lifestyle Behaviours

4.1 Gambling

Source: (Yeung, 2016) Study of Gambling and Health in Victoria: Findings from the Victorian Prevalence Study 2014, which is based on a telephone survey. 824 of those surveyed lived in the EMR and were over 65 years of age. EMR specific data was provided via email.

According to the Study of Gambling and Health in Victoria: Findings from the Victorian Prevalence Study 2014, in the EMR:

- Around 66 % of the sample (sample size 824) gambled in the past year, lower than the Victorian average of 70 per cent.
- The participation rates for people in age groups 65-69 years and 75-79 years were similar to the Victorian average and were lowest for the age group 85 years and above. Figure 4.1a outlines the gambling participation rate by age group.

Figure 4.1a Gambling participation of people aged 65 years or more living in the eastern region

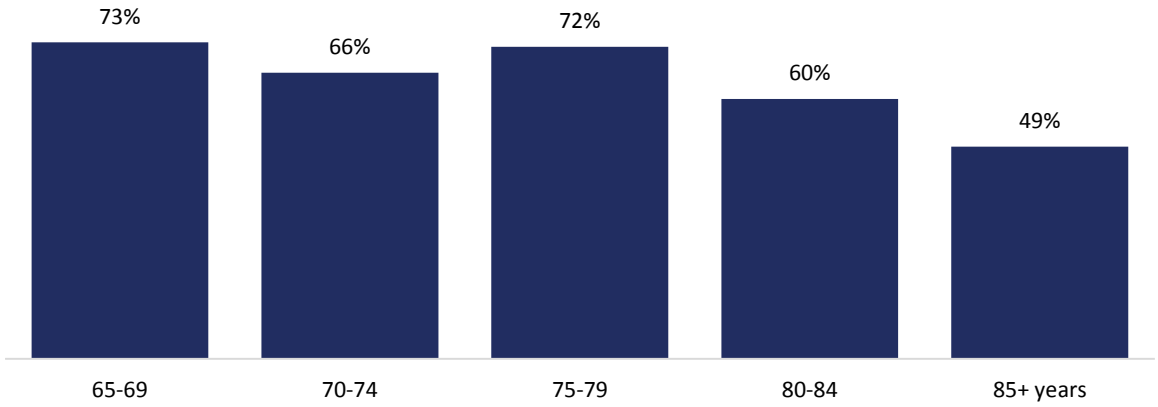
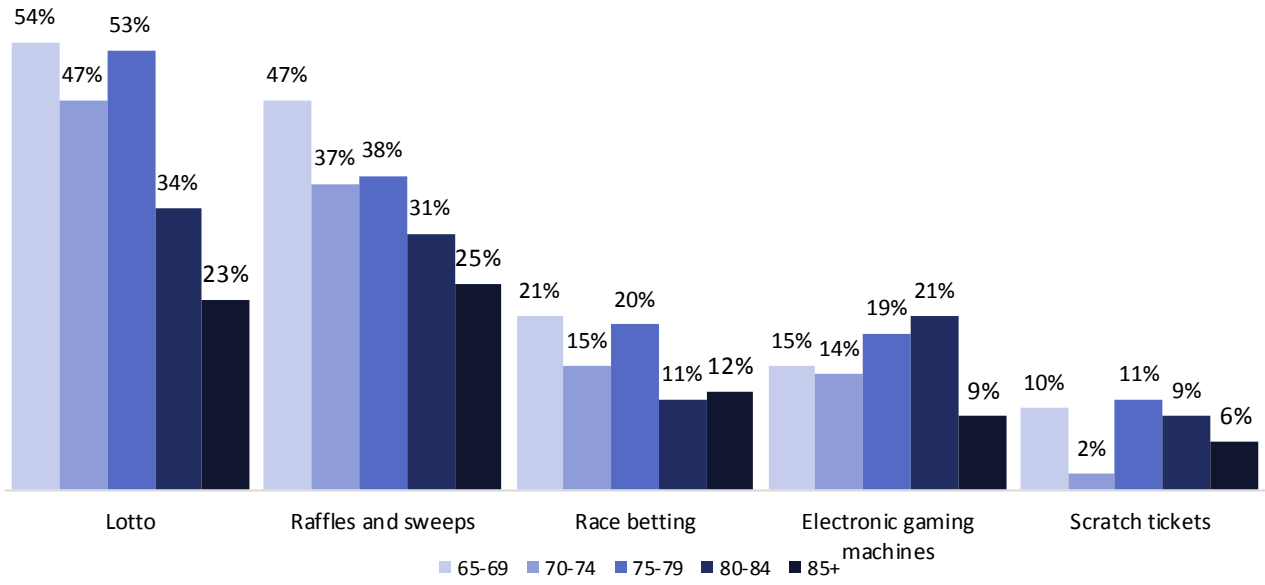


Figure 4.1b indicates participation rates in the type of gambling for each age group in the EMR sample which registered 5% or more participation. Lotto and raffles/sweeps have the highest participation rates.

Figure 4.1b Gambling participation of people aged 65 years or more living in the eastern region

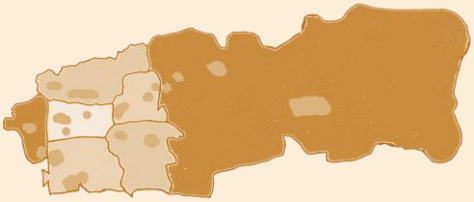


Environments

5 Social and community networks

6 Age friendly cities

7 Other socio-economic, cultural and environmental conditions



5. Social and Community Networks

5.1 Live Alone

Source: (Department of Health and Human Services, 2014) LGA Profiles and (Australian Bureau of Statistics (ABS), 2011) 2011 Census.

The EMR has the highest percentage of females aged over 75 years who live alone in Victoria. Boroondara is ranked second out of all Victorian LGAs for the percentage of females aged over 75 years who live alone, with Whitehorse 5th and Manningham 7th.

Table 5.1 Percentage of females aged over 75 years who live alone and rankings

	Percentage of total population aged 75+ living alone	Rank against all LGAs, % total population aged 75+ living alone	Percentage of females aged 75+ living alone	Rank against all LGAs, % females aged 75+ living alone
Boroondara	38.9%	35	79.0%	2
Manningham	26.7%	77	76.8%	7
Monash	29.7%	72	74.7%	23
Whitehorse	37.0%	48	77.4%	5
Knox	33.8%	66	75.3%	20
Maroondah	39.0%	34	75.8%	15
Yarra Ranges	33.8%	65	72.7%	44
EMR	34.0%	7	76.3%	1
Victoria	35.9%	n/a	73.9%	n/a

Figures 5.1a and b show that females are far more likely to live alone as they age than males with 70 to 80% of females aged 75 years plus living alone in all councils and regions.

Figure 5.1a Percentage of population aged over 75 years who live alone by region

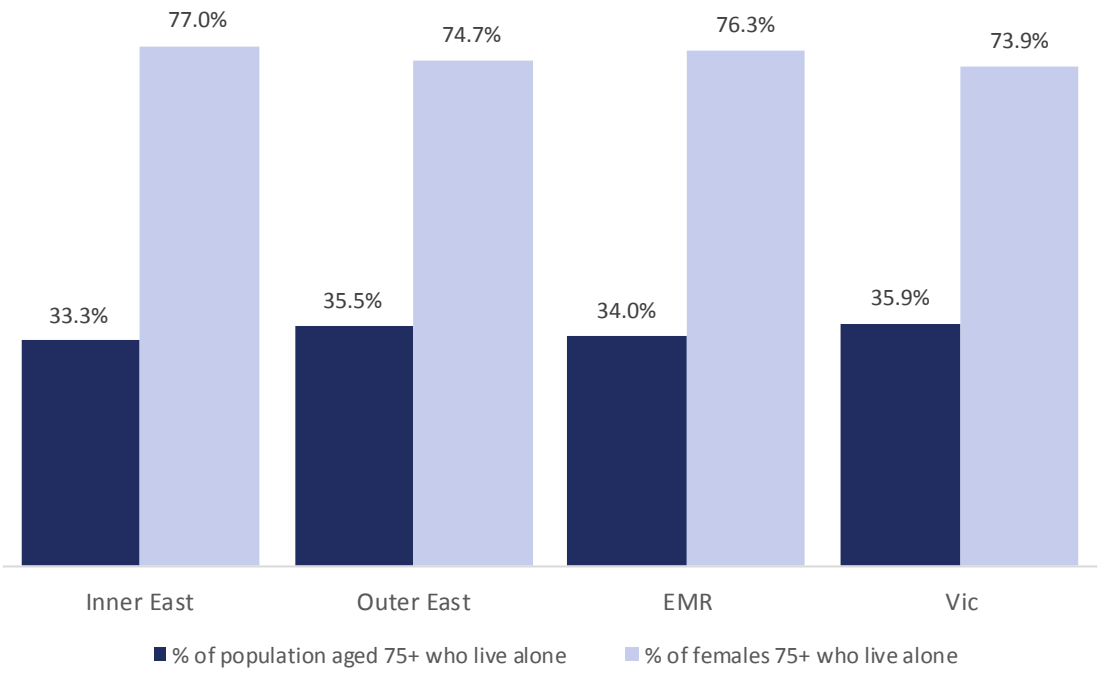
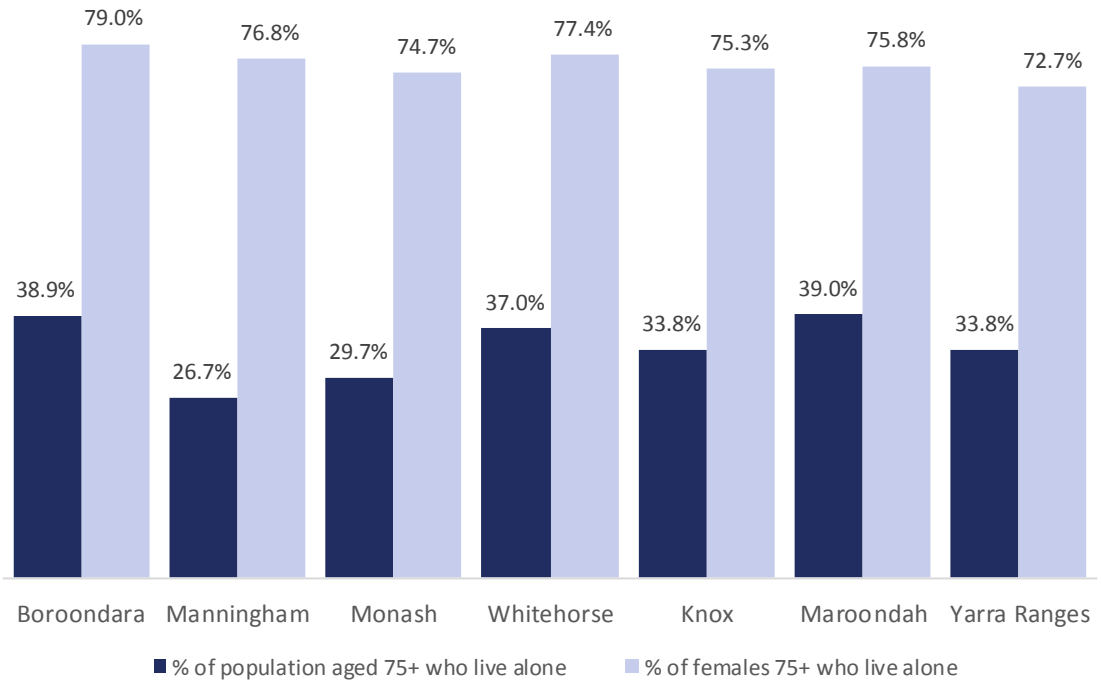


Figure 5.1b Percentage of population aged over 75 years who live alone by LGA



Approximately 35% of people aged 80 to 89 years live alone in Boroondara, Whitehorse and Maroondah areas, which is higher than the percentage for the same group in Greater Melbourne (31.9%) and Victoria (32.9%). Whitehorse has the highest percentage of people aged 90 years plus living alone at 34.2%, which is considerably higher than Greater Melbourne and Victoria, both just under 30%.

Figure 5.1c Percentage of people in age group who live alone by region

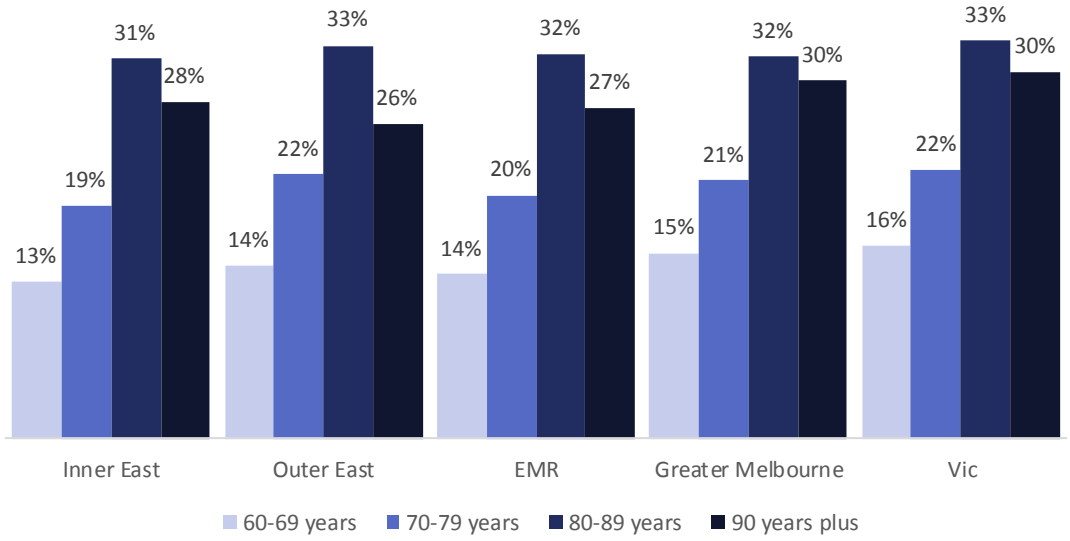
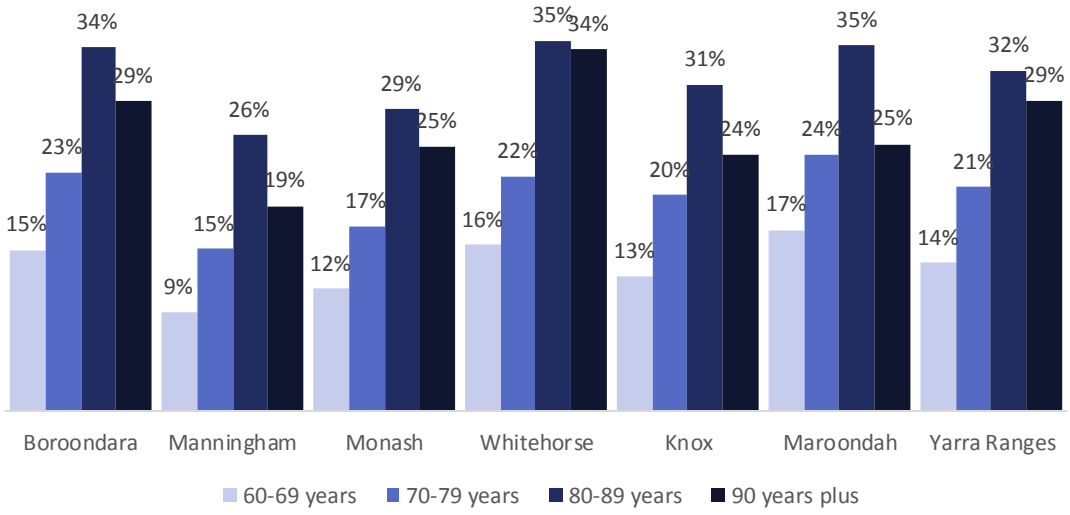


Figure 5.1d Percentage of people in age group who live alone by LGA



5.2 People Providing Support to Others (Carers)

Sources: (PHN, 2012) Modelled estimates based on the Survey of Disability by Department of Social Services 2015 population projections and (Department of Social Services, 2016)

Definition of a Carer: A primary carer is a person aged 15 years or over who provided the majority of the ongoing informal assistance to a person with a disability who has a limitation in one of the core activity areas of self-care, communication or mobility (Australian Bureau of Statistics, 2012). Conversely, a non-primary carer is a person who provides some informal assistance to a person with a disability but is not the main or primary carer.

Informal assistance (or care) comprises unpaid help or supervision by family, friends or neighbours and also paid help provided by family or friends living in the same household. It contrasts to formal assistance which comprises paid or unpaid help or supervision provided through an organisation (government or private, including both not for profit and commercial); and other paid help or supervision provided by persons other than family, friends or neighbours.

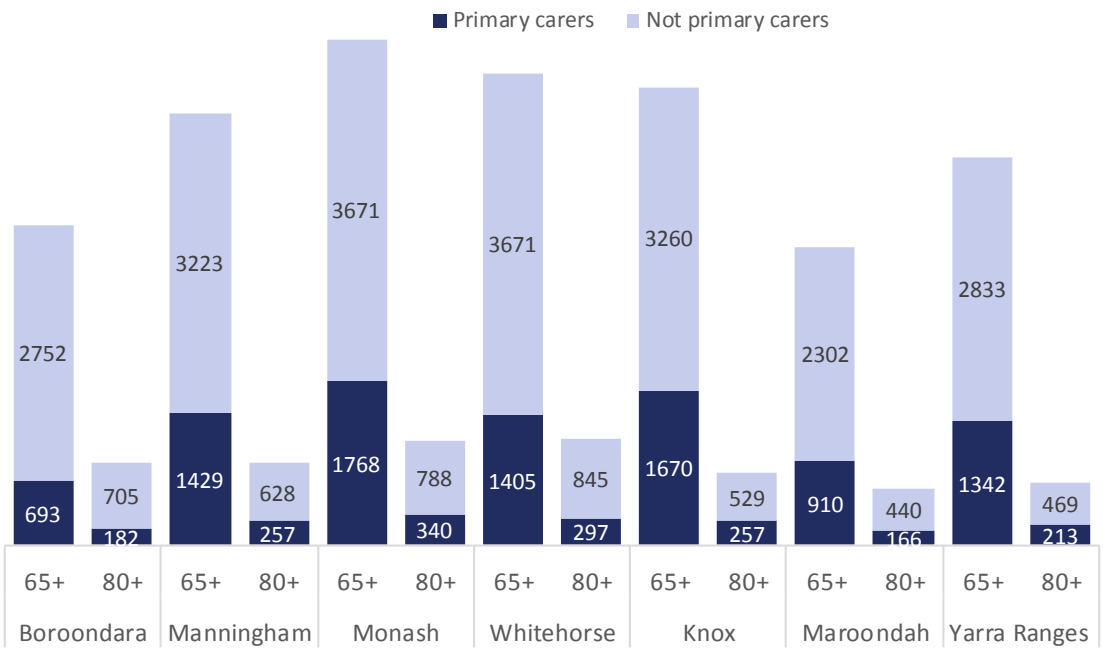
Carer payments and allowances

Income support targeted at carers was introduced in Australia in 1983, with arrangements for support amended several times since then. In 2005 income support was provided through a Carer payment and income could be supplemented with a Carer allowance.

- **Carer payment** provides an income to people who cannot participate in the workforce because of the demands of their caring role. It is paid at the same rate as the disability pension. The carer payment is income tested and assets tested in regard to both the carer and the person cared for; and eligibility also depends on the disability, and care needs, of the person cared for. Current carer payment rate for a single person is $794.80 per fortnight.
- **Carer allowance** is an income supplement for people looking after adults or children with severe disability. It is not income or assets tested, but eligibility is dependent on the disability, and care needs, of those cared for. Current Carer Allowance is $123.50 per fortnight. People receiving the Carer Payment may also receive the Carer Allowance.

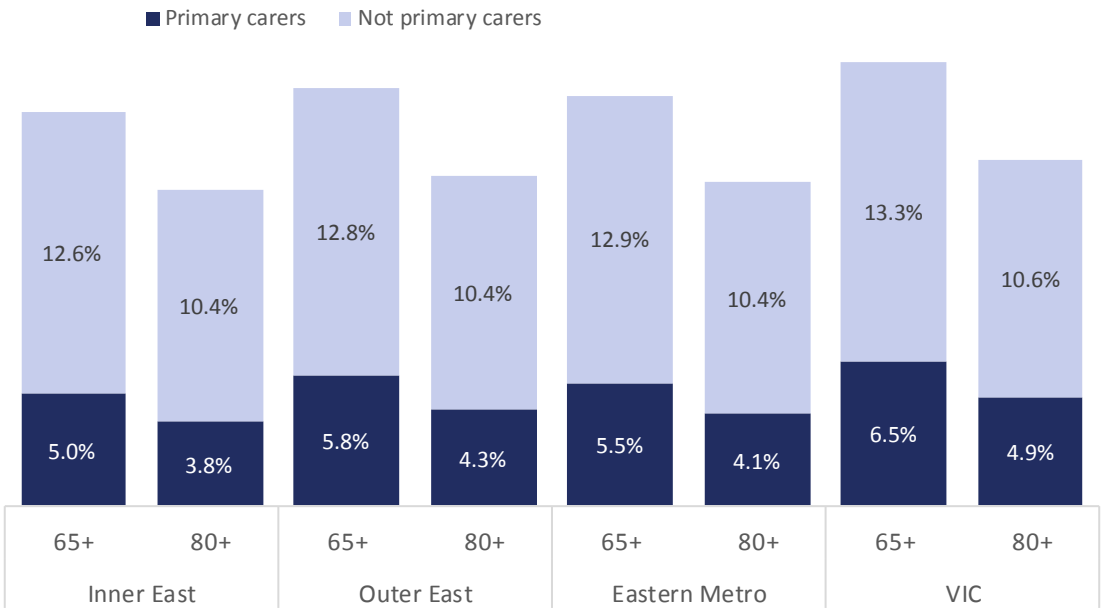
There are significantly higher projected numbers of carers in Monash and Whitehorse than in Boroondara or Maroondah.

Figure 5.2a Projected number of primary and non-primary carers aged over 65 years in June 2015 by LGA



Despite there being fewer carers in the 80+ age bracket, the proportion of the population who are carers is similar to the 65+ incidence. These incidences are relatively consistent across the region and in line with the state average.

Figure 5.2b Projected percentage of people aged 65 years plus and 80 years plus who are primary or non-primary carers by region



Maroondah shows the highest proportion of the population in both the 65+ and 80+ age ranges as carers.

Figure 5.2c Projected percentage of people aged 65 years plus and 80 years plus who are primary or non-primary carers by LGA

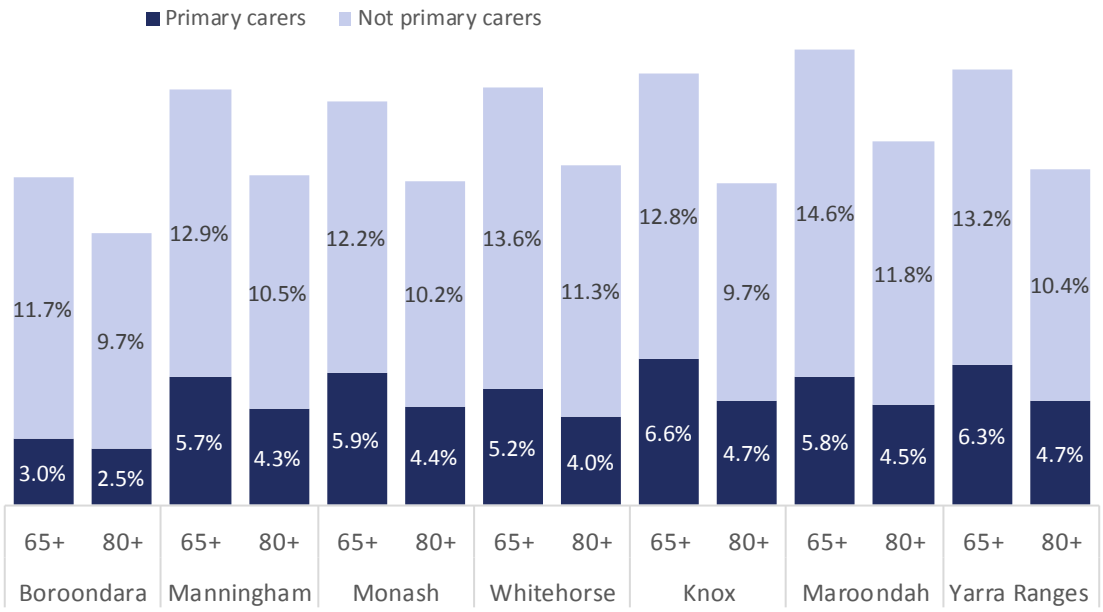


Table 5.2a Projected numbers of all primary carers by age

	15-64 years	65 years and over	80 years and over	TOTAL
Inner East	12873	5295	1076	18168
Boroondara	2515	693	182	3208
Manningham	2829	1429	257	4258
Monash	4067	1768	340	5835
Whitehorse	3462	1405	297	4867
Outer East	12501	6272	1151	18773
Knox	4827	1670	257	6497
Maroondah	2947	910	166	3857
Yarra Ranges	4727	1342	213	6069
EMR	25388	9215	1712	34603
Victoria	173914	54458	9689	228372

It is projected that there were 34,603 carers in the EMR in 2015. Of these, 26.6% were aged over 65 years and 4.9% were aged over 80 years. 18,968 or 54.8% of all carers were caring for a person aged 65 years and over.

Table 5.2b Age of primary carers who are caring for people aged 65 years and over

	Carer aged 15-64 years	% of total carers	Carer aged 65 years plus	% of total carers	Number of carers looking after 65+	TOTAL NUMBER OF CARERS
Boroondara	1217	37.9%	923	28.8%	2140	3208
Manningham	1396	32.8%	1286	30.2%	2682	4258
Monash	1481	25.4%	1497	25.7%	2978	5835
Whitehorse	1666	34.2%	1521	31.3%	3187	4867
Knox	1586	24.4%	1415	21.8%	3001	6497
Maroondah	1027	26.6%	931	24.1%	1958	3857
Yarra Ranges	1682	27.7%	1555	25.6%	3237	6069
EMR	9975	28.8%	8993	26.0%	18968	34603
Victoria	56202	24.6%	45746	20.0%	101948	228372

Table 5.2c Number of people receiving carer support payments and rank with LGAs in Victoria, as at December 2015.

	Carer Allowance	Rank (based on number)	% of 2016 estimated population receiving carer allowance	Carer Payment	Rank (based on number)	% of 2016 estimated population receiving carer payment
Inner East	11763	n/a	1.81%	3102	n/a	0.48%
Boroondara	2167	29	1.24%	395	42	0.23%
Manningham	2719	23	2.24%	725	29	0.60%
Monash	3856	12	2.08%	1187	16	0.64%
Whitehorse	3021	20	1.80%	795	26	0.47%
Outer East	9453	n/a	2.24%	2896	n/a	0.68%
Knox	3701	13	2.32%	1148	17	0.72%
Maroondah	2266	27	2.01%	669	30	0.59%
Yarra Ranges	3486	16	2.32%	1079	19	0.72%
EMR	21216	NA	1.98%	5998	n/a	0.56%

All EMR LGAs are ranked between 12 and 29 for the number of people receiving Carers Allowance. Knox, Monash and Yarra Ranges have the highest rankings for numbers of people receiving carer support payments in the EMR.

Note that a total of 34,603 people in the EMR are carers but only 21,216 people receive the Carers Allowance. Indicating that 13,387 carers in the EMR are not receiving any additional financial support for their caring role.

Figure 5.2d Percentage of the population receiving carer support payments in December 2015 by region

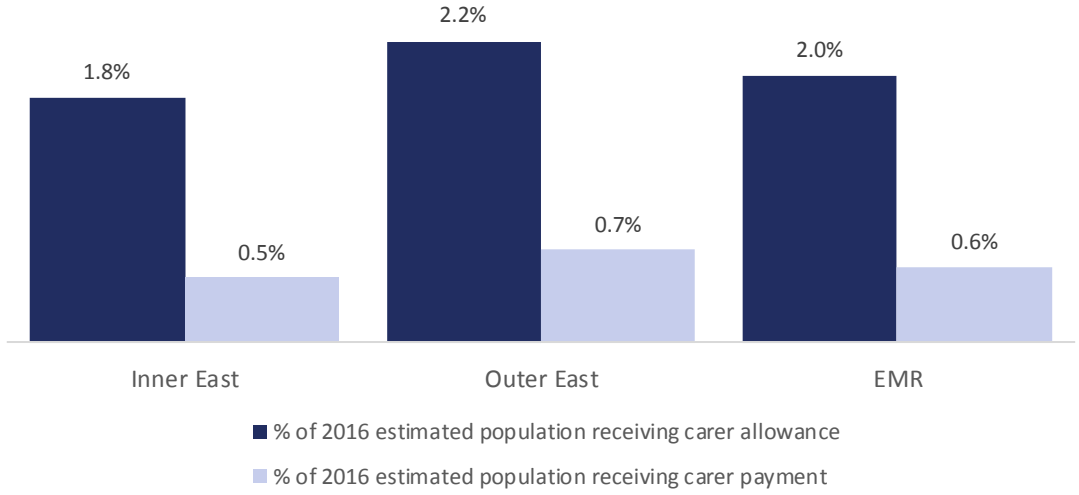
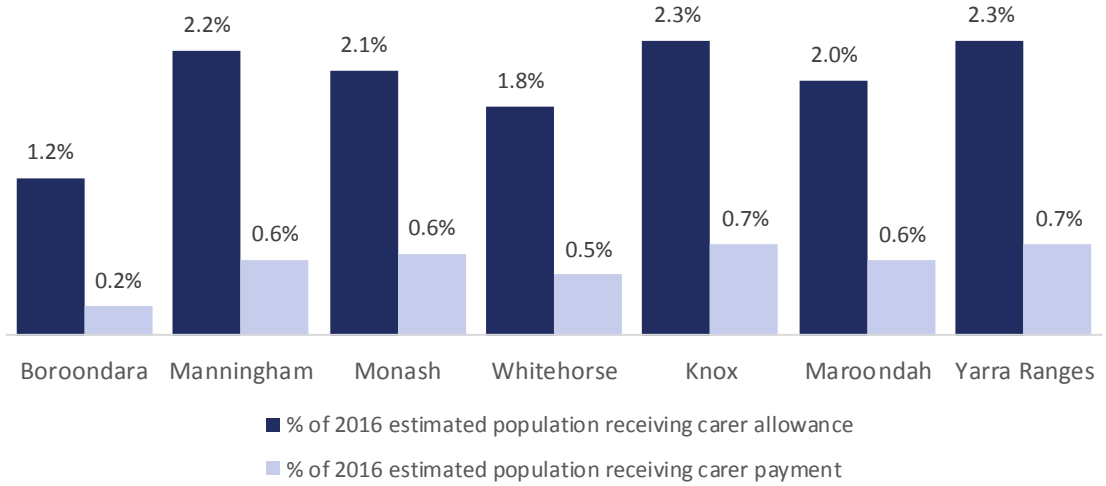


Figure 5.2e Percentage of the population receiving carer support payments in December 2015 by LGA



5.2.1 Unpaid Assistance

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, place of usual residence.

For the purpose of the ABS Census, people who in the two weeks prior to Census Night spent time providing unpaid care, help or assistance to family members or others because of a disability, a long term illness or problems related to old age are counted in this category if they are over 15 years of age. This includes people who are in receipt of a Carer Allowance or Carer Payment. It does not include work done through a voluntary organisation or group.

Table 5.2.1 Number of people by age group who provided unpaid assistance to a person with a disability

	60-69 years	70-79 years	80 years plus	Total 60 years plus	Total All ages	% of people who provide unpaid assistance who are 60 years plus
Inner East	10366	5298	2407	18071	56167	32.2%
Boroondara	2811	1166	681	4658	15552	30.0%
Manningham	2320	1247	425	3992	11152	35.8%
Monash	2754	1567	641	4962	15299	32.4%
Whitehorse	2481	1318	660	4459	14164	31.5%
Outer East	6518	2302	884	9704	36562	26.5%
Knox	2318	840	311	3469	13149	26.4%
Maroondah	1715	657	296	2668	9631	27.7%
Yarra Ranges	2485	805	277	3567	13782	25.9%
EMR	16884	7600	3291	27775	92729	30.0%
Greater Melbourne	57170	25326	10658	93154	355199	26.2%
Victoria	82327	36061	15124	133512	490096	27.2%

Figure 5.2.1a Percentage of age group who provided unpaid assistance to a person with a disability by region

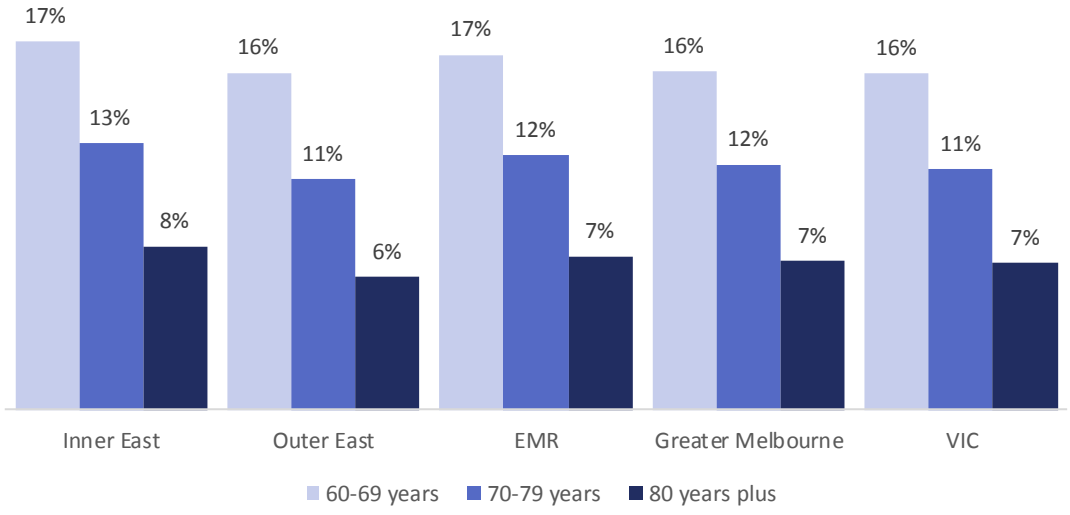


Figure 5.2.1b Percentage of age group who provided unpaid assistance to a person with a disability by region

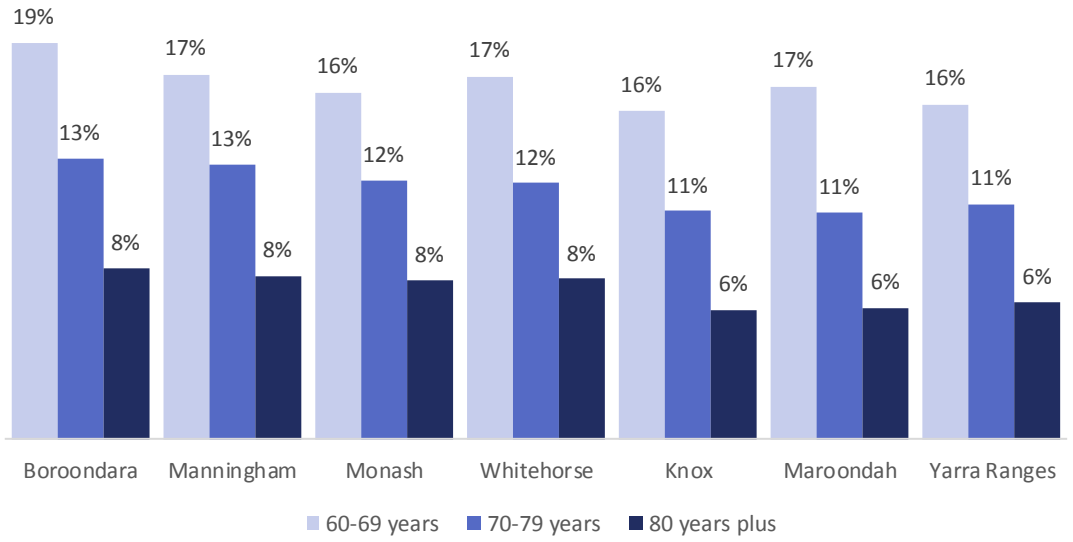
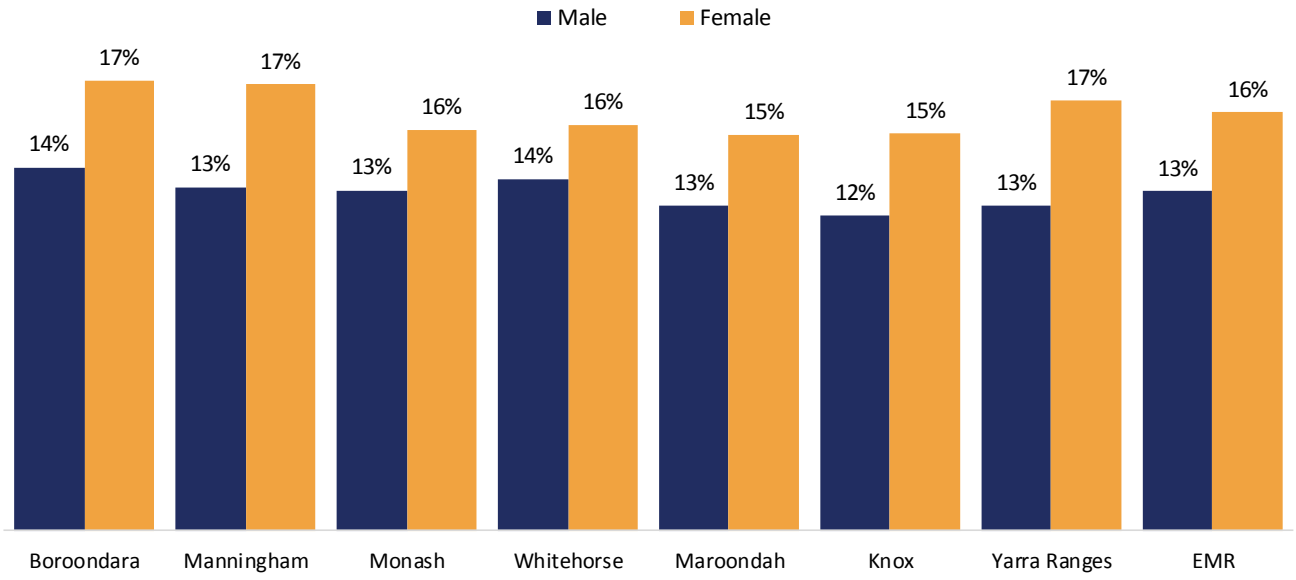


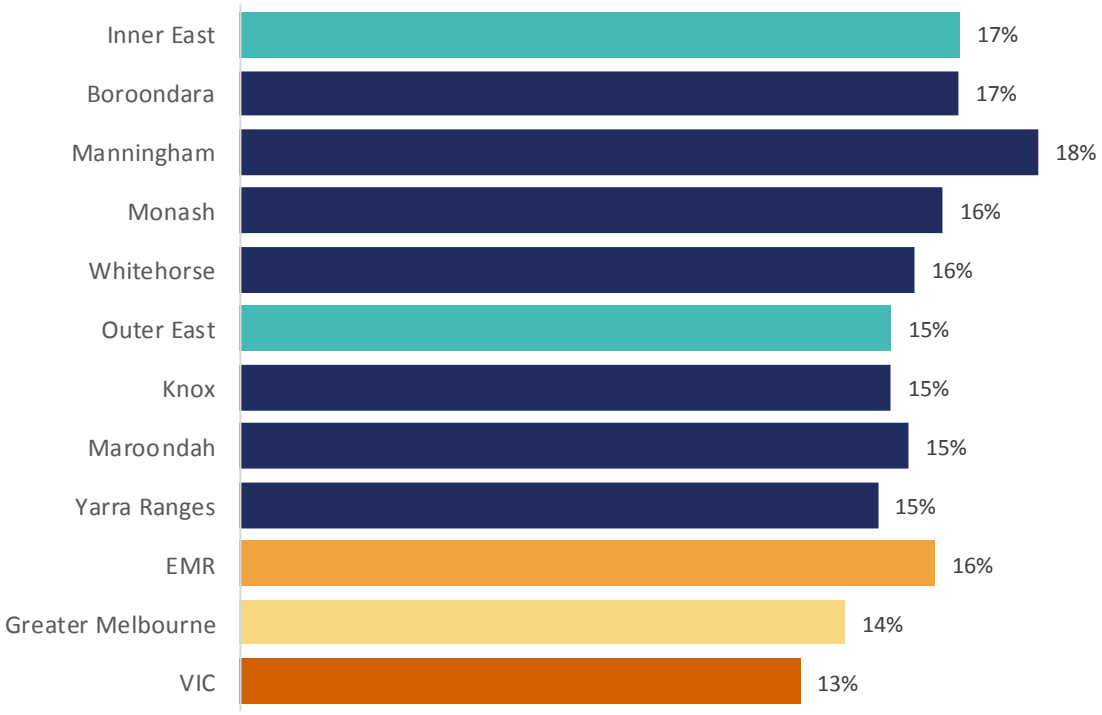
Figure 5.2.1c Percentage of 60 + year olds who provided unpaid assistance to a person with a disability by gender



Female carers over 60 years outnumber male carers 3 to 2 across all local government areas in the EMR which mirrors the trend in Victoria.

A significant proportion of people aged over 60 years look after children other than their own. This may include grandchildren. In Manningham, 18.3% of people over 60 years care for other children, more than 5% above the Victorian figure of 12.9%.

Figure 5.2.1d Percentage of 60 years plus age group looking after other children

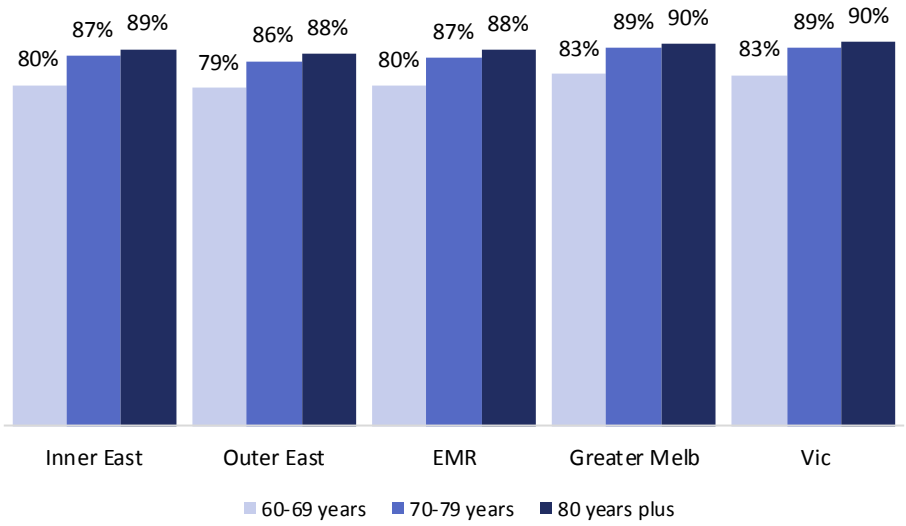


5.3 Religion

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, place of usual residence.

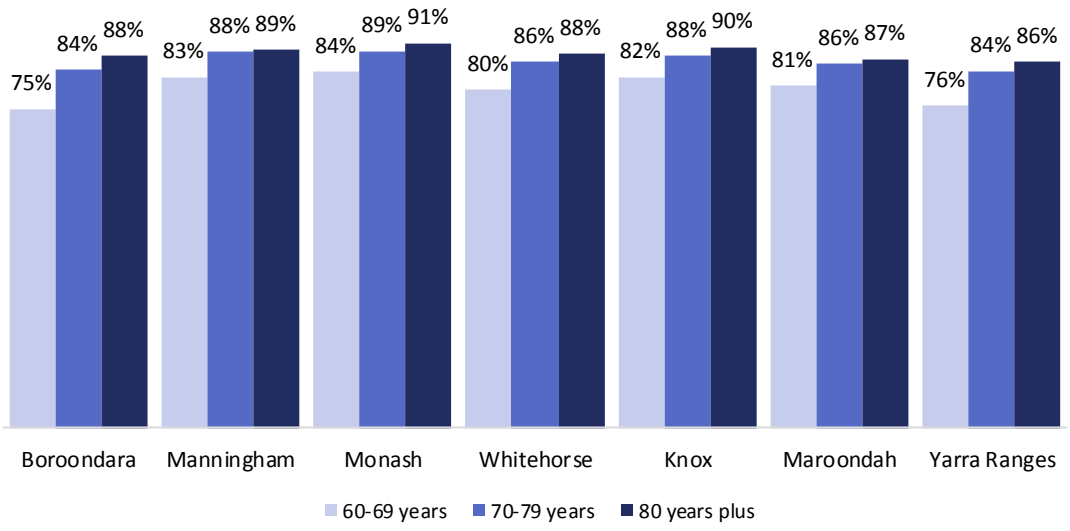
The majority of those aged 60 years and over in the EMR indicated that they affiliate with a religion. Incidence of stating a religious affiliation increases with age.

Figure 5.3a Percentage of people aged 60 years plus who indicate they affiliate with a religion by region



The incidence of affiliating with a religion is relatively consistent across the region.

Figure 5.3b Percentage of people aged 60 years plus who indicate they affiliate with a religion by LGA



The most common stated religion across all LGAs and regions is Christianity.

Table 5.3 Percentage of people aged 60 plus years who indicate they affiliate with a religion

	Christianity	No Religion	Buddhism	Hinduism	Islam	Judaism	Other Religions
Inner East	78%	16%	3%	1%	1%	1%	0%
Boroondara	75%	19%	2%	1%	0%	2%	0%
Manningham	79%	14%	3%	1%	1%	1%	1%
Monash	80%	13%	3%	1%	1%	1%	0%
Whitehorse	78%	16%	3%	1%	0%	0%	1%
Outer East	80%	17%	2%	0%	0%	0%	1%
Knox	80%	15%	3%	1%	1%	0%	1%
Maroondah	81%	17%	1%	0%	0%	0%	0%
Yarra Ranges	78%	20%	1%	0%	0%	0%	1%
EMR	79%	16%	3%	1%	0%	1%	1%
Metropolitan Melbourne	80%	14%	2%	1%	1%	2%	0%
Victoria	81%	14%	2%	0%	1%	1%	0%

5.4 Volunteering

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, place of usual residence.

When viewing the volunteering data one should note that the interpretation as to whether an activity is 'volunteering' is left up to the individual. Carers and those who are members of particular ethnic groups may not consider their activities as volunteering, but rather as standard activities as part of their community or family participation.

The incidence of volunteering is widely considered to be an effective way to represent community strength. It is believed that health and wellbeing can be improved through an increase in volunteering.

Over 40,000 people aged over 60 years in the EMR (19.3% of the 60 years plus population) volunteered with an organization or group at the last Census. The incidence of 60+ year olds in the eastern region volunteering is in line with the state average.

Table 5.4 Percentage of people aged 60 plus years who volunteer with an organisation or group

	60-69 years	70-79 years	80-89 years	90 yrs plus	Total 60 yrs plus
Inner East	22.5%	21.6%	12.6%	4.2%	19.5%
Boroondara	26.8%	25.5%	14.3%	4.6%	22.6%
Manningham	19.7%	18.8%	10.0%	2.5%	17.3%
Monash	19.2%	18.8%	10.6%	3.6%	16.9%
Whitehorse	24.3%	24.0%	14.6%	5.2%	21.3%
Outer East	21.1%	20.6%	10.8%	3.6%	18.8%
Knox	18.1%	18.1%	10.2%	4.3%	16.5%
Maroondah	21.4%	22.9%	11.5%	3.4%	19.3%
Yarra Ranges	23.7%	21.3%	10.9%	2.9%	20.9%
EMR	21.9%	21.2%	12.0%	4.0%	19.3%
Victoria	21.3%	19.2%	10.7%	3.7%	18.2%

Boroondara and Whitehorse had the highest rates of volunteering participation in all age groups above 60 years compared to the other LGAs. Volunteering participation is similar for 60 to 69 years and 70 to 79 years age groups but declines significantly after 80 years.

Figure 5.4a Percentage of people aged 60 years plus who volunteer with an organization or group by region

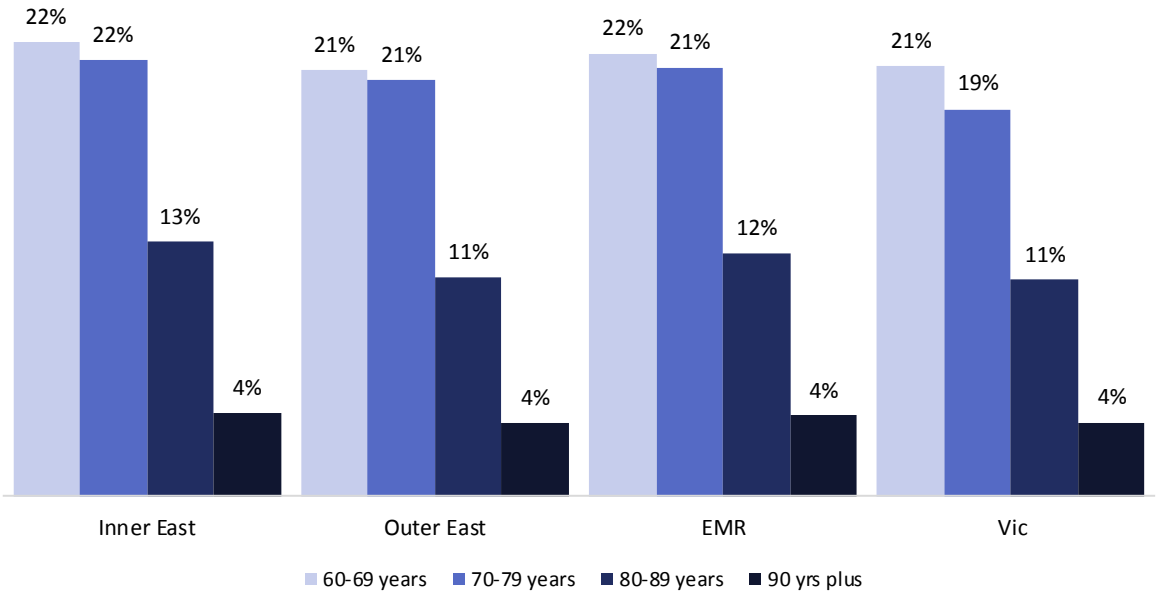
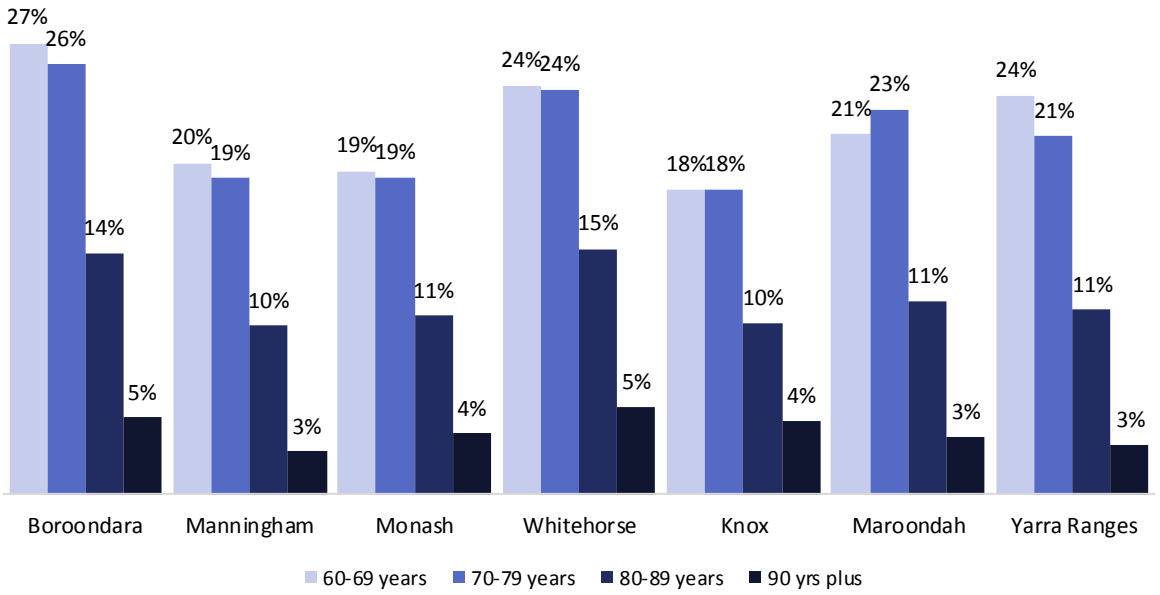


Figure 5.4b Percentage of people aged 60 years plus who volunteer with an organization or group by LGA



5.5 Elder Abuse

Source: (Dueren, 2016)**.** There is a lack of data about the incidence of Elder Abuse as there is no mandatory reporting and no consistency with data collection. Seniors Rights Victoria provides a Helpline service for people experiencing elder abuse.

Elder abuse is any act which causes harm to an older person and is carried out by someone they know and trust such as family or friends (Seniors Rights Victoria (SRV), 2015).

Possible elder abuse figures were calculated using (Crime Statistics Agency, 2016) and 2016 *Victoria in Future* population projections. Calculations are based on recorded victim reports by Victoria Police where the relationship of the victim to the offender is a non-partner family member.

Seniors Rights Victoria recorded an increase in calls from people living in the eastern region of Melbourne to their Helpline from 325 calls in 2014-15 to 446 calls in 2015-16 (see Table 5.5). Calls included individuals experiencing abuse, their family members or friends or workers who have clients experiencing abuse. If a worker made the call, the LGA where their organisation is based was counted.

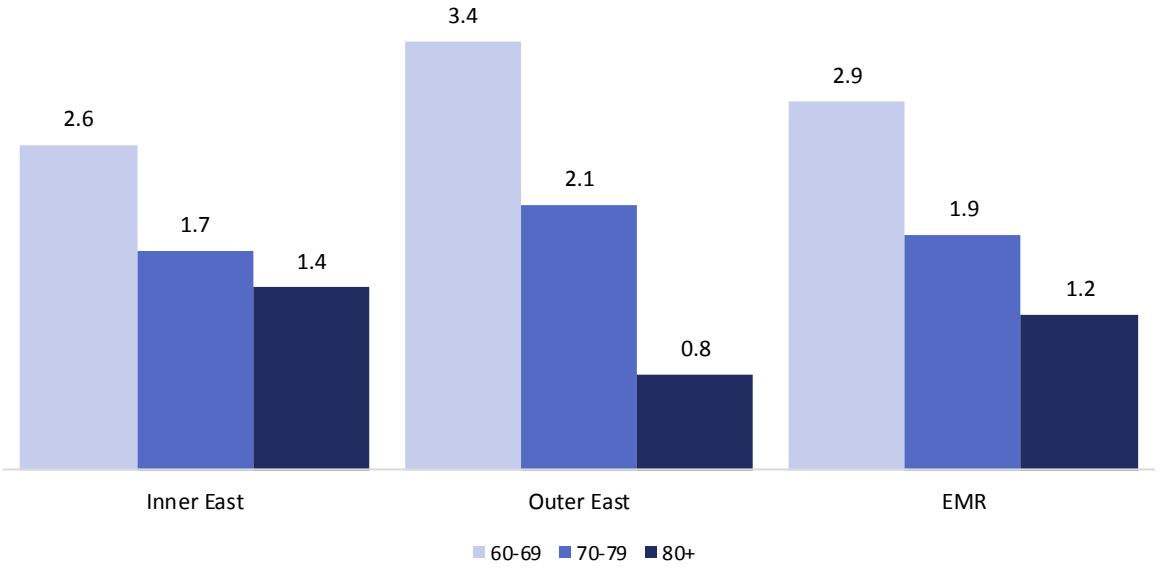
Table 5.5 Number of calls by LGA source to Seniors Rights Victoria Elder Abuse Helpline

	2014-2015	2015-2016
Inner East	214	281
Boroondara	75	101
Manningham	29	51
Monash	42	81
Whitehorse	58	48
Outer East	121	165
Knox	27	60
Maroondah	45	52
Yarra Ranges	49	53
EMR	325	446
Victoria	2246	2696

Of all the calls to the Seniors Rights Victoria Elder Abuse Helpline, 14% were from the EMR in 2014/15 and 16.5% in 2015/16.

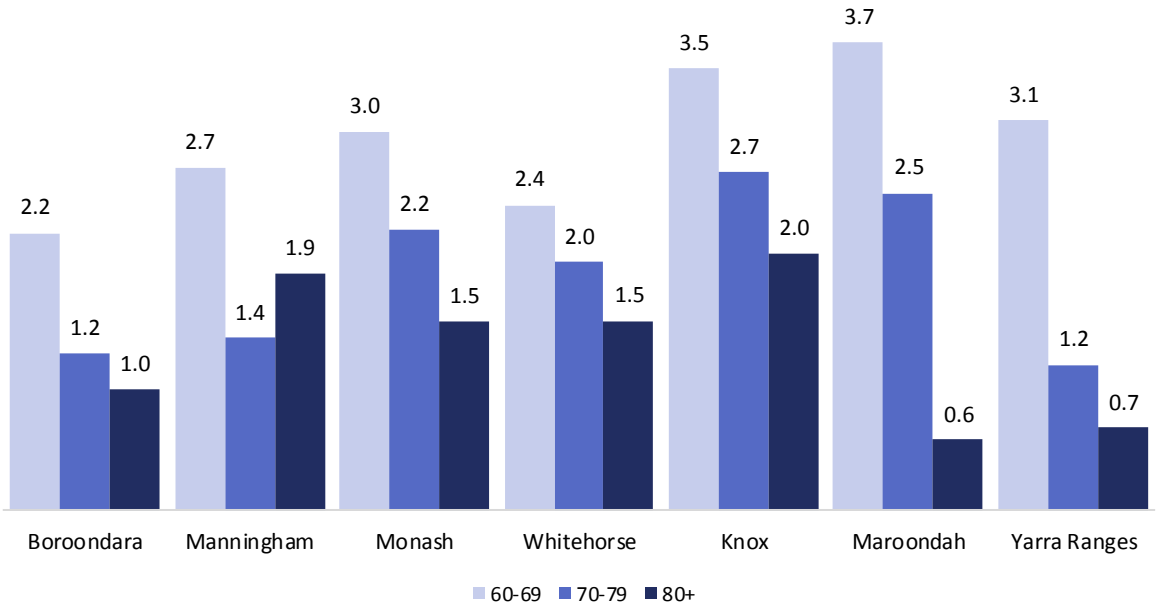
The rate of possible elder abuse per 1,000 population is slightly higher amongst 60-69 year olds in the outer east.

Figure 5.5a Possible Elder Abuse Incidents rate per 1,000 population – Recorded family incidents 2015 where relationship is with a family member (non-partner) by region



This higher rate amongst 60-69 year olds is observable across all outer east LGAs.

Figure 5.5b Possible Elder Abuse Incidents rate per 1,000 population – Recorded family incidents 2015 where relationship is with a family member (non-partner) by LGA



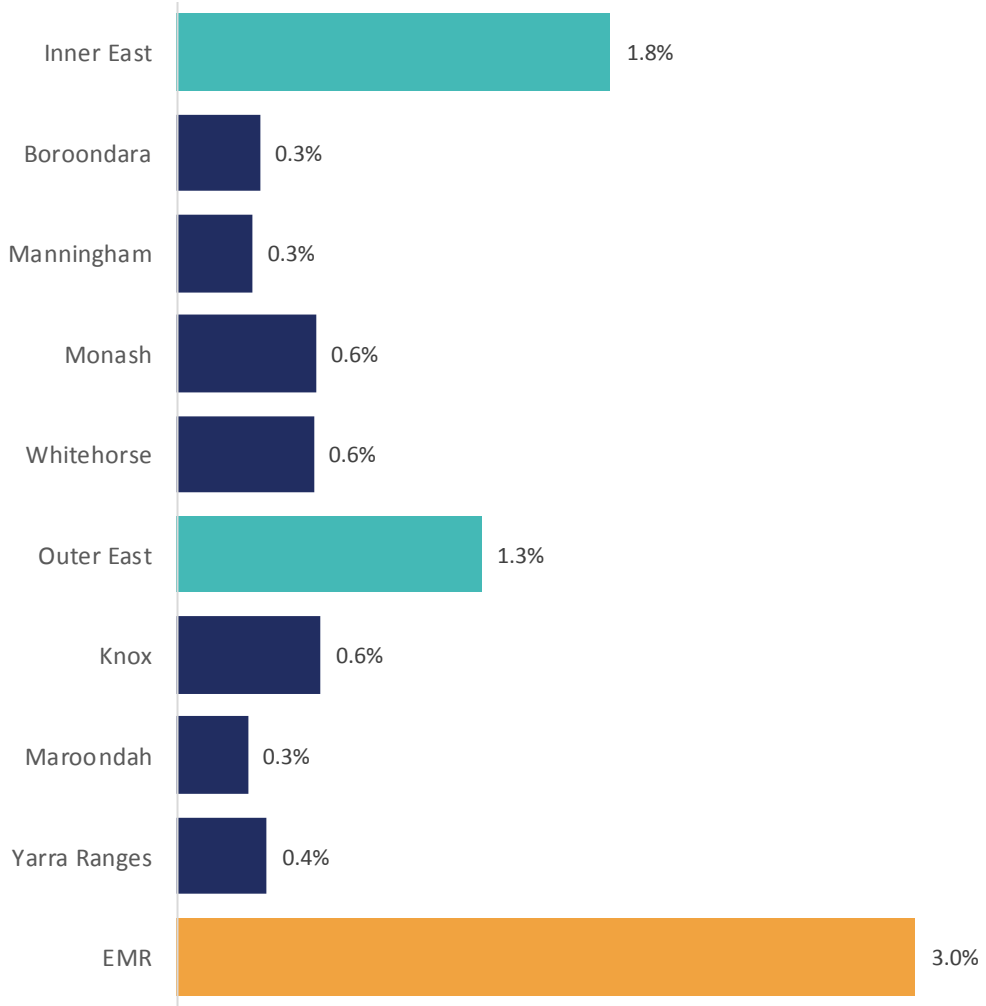
5.6 Family Violence

Source: (Eastern Domestic Violence Outreach Service (EDVOS), 2016)**.** The Eastern Domestic Violence Outreach Service (EDVOS) provides support to women experiencing family violence.

All definitions of 'family violence' essentially target ongoing behaviours aimed at controlling family members through fear. Acts which constitute family violence are different to the kinds of disagreements that occur in healthy relationships. They differ in one essential way: the use of 'systematic control and abuse of power' (VicHealth, 2010).

According to EDVOS records, in the 2015-16 financial year, 3.03% of all women accessing the service in the EMR were aged over 65 years. 1.25 % were from the outer east area and 1.78% from the inner east. See Figure 5.6a for a distribution of EDVOS clients aged over 65 years across all LGAs. Knox, Monash and Whitehorse had the highest percentage of EDVOS clients aged over 65 years.

Figure 5.6a Percentage of total clients of the Eastern Domestic Violence Outreach Service aged over 65 years



6. Age Friendly Cities

6.1 Housing

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, location on census night and place of usual residence

Private dwellings include residences in caravan/residential parks, camping grounds, marinas, manufactured home estates and retirement villages (self-contained).

Non-private dwellings include hotels, motels, B & B's, staff/nurses quarters, boarding house, boarding school, university residence, hospitals or similar institutions, nursing homes, homes for the disabled, non-self-contained accommodation for the aged, homeless shelters, refugees, prison or detention centres for adults and children, immigration detention centres, convents and monasteries (Australian Bureau of Statistics (ABS), 2016).

The incidence of 60+ year old residents in the eastern region living in private dwellings is in line with the state average.

Table 6.1 Number and percentage of people over 60 years and type of accommodation

	Number 60+ living in private dwellings	% of 60+ living in private dwellings	Number 60+ living in non-private dwellings	% of 60+ living in non-private dwellings	Number of 60+ people living in nursing home or accommodation for retired or aged (not self-contained)
Inner East	122353	92.0%	8204	6%	6594
Boroondara	29198	90.6%	2466	8%	2034
Manningham	26415	92.6%	1326	5%	1223
Monash	35378	92.9%	2227	6%	1711
Whitehorse	31362	92.0%	2185	6%	1626
Outer East	69523	91.3%	4141	5%	3405
Knox	25593	92.1%	1668	6%	1311
Maroondah	18880	89.3%	1561	7%	1335
Yarra Ranges	25050	92.1%	912	3%	759
EMR	191876	91.8%	12345	6%	9999
Victoria	965703	91.5%	64884	6%	46010

Across the EMR, around 90% of all people aged over 60 years are living in private dwellings. The highest is in Monash with 92.9% and the lowest in Maroondah with 89.3%. The figures are very similar to those in Victoria.

Most of the older people in EMR who live in non-private dwellings are living in nursing homes or accommodation for the retired or aged that is not self-contained (does not include retirement villages or independent living units). Between 3 and 8 % of the population over 60 years in the EMR live in non-private dwellings, and of these more than 75% are in nursing home or aged accommodation.

Figure 6.1a Comparison between people aged 60 plus living in private vs non-private dwellings by region

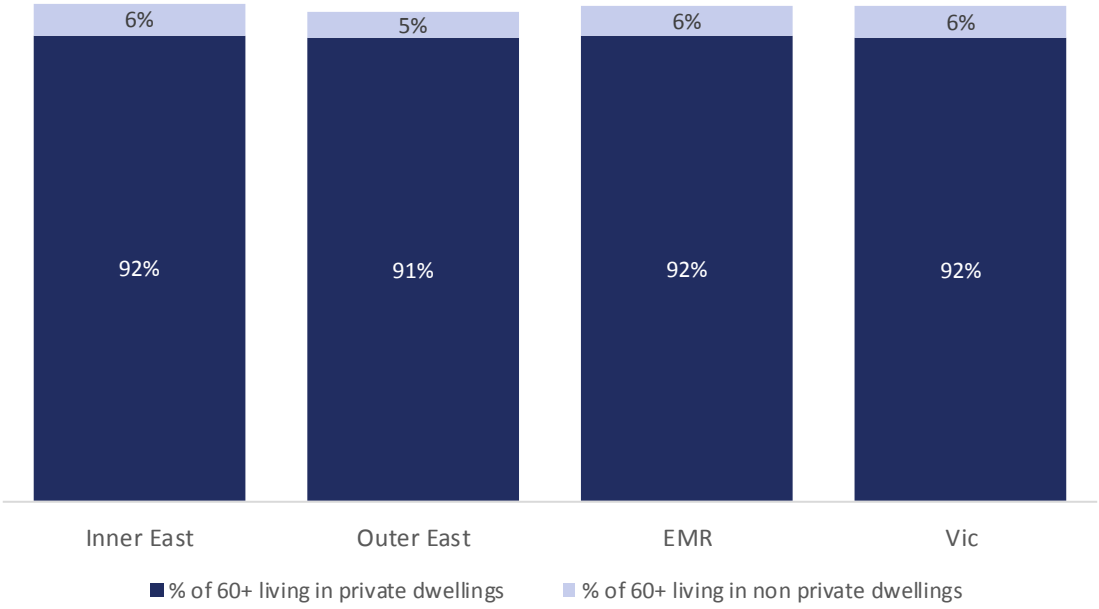
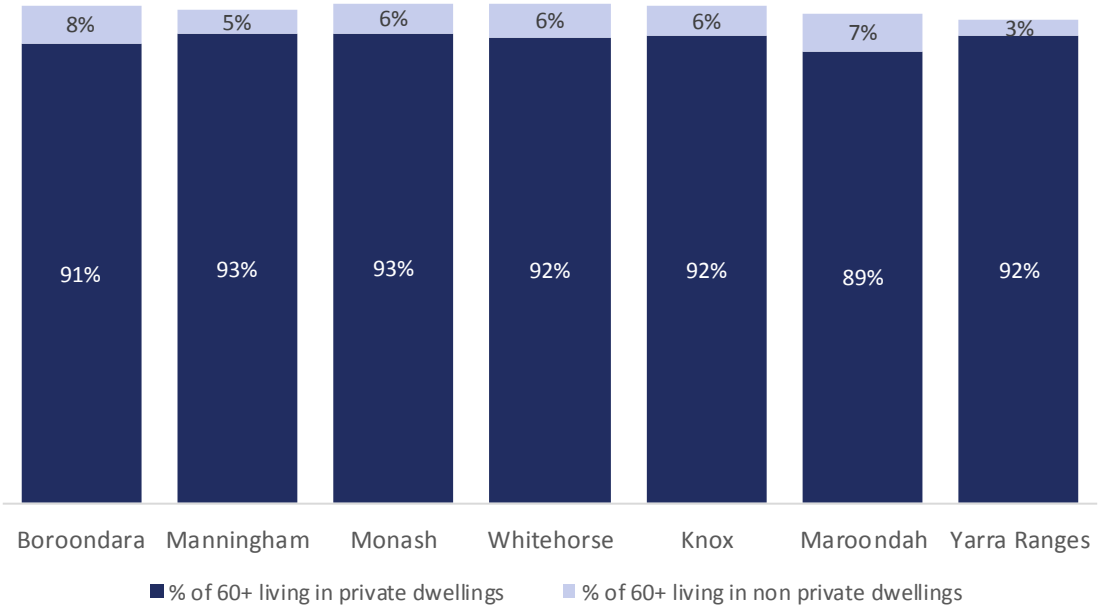


Figure 6.1b Comparison between people aged 60 plus living in private vs non-private dwellings by LGA



6.1.1 Housing Tenure of Private Dwellings by Age

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing.

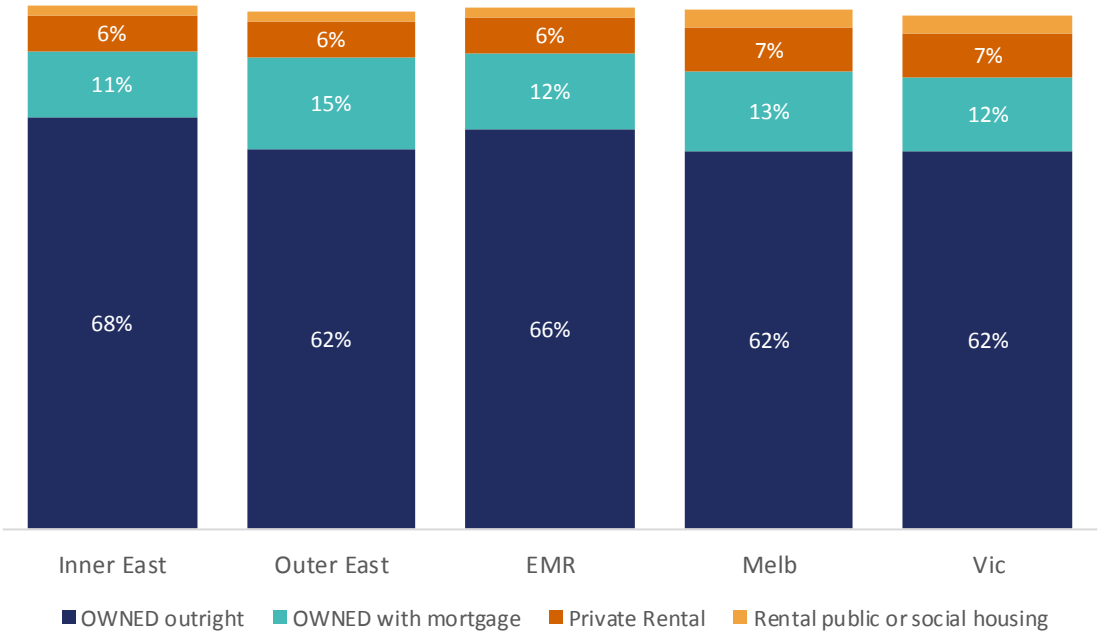
Table 6.1.1 Housing Tenure numbers of Private Dwellings by Age

The number of older people who are still paying a mortgage is important to note as they may struggle with payments when they exit the workforce. For instance, as at the 2011 Census, over 1,200 80+ year olds in the inner east indicated that they are still paying a mortgage. However, it should be noted that the mortgage may be paid by another member of the household.

	OWNED outright			OWNED with mortgage			Private Rental			Public or social housing		
	60 - 69 years	70 - 79 years	80 years plus	60 - 69 years	70 - 79 years	80 years plus	60 - 69 years	70 - 79 years	80 years plus	60 - 69 years	70 - 79 years	80 years plus
Inner East	39930	31256	18927	10294	2878	1220	4741	1999	998	818	715	572
Boroondara	9716	6410	5068	2766	663	274	1268	488	275	177	154	149
Manningham	9316	7405	3256	2284	707	282	864	335	173	45	45	46
Monash	11483	9570	5256	2695	865	368	1337	580	243	297	228	155
Whitehorse	9415	7871	5347	2549	643	296	1272	596	307	299	288	222
Outer East	25213	14702	7630	8939	1854	776	2620	1127	550	609	410	354
Knox	9205	5290	2526	3471	747	305	917	394	204	234	146	147
Maroondah	6387	4310	2606	1939	437	179	863	373	200	243	165	119
Yarra Ranges	9621	5102	2498	3529	670	292	840	360	146	132	99	88
EMR	65143	45958	26557	19233	4732	1996	7361	3126	1548	1427	1125	926
Melbourne Metropolitan	215966	149699	87683	70301	17212	7118	32368	13788	6471	9307	6995	4440
Victoria	314316	216824	125800	94710	22465	8940	45788	21106	10429	13672	10029	6431

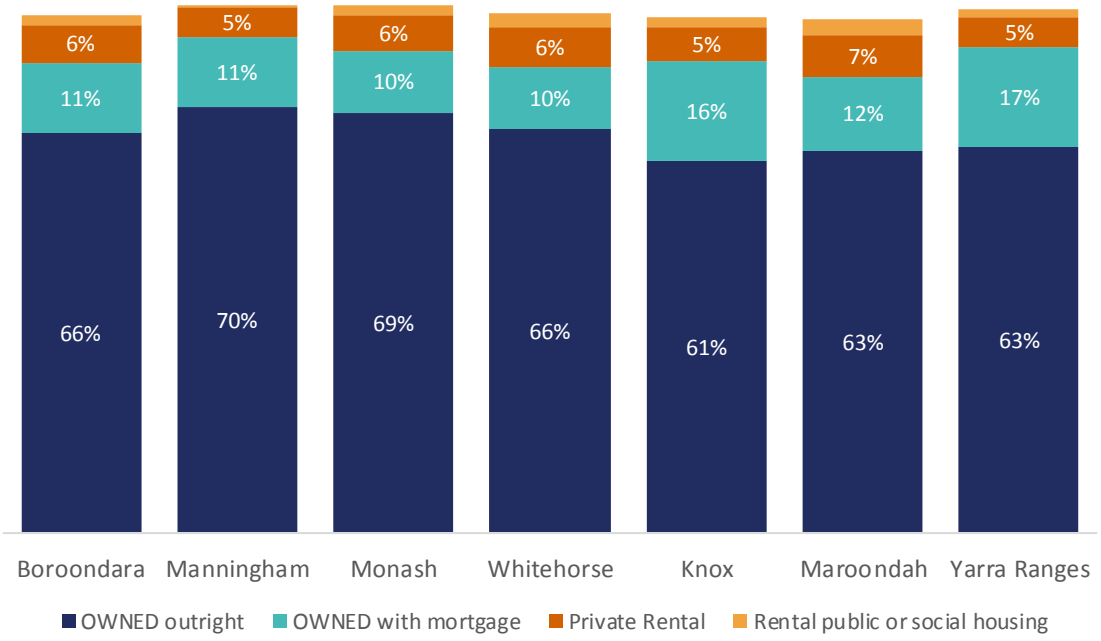
When extrapolating tenure numbers by population estimates, it is clear that the inner east region shows a higher than state average incidence of residents aged 60 years and older owning their home outright.

Figure 6.1.1a Housing Tenure for people aged over 60 years by region



The majority (between 61% and 70%) of the population aged over 60 years lives in their own home which they own outright. Between 10% and 17% of this age group are paying off a mortgage on their own property. This diminishes with the age of the person (refer to Table 6.1.1). Knox and Yarra Ranges have the highest percentage of over 60 years paying a mortgage at 16 and 17% respectively. This is considerably higher than the Greater Melbourne figure of 13%. All areas except for Maroondah have a slightly lower percentage of over 60 years living in private rentals compared to Melbourne (Melbourne and Maroondah are 7%). All areas in the EMR have a lower percentage of over 60 years living in public or social housing compared to Melbourne (3% compared to 1-2% in EMR).

Figure 6.1.1b Housing Tenure for people aged over 60 years by LGA



6.1.2 Housing Affordability

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing.

Adequate housing is recognised as a basic human right and contributes to overall wellbeing. The cost of housing is particularly significant for people on lower incomes. Higher housing costs result in less income to spend on other items such as food, health and transport. There is no accepted definition of housing affordability. For the 2006 Census, the ABS defined housing affordability as households with housing costs 30% or more of gross income (Community Indicators Victoria, 2013).

As gross household income is not available by age, this analysis reports on housing costs of $250 per week (mortgage of $1000 per month or rental of $250 per week) by age as an indication of higher housing costs. The data should be used with caution.

Outer east residents aged 60 years and over show a slightly higher incidence of paying $1,000 or more per month for their mortgage (8.4%) than those in the inner east (7.3%); both of these rates are similar to the Melbourne metropolitan average (7.6%).

Table 6.1.2a Percentage of age group paying mortgage of $1000 or more per month

	60-69 years	70-79 years	80 years plus	60 years plus
Inner East	10.9%	4.0%	2.2%	6.7%
Boroondara	12.4%	4.7%	1.7%	7.5%
Manningham	10.6%	4.3%	3.2%	7.1%
Monash	9.9%	3.9%	2.5%	6.3%
Whitehorse	10.7%	3.2%	1.7%	6.0%
Outer East	12.4%	4.4%	2.9%	8.4%
Knox	13.5%	5.4%	3.9%	9.4%
Maroondah	10.6%	3.6%	1.5%	6.5%
Yarra Ranges	12.5%	4.0%	3.4%	8.8%
EMR	11.5%	4.1%	2.4%	7.3%
Greater Melbourne	11.8%	4.3%	2.6%	7.6%
Victoria	10.1%	3.5%	2.1%	6.4%

Across the board, the incidence of paying $1,000 per month for a mortgage drops significantly when people reach the age of 70.

Figure 6.1.2a Percentage of age group paying mortgage of $1000 or more per month by region

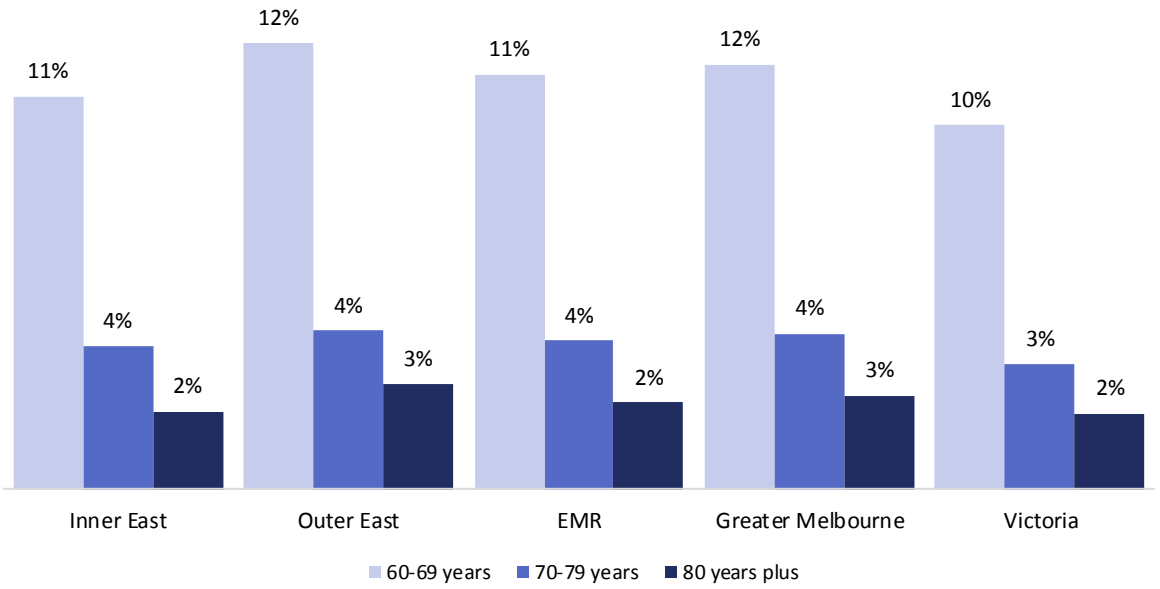
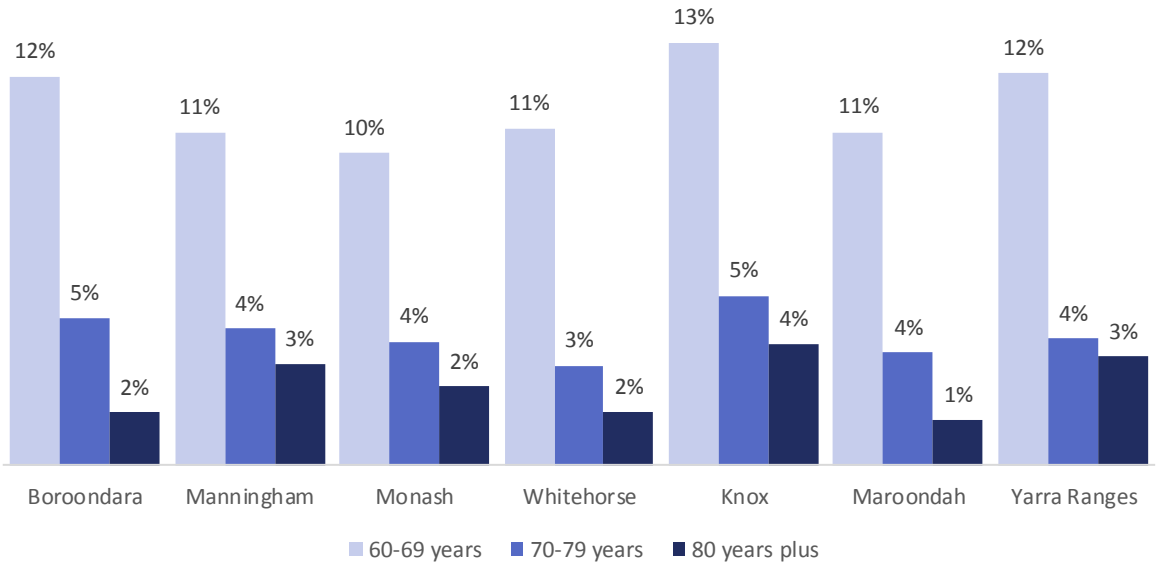


Figure 6.1.2b Percentage of age group paying mortgage of $1000 or more per month by LGA



The incidence of 60+ year olds in the eastern region paying $250 or more per week for rent is slightly lower than the Metropolitan average.

Table 6.1.2b Percentage of age group paying rent of $250 or more per week

	60-69 years	70-79 years	80 years plus	60 years plus
Inner East	6.2%	2.9%	1.4%	4.0%
Boroondara	6.8%	3.7%	1.5%	4.6%
Manningham	5.1%	2.1%	1.5%	3.4%
Monash	6.2%	2.7%	1.6%	4.0%
Whitehorse	6.6%	3.1%	1.1%	4.1%
Outer East	4.0%	2.2%	1.4%	3.0%
Knox	4.3%	2.2%	1.8%	3.3%
Maroondah	5.8%	2.9%	1.5%	4.0%
Yarra Ranges	2.6%	1.5%	0.9%	2.0%
EMR	5.3%	2.6%	1.4%	3.7%
Greater Melbourne	5.8%	3.0%	1.7%	4.1%
Victoria	4.6%	2.4%	1.4%	3.3%

Figure 6.1.2c Percentage of age group paying rent of $250 or more per week by region

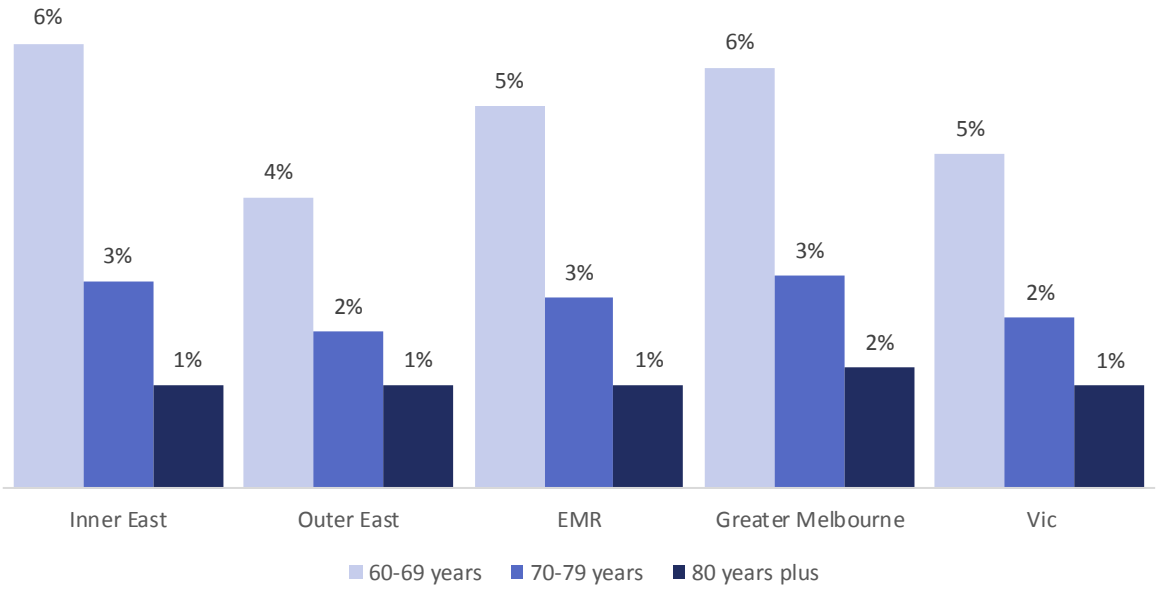
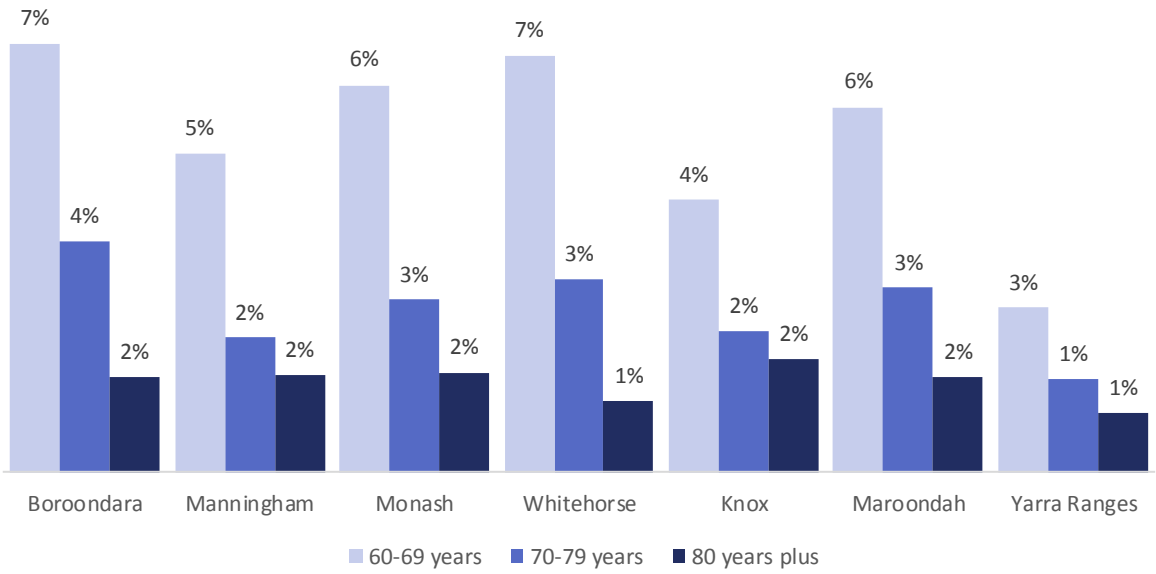


Figure 6.1.2d Percentage of age group paying rent of $250 or more per week by LGA



6.1.3 Lone person households and housing affordability

Based on the ABS 2006 Census definition that housing affordability is low if 30% of gross household income is spent on housing, the following figures highlight the percentage of the 60 plus population who would be considered to have housing affordability stress. The data presents lone person households with income less than $600 per week and housing costs of $200 or more per week.

Figure 6.1.3a Percentage of 60 years plus lone person households with low income and high housing costs by region

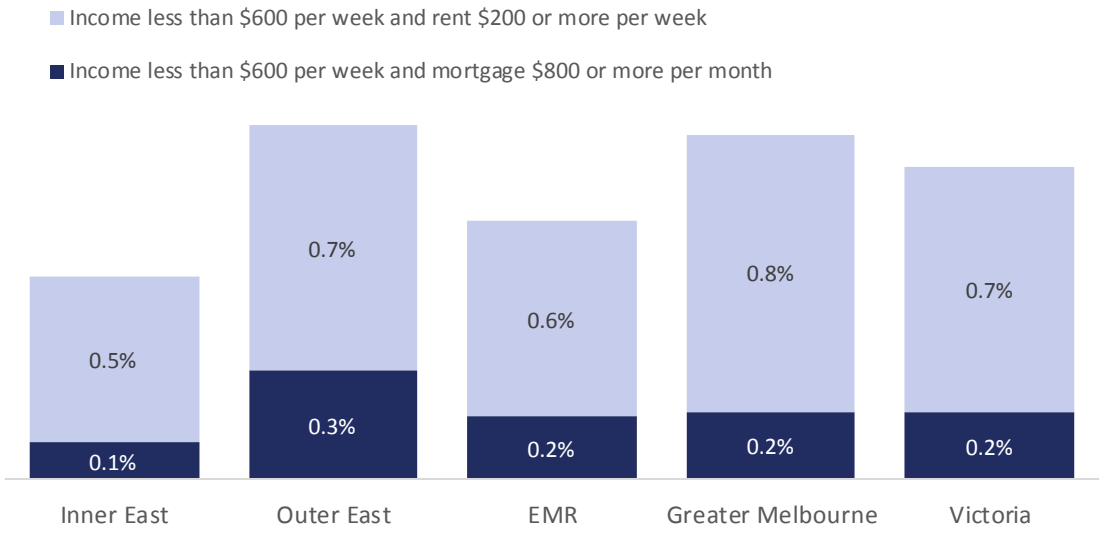
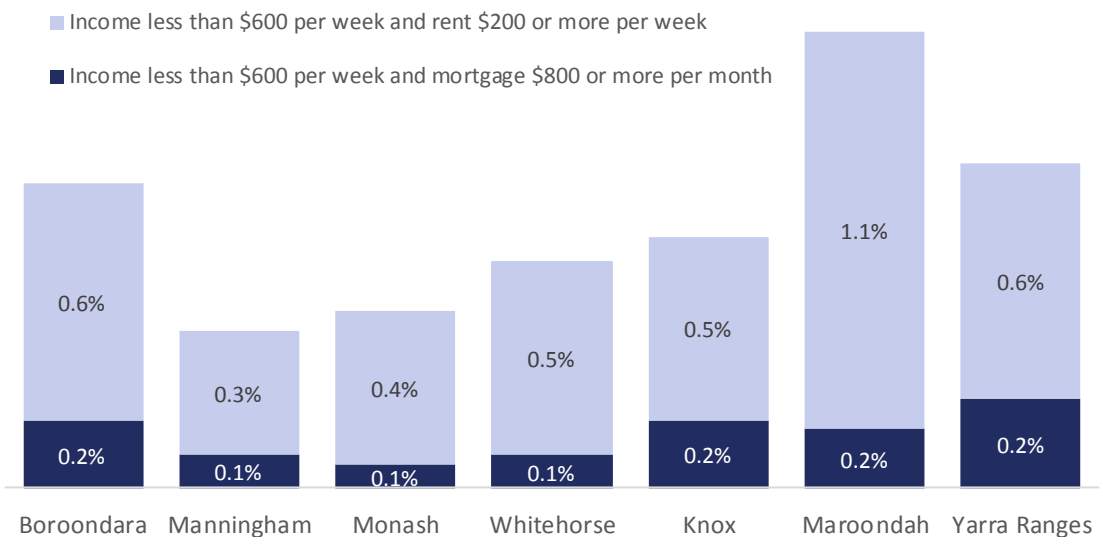


Figure 6.1.3b Percentage of 60 years plus lone person households with low income and high housing costs by LGA



6.1.4 Homelessness

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. There is no data about homelessness by age for the EMR or regions within the EMR.

According to the ABS Census 2011, in Victoria, 746 people aged 65 to 74 years, and 374 people aged over 75 years were homeless.

Table 6.1.4 Number of People who are Homeless

VICTORIA:	65 to 74	75 plus	TOTAL 65 PLUS
Total Homeless	746	374	1120
Total at risk of homelessness	553	301	854
Total	1299	675	1974

Homelessness is defined as persons in improvised dwellings, tents, sleeping out; persons in supported accommodation for the homeless; persons staying temporarily with others; persons staying in boarding houses; persons in other temporary lodging; and persons in severely crowded dwellings. At risk of homelessness includes persons living in other crowded dwellings, other improvised dwellings or housed in caravan parks.

Homeless and at risk of homelessness people aged over 65 represent 0.3% of the total population in Victoria aged over 65.

6.2 Outdoor spaces

6.2.1 Access to Open Space

Source: (Community Indicators Victoria, 2016)**.** Community Indicators Victoria, Instant Atlas.

Because Yarra Ranges is a semi-regional LGA, the EMR overall shows a greater proportion of the region classified as open space than the Melbourne metropolitan average. Aside from this, particulars of the EMR are relatively in line with the Melbourne metropolitan average.

Table 6.2.1 Measures of access to open space

Data Year:	2012	2012	2011	2011	2011	2011	2011
Measure:	Proportion of residential LGA within 400m of principal bike network (% of total area of residential LGA)	Average distance to the principal bike network (km)	Proportion of LGA classified as open space	Number of organised recreation areas public open spaces (per 1000 population)	Average distance to closest organised recreation areas	Number of Parkland and Garden Public Open Spaces (per 1000 population)	Average distance to closest park or garden
Boroondara	57.1	4	9.5	0.5	0.6	1	0.5
Manningham	26.3	11.1	17.7	0.4	0.9	2.4	0.3
Monash	23.1	8.2	9.2	0.4	0.6	2	0.3
Whitehorse	27.9	7.3	9.3	0.3	0.7	1.5	0.3
Knox	23.5	8.1	18.8	0.5	0.7	2.6	0.3
Maroondah	18.4	10.4	9.1	0.5	0.7	2.2	0.4
Yarra Ranges	11.9	32.7	62.5	1.2	1.2	2.4	0.6
EMR	26.8	11.8	54.4	0.5	0.2	2	0.1
Melbourne Metro	28.5	12.1	26	0.5	0.8	2.3	0.4

Figure 6.2.1a Number of public open spaces and number of parkland and garden open spaces per 1000 population

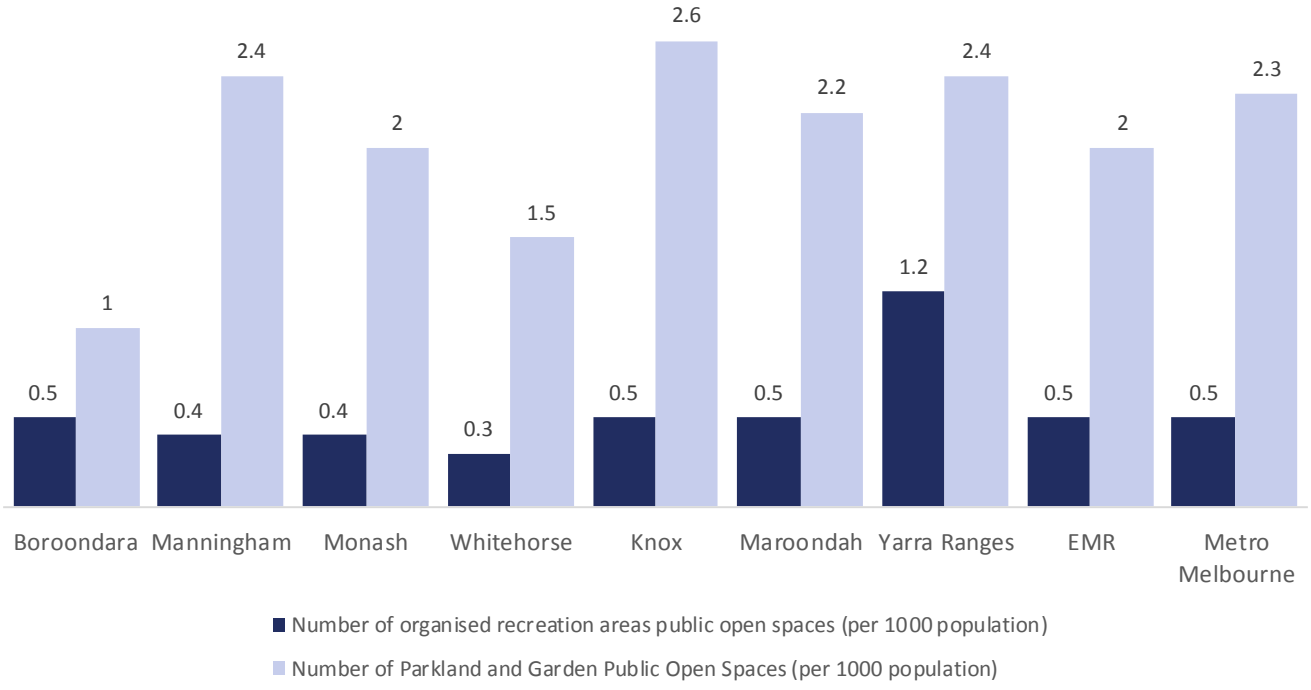
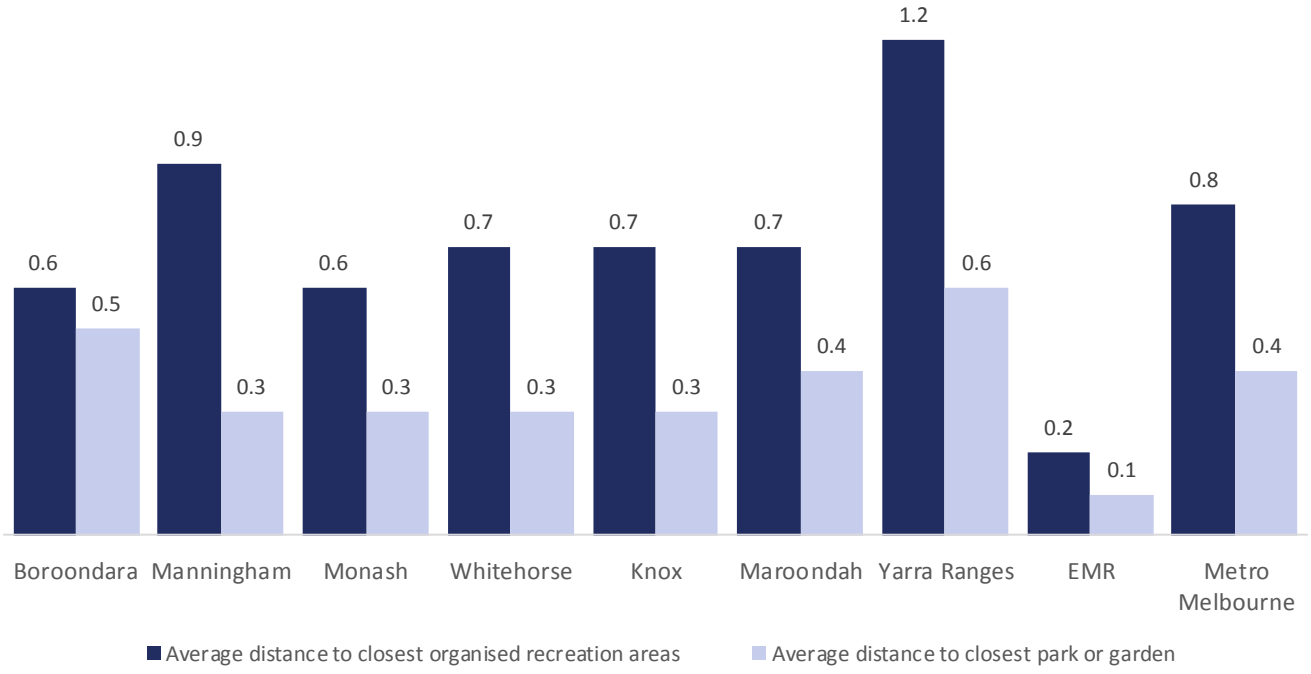


Figure 6.2.1b Average distance (km) to organized recreation areas or parks and gardens



6.3 Transport

6.3.1 Pedestrians

Source: Victorian Emergency Minimum Dataset (VEMD) records, direct request.

Given small counts it is not possible to assess pedestrian accidents by LGA, however over the past 3 years there have been between 34 and 36 emergency department presentations per year by 65+ year old EMR residents due to pedestrian related injury, and between 47 and 62 hospital admissions.

Table 6.3.1 Incidence of emergency department presentations and hospital admissions in the EMR for 65+ year olds

	65+ year old Emergency department presentations in EMR			65+ year old Hospital admissions in EMR (may include some who presented to emergency department)		
	on-road	off-road	Total	on-road	off-road	Total
2012/13	26	8	34	36	14	50
2013/14	30	8	38	48	14	62
2014/15	26	10	36	34	13	47
Total	**82**	**26**	**108**	**118**	**41**	**159**

6.3.2 Road injuries

Source: (VicRoads, 2011-2016) Interactive Crash statistics online tool set to age groups 60-69, 70-79 and 80+ and Council area

As referenced in section 2.19.2 External causes of death, vehicle incidents are the second top external cause of death for 60+ year olds across all LGAs.

Table 6.3.2 Number of car accidents involving a person aged 60 years or over between 2011 and 2016 by LGA

	Fatality	Serious injury
Boroondara	7	128
Manningham	3	100
Monash	9	163
Whitehorse	8	148
Knox	7	85
Maroondah	1	69
Yarra Ranges	9	160

6.3.3 Public transport

Source: (Community Indicators Victoria, 2016)**.** Community Indicators Victoria, Instant Atlas.

The Transport Walkability Index is calculated using three main datasets: residential density, street connectivity and land use mix. Index scores have been scaled so they can be interpreted as deciles. (Giles-Corti, 2014)

When compared to the Melbourne metropolitan average, the EMR has a lower proportion of the population within close access to public transport (due to the regional nature of Yarra Ranges LGA). However, the EMR also registers a lower proportion of 55+ year olds who report experiencing transport limitations suggesting that residents in the region may be reliant on private transport.

Table 6.3.3 Measures of access to public transport

Data Year:	2012	2012	2012	2011	2011
Measure:	Proportion of LGA within 400m of bus/tram stop or 800m of train station (% of total area of LGA)	Average distance to nearest public transport stop (bus, tram, train) in km	Transport Walkability Index deciles for LGA (low decile is low Transport Walkability)	People who experienced transport limitations in the last 12 months (% of adult population)	People aged 55 years and over who experienced transport limitations in the last 12 months (% of population aged over 55 years)
Boroondara	77.1	0.3	5	17.9	20.6
Manningham	37.4	0.4	1	22.6	28.9
Monash	66.4	0.4	6	20	21.9
Whitehorse	77.2	0.4	7	20.8	25.2
Knox	48	0.4	2	18.1	20.7
Maroondah	60	0.4	2	21.1	21.5
Yarra Ranges	3.1	1.3	1	19.4	22.4
EMR	12.1	0.5	n/a	19.8	23
Metro Melbourne	14.8	0.5	n/a	23.2	24.9
Victoria	0.9	2.1	n/a	23.7	25.1

Figure 6.3.3a Proportion of LGA within 400m of bus or tram stop or 800m of train station (% of total area of LGA)

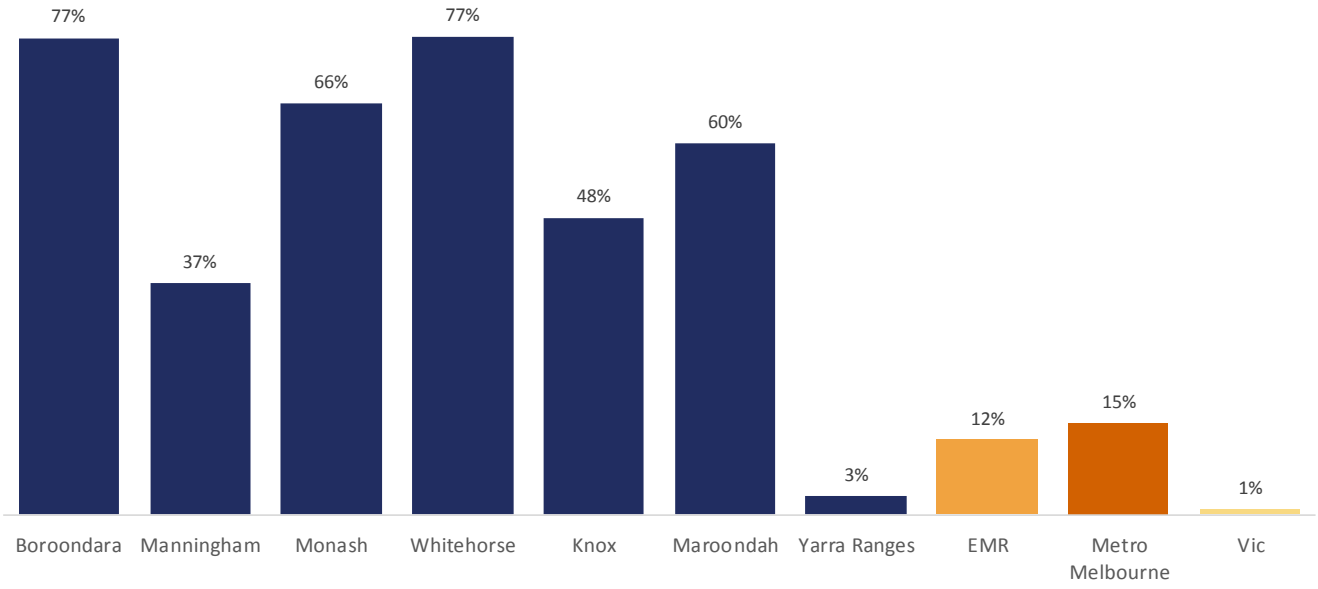


Figure 6.3.3b People who experienced transport limitations by region

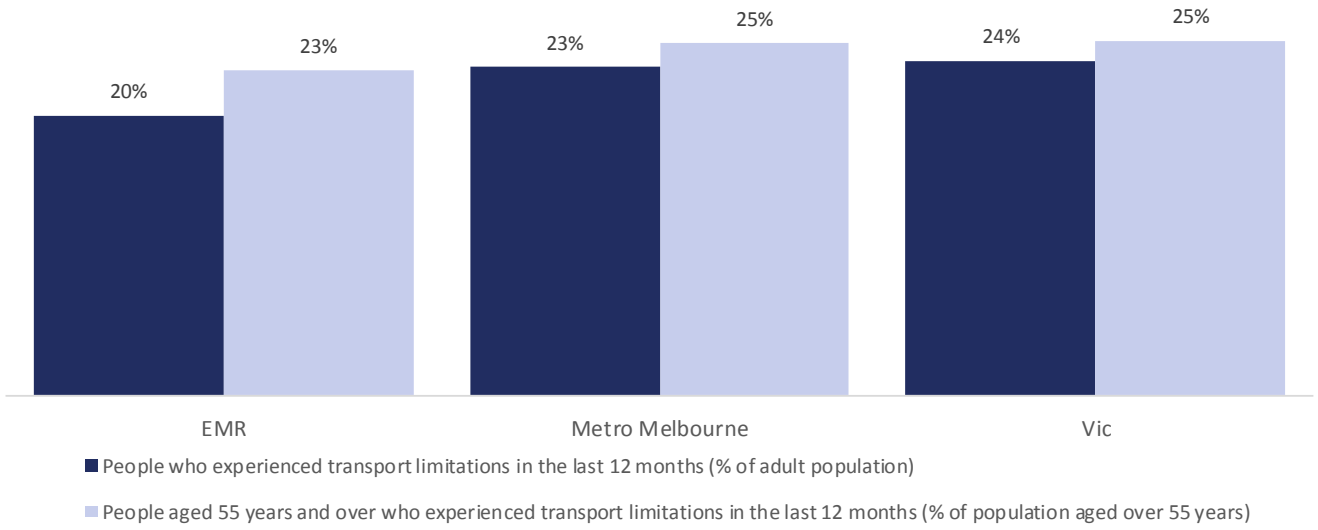
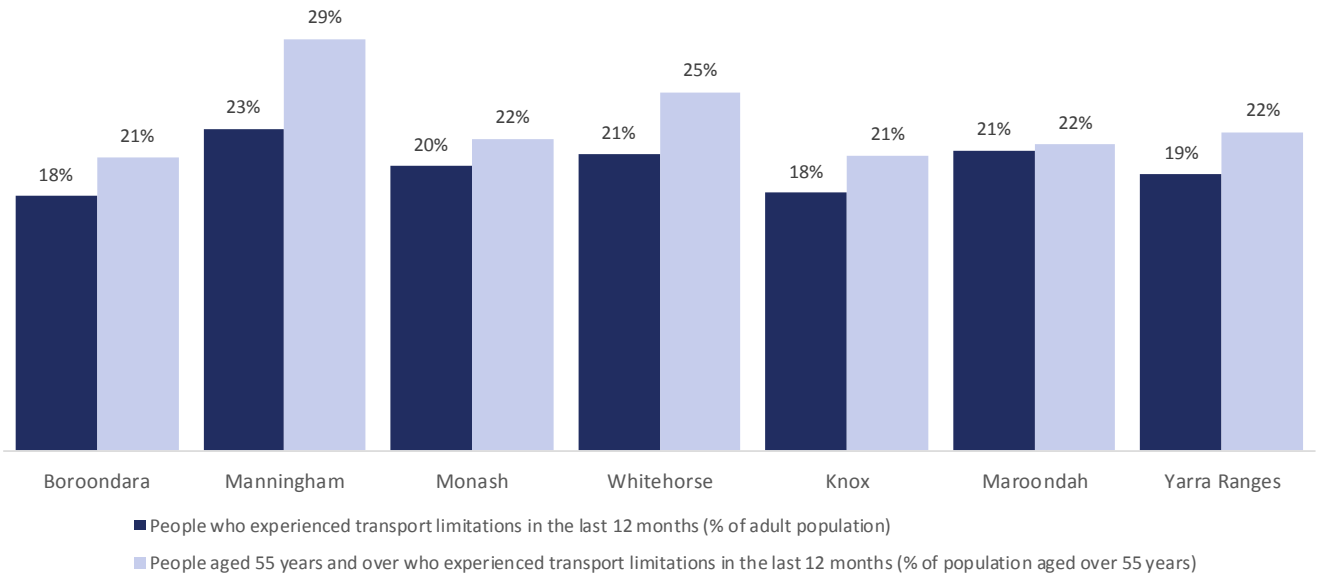


Figure 6.3.3c People who experienced transport limitations by LGA

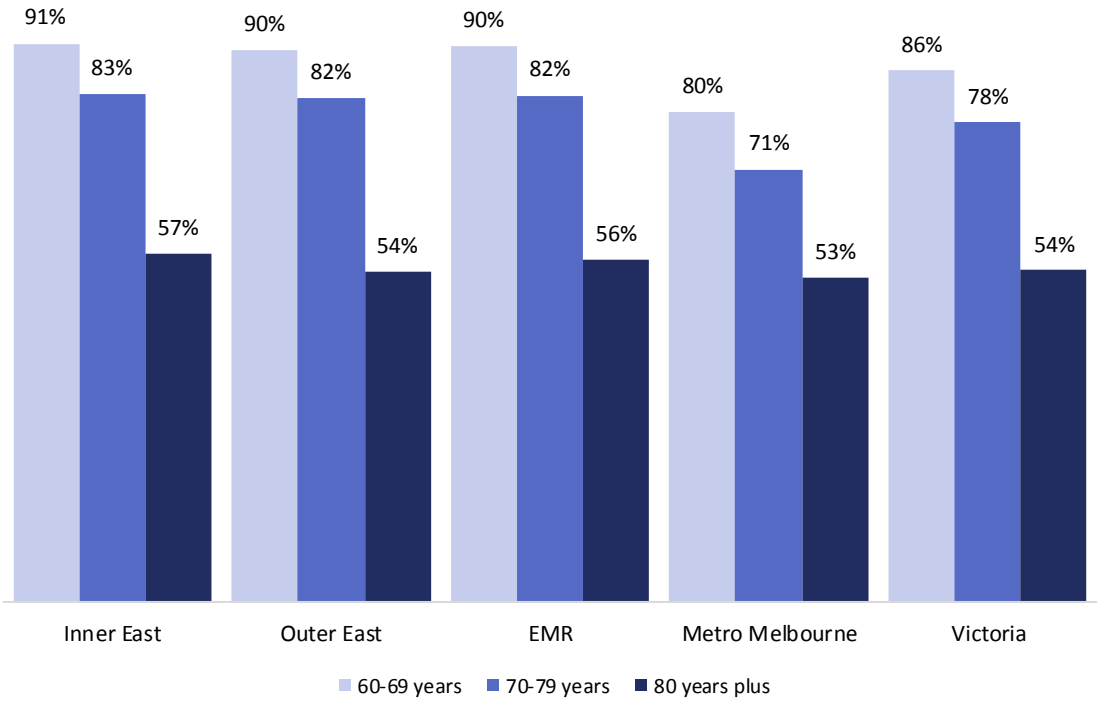


6.3.4 Motor Vehicle ownership

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, place of usual residence.

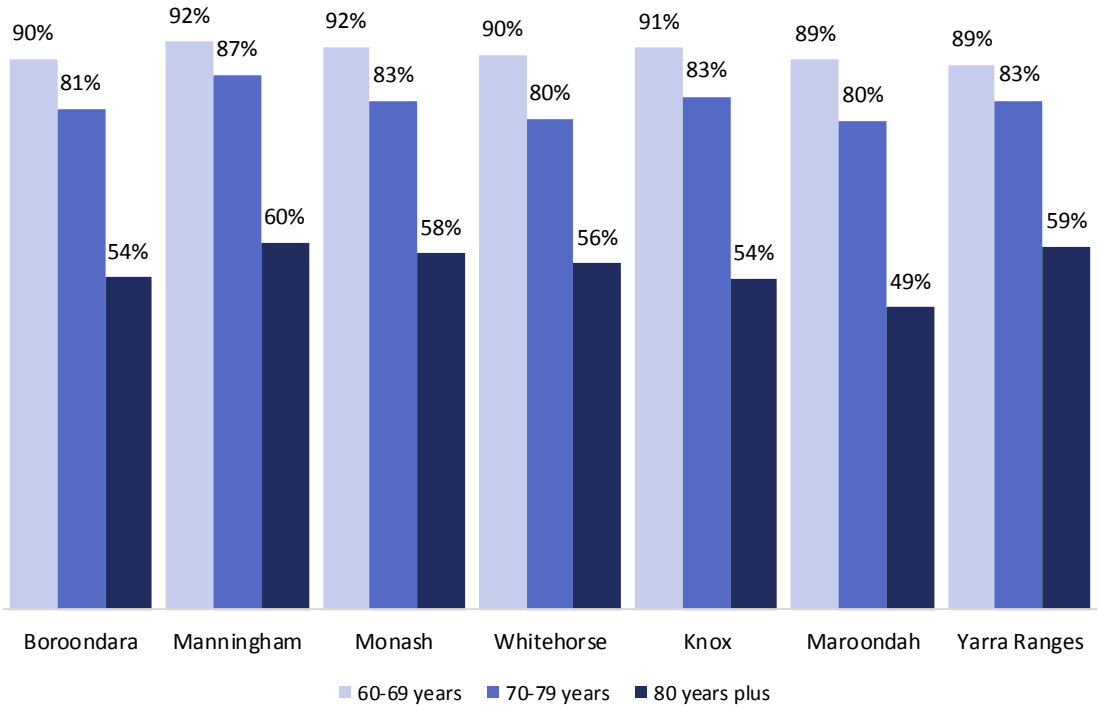
Ownership of at least one vehicle decreases significantly when people enter the 80 plus age range. This is consistent across all regions and Victoria.

Figure 6.3.4a Percentage of people aged 60 years plus who own at least one motor vehicle by region



The incidence of 80+ year olds owning at least one motor vehicle is lower amongst those in Maroondah, yet higher in Manningham and Yarra Ranges.

Figure 6.3.4b Percentage of people aged 60 years plus who own at least one motor vehicle by LGA



Source: 2011 Census of Population and Housing.

6.4 Community Safety Perceptions

Source: (Community Indicators Victoria, 2016) Age related data is only available for 55 years plus**.**

There is limited age specific data available about community safety, however there are some ratings available for those aged 55 years and over. Perceptions of safety at home during the day and night are similar for those aged 55 years and over as all adults, and there are no notable variations by region. Most people indicate that they feel safe at home both day and night.

Table 6.4 Percentage of adults compared to people over 55 years who feel safe at home alone during the day and at night

	Percentage of adults who feel safe or very safe when at home alone during the day (2011)	Percentage of People aged over 55 years who feel safe or very safe when at home alone during the day (2011)	Percentage of adults who feel safe or very safe when at home alone at night (2011)	Percentage of People aged over 55 years who feel safe or very safe when at home alone at night (2011)
Boroondara	99.9%	100%	98.6%	98.2%
Manningham	98.7%	96%	96.4%	94.3%
Monash	99.8%	99.5%	96.5%	92.6%
Whitehorse	99.1%	97.7%	94.6%	91.7%
Knox	97.9%	96.1%	95%	93.3%
Maroondah	99.5%	99.4%	96.1%	97%
Yarra Ranges	100%	100%	96.3%	94.9%
EMR	99.2%	98.4%	96.3%	94.8%
Victoria	98.5%	98%	95%	94.3%

6.5 Crime

6.5.1 Incidence

Source: (Department of Health and Human Services, 2014)**.**

Drawn from Corporate Statistics, Victoria Police 2012-13 and 2012 Estimated Resident Population, ABS. Crime includes crimes against the person, crimes against property, drug offences and other crimes.

The total incidence of crime per 1,000 population is higher in the outer east region than the inner east; however this rate is still lower than the average for Victoria. Of the LGAs in the defined eastern region, the lowest incidence of crime per 1,000 people occurs in Manningham whilst the highest occurs in Maroondah.

Table 6.5.1 Crime rates by local government area

	Total Crime per 1,000 pop	Rank against all LGAs, Total Crime per 1,000 pop
Inner East	43.5	n/a
Boroondara	42.2	65
Manningham	35.4	73
Monash	48.2	56
Whitehorse	45.4	60
Outer East	57.1	n/a
Knox	61.9	46
Maroondah	64.4	44
Yarra Ranges	46.7	58
EMR	48.9	n/a
Victoria	75.5	n/a

6.5.2 Victim Reports

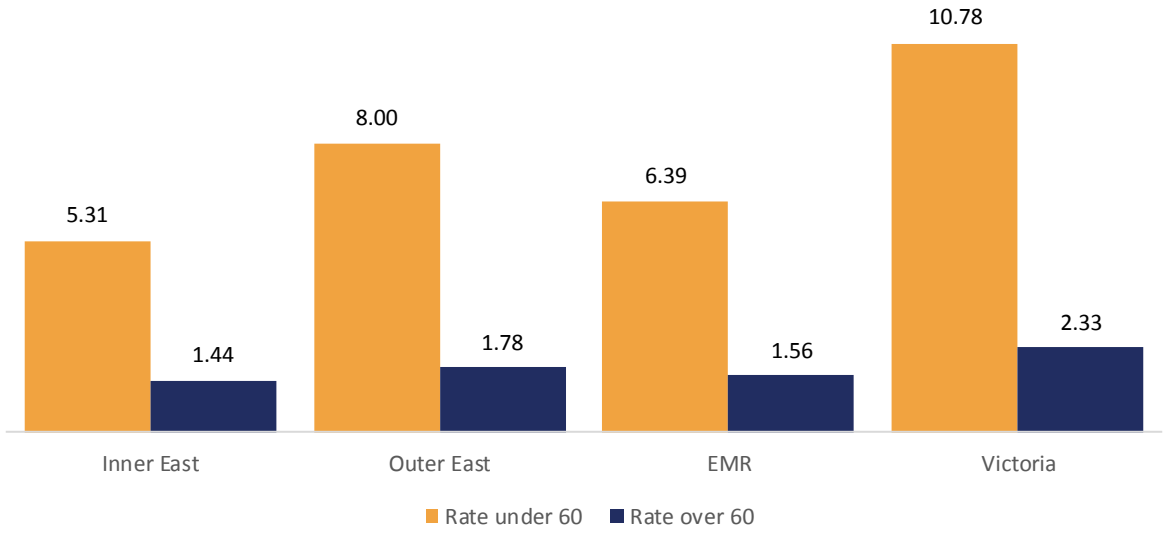
Source: (Crime Statistics Agency, 2016) and 2016 Victoria in Future population projections.

Victim reports include:

Crimes against the Person:	Crimes against Property:
• Homicide and related offences • Assault and related offences • Sexual offences • Abduction and related offences • Robbery • Blackmail and extortion • Stalking, harassment and threatening behaviour • Dangerous and negligent acts endangering people	• Arson • Property damage • Burglary/Break and enter • Theft • Deception • Bribery

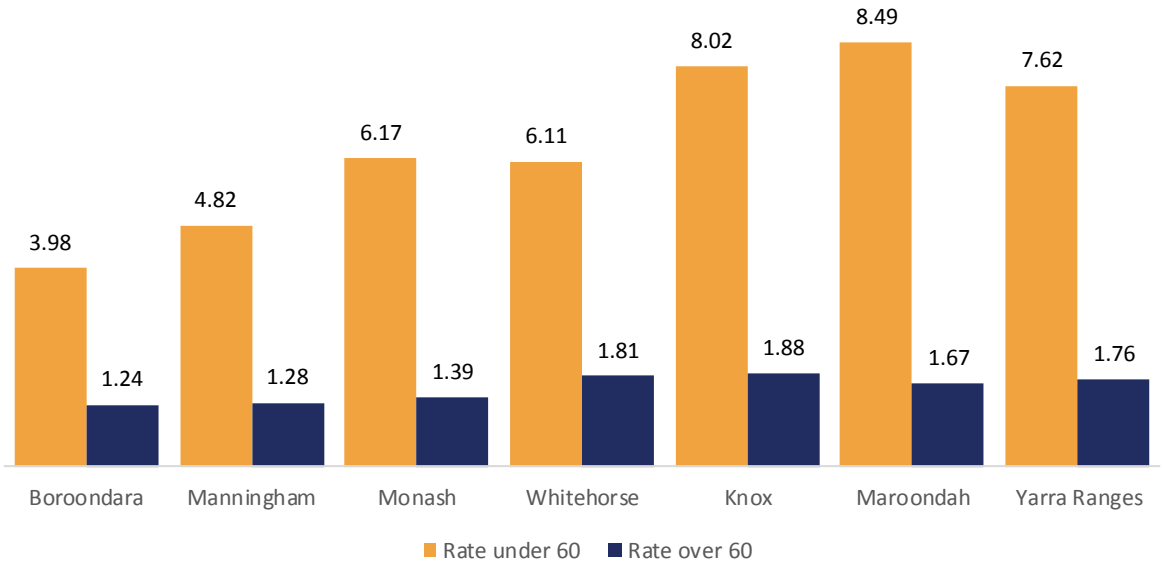
Crimes against the Person for those under the age of 60 years occur more often in the outer east than the inner east; however for 60+ year olds the rate is fairly constant across the region, and much smaller than is apparent for younger people.

Figure 6.5.2a Rate of Victim Reports for Crimes against the Person per 1,000 population by age groups 2015by region



Crimes against the Person per 1,000 60+ year olds are fairly consistent across the region.

Figure 6.5.2b Rate of Victim Reports for Crimes against the Person per 1,000 population by age groups 2015by LGA



The incidence per 1,000 60+ year olds representing crimes against property in the eastern region is lower than the state average for this age group.

Figure 6.5.2c Rate of Victim Reports for Crimes against Property per 1,000 population by age groups 2015 by region

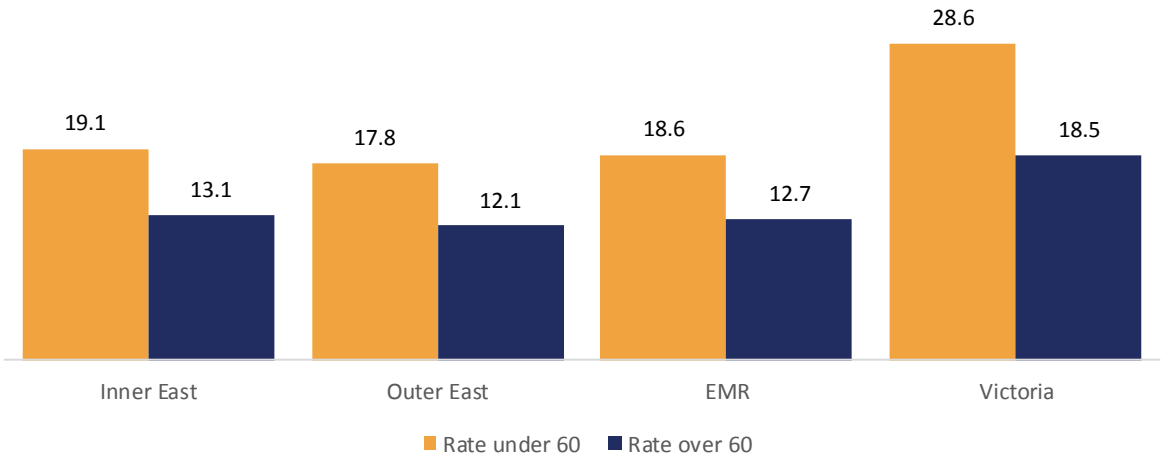
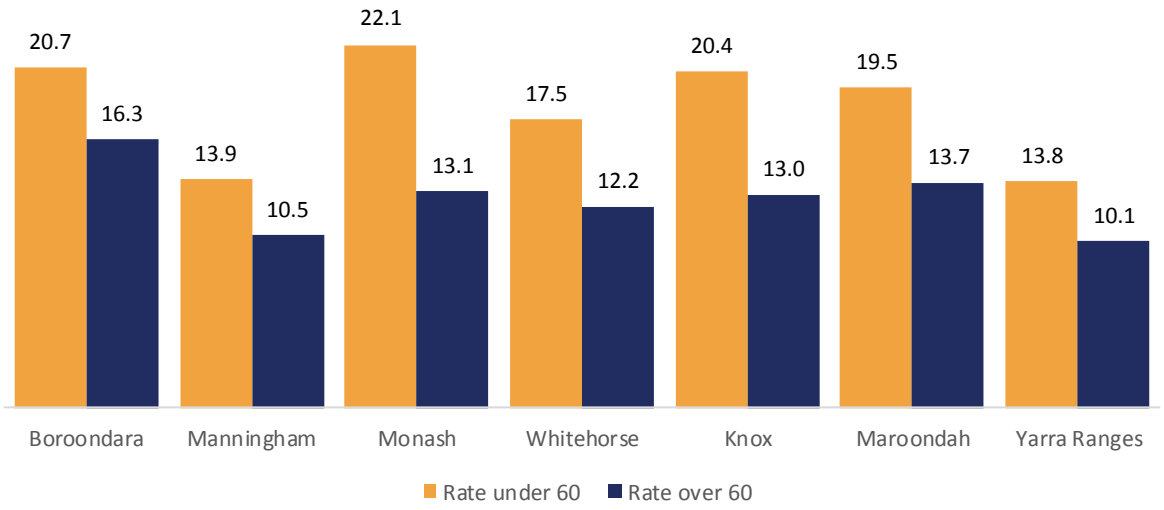
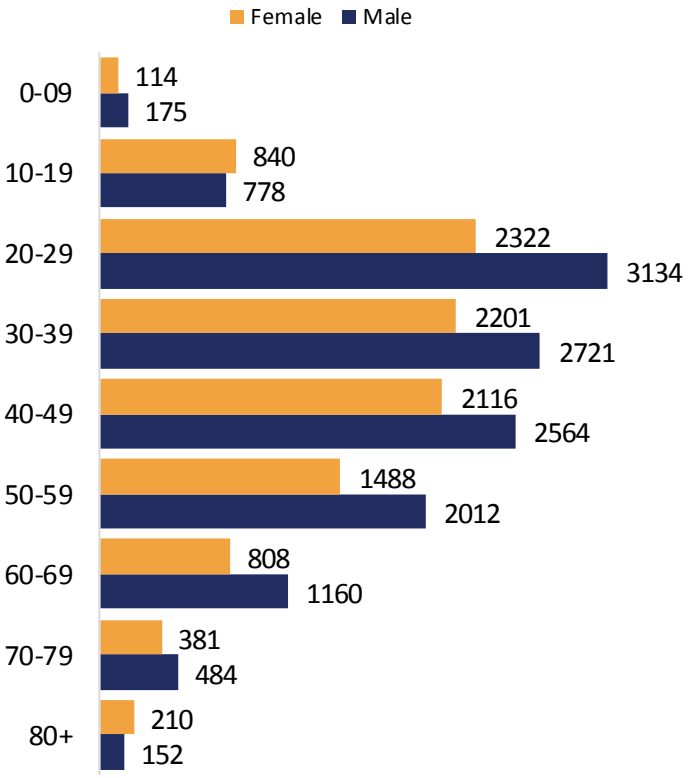


Figure 6.5.2d Rate of Victim Reports for Crimes against Property per 1,000 population by age groups 2015 by region



As can be seen in figure 6.5.2d, crimes against property are particularly low in Manningham and Yarra Ranges.

Figure 6.5.2e Total Number Victim Reports by age group and sex in EMR 2015



In 2015 there were a total of 44,560 Victim reports made to the Police in the EMR with 10,936 (24.5%) for Crimes against the Person and 33,624 (75.5%) for Crimes against Property (see table in source box for this section for definitions of what is included in each category). Where the gender and age of the victim is known there were a total of 23,919 victim reports in the EMR with approximately 60% of these in the inner east and 40% in the outer east. For Victim reports where the age and gender of victims are known, approximately 6% of reported Crimes against the Person and 16% of reported Crimes against Property were made by people aged over 60 years.

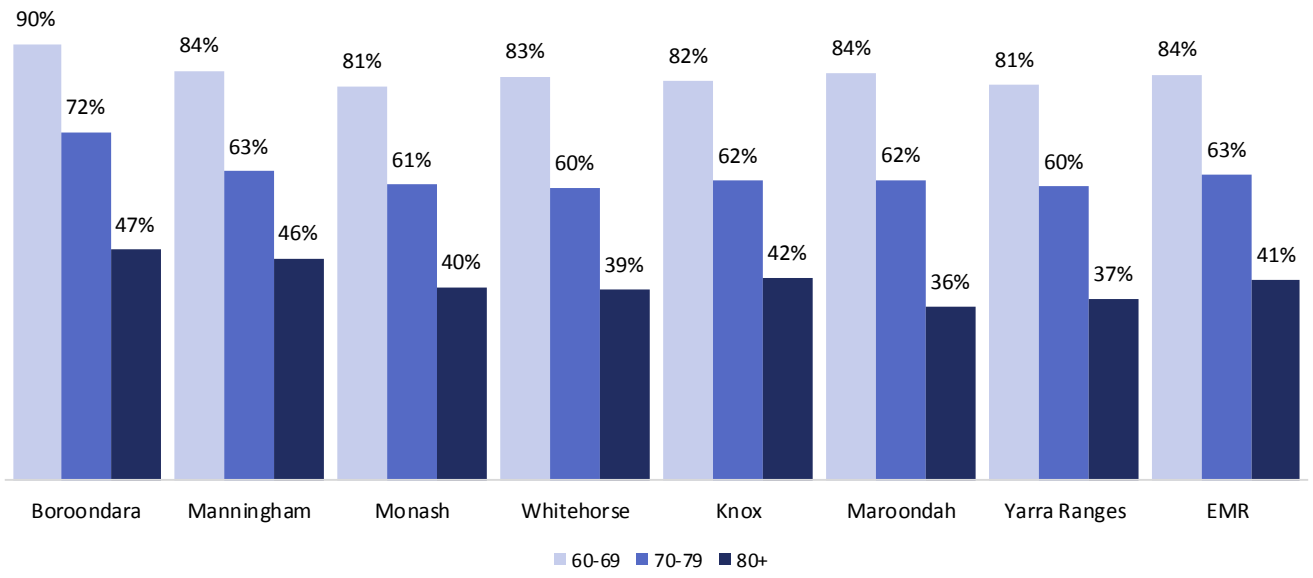
6.6 Internet access

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons in private dwellings.

Internet access includes broadband, dial-up and other connection. Proportions calculated as percentage of those who provided an answer to the question.

At present, some older people have limited access to the internet. Less than half of those aged 80 years or over have access to the internet at home. This lack of access is likely to reduce over time as internet savvy individuals enter these age ranges and with increasing uptake of internet technology by older people. However it is an important consideration for short term planning.

Figure 6.6 Percentage of population aged over 60 years who have internet access by LGA

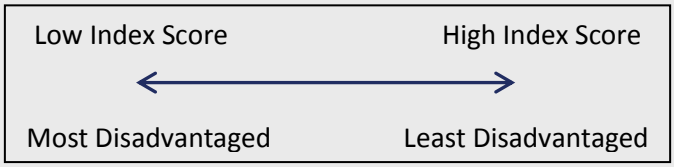


7. Other socio-economic, cultural and environmental conditions

7.1 Index of Relative Socio-Economic Disadvantage (IRSD)

Source: (Australian Bureau of Statistics (ABS), 2011) 2011 Census of population and housing. Persons, place of usual residence and (Australian Bureau of Statistics (ABS), 2013).

Socio-Economic Indexes for Areas (SEIFA) are products developed by the ABS that rank areas in Australia according to relative socio-economic advantage and disadvantage. The indexes are based on information from the five-yearly Census. The Index of Relative Socio-economic Disadvantage (IRSD) is one of these indexes which summarises a range of information about the economic and social conditions of people and households within an area. Unlike the other indexes, this index includes only measures of relative disadvantage (Australian Bureau of Statistics (ABS), 2013b).



A low score indicates relatively greater disadvantage in general. For example, an area could have a low score if there are (among other things): many households with low income, many people with no qualifications, or many people in low skill occupations.

A high score indicates a relative lack of disadvantage in general. For example, an area may have a high score if there are (among other things): few households with low incomes, few people with no qualifications, and few people in low skilled occupations.

The index includes the following variables with different loadings that indicates the correlation of that variable with the index:

- % of people who do not speak English well
- % of people aged 15 years and over who have no educational attainment
- % of employed people classified as low skill Community and Personal Service workers
- % of employed people classified as Machinery Operators and Drivers
- % of occupied private dwellings requiring one or more extra bedrooms
- % of people aged 15 years and over who are separated or divorced
- % of occupied private dwellings with no cars
- % of people under the age of 70 who have a long-term health condition or disability and need assistance with core activities
- % of one parent families with dependent offspring only
- % of occupied private dwellings paying rent less than $166 per week (excluding $0 per week)
- % of people (in the labour force) who are unemployed
- % of people aged 15 years and over whose highest level of education is Year 11 or lower
- % of employed people classified as Labourers
- % of occupied private dwellings with no internet connection
- % of families with children under 15 years of age who live with jobless parents
- % of people with stated household equalised income between $1 and $20,799 per year

Percentiles divide a distribution into 100 equal groups. In the case of SEIFA, the distribution of scores is divided into 100 equal groups. The lowest scoring 1% of areas are given a percentile number of 1, the second-lowest 1% of areas are given a percentile number of 2 and so on, up to the highest 1% of areas which are given a percentile number of 100.

Whilst all LGAs in the region are in the higher ranges of percentiles for the state, there are pockets of disadvantage. These variations can lead to inequality and inequity and reduced social cohesion, which in turn can have negative impacts on health and wellbeing.

Table 7.1 Index of Relative Socio-economic Disadvantage (IRSD)

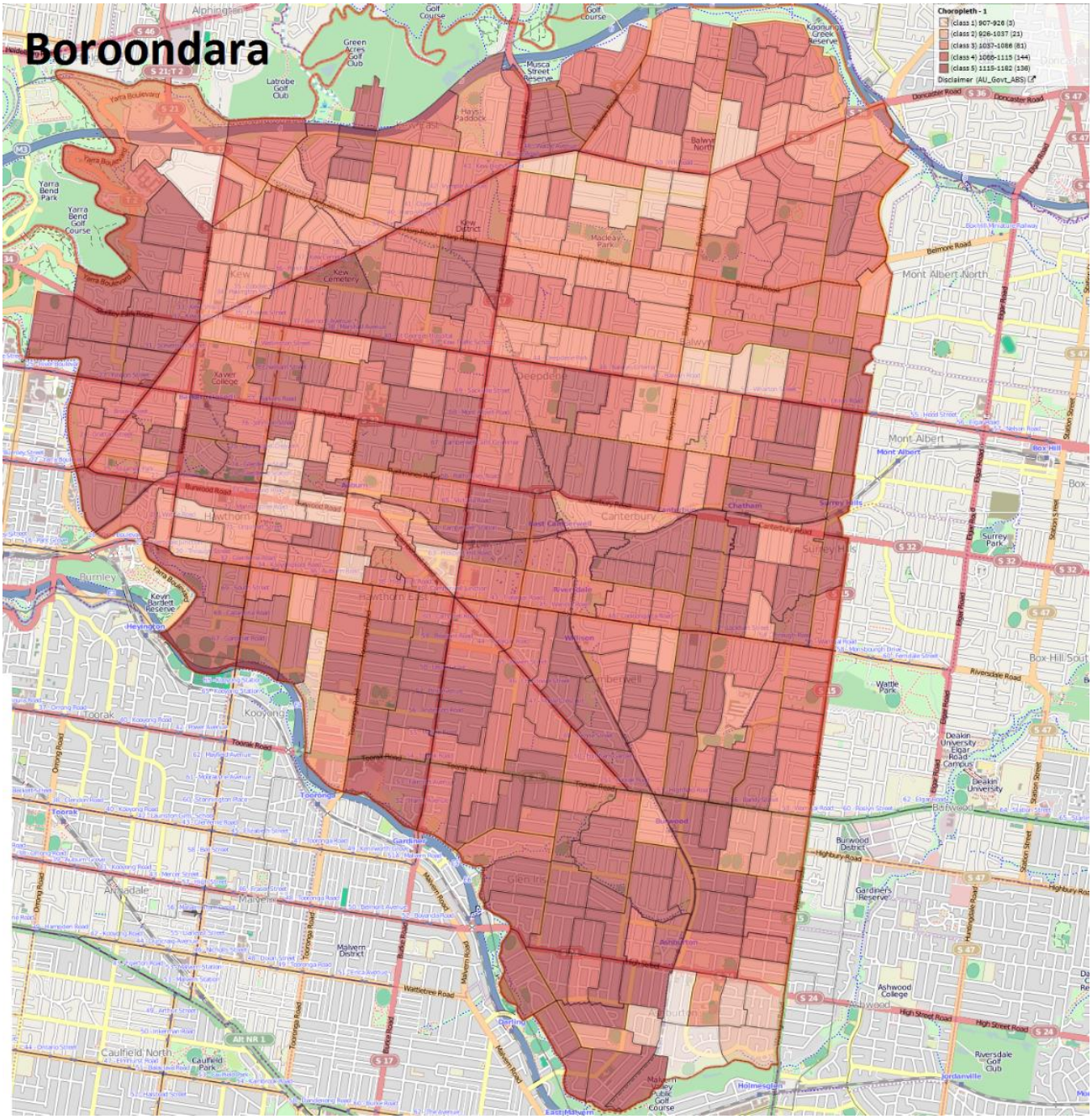
	2011 Index	Percentile	Area in LGA with lowest index	Index	Percentile	Area in LGA with highest index	Index	Percentile
Boroondara	1097.6	95	Ashburton	1059.3	79	Glen Iris	1118.2	99
Manningham	1071.4	85	Doncaster Hill	1020.9	58	Donvale	1114.8	98
Monash	1044.9	72	Clayton	971.8	33	Wheelers Hill	1081	89
Whitehorse	1051.2	75	Blackburn South	998.9	45	Surrey Hills	1111	97
Knox	1049.3	74	Bayswater	1001.3	47	Lysterfield	1102.2	96
Maroondah	1043.9	71	Kilsyth	995.7	43	Warranwood	1109.2	97
Yarra Ranges	1037.1	67	Warburton Area	940.7	21	Belgrave Heights	1083.4	90
EMR	1056.8	78						
Melbourne metropolitan	1020.3	57						
Victoria	1009.6	51						

At a suburb level the region appears to be performing quite well. However when exploring SEIFA indexes by small area (Statistical Area Level 1) there are some clear pockets of disadvantage. Over the next few pages are heat maps highlighting the pockets of disadvantage in small areas.

7.1.2 SEIFA maps by region

Boroondara

This map differs from the others due to Boroondara not subscribing to the atlas.id service. In this map the lighter areas have lower IRSD (whereas for the other maps the darker the colour the lower the IRSD). In this region pockets of low IRSD scores occur fairly evenly throughout the region, although there is a slightly higher concentration in the North East.

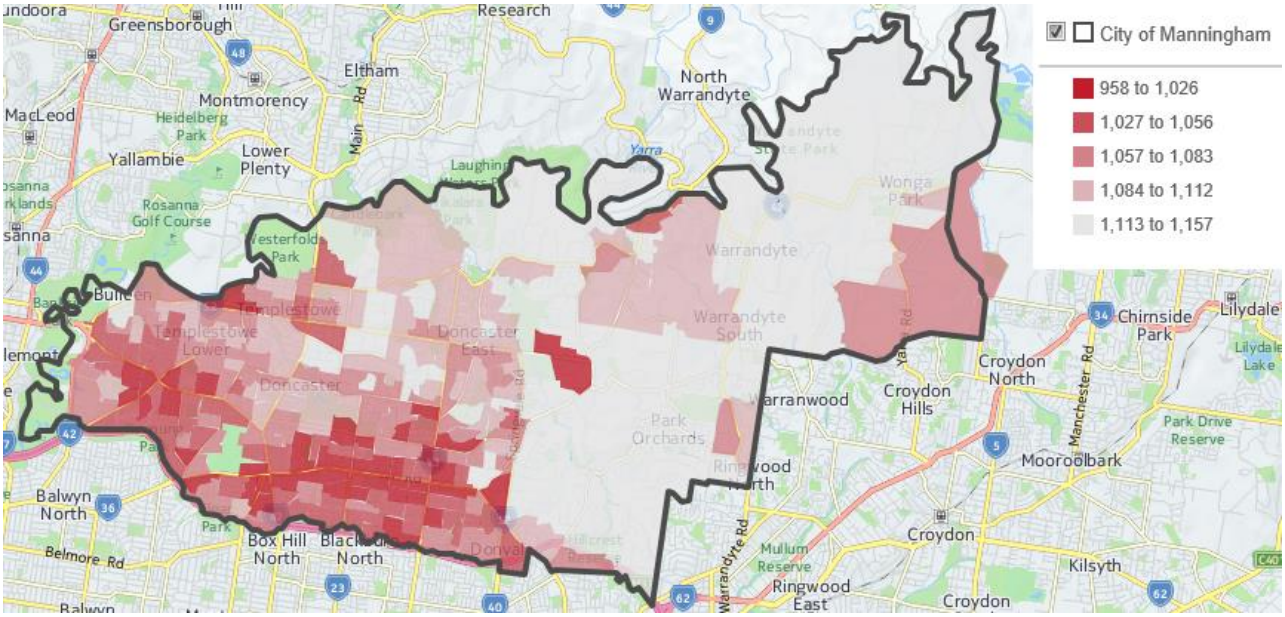


MAP: lighter areas indicate a lower IRSD score, thus more disadvantaged areas.

MAP generated by AURIN PORTAL (Australian Urban Research Infrastructure Network (AURIN), 2016).

Manningham

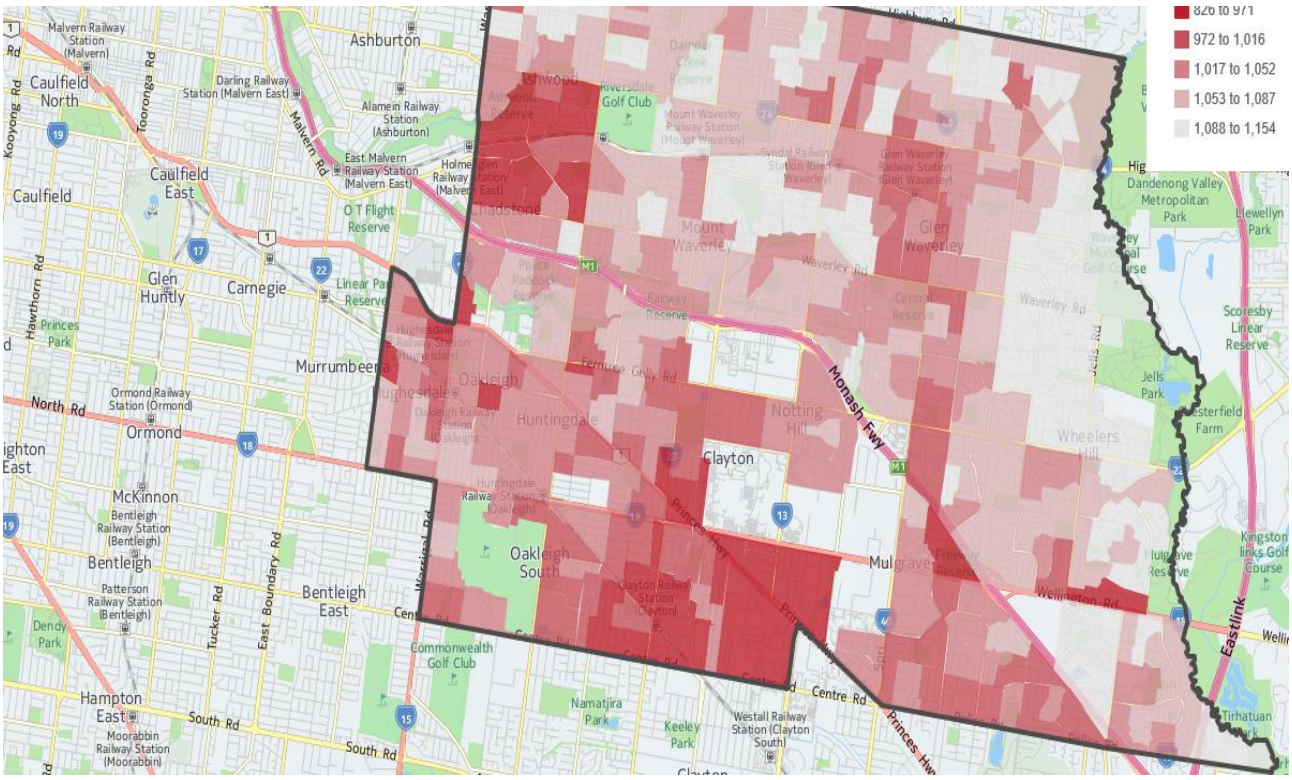
There is clearly a cluster of small areas with low IRSD index scores along Doncaster Rd and near the Thompsons Rd, Manningham Rd intersection. The lowest score of 958 occurs near the Eastern end of Doncaster Rd.



MAPS Generated by Community ID Atlas (Community ID Atlas, 2016). Data displayed is from the 2011 Census.

Monash

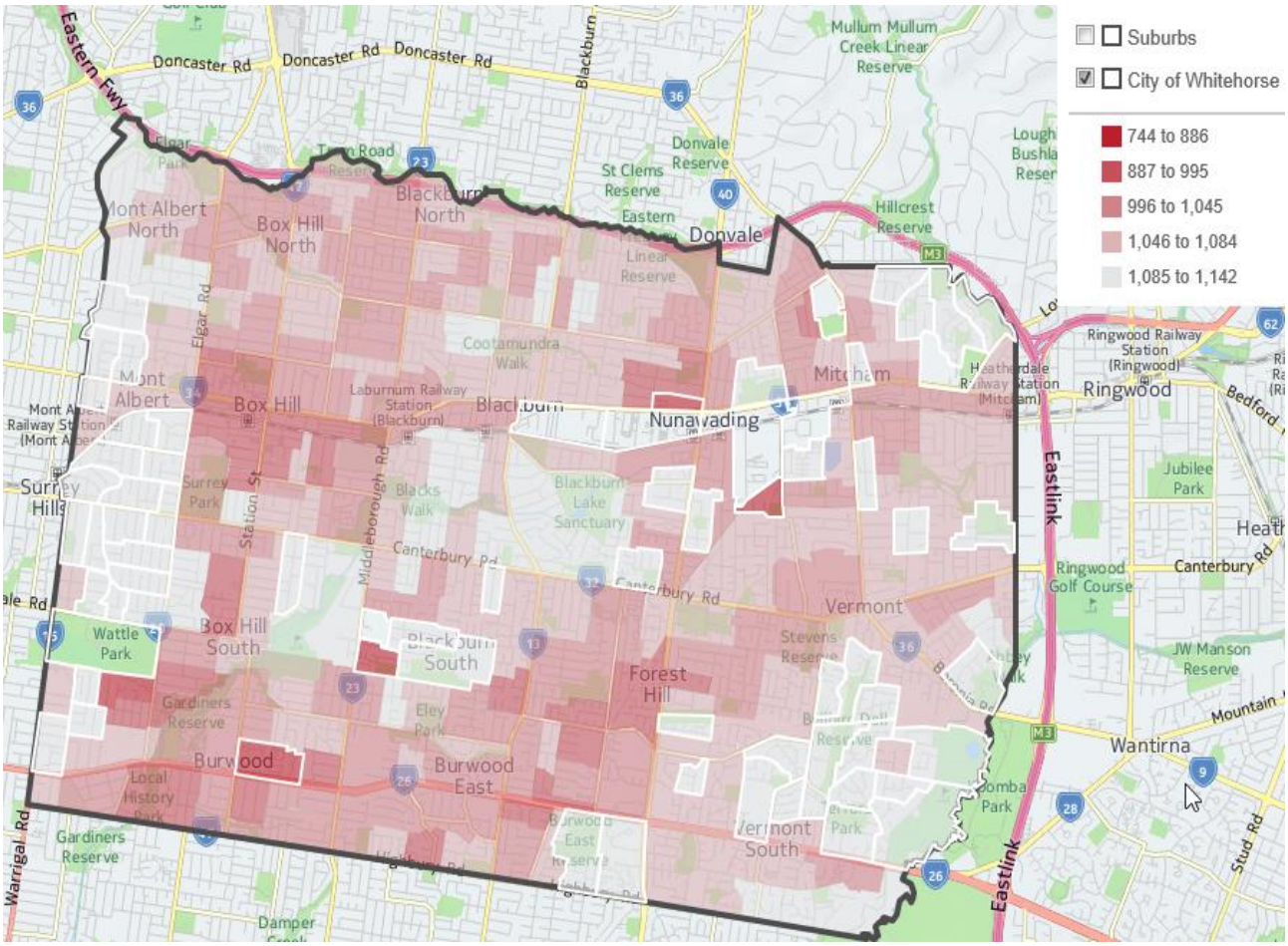
There are two pockets of higher concentration of low IRSD scores, in the Clayton area and around Power Avenue in the north east of the region. The lowest score of 826 occurs in the latter of these areas, near Ashwood reserve.



MAPS Generated by Community ID Atlas (Community ID Atlas, 2016). Data displayed is from the 2011 Census.

Whitehorse

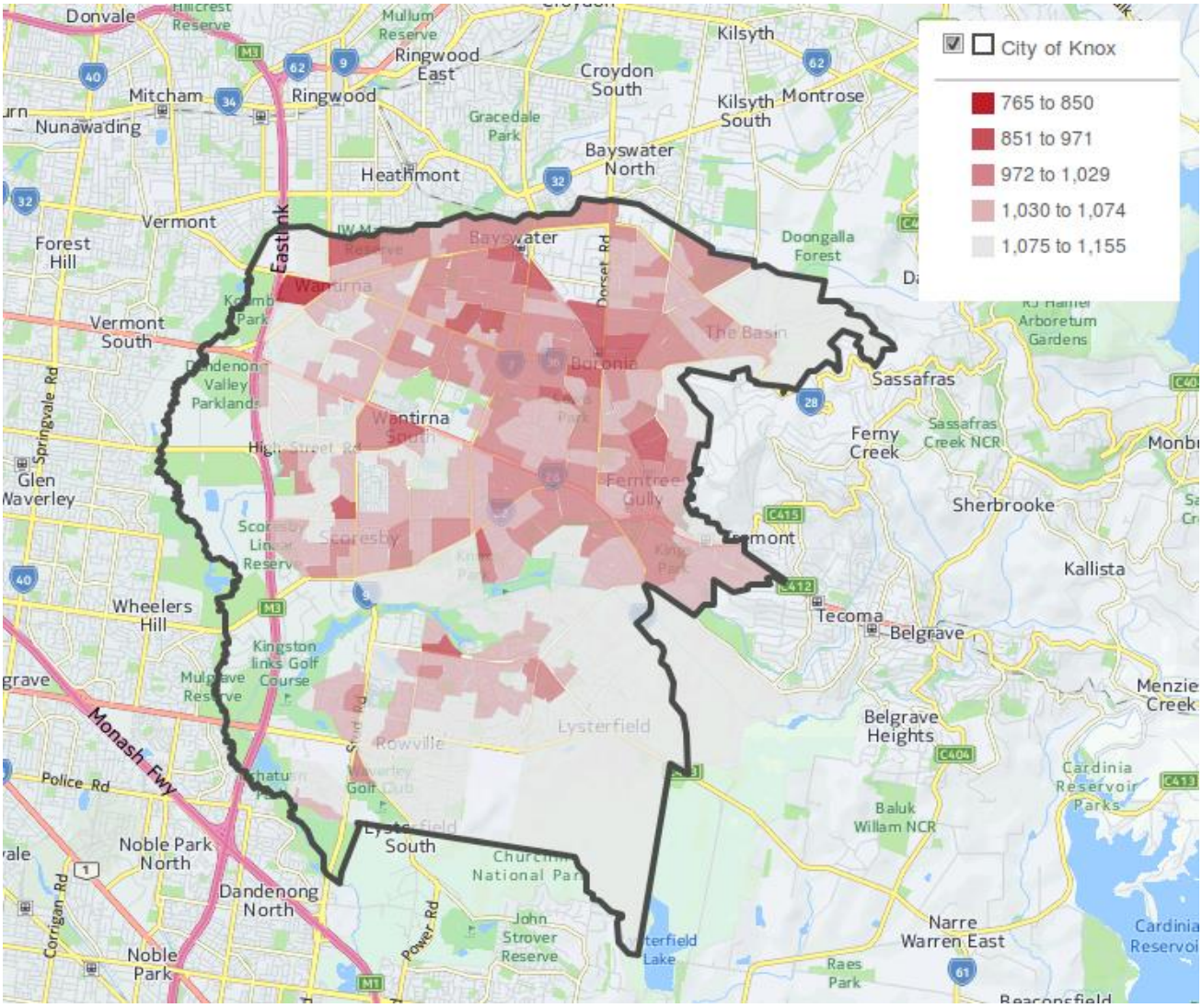
Compared to the other regions, Whitehorse has few scattered SA1 areas with low IRSD scores, but no notable pockets of neighbouring SA1s with disadvantage based on this measure. The lowest SA1 score of 744 occurs near Nunawading.



MAPS Generated by Community ID Atlas (Community ID Atlas, 2016). Data displayed is from the 2011 Census.

Knox

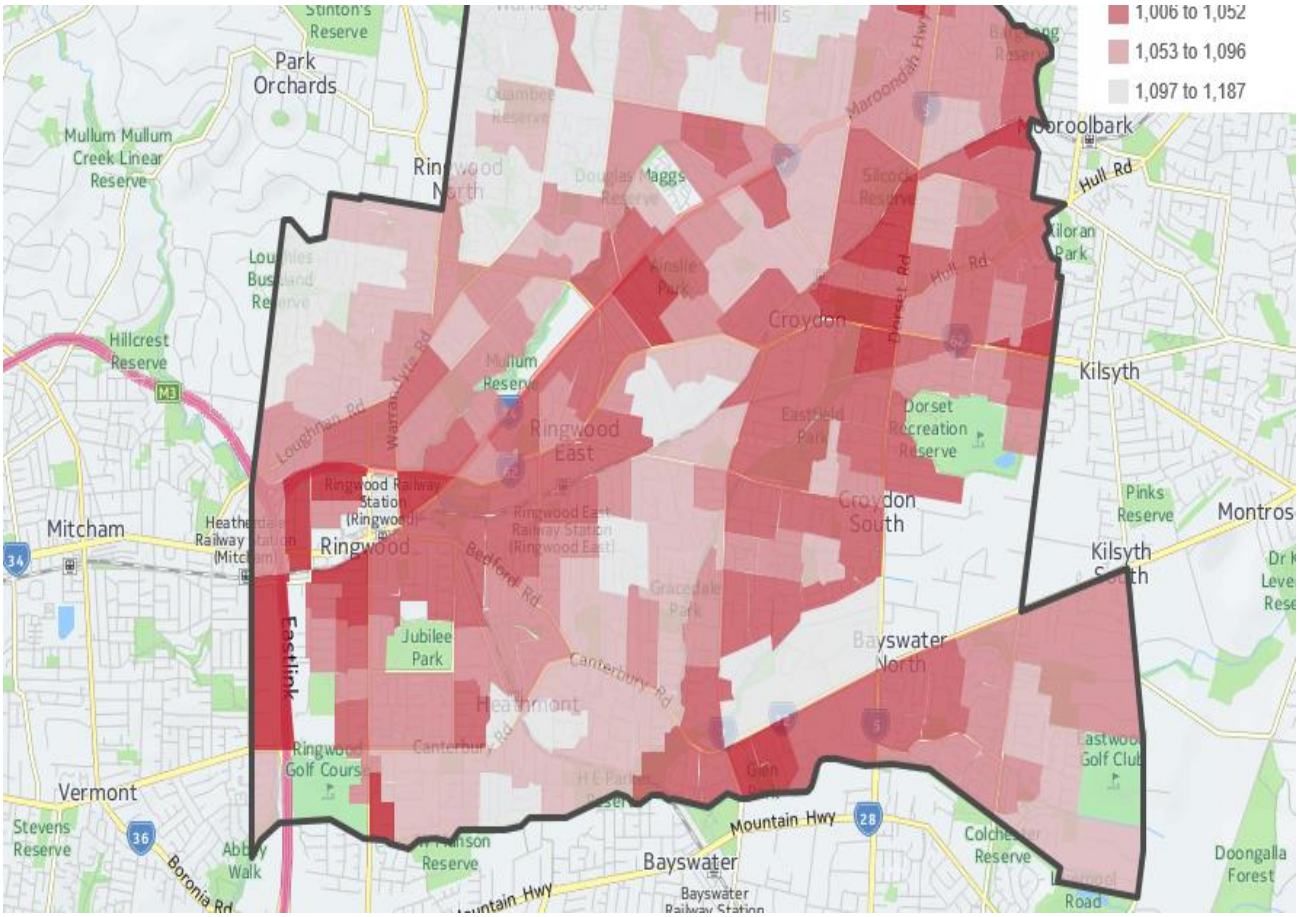
There are no notable regions of low IRSD scores.



MAPS Generated by Community ID Atlas (Community ID Atlas, 2016). Data displayed is from the 2011 Census.

Maroondah

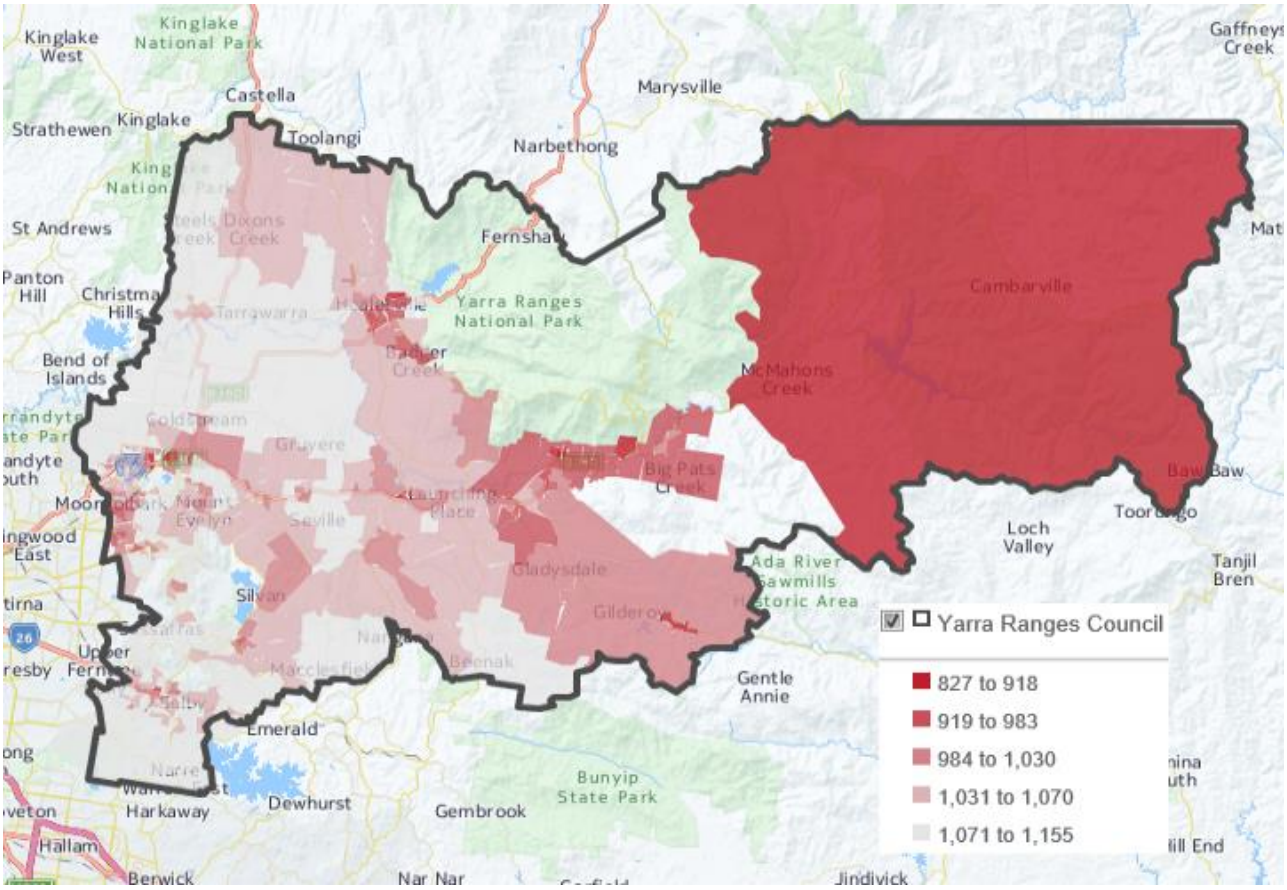
The main geographic areas with a higher incidence of low IRSD scores are around the Ringwood exit from the Eastlink freeway and in the eastern area of the region bordering the Lilydale train line. The lowest SA1 score of 763 occurs near Ringwood station.



MAPS Generated by Community ID Atlas (Community ID Atlas, 2016). Data displayed is from the 2011 Census.

Yarra Ranges

The pockets of low IRSD scores are around the outer regional centres of Healesville and Warburton. The lowest score of 827 occurs in Millgrove.



MAPS Generated by Community ID Atlas (Community ID Atlas, 2016). Data displayed is from the 2011 Census.

7.2 Life expectancy

Sources: (Australian Bureau of Statistics (ABS), 2014)

Life expectancy at birth was calculated by region using aggregated mortality and population data from 2003-2007 (Victorian Health Information Surveillance System (VHISS), 2007).

Shows life expectancy at selected ages Victoria wide in 2014. A life table is a statistical model used to represent mortality of a population. In its simplest form, a life table is generated from age-specific death rates and the resulting values are used to measure mortality, survivorship and life expectancy. Data on population, deaths and births are used and mortality rates are smoothed to avoid fluctuations in the data.

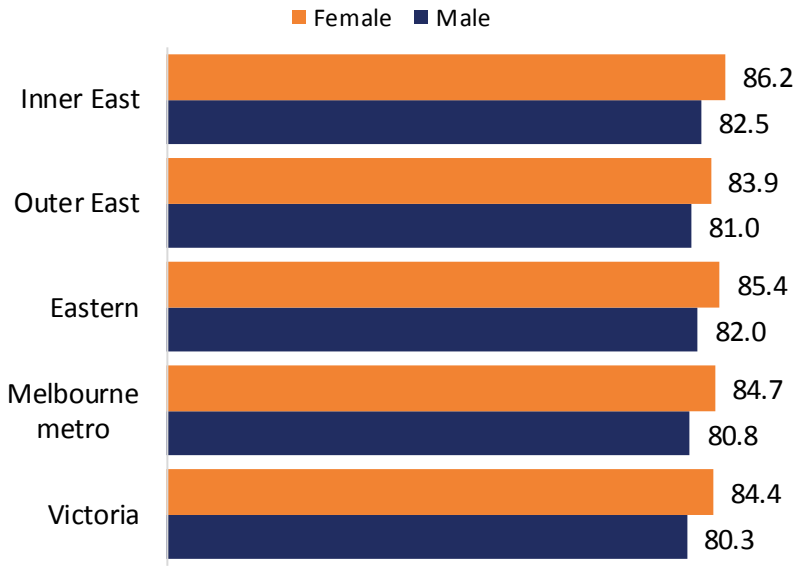
(Victorian Health Information Surveillance System (VHISS), 2007)

Life Expectancy at birth in is the expected average life span of an individual as computed using five years of aggregated mortality and population data, from 2003-2007.

Life expectancy estimates show the average expected age to which people will live. It can be an indicator of overall health of a population. Life expectancy for both males and females is higher in the Inner east and overall eastern region than both the Victorian and metropolitan Melbourne average.

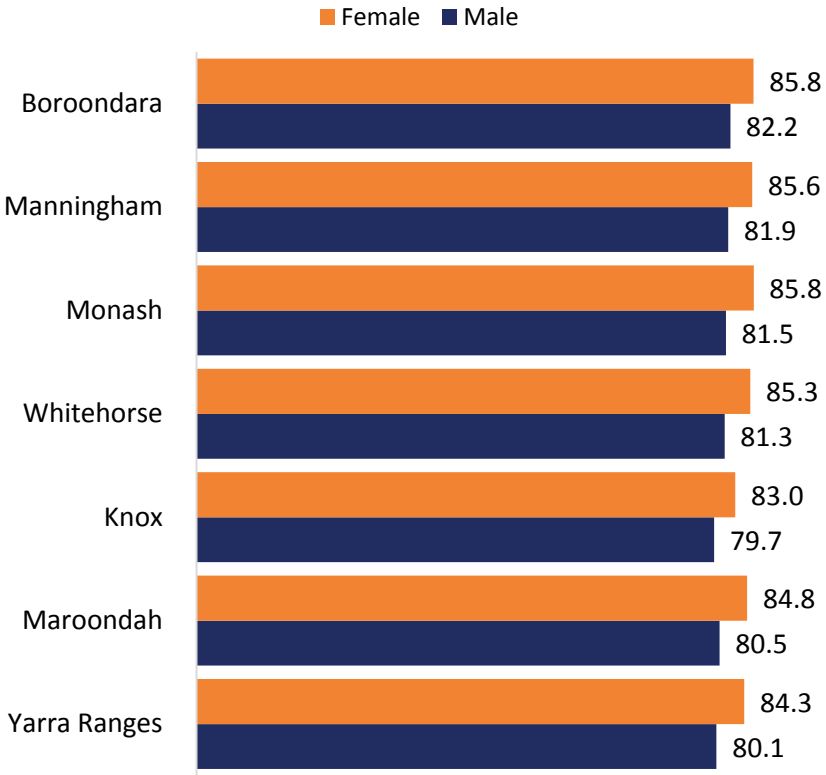
In 2014 in Victoria, it was calculated that females aged 65 years are likely to live on average an additional 22.2 years (to 87.2), and males aged 65 years are likely to live on average an additional 19.7 years (to 84.7) (Australian Bureau of Statistics (ABS), 2014).

Figure 7.2a Life expectancy at birth 2003-2007 by region



Boroondara, Monash and Manningham show slightly higher life expectancy for both males and females than other LGAs in the region. The lowest life expectancy is recorded in Knox.

Figure 7.2b Life expectancy at birth 2003-2007 by LGA



Grey literature findings

This section provides a summary of consultations, evaluations and program reports relating to the health and wellbeing of older people in the Eastern Metropolitan region of Melbourne.

The grey literature review of consultations, evaluations and program reports gives some insight into the health, wellbeing, independence and safety needs of older people living in the EMR. While there were some limitations with the breadth and scope of the documents analysed, some key issues were identified: financial stress, health literacy, community engagement and participation, and transport and how these impact on older people and their ability to stay healthy and well. The inter relationship between indicators of health and wellbeing was also clear and highlights that individual indicators cannot be looked at in isolation as a measure of health and wellbeing.

i. Financial Security

There were a number of financial issues that were seen to have an impact on the health and wellbeing of older people in the EMR.

Six documents had some findings related to financial stress. The key issues identified were affordability of housing and housing related costs, particularly for people living alone. The lack of disposable income limited access to healthy food, physical activity and recreation; and services. Community members said there is a need for more information about financial matters such as financial planning, affordability of nursing homes, information on pensions and how to qualify, and affordable supports and services. Carers particularly identified the importance of financial support in their caring role (Clifford (1), 2015).

ii. Health Literacy (communication and information)

Health literacy is critical to empowering people to manage their own health by health education; improving access to health information; and improving people's capacity to use this information effectively (World Health Organization , 2016). Health Literacy is defined as "the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health." (World Health Organization , 2016).

The impact of low health literacy was reflected in many aspects of the literature review and affected a wide range of health and wellbeing issues. These included: limited understanding of services available and eligibility requirements, information about chronic conditions, as well as lack of skills and access to the internet and IT based technology. There was also an expressed need for a stronger understanding of the health system, in particular aged care options and costs.

The documents showed that language and culture also significantly affect health literacy. People from culturally and linguistically diverse backgrounds have reduced ability to access information about health, wellbeing and services and to participate in the community. More information is needed through culturally appropriate translated information or delivered by bilingual workers rather than interpreters. Free English classes are acceptable to improve language skills but CALD community members need support to access these.

A key finding from community consultations was that more education about health issues is needed, for example, evaluators of the Cooking Small Eating Well pilot program found that some community members lack knowledge of being underweight (Outer East Health and Community Support Alliance , 2015); people with a chronic condition found it difficult to get information about their health conditions and how to manage a chronic condition (Clifford (2), 2015); and Chinese and Vietnamese people with diabetes all identified a lack of diabetes related information (Gill, 2015).

Suggested approaches to provide more information were through information hubs organised by Councils, GPs, and health education forums, talks and events. It is important to understand the health information seeking habits of individuals to provide the best information.

iii. Community engagement and participation

There were many aspects of older people's lives that had an impact on their ability to connect with others. People who are particularly vulnerable to social isolation are those who live alone, those living in retirement villages and nursing homes, carers and people with chronic conditions. Generally, older people have more difficulty getting out and about to join in activities. Contributing factors to social isolation included living alone,

living away from family, lack of time, financial stress, poor health, limited mobility, transport, language and culture, feelings of stigma, and lack of knowledge about activities and services available.

The documents indicated a preference for affordable or free activities with accessible transport options; activities that take into account the older person's preferences, involving older people in decision making, offering intergenerational activities and providing more spaces with good facilities.

While there were limited findings about older people's participation in physical activity, it is worth noting the findings which are similar to those for community engagement and participation. The findings about physical activity confirmed that walking is the preferred physical activity type. Other activity types enjoyed included cycling, gym, strength training, gardening, golf, bowls, swimming and tai chi. Groups most at risk of physical inactivity were people over 80 years old, carers and people living with chronic conditions. Factors that affected physical activity included self-motivation, medical conditions, weather, time, cost and safety fears such as fear of falling.

iv. Transport

Transport issues can limit older people's ability to participate in social, physical and recreational activities, and their ability to attend medical appointments and manage their own health and wellbeing.

There were a number of findings from the grey literature analysis about transport issues for older people. The issues identified included a lack of public transport options, particularly in the outer east, including frequency of services and limited routes and destinations. Other issues were the cost of fares, difficulties using MYKI, safety concerns when boarding and disembarking and safety at night. On the positive side, older people in Monash and Boroondara rated access to public transport quite highly.

People most likely to experience transport issues were carers, people with chronic conditions, people with mental health issues, and people who are socially isolated.

There were some findings about transport options other than public transport: Taxis were seen as unreliable, providing a limited service and not available for short trips. Driving is limited by availability of suitable parking. Community transport is highly valued but not well known and also limited, particularly by volunteer requirements.

The findings also suggested that older people want more transport options, including community transport with a helpful driver who can escort people door to door to medical appointments and shopping. In addition grab rails could be installed in pedestrian traffic areas and public transport frequency, reach and accessibility could be improved.

v. Community Strengths

While one of the aims of the needs analysis is to highlight community strengths and areas where people are doing well to maintain their own health and wellbeing, there were limited findings about this from the documents collected. The community strengths identified in the grey literature were mostly related to the inner east area and included:

- Good access to public transport, particularly in Monash and Boroondara;
- Access to leisure activities such as Men's Sheds, arts and related activities; parks and open spaces; senior citizens clubs; U3A, and other social and educational activities;
- Good quality parks and open spaces identified in Maroondah, Monash, Boroondara and Whitehorse.

Although not identified as a community strength, comments were also made that older people living in the EMR who own their own homes are asset rich. The negative aspect of this is that they may also have insufficient finances to manage their daily expenses.

Appendix 1: SA3 to LGA matching parameters

SA3's where less than 5% of the population fall within the LGA were not included.

LGA_CODE_2011	LGA_NAME_2011	SA3_CODE_2011	SA3_NAME_2011
21110	Boroondara (C)	20701	Boroondara
23670	Knox (C)	21101	Knox
24210	Manningham (C)	20702	Manningham - West
24210	Manningham (C)	21102	Manningham - East
24410	Maroondah (C)	21103	Maroondah
24970	Monash (C)	21205	Monash
26980	Whitehorse (C)	20703	Whitehorse - West
26980	Whitehorse (C)	21104	Whitehorse - East
27450	Yarra Ranges (S)	21105	Yarra Ranges

Appendix 2: LGAs included in Metropolitan Melbourne

As per the Live in Victoria definition: http://www.liveinvictoria.vic.gov.au/living-in-victoria/melbourne-and-regional-victoria/melbourne

Banyule	Maroondah
Bayside	Melbourne
Boroondara	Melton
Brimbank	Monash
Cardinia	Moonee Valley
Casey	Moreland
Darebin	Mornington Peninsula
Frankston	Nillumbik
Glen Eira	Port Phillip
Greater Dandenong	Stonnington
Hobsons Bay	Whitehorse
Hume	Whittlesea
Knox	Wyndham
Manningham	Yarra
Maribyrnong	Yarra Ranges

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Appendix 4: List of Tables

Appendix 5: List of Figures