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50+ in Nillumbik: A data story

Report for Nillumbik agencies

Part 1: Health and Wellbeing

Commissioned by the North East Primary Care
Partnership

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Suggested reference:

Wells, Y. (2016). *50+ in Nillumbik: A data story. Report for Nillumbik agencies. Part 1: Health and Wellbeing.* Report commissioned by the North Eastern Primary Care Partnership. Melbourne: NEPCP.

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Julie Watson, Executive Officer, North East Primary Care Partnership (NEPCP)

GLOSSARY

ABS	Australian Bureau of Statistics
CALD	Culturally and Linguistically Diverse
DHHS	Department of Health and Human Services
DHS	Department of Human Services
LGA	Local Government Area
MDS	Minimum Data Set
NEPCP	North East Primary Care Partnership
PAG	Planned Activity Group
PCP	Primary Care Partnership

Executive Summary

AIM

The aim of this resource is to:

- Capture data specific to the population and local government area of Nillumbik.
- Provide Nillumbik services with a useful tool to support planning and change.
- Make available a resource that can be utilised to advocate for the services our communities require, to ensure its members are living life to the full.

METHOD

In this section of the report, the following data sources were used:

- ABS 2011 Census of population and housing
- Id population forecasts based on the 2011 Census
- Victorian Population Health Survey 2011–12
- Diabetes Australia Victoria
- Tables supplied by the Victorian Injury Surveillance Unit (VISU)
- VicHealth Indicators Survey, 2011
- Access Economics reports on dementia prevalence estimates (2009, 2010)
- Australian Department of Social Services, Ageing and Aged Care
- Australian Department of Health Primary Health Network website

RESULTS

Population: Nillumbik's population will age slowly in the coming decade. The number of people aged 50 to 59 years and over will decrease, while the population aged 75 to 84 will double in size. The population aged 65 to 74 will also increase significantly (65 to 69 years, by 27.7% and 70 to 74 years by 66.8%). The proportion of the population accounted for by people aged 50 and over will grow from 34% to 39%.

Socio-economic advantage and disadvantage: Nillumbik suburbs all fall in the top two deciles for economic advantage and disadvantage.

Prevalence of key health conditions: Prevalence of key health conditions is similar in Nillumbik to the prevalence in Victoria as a whole. Among Nillumbik adults aged 60 years and over, there is a comparatively low prevalence of diabetes.

Dementia: The number of people living with dementia in Nillumbik is expected to increase by almost three times in coming decades, from 423 in 2010 to 1,217 in 2030.

Hospital admissions: Rates for all three kinds of injury (falls, unintentional injury, and intentional injury) among people aged 50 years and over tend to be slightly lower in Nillumbik than in Victoria as a whole.

Protective and risk factors: Significantly more Nillumbik residents were non-smokers (67%) than the general population of Victoria (58%). In addition, although the proportion of adults who were alcohol abstainers was low in comparison to the general Victorian population (7% vs. 19%), the proportion at **low** risk of long-term damage due to alcohol was high (88% vs. 77%). Similar results were evident for adults aged 50 years and over. Just over one-half of Nillumbik adults aged 50 years and over engages in sufficient physical activity (60%) and meets guidelines for fruit consumption (56%).

Community wellbeing: Scores for Nillumbik on community wellbeing indicators differed significantly from Victorian averages on three of the indicators (more favourable): Feels safe walking alone at night; attended art activities or events in the last 3 months; and has internet access at home. In the age group 50 years and over, a high proportion of Nillumbik residents face a long daily commute.

Intensive aged care services: In 2014, ten services located in Nillumbik were funded to provide intensive aged care services (packaged care and residential care) in 2014, altogether attracting \$24,425,838 in Commonwealth Government funding. Nillumbik is relatively poorly served by packaged care, in comparison with average rates of service provision for Victoria, but rates of provision of residential care are similar.

CONCLUSION

Nillumbik's population is ageing and service providers can expect increases in demand for health services associated with an ageing population, including dementia. While most indicators for Nillumbik are comparatively positive, as elsewhere in Victoria, obesity and low vegetable consumption are key health risk factors.

Introduction

ABOUT US

The North East Primary Care Partnership (NEPCP) is a voluntary alliance of service providers who come together to strengthen relationships across sectors in order to maximise health and wellbeing outcomes. We support activities at a local and network level that have potential to improve population health outcomes.

Our aim is to:

- Learn from leading-edge practice in health and care systems and other industries, and make that knowledge accessible to all
- Build the movement for improvement and safety, making connections across the system, and enthusing and exciting people to engage in change and transformation
- Provide easy access to the latest evidence base, knowledge and training programs
- Help make the most of investment of money and effort across the system, so we all work in alignment.

As part of this remit we seek to develop our work in partnership and co-production with others in the health and care system.

CURATE RATHER THAN CREATE KNOWLEDGE

One of the challenges for service providers and leaders in health and care is keeping up with the amount of information and data as they become available, in the face of multiple and competing demands. Finding the right information and making sense of it is taking an increasing amount of time, attention and focus¹, and the ability to filter and select appropriate information and shape it for a local context is essential. A key role the NEPCP can play is to bring partners together and curate knowledge: reviewing and filtering what is most relevant and connected to our members' experience. In this way we can offer value to others looking for high quality content.

The idea of curation is taken from the NHS White Paper **[“The new era of thinking and practice in change and transformation; a call to action for leaders of health and care”](#)** and is defined as “finding things out and determining what’s valid from what’s just noise . . . quality and coherence, not volume and mass”. While this paper looks broadly at large-scale change and transformation in health and care, rather than at local trends, two ideas that really struck us were:

¹ These ideas are expanded at this site:

<http://www.nhs.uk/news-events/news/the-new-era-of-thinking-and-practice-in-change-and-transformation.aspx>

- With so much information and data available we do not need more, but we need information that is high quality and right for our context.
- While data are important for population health planning, large-scale change also depends on many partners: clients and families, communities, frontline health and community care providers, and leaders uniting around a common cause for client and population health.

We hope that this report provides our members with the quality and coherence required for future adaption to the reform agenda.

ABOUT THIS PROJECT

When considering how to best support our partner agencies in the context of change and growth in aged care, we were impressed by the work undertaken by the City of Whittlesea called *Living well 50+ ... a data story*. This report brings together demographic, social, health and wellbeing data important for understanding life stages, population diversity, and social and environment influences on people as they age.

Given projected changes in the population aged 50+ years, we believed a similar project would strengthen our knowledge of people in this age group living in our catchment and give us information about their potential service requirements. Because the information we have collected is based on the original framework used for the Whittlesea Report, we now have consistent data across four local government areas.

WHAT IS DIFFERENT?

One of the great (and challenging) insights we gained with this project is that long-term projections are often unreliable and need to be used with caution. We have still included them but encourage our partners to use them carefully. We also realise that data can quickly become outdated, so have included links to assist partners to easily access information they may need in the future.

THIS REPORT

This report is Part 1 of a two-volume report, outlining the results of a series of data analyses conducted by the Australian Institute for Primary Care & Ageing at La Trobe University for the North East Primary Care Partnership (NEPCP). The report is intended to act as a resource that captures a population-based approach to planning healthy and active living for the population aged 50 years and over living in Banyule.

Part 1 of the report—this volume—is about the health status of people living in Banyule. Part 2 is about the Home and Community Care service use of people living in Banyule. The report is modelled on a similar project completed for the City of Whittlesea in February 2014.

Partners in the North East PCP indicated they could source statistics for the following sections of the Whittlesea report themselves:

- Section 2 – The 50+ population
- Section 3 – Population growth: the 50+ population

However, they wished to reproduce Section 4 (Health and wellbeing – the 50+ population). Only minimal population data have been included in this report: representation of age groups in Banyule’s population (with predicted growth for 2019 and 2024); and socio-economic advantage and disadvantage.

This report is intended to provide key health and wellbeing characteristics of the 50+ population to inform service planning and opportunities for health promotion, positive ageing and preventative strategies.

RISK AND PROTECTIVE FACTORS

The data presented follow a population health approach incorporating the social determinants of health, to provide consideration of the broader issues that influence health and wellbeing. The health and wellbeing of the 50+ population is strongly influenced by social-demographic characteristics and level of disadvantage in the municipality presented in Section 2.

A population health approach to planning seeks to improve the health of the whole population by tackling ill-health as well as underlying causes of ill-health.² A population health approach incorporating the social determinants of health provides the framework for understanding the contribution that social and economic conditions have on individual and community health and wellbeing. When identifying strategies to prevent or delay health conditions identified, it is important to recognise that contributing factors are social and environmental as well as behavioural.

Health outcomes data for the population describe health conditions resulting from the net effects of collective risk factors. The Australian Institute of Health and Welfare lists five kinds of risk factors: behavioural, biomedical, environmental, genetic and demographic.³ The AIHW also lists examples of each kind of factor:

- Behavioural risk factors include tobacco smoking, excessive alcohol consumption, poor diet and nutrition, physical inactivity, excessive sun exposure, insufficient vaccination, and unprotected sexual activity.
- Biomedical risk factors may be influenced by a combination of genetic, lifestyle and other broad factors, and include being overweight and obesity, high blood pressure, high blood cholesterol, and impaired glucose tolerance.
- Environmental risk factors can be split into two broad categories: social, economic, cultural and political; and physical, chemical and biological.
- Genetic risk factors: some diseases result entirely from an individual’s genetic make-up whereas others reflect interactions between that make-up and environmental factors.

² Victorian Healthcare Association (n.d.). Addressing the social determinants. <http://www.vha.org.au/policy-publications/population-health>

³ Australian Institute for Health and Welfare, <http://www.aihw.gov.au/risk-factors/>

- Demographic risk factors include age, gender, and belonging to certain population subgroups.

Data for this report have been chosen to correspond with risk factors listed by the AIHW, and, more broadly, because of the impact of chronic disease and injury on the health and quality of life of the community. These data indicate likely areas of demand for community-based services and inform opportunities for preventative action and planning.

Health and wellbeing data are presented in this report by:

- Health outcomes data – key health conditions including chronic disease, dementia, injury and falls. These data are presented because of the significance of chronic disease and injury for the quality of life of the community.
- Health behaviour and risk factors data – patterns of behaviour and other risk factors that may contribute to, or protect from, the development of chronic diseases such as cardiovascular disease, diabetes and dementia.
- Determinants of health and wellbeing – factors that influence health and wellbeing and provide an insight into opportunities for community strengthening, reducing long-term risk, and promoting health and wellbeing.

Similar to the Whittlesea report, data have been primarily sourced from:

- The Department of Health Victoria Population Health Survey. Data for the age groups 50 years and over living in Banyule and Victoria were provided on request.
- Monash University Injury Research Institute injury data based on hospital admission injury data (provided on request)
- VicHealth Indicators Survey. Data for the age groups 50 years and over living in Banyule and Victoria were provided on request.
- Diabetes Australia (<http://www.diabetesmap.com.au/#/>)
- Access Economics, 2009, 2010

In addition, however, in addition we have sourced information on aged care services in the region:

- Department of Social Services, Ageing and Aged Care (<https://www.dss.gov.au/ageing-and-aged-care-overview/about-aged-care/aged-care-service-providers-in-australia>)

Significant differences between estimates for Banyule and those for Victoria are highlighted in tables in the Part 1 report using cell shading: pink shading for areas of concern, green for positive differences.⁴

In addition, data on packaged aged care provision have been included in this part of the report. (Although about access to services, they are included in this report rather than in Part 2, which focuses solely on HACC provision.)

DATA LIMITATIONS

Key challenges in presenting health and wellbeing data for Nillumbik's 50+ population include the incompatibility of data sets and lack of local age-based data. Where possible, data have been presented at the municipal level. When municipal data are not available, Victoria-wide data have been presented.

The Victorian Population Health Survey (2011–12) on risk factors and health outcomes is the most accurate local data source. The 50+ population cohort, however, is not able to be subdivided into smaller age groupings due to the small sample size. Estimates that are asterisked in this report have large standard errors and should be treated with caution.

The VicHealth Indicators Survey 2011 does not have a large enough number of older respondents at the municipal level to provide statistically valid data by age group.

⁴ Significant differences in the Victorian Population Health Survey are indicated in the report and deduced from data provided by the Victorian Department of Health and Human Services. Data are taken as significantly different where the 95% confidence intervals around prevalence estimates are non-overlapping.

Significant differences in the VicHealth Indicators Survey are indicated in LGA reports and the Survey report. Data are taken as significantly different where the 95% confidence intervals around prevalence estimates are non-overlapping. Significant differences in Diabetes Australia rates are indicated on their website. It is not known what criteria were used to determine significance.

Methodology

The analyses in Part 1 of the report rely on the following sources:

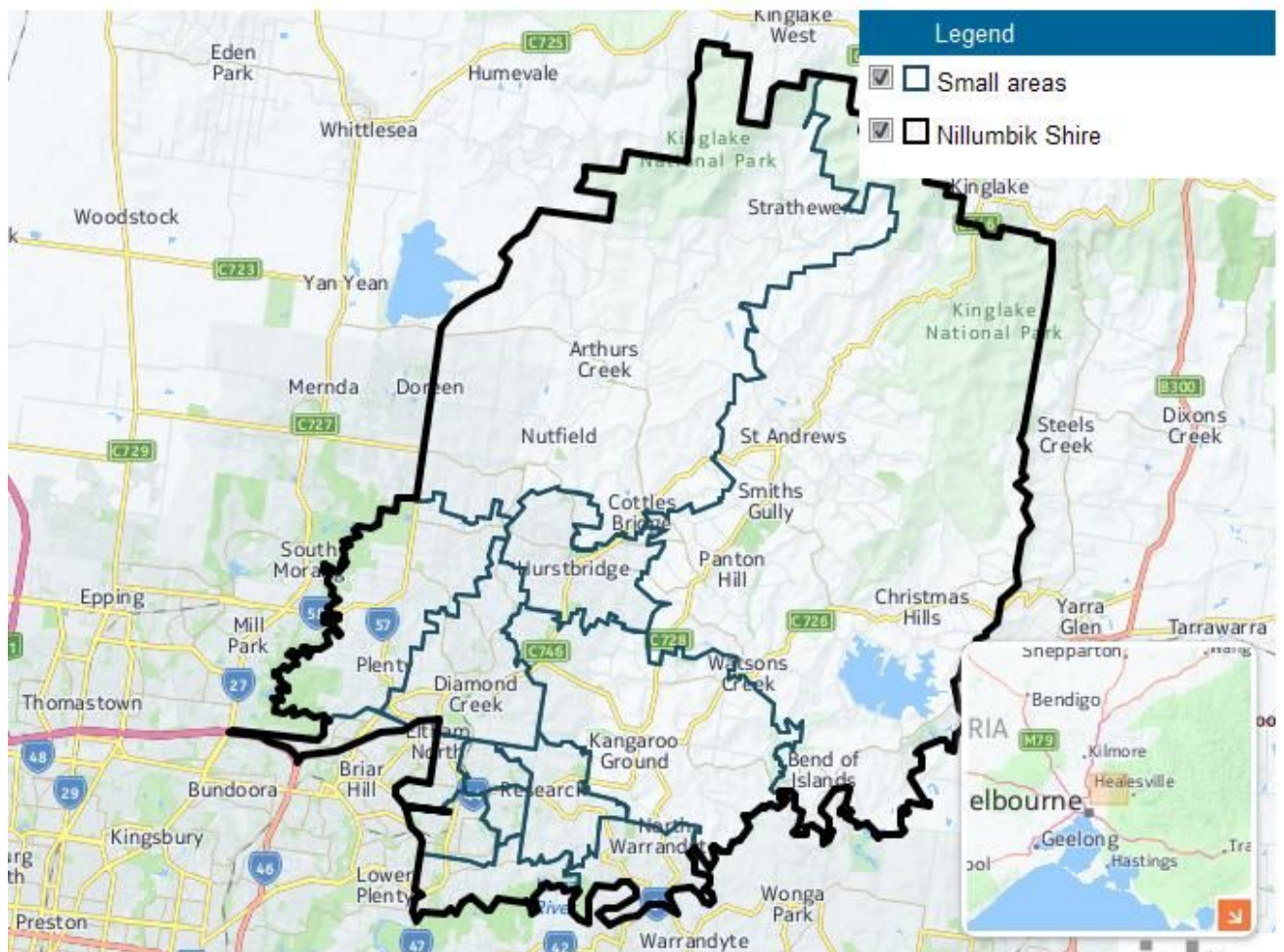
- ABS 2011 Census of population and housing and SEIFA indices based on the Census:
<http://www.abs.gov.au/ausstats/abs@.nsf/mf/2033.0.55.001>
- Id population forecasts based on the 2011 Census: <http://profile.id.com.au/banyule/population>
- Victorian Population Health Survey 2011–12:
<http://www.health.vic.gov.au/healthstatus/survey/vphs2011-12.htm>
- Diabetes Australia Victoria: <https://www.ndss.com.au/diabetes-map>
- Tables supplied by the Victorian Injury Surveillance Unit (VISU)
- VicHealth Indicators Survey, 2011, and fact sheets:
http://www.communityindicators.net.au/vichealth_indicator_survey_2011
- Estimates from Access Economics reports, 2009 and 2010:
https://fightdementia.org.au/sites/default/files/20090800_Nat_AE_FullKeepDemFrontMind.pdf; and
<https://www.deloitteaccesseconomics.com.au/uploads/File/Alzheimers%20Vol1Final%200710.pdf>
- Department of Social Services, Ageing and Aged Care:
https://www.dss.gov.au/sites/default/files/documents/04_2015/2014_aged_care_service_list_with_funding_-_vic.pdf
- Department of Health Primary Health Network:
<http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-Aged-Care-Data>

About Nillumbik

Figure 1: Nillumbik suburbs⁵

Forecast areas

Nillumbik Shire



Source: Population and household forecasts, 2011 to 2036, prepared by .id, the population experts, May 2014.  the population experts

⁵ <http://profile.id.com.au/Nillumbik/population>

The City of Nillumbik is located in Australia within the Melbourne metropolitan area in the State of Victoria, about 25 Kilometres from the Melbourne CBD. Nillumbik Shire features both urban and rural areas with undulating hills.

The City of Nillumbik is located northeast of Melbourne CBD, about 25 kilometres from the Melbourne CBD. Nillumbik covers an area of roughly 435 square kilometres and has a population of about 60,000 and a median age of 39.9.⁶

Major features of the Shire include Kinglake National Park, Plenty Gorge Park, Sugarloaf Reservoir, Warrandyte-Kinglake Nature Conservation Reserve, Montsalvat Artists' Colony, Northern Melbourne Institute of TAFE (Greensborough Campus), Diamond Valley Railway (miniature), Edendale Farm Community Environment Centre, the Yarra River, and various wineries.⁷

The municipality includes the suburbs Greensborough, Diamond Creek, Doreen, Eltham, Eltham North, Hurstbridge, North Warrandyte, Research and Wattle Glen, and the towns/localities Arthurs Creek, Bend of Islands, Christmas Hills, Cottles Bridge, Kangaroo Ground, Kinglake and Kinglake West, Nutfield, Panton Hill, Plenty, Smiths Gully, St Andrews, Strathewen, Watsons Creek, Yan Yean and Yarrambat. Several localities are shared with other LGAs. Greensborough and Eltham North are shared with the City of Banyule; Kinglake is shared with the Shire of Murrindindi; and Doreen and Yan Yean are shared with the Shire of Whittlesea; and Kinglake West is shared with both the City of Whittlesea and the Shire of Murrindindi.⁸

Nillumbik residents have a median age of 39 and earn, on average, \$1,972 per week (household income). According to the 2011 Australian Bureau of Statistics (ABS) census, in Nillumbik:⁹

- 59% of families are couples with children (13% higher than Victorian average)
- 95% live in a separate house (18% higher than Victorian average)
- 10% of residents rent their property (17% lower than Victorian average)
- 14% have a bachelor's degree or higher (1% lower than Victorian average)
- 82% were born in Australia (13% higher than Victorian average)

The most common occupations in Nillumbik are:

- Professionals (25%)
- Clerical & Administrative Workers (16%)
- Technicians & Trade Workers (15%)

⁶ <http://stat.abs.gov.au/itt/r.jsp?databyregion#/>

⁷ <http://profile.id.com.au/nillumbik/about>

⁸ https://en.wikipedia.org/wiki/Shire_of_Nillumbik

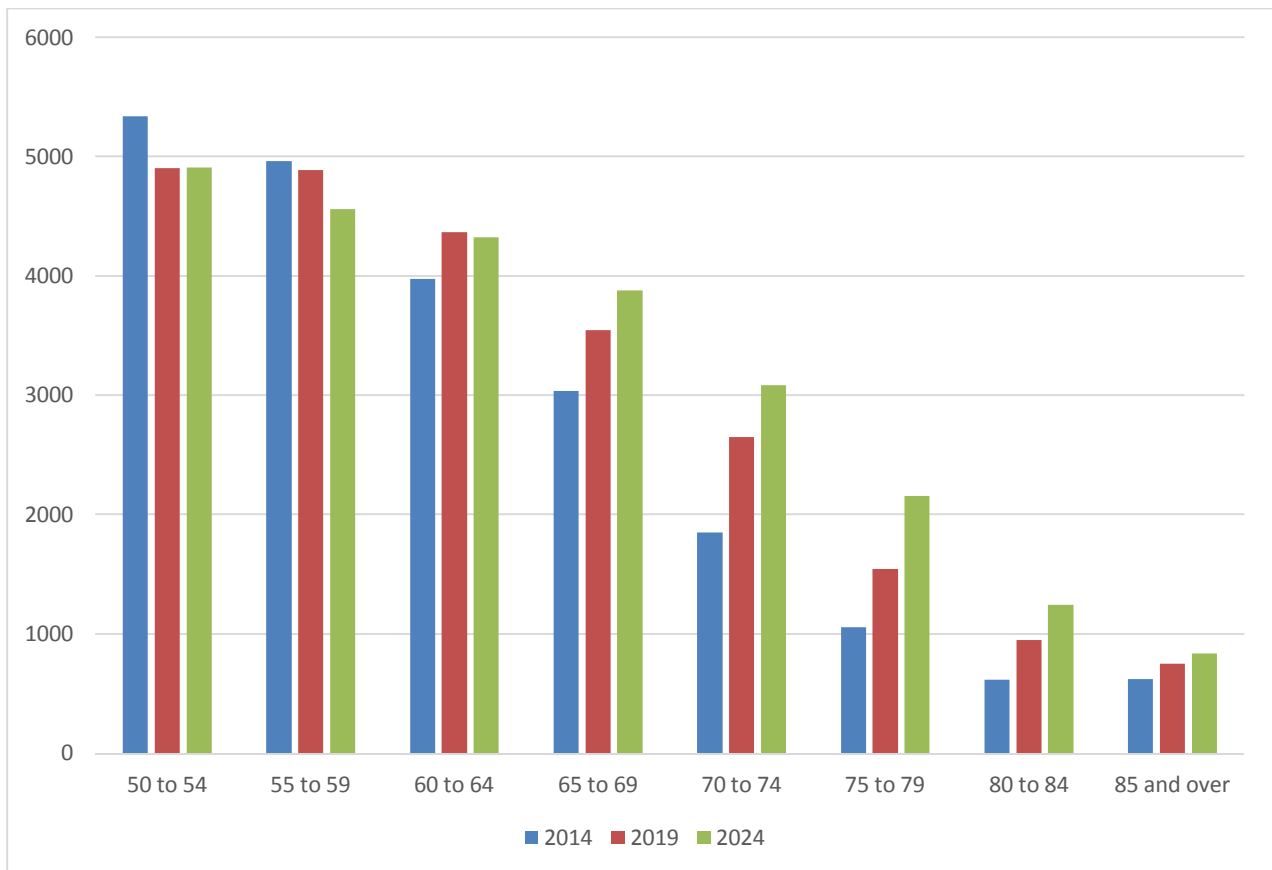
⁹ http://www.censusdata.abs.gov.au/census_services/getproduct/census/2011/quickstat/ILOC20101103

Age groups

The population aged 50 and over provides some insight into the expected level of and change in age-related services, programs and opportunities.

The table and figure below indicate that Nillumbik’s population will age in the coming decade. The number of people aged 50 to 59 years and over will decrease, while the population aged 75 to 84 will double in size, the population aged 70 to 74 years will increased by two-thirds (66.8%), and the population aged 65 to 69 will increased by over one-quarter (27.7%). The proportion of the population accounted for by people aged 50 and over will grow from 34% to 39%.¹⁰

Figure 2: Nillumbik age structure 2014 and population predictions 2019 and 2024 (Ns)



Data source: ID Profile

¹⁰ “Ns” here and elsewhere in this report refers to numbers or counts.

Table 1: Nilumbik age structure 2014 and population forecasts 2019 and 2024

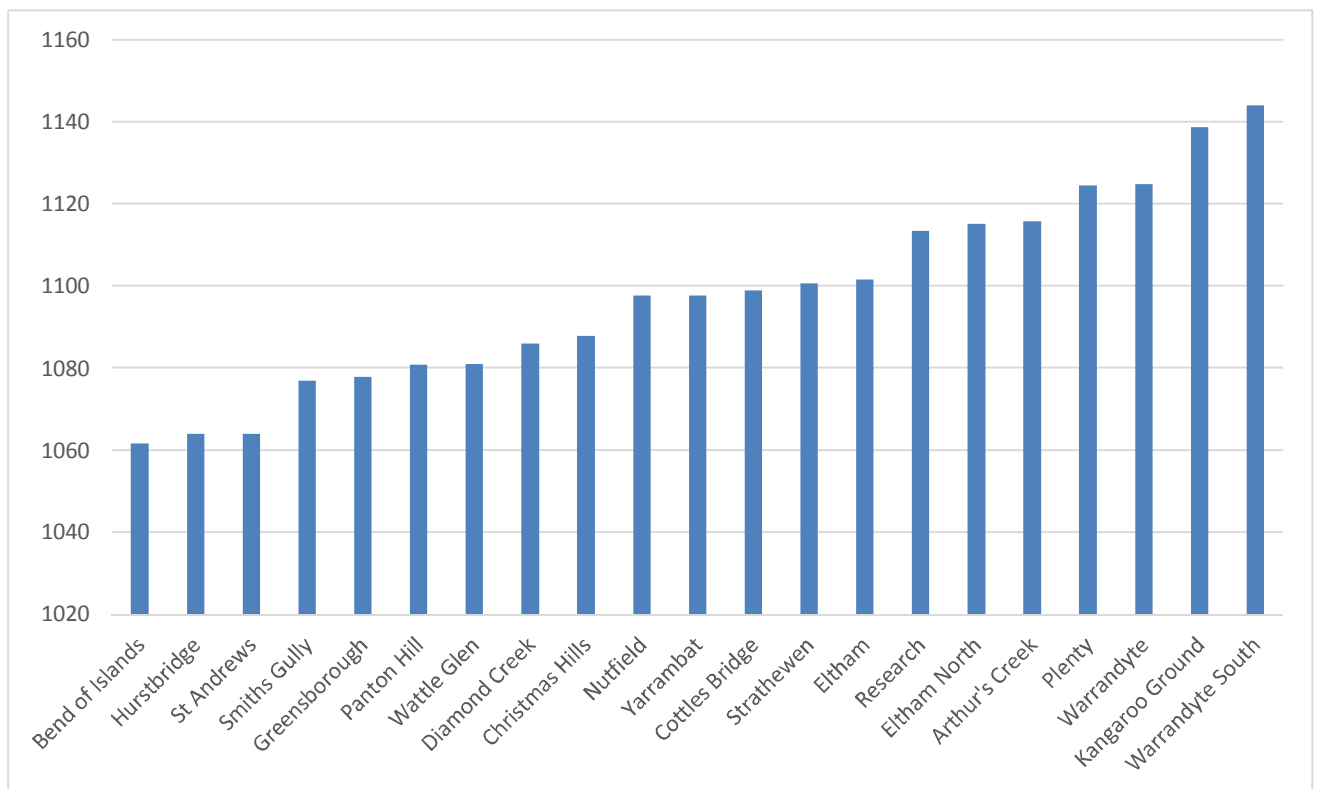
Age group	2014		2019		2024		% increase in N
	N	% of total population	N	% of total population	N	% of total population	
50 to 54	5,340	8.5	4,903	7.8	4,912	7.7	-8.0
55 to 59	4,962	7.9	4,888	7.7	4,560	7.1	-8.1
60 to 64	3,978	6.4	4,370	6.9	4,325	6.8	8.7
65 to 69	3,039	4.9	3,547	5.6	3,880	6.1	27.7
70 to 74	1,850	3.0	2,654	4.2	3,086	4.8	66.8
75 to 79	1,058	1.7	1,544	2.4	2,158	3.4	104.0
80 to 84	618	1.0	949	1.5	1,245	1.9	101.5
85 and over	624	1.0	754	1.2	839	1.3	34.5
Total population (all ages)	62,535		63,175		63,937		2.2
People aged 50+ as proportion of total population		34.4		37.3		39.1	

Socio-economic status

Socio-Economic Indexes for Areas (SEIFA)¹¹ is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and/or disadvantage. These indices are based on information from the five-yearly Census. SEIFA 2011 is the latest version of this product and was released on 28 March 2013. It is based on 2011 Census data. The Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) summarises information about the economic and social conditions of people and households within an area, including both relative advantage and disadvantage measures. Scores are a weighted combination of selected indicators standardised to a distribution with a mean of 1000 and a standard deviation of 100.

SEIFA indices of advantage and disadvantage are set out below along with their rank among Victorian precincts and decile (with 1 representing the lowest 10% of suburbs and 10 representing the highest 10%). Nilumbik suburbs all fall in the top two deciles for economic advantage and disadvantage.

Figure 3: Nilumbik SEIFA indices by suburb/locality, 2011



¹¹ <http://www.abs.gov.au/ausstats/abs@.nsf/mf/2033.0.55.001>

Table 2: SIEFA indices for Nilumbik suburbs, 2011

SUBURB/LOCALITY	SEIFA INDEX OF ADVANTAGE AND DISADVANTAGE	RANK (VICTORIA)	DECILE
Arthur's Creek	1116	1480	10
Bend of Islands	1062	1247	9
Christmas Hills	1088	1401	10
Cottles Bridge	1099	1441	10
Diamond Creek	1086	1392	10
Eltham	1102	1447	10
Eltham North	1115	1478	10
Greensborough	1063	1253	9
Hurstbridge	1064	1260	9
Kangaroo Ground	1139	1509	10
Nutfield	1098	1436	10
Panton Hill	1081	1372	10
Plenty	1125	1495	10
Research	1113	1475	10
Smiths Gully	1077	1348	9
St Andrews	1064	1261	9
Strathewen	1101	1446	10
Warrandyte	1125	1496	10
Warrandyte South	1144	1512	10
Wattle Glen	1081	1373	10

Summary of health and wellbeing

Table 3: Quick statistics – population health and wellbeing

	<i>COMPARISON</i>	<i>NILLUMBIK</i>	<i>VICTORIA</i>
Health Outcomes (Total population)	Prevalence of most key health conditions is similar in Nillumbik to the prevalence in Victoria as a whole. The most common chronic condition is hypertension.	High BP 50+: 45.3%	High BP 50+: 45.8%
Health Outcomes (Population aged 50+)	Age-specific rates of people registering with diabetes are relatively low. Rates of injury requiring hospitalisation are generally lower than elsewhere in Victoria.	5.3%* (50+) Falls 80+ yrs: 6.7%	10.7% (50+) Falls 80+ yrs: 7.6%
Behavioural and biomedical risk factors (Total population)	Significantly more Nillumbik adults were non-smokers than the general population of Victoria. Although the proportion of adults who were alcohol abstainers was low in comparison to the general Victorian population, the proportion at low risk of long-term damage due to alcohol was high.	67% 7% 88%	58% 19% 77%
Behavioural and biomedical risk factors (Population aged 50+)	A high proportion of Nillumbik residents were non-smokers. While the proportion of adults aged 50 years and over who were alcohol abstainers was low in comparison to the general Victorian population, the proportion at low risk of long-term damage due to alcohol was high. The most common risk factor is low consumption of vegetables. Prevalence of overweight/obesity is slightly lower than in the rest of Victoria.	64% 13% 84% 89% 55%	54% 22% 74% 89% 59%
Community wellbeing (aged 50+ years)	Scores for Nillumbik on community wellbeing indicators differed significantly from Victorian averages on three of the indicators (more favourable): Feels safe walking alone at night Attended art activities or events in the last 3 months Has internet access at home	80% 72% 89%	70% 57% 69%

Key health outcomes

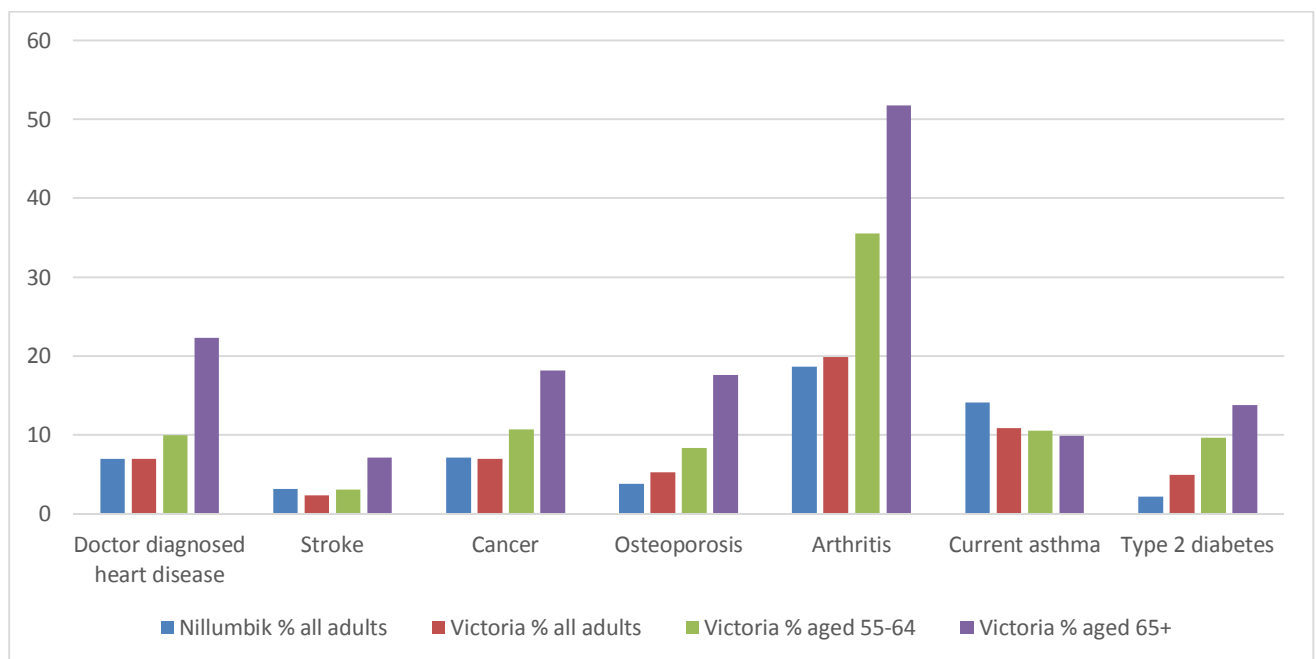
In this section of the report, data are presented on selected chronic diseases, dementia, falls, and other injuries.

CHRONIC DISEASE

The proportions of the Nillumbik and Victorian populations with specific chronic disease are provided in the table below. Age-related data for the Victorian population identify a clear trend towards increasing prevalence of all chronic diseases (with the exception of asthma) with age. While this comparison is not available at a municipal level, it is reasonable to assume a similar trend for Nillumbik.

Prevalence of key health conditions is similar in Nillumbik to the prevalence in Victoria as a whole.

Figure 4: Nillumbik and Victoria, self-identified chronic disease type by proportion in age group, 2011–12



Data source: Victorian Population Health Survey, 2011–12

Table 4: Nillumbik and Victoria, self-identified chronic disease type by proportion in age group, 2011–12

	NILLUMBIK % ALL ADULTS	VICTORIA % ALL ADULTS	VICTORIA AGED 55–64	VICTORIA AGED 65+
Doctor-diagnosed heart disease	7.0	7.0	10.0	22.3
Stroke	3.2*	2.4	3.1	7.2
Cancer	7.2	7.0	10.7	18.2
Osteoporosis	3.8	5.3	8.4	17.6
Arthritis	18.7	19.9	35.6	51.8
Current asthma	14.1	10.9	10.6	9.9
Type 2 diabetes	2.2*	5.0	9.7	13.8

*Estimates with a large standard error are asterisked in this and subsequent tables, and should be treated with caution.

The following table provides prevalence estimates of key health conditions for the population aged 50 years and over. Again, rates are similar in Nillumbik to those for Victoria as a whole except for a comparatively low prevalence of diabetes. (However, the standard error for this rate is large, so the estimate may not be reliable.)¹²¹³

Table 5: Nillumbik and Victoria, self-identified chronic disease type by proportion for people aged 50+ years, 2011–12

	NILLUMBIK % AGED 50+	VICTORIA % AGED 50+
Doctor-diagnosed heart disease	15.2	14.7
Stroke	7.2*	4.9
Cancer	14.0	13.5
Osteoporosis	9.4	11.9
Arthritis	36.2	40.1
Current asthma	7.1	10.0
Type 2 diabetes	5.3*	10.7

¹² Data for this table were provided by the Department of Health and Human Services on request.

Data are for people aged 50 years or over and are sourced from VPHS 2011-12. Data have been age-standardised to the 2011 Victorian population. Estimates with a large standard error are asterisked and should be treated with caution.

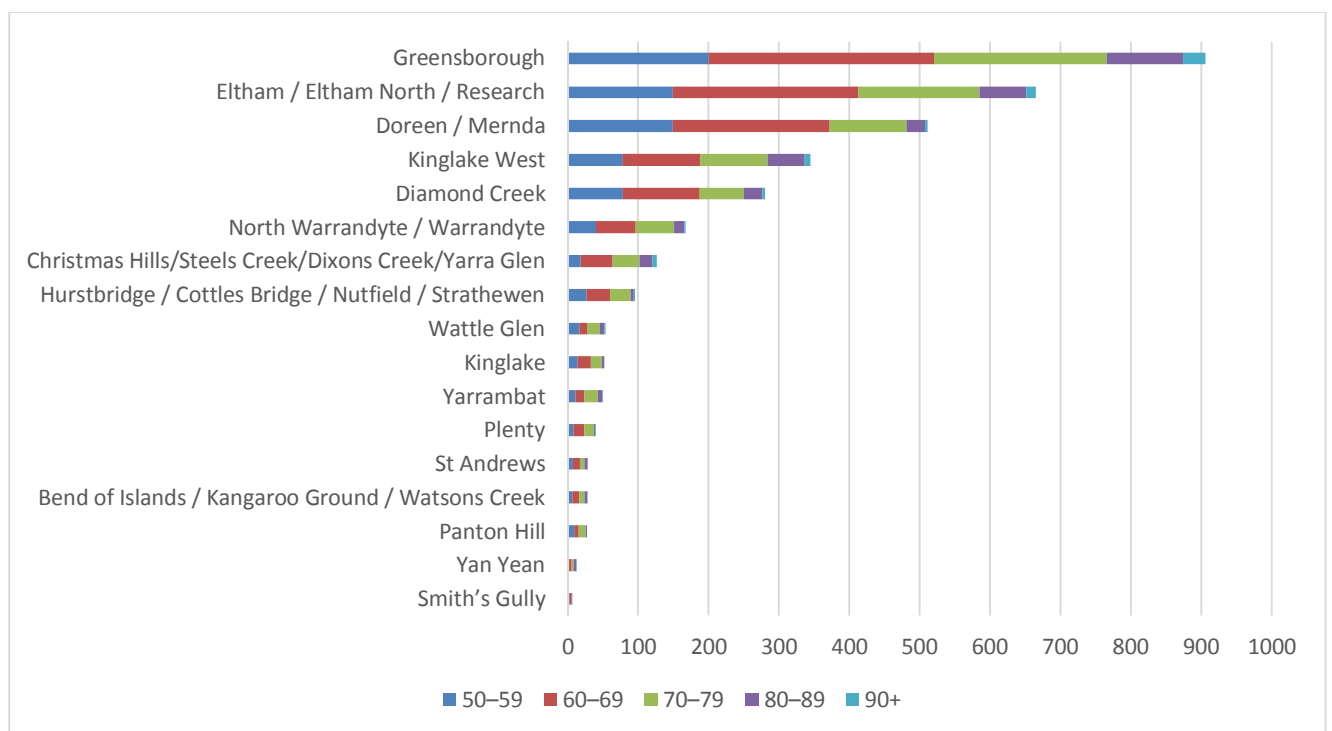
¹³ As elsewhere in this report, cells shaded green indicate a better result for the Shire than the Victorian (or Australian) average, whereas cells shaded pink indicate a worse result.

DIABETES

The figure below shows the number of clients registered with diabetes (all types) by age and suburb, defined by postcode.¹⁴ These data are provided on the Diabetes Australia website.

Unfortunately, postcode data do not fit neatly into municipal boundaries. Some of the locations in the table and figure below do not belong to Nillumbik (e.g., Mernda belongs to Whittlesea, and Steels Creek and Dixons Creek are in the shire of Yarra Ranges) and some do only in part (e.g., Greensborough), but it is not possible to obtain data by locality that conform to municipal boundaries.

Figure 5: Nillumbik registered clients with Type 2 Diabetes by age and postcode area, 2015



Data source: Diabetes Australia

¹⁴ <http://www.diabetesmap.com.au/#/>.

Table 6: Nillumbik, number of people registered with diabetes, by postcode and age group

<i>POSTCODE</i>	<i>SUBURB / AREA</i>	<i>50–59</i>	<i>60–69</i>	<i>70–79</i>	<i>80–89</i>	<i>90+</i>
3088	Greensborough	200	320	246	108	32
3089	Diamond Creek	78	109	63	26	4
3090	Plenty	8	16	13	2	1
3091	Yarrambat	11	13	19	6	1
3095	Eltham / Eltham North / Research	149	264	172	66	14
3096	Wattle Glen	16	11	18	7	2
3097	Bend of Islands / Kangaroo Ground / Watsons Creek	6	10	8	3	1
3099	Hurstbridge / Cottles Bridge / Nutfield / Strathewen	26	34	29	5	1
3113	North Warrandyte / Warrandyte	40	56	55	14	2
3754	Doreen / Mernda	149	223	109	26	4
3755	Yan Yean	2	3	3	4	1
3757	Kinglake West	78	110	96	52	9
3759	Panton Hill	9	6	10	2	0
3760	Smith's Gully	3	2	0	1	0
3761	St Andrews	7	10	7	4	0
3763	Kinglake	14	19	15	4	0
3775	Christmas Hills/Steels Creek/Dixons Creek/Yarra Glen	18	46	38	18	6

Table 6b: Nillumbik, proportion of population registered with diabetes, by suburb (postcode) and age group

POSTCODE	SUBURB / AREA	50–59	60–69	70–79	80–89	90+
3088	Greensborough	4.6	9.9	15.6	9.8	15.7
3089	Diamond Creek	4.0	11.0	16.2	12.6	14.8
3090	Plenty	2.6	6.4	15.3	15.0	33.3
3091	Yarrambat	4.5	6.5	27.9	20.7	66.7
3095	Eltham / Eltham North / Research	2.7	8.3	14.2	11.7	10.9
3096	Wattle Glen	6.2	3.9	25.0	12.3	6.9
3097	Bend of Islands / Kangaroo Ground / Watsons Creek	3.1	4.7	12.2	20.0	16.7
3099	Hurstbridge / Cottles Bridge / Nutfield / Strathewen	2.7	5.5	14.3	5.1	10.0
3113	North Warrandyte / Warrandyte	2.5	5.6	12.5	10.9	10.0
3754	Doreen / Mernda	10.2	24.9	39.1	29.9	57.1
3755	Yan Yean	4.9	7.1	7.4	25.0	0.0
3757	Kinglake West	6.5	12.2	19.3	19.7	13.8
3759	Panton Hill	3.4	4.2	26.3	10.5	0.0
3760	Smith's Gully	4.2	5.1	0.0	20.0	0.0
3761	St Andrews	3.4	6.3	11.5	83.3	0.0
3763	Kinglake	6.5	17.9	34.8	66.7	0.0
3775	Christmas Hills/Steels Creek/Dixons Creek/Yarra Glen	3.7	9.8	15.7	22.4	55.6

The age-specific proportion of people registered with diabetes is relatively low,¹⁵ especially in the localities of Hurstbridge, and North Warrandyte. In contrast, the proportions of people in Doreen/Mernda and Kinglake registered with diabetes are relatively high. Other apparently high rates (e.g., in age groups 80-89 years and 90 years and over) are due to low numbers of people in the population in that age group.

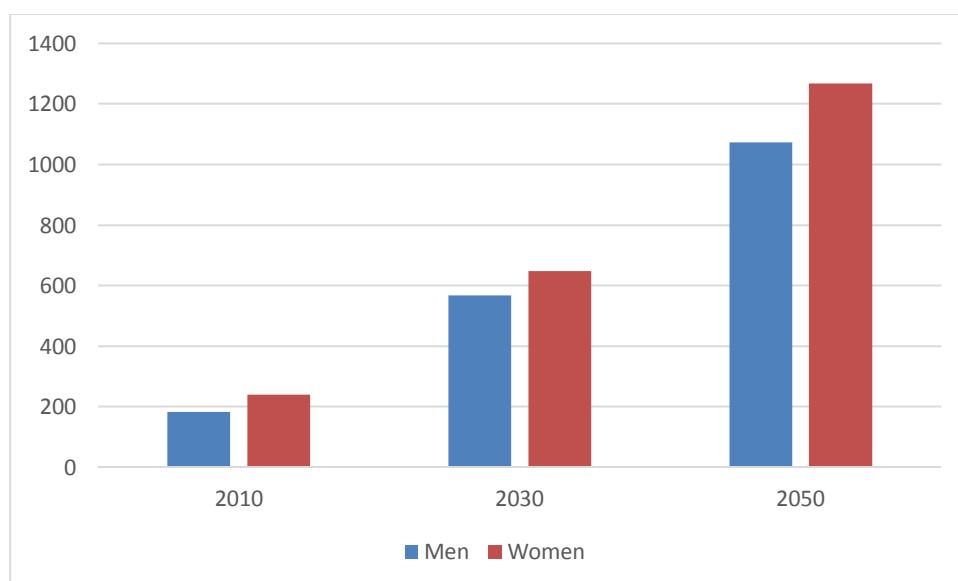
¹⁵ These comparisons are consistent with those made on the Diabetes Australia website. Age-specific rates for Australia are provided in the Appendix.

DEMENTIA

Dementia (Alzheimer’s disease and related conditions) was the third leading cause of death in Australia in 2010.¹⁶ A report by Access Economics for Alzheimer’s Australia¹⁷ predicts for Nilumbik that the number of people living with dementia will increase by almost three times, from 423 in 2010 to 1,217 in 2030 (see Figure 21).

Nilumbik was ranked 46th in Victoria on the number of people in the municipality living with dementia, and will move up the rankings over the 40 years from 2010 to 2050 (42nd in 2030 and 39th in 2050).

Figure 6: Nilumbik, predicted growth in dementia by gender 2010–2050¹⁸



Data source: Access Economics 2010

Table 7: Nilumbik, number of people expected to have dementia, 2010, 2030 and 2050 by gender

	2010	2030	2050
Men	183	568	1,075
Women	240	649	1,268
	423	1,217	2,343

¹⁶ <https://www.deloitteaccesseconomics.com.au/uploads/File/Alzheimers%20Vol1Final%200710.pdf>

¹⁷ <https://vic.fightdementia.org.au/vic/research-and-publications/dementia-statistics-for-victoria>

¹⁸ http://www.health.vic.gov.au/agedcare/downloads/pdf/dementia_imp2010.pdf

FALLS AND OTHER INJURIES

Data in this section of the report were obtained from the Monash University Injury Research Unit.

The highest injury rates among people aged 70 years and over are due to falls. This is true for both Victoria and Nillumbik. The risk of falls and other unintentional injuries increases with age, but the risk of intentional injury generally decreases with age. (The erratic pattern in intentional injury noted for Nillumbik may be due to small numbers).

The hospital admission rates for unintentional injury and falls tend to be lower in Nillumbik than in Victoria as a whole. While Nillumbik's rates for hospital admission for intentional injury seem high for age groups 70 years and over, numbers are very low and the rates in the table below may not indicate reliable differences from the Victorian average.¹⁹²⁰ However, persistent high rates over time might be a flag for concern.

Table 8: Nillumbik and Victoria, Injury hospital admission rate per 100,000 residents by injury type and age, 2013–14

	UNINTENTIONAL (NOT FALLS)		FALLS		INTENTIONAL INJURY	
	Nillumbik	Victoria	Nillumbik	Victoria	Nillumbik	Victoria
50–59 years	807.7	855.4	413.4	475.2	67.3	106.8
60–69 years	720.4	890.2	691.6	843.8	28.8	56.9
70–79 years	1,022.6	1,132.8	1,304.7	2,051.7	105.8	34.8
80+ years	1,327.1	2,150.3	6,713.5	7,647.9	78.1	37.9

Notes:

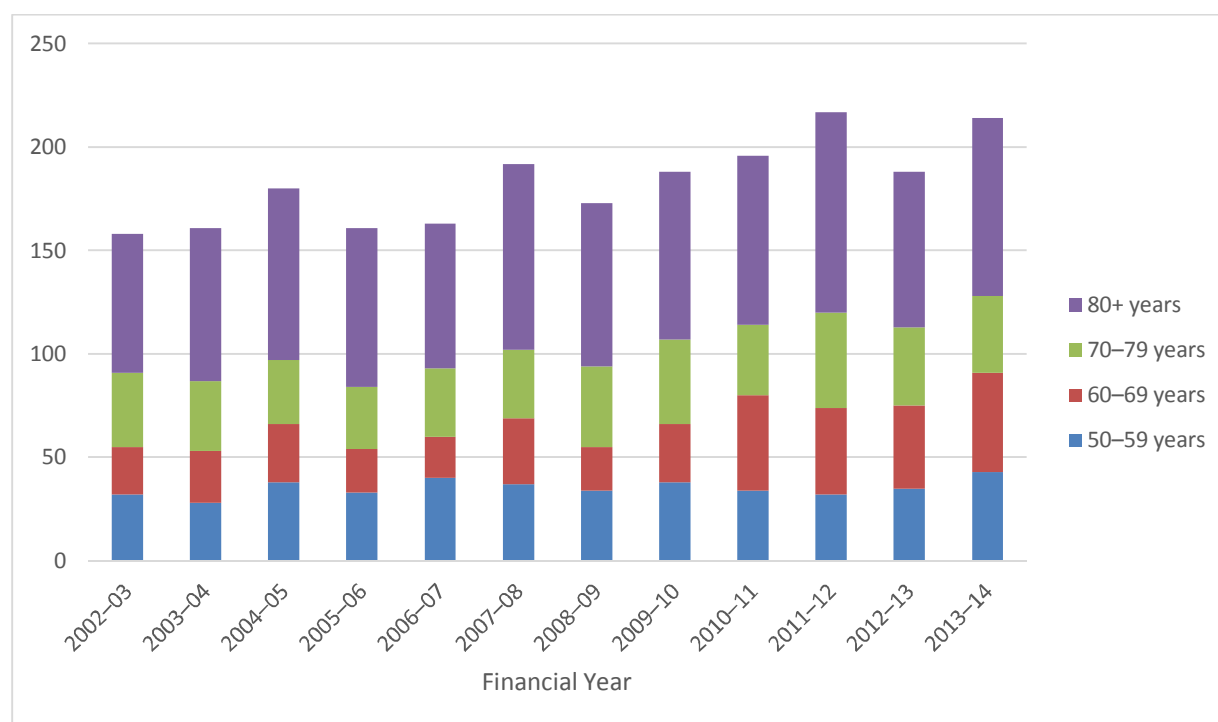
- 1) Intentional injury is defined as injury deliberately inflicted on yourself or another person, including self-harm and assault.
- 2) LGA applies to the patient's residence and not where the injury took place.
- 3) Populations used in rate calculations were sourced from the Australian Bureau of Statistics (ABS) Estimated Resident Population (ERP) of 30th June 2013 and 2014 and a midpoint calculated thereof.
- 4) Transfers between hospitals and readmissions to the same hospital were excluded.
- 5) Cases were selected if the injured person was a Victorian resident.

¹⁹ There is a slight difference in case selection from the Whittlesea report as only Victorian residents have been included in the population figures and transfers and readmissions are excluded.

²⁰ NEPCP agencies asked whether data could be provided on hospital admission rates for intentional injury by gender for the age groups 50 years and over. Monash University Injury Research Unit was asked to provide these figures but was unable to do so for Nillumbik, due to low numbers.

Falls are a significant risk to the safety, health and independence of older Australians. Data on the prevalence of falls for the population aged 50 years and over are not available by LGA. However, the number of hospital admissions for falls provided in the table above is a useful proxy. The figure and table below shows change in Nillumbik's hospital admissions for falls by age group. Hospital admissions for falls for Nillumbik residents show an age-related gradient as well as an increase in the number of hospital admissions for falls over time. Apparent decreases in 2012–13 and 2013–14 could be an artefact of changes in data collection methods.²¹

Figure 7: Frequency of hospital admissions for falls by age group, 2002–03 to 2013–14



²¹ In July 2012, the Victorian Hospital Admission Policy changed significantly. Patients who received their entire care episode within a designated emergency department or urgent care centre could no longer be eligible for admission regardless of the amount of time spent in the hospital. This has had the effect of reducing the number of admissions recorded on the VAED for the 2012–13 financial year. Caution should be exercised when interpreting changes in the number of hospital admissions in 2012–13 compared with previous years.

Table 9a: Frequency of hospital admissions for falls by age group 2002–03 to 2013–14

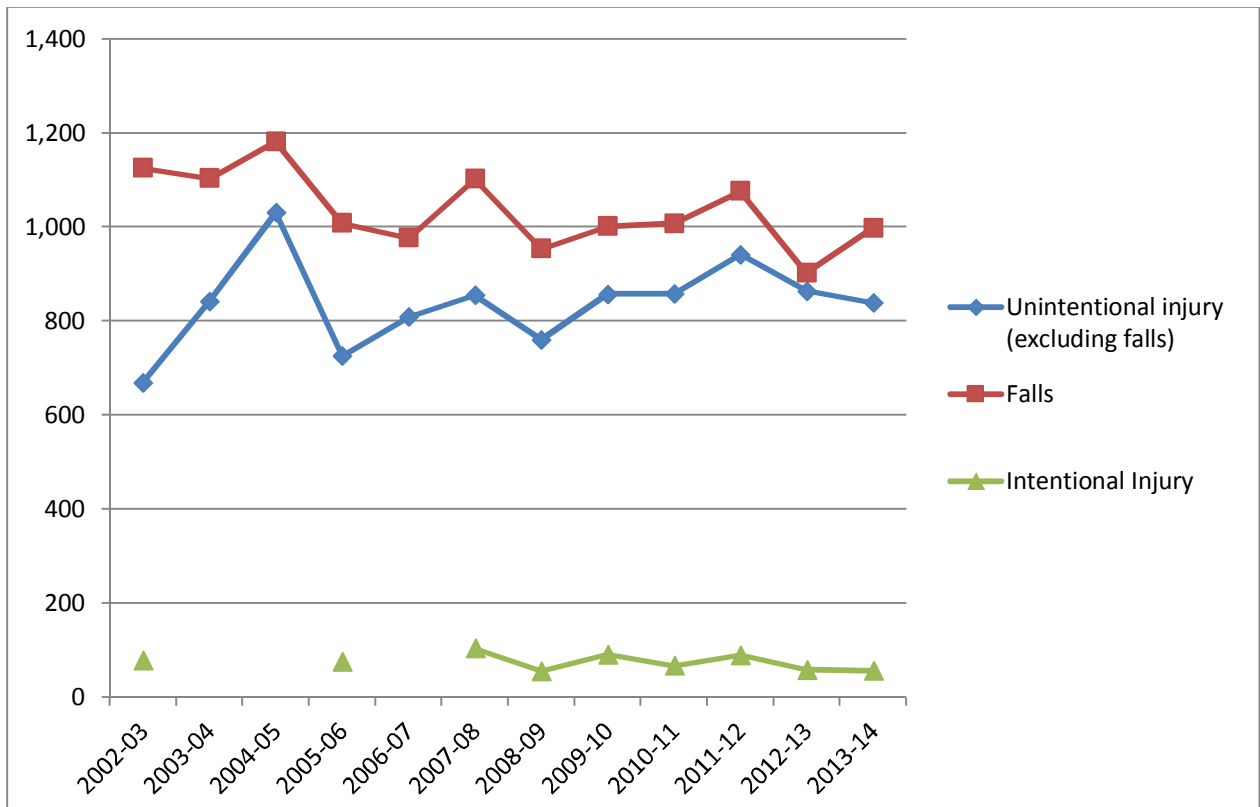
	50–59 YEARS	60–69 YEARS	70–79 YEARS	80+ YEARS	TOTAL
2002–03	32	23	36	67	158
2003–04	28	25	34	74	161
2004–05	38	28	31	83	180
2005–06	33	21	30	77	161
2006–07	40	20	33	70	163
2007–08	37	32	33	90	192
2008–09	34	21	39	79	173
2009–10	38	28	41	81	188
2010–11	34	46	34	82	196
2011–12	32	42	46	97	217
2012–13	35	40	38	75	188
2013–14	43	48	37	86	214
Total	424	374	432	961	2,191

Participating agencies also asked for data in change over time of hospital admission rates for intentional injuries. Trends in rates across all people aged 50 and over are reported below. These rates are too small to report by age group (and in Nillumbik's case, too small for some years for intentional injury. No rates are reported for counts of less than 10). The figures report data for all three injury types and for intentional injury separately.

The following table illustrates how strongly and consistently falls are represented in admissions to hospital in this age group.

The trend over time is for decreasing rates of admission to hospital for falls but increases for unintentional injury (excluding falls). Apparent decreases in 2012–13 and 2013–14 could be an artefact of changes in data collection methods.²²

Figure 7b: Hospital admission rates per 100,000 residents aged 50+ by injury type, 2002–03 to 2013–14



²² In July 2012, the Victorian Hospital Admission Policy changed significantly. Patients who received their entire care episode within a designated emergency department or urgent care centre could no longer be eligible for admission regardless of the amount of time spent in the hospital. This has had the effect of reducing the number of admissions recorded on the VAED for the 2012–13 financial year. Caution should be exercised when interpreting changes in the number of hospital admissions in 2012–13 compared with previous years.

Rates for intentional injury are relatively erratic with no clear trend, and no clear impact of the Black Saturday bushfires in February 2009, which devastated large areas of Nillumbik, including Kinglake West, Strathewen, Arthurs Creek and St Andrews.²³

Figure 7c: Hospital admission rates per 100,000 residents aged 50+ for intentional injury, 2002–03 to 2013–14



Table 9b: Hospital admission rates per 100,000 residents aged 50+ by injury type, 2002–03 to 2013–14

FINANCIAL YEAR	UNINTENTIONAL INJURY	UNINTENTIONAL INJURY (EXCL. FALLS)	FALLS	INTENTIONAL INJURY
2002-03	1,794.1	669.2	1,124.9	78.3
2003-04	1,945.7	842.7	1,103.0	* ²⁴
2004-05	2,212.4	1,030.7	1,181.7	*
2005-06	1,733.7	726.0	1,007.7	75.1
2006-07	1,785.3	808.8	976.5	*
2007-08	1,957.2	855.2	1,102.0	103.3
2008-09	1,713.7	760.4	953.3	55.1
2009-10	1,858.0	857.1	1,000.9	90.5
2010-11	1,865.4	858.2	1,007.2	66.8
2011-12	2,017.8	942.0	1,075.8	89.2
2012-13	1,766.7	864.2	902.6	57.6
2013-14	1,836.1	838.8	997.3	55.9

²³ https://en.wikipedia.org/wiki/Black_Saturday_bushfires#Kinglake_area_.28Kilmore_East_fire.29

²⁴ Results are asterisked for cells with frequency counts of less than 10.

Modifiable protective and risk factors

This section of the report focuses on behavioural and biomedical protective and risk factors. Data on prevalence and risk factors are potentially useful in predicting growth in particular chronic diseases and offer insight into protective strategies.

The Victorian Population Health Survey 2011–12 is the key source for reporting protective and risk factors in a community. Selected protective and risk factors for Nillumbik are presented below and compared with the Victorian population. Definitions of the factors are presented in the Appendix. While data on risk factors are presented here individually, in practice they do not operate in isolation but coexist and interact with one another.

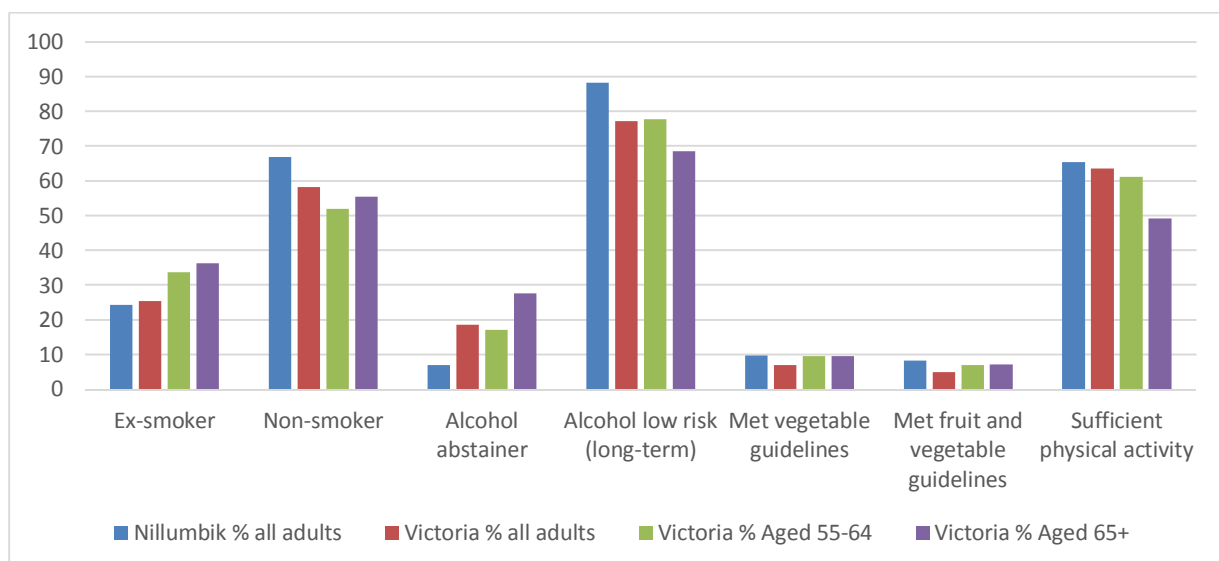
PROTECTIVE FACTORS

Nillumbik did not differ significantly from the wider Victorian population on many behavioural protective factors included here. However, significantly more Nillumbik residents were non-smokers than the general population of Victoria. In addition, although the proportion of adults who were alcohol abstainers was low in comparison to the general Victorian population, the proportion at low risk of long-term damage due to alcohol was high.

In general, older Victorians are more likely to be ex-smokers and less likely to be non-smokers than all adults.

Adults aged 65 years and older are less likely to be at low risk for long-term harm caused by alcohol consumption than all adults and the group aged 55 to 64 years. However, adults aged 65 years and older are less likely to achieve sufficient physical activity than adults of all age groups and those aged 55 to 64 years.

Figure 8: Nillumbik and Victoria, proportion of population by protective behaviours 2011–12



Data source: Victorian Population Health Survey 2011–12

Table 10: Nillumbik and Victoria, proportion of population protective behaviours, 2011–12

	NILLUMBIK % ALL ADULTS	VICTORIA % ALL ADULTS	VICTORIA % AGED 55–64	VICTORIA % AGED 65+
Ex-smoker	24.3	25.4	33.8	36.3
Non-smoker	66.9	58.3	52.0	55.5
Alcohol abstainer	7.1	18.6	17.2	27.7
Alcohol low risk (long-term)	88.3	77.2	77.8	68.7
Met vegetable guidelines	9.8	7.1	9.6	9.7
Met fruit and vegetable guidelines	8.3	5.1	7.0	7.2
Sufficient physical activity	65.4	63.7	61.2	49.2

Age-adjusted comparisons between Nillumbik adults and Victorian adults aged 50 years and over are provided in the following table. Again, Nillumbik adults in the target age group were more likely to be non-smokers and low-risk consumers of alcohol than the Victorian population in this age group (but less likely to be abstainers).

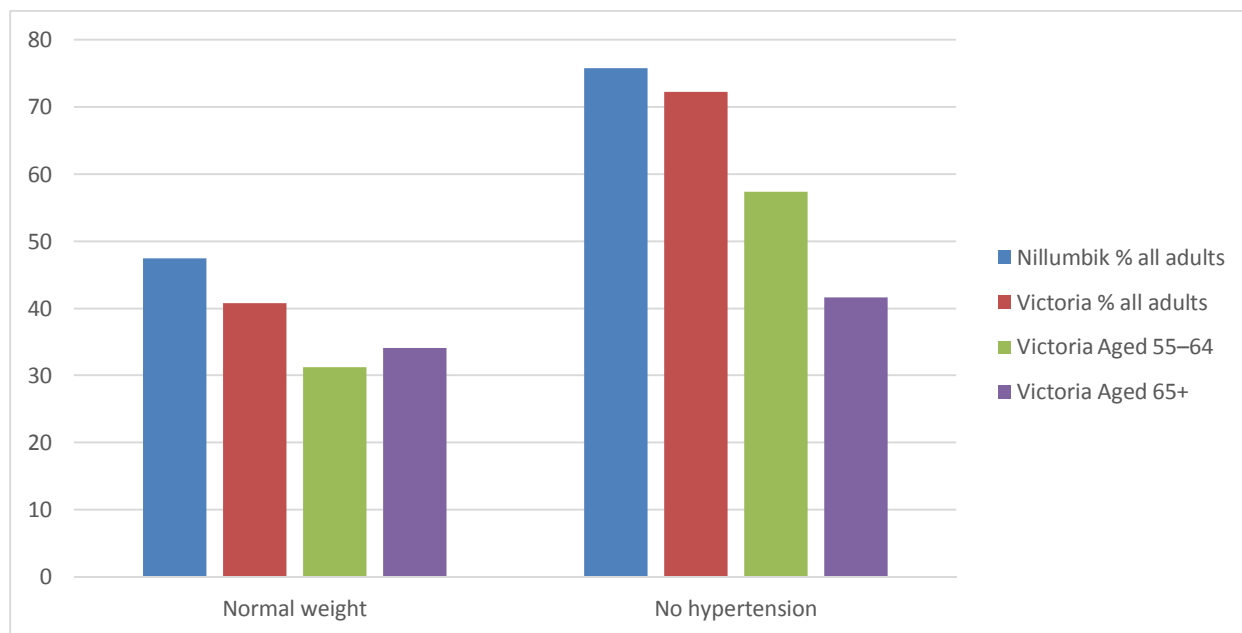
Table 11: Nillumbik and Victoria, age-adjusted proportion of population aged 50 years and over, protective behaviours, 2011–12

	NILLUMBIK % ADULTS 50+	VICTORIA % ADULTS 50+
Ex-smoker	28.7	34.3
Non-smoker	63.8	53.5
Alcohol abstainer	12.7	21.9
Alcohol low risk (long-term)	83.6	73.7
Met vegetable guidelines	10.3	9.2
Met fruit guidelines	56.0	50.6
Sufficient physical activity	59.7	56.4

Nillumbik did not differ significantly from the wider Victorian population on the protective biomedical factors having a normal weight and no hypertension.

In general, adults aged 55 years and over (and especially those aged 65 and over) were less likely than all adults to be in the normal weight range and were more likely to have hypertension.

Figure 9: Nillumbik and Victoria, proportion of population by biomedical protective factors, 2011–12



Data source: Victorian Population Health Survey 2011–12

Table 12: Nillumbik and Victoria, proportion of population protective biomedical factors, 2011–12

	NILLUMBIK % ALL ADULTS	VICTORIA % ALL ADULTS	VICTORIA AGED 55–64	VICTORIA AGED 65+
Normal weight	47.5	40.8	31.3	34.1
No hypertension	75.8	72.3	57.4	41.7

Estimates of the prevalence of protective biomedical factors for Nillumbik residents aged 50 years and over did not differ significantly from those for all Victorians aged 50 years and over.

Table 13: Nillumbik and Victoria, age-adjusted proportion of population aged 50 years and over, protective biomedical factors, 2011–12

	NILLULMBIK % ADULTS 50+	VICTORIA % ADULTS 50+
Normal weight	37.4	33.2
No hypertension	53.3	52.6

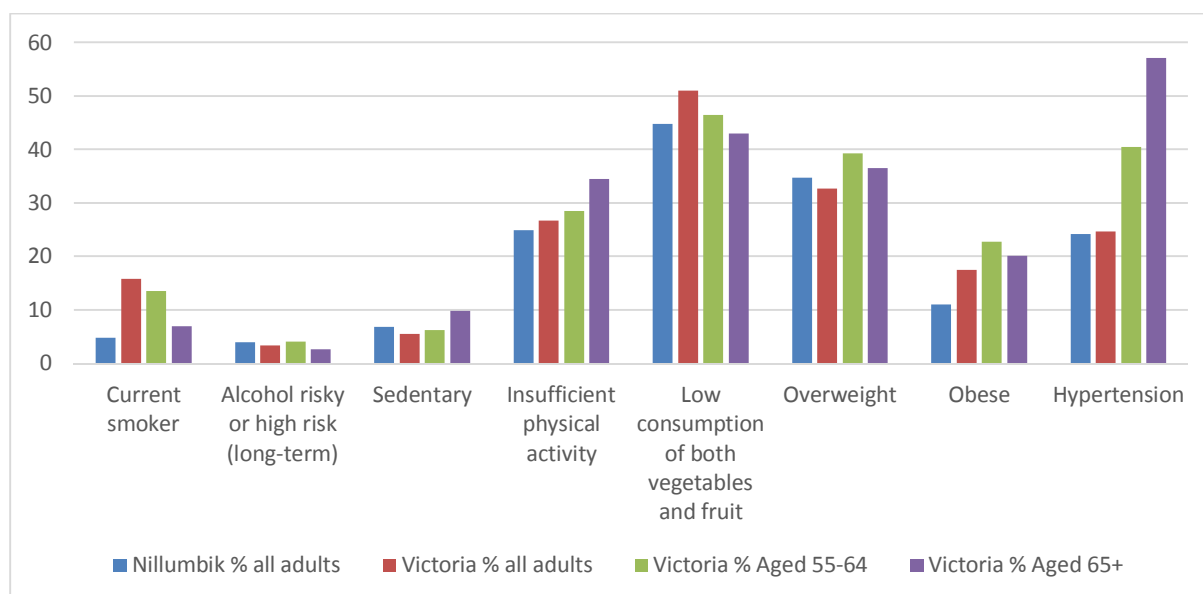
RISK FACTORS

Nillumbik did not differ significantly from the wider Victorian population on most of the behavioural risk factors included here. The exception was current smoking (relatively low risk).

In general adults aged 65 years and over were less likely than all adults to be current smokers, but were more likely to be sedentary and have insufficient physical activity, were more likely to have low consumption of fruit and vegetables, were more likely to be overweight and were more likely to have hypertension.

In general, adults aged 55 to 64 years were at relatively high risk of overweight and obesity.

Figure 10: Nillumbik and Victoria, proportion in population by behavioural and biomedical risk factors, 2011–12



Data source: Victorian Population Health Survey 2011–12

Table 14: Nillumbik and Victoria, proportion in population with behavioural risk factors, 2011–12

	NILLUMBIK % ALL ADULTS	VICTORIA % ALL ADULTS	VICTORIA % AGED 55–64	VICTORIA % AGED 65+
Current smoker	4.8	15.8	13.6	7.0
Alcohol risky or high risk (long-term)	4.0	3.4	4.1	2.7
Sedentary	6.9	5.5	6.3	9.8
Insufficient physical activity	24.9	26.7	28.5	34.5
Low consumption of both vegetables and fruit	44.8	51.0	46.5	43.0

Nillumbik adults aged 50 years and over did not differ significantly from the wider Victorian population aged 50 years and over on any of the behavioural risk factors included here.

Table 15: Nillumbik and Victoria, age-adjusted proportion of population aged 50 years and over, behavioural risk factors, 2011–12

	NILLUMBIK % ADULTS 50+	VICTORIA % ADULTS 50+
Current smoker	7.3	11.3
Alcohol risky or high risk (long-term)	2.2*	3.5
Sedentary	9.0*	7.8
Insufficient physical activity	26.7	30.6
Low consumption of vegetables	88.8	88.9
Low consumption of fruit	43.7	48.2

Nillumbik did not differ significantly from the wider Victorian population on most of the biomedical risk factors included here. However, prevalence of obesity is slightly lower in Nillumbik than Victoria (10.0% vs. 17.5%).

Table 16: Nillumbik and Victoria, proportion in population with biomedical risk factors, 2011–12

	NILLUMBIK % ALL ADULTS	VICTORIA % ALL ADULTS	VICTORIA % AGED 55–64	VICTORIA % AGED 65+
Overweight	42.0	32.7	39.3	36.5
Obese	10.0	17.5	22.8	20.2
Hypertension	24.2	24.7	40.5	57.1

Nillumbik adults aged 50 years and over did not differ significantly from the wider Victorian population aged 50 years and over on any of the biomedical risk factors included here.

Table 17: Nillumbik and Victoria, age-adjusted proportion of population aged 50 years and over, biomedical risk factors, 2011–12

	NILLUMBIK % ADULTS 50+	VICTORIA % ADULTS 50+
Overweight	38.3	37.4
Obese	16.8	21.4
Hypertension	45.3	45.8

The following series of figures compares Nillumbik adults aged 50+ years with Victorian adults aged 50+ years on selected health behaviours.

Figure 11: Smoking status, Victoria and Nillumbik, adults aged 50+

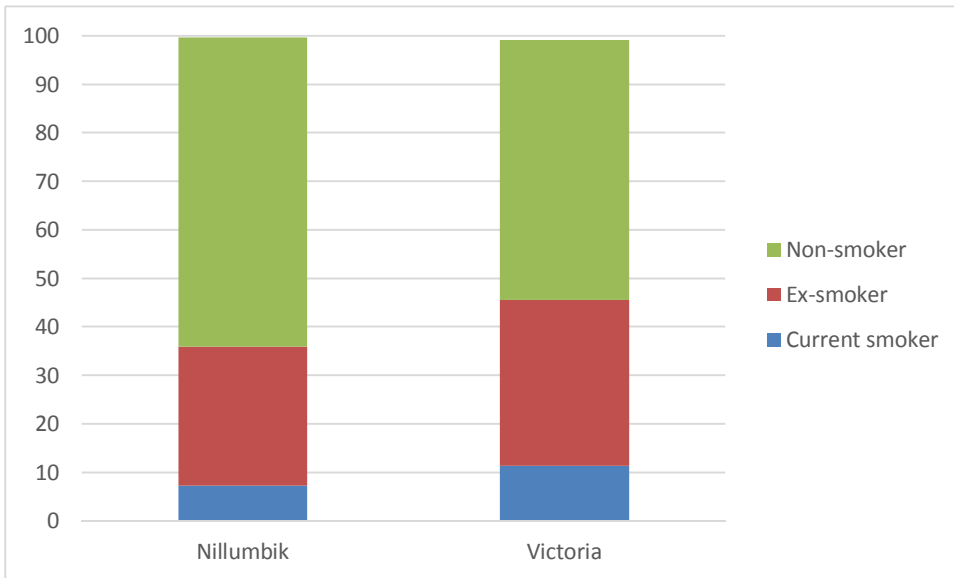


Figure 12: Risk of alcohol harm (long-term), Victoria and Nillumbik, adults aged 50+

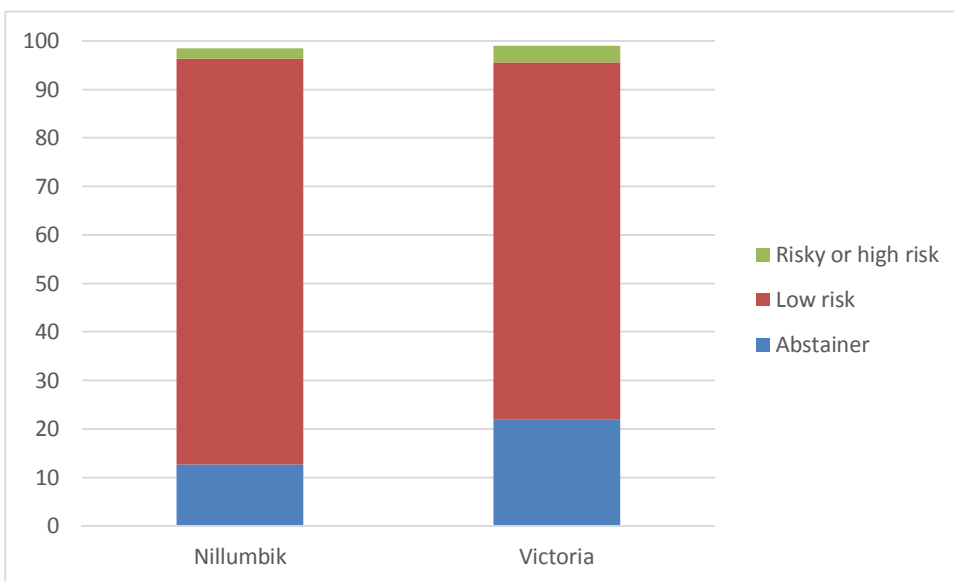


Figure 13: Met guidelines for vegetable consumption, Victoria and Nillumbik, adults aged 50+

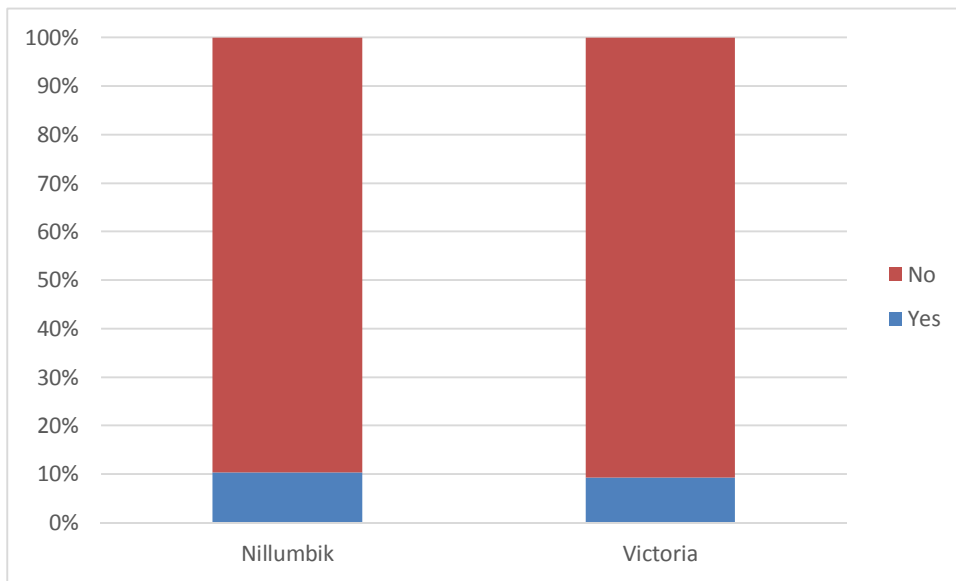


Figure 14: Met guidelines for fruit consumption, Victoria and Nillumbik, adults aged 50+

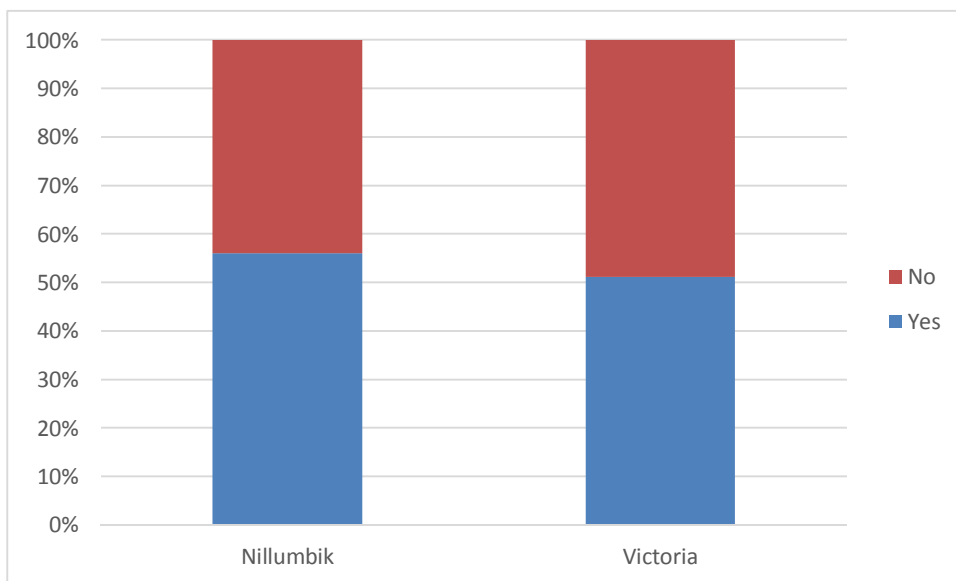


Figure 15: Physical activity, Victoria and Nillumbik, adults aged 50+

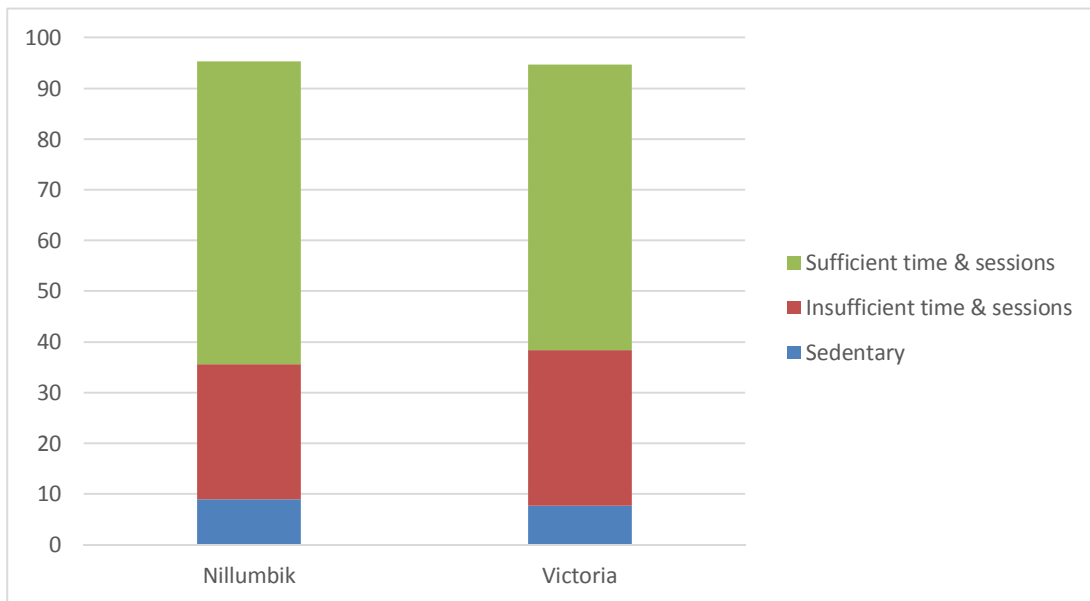
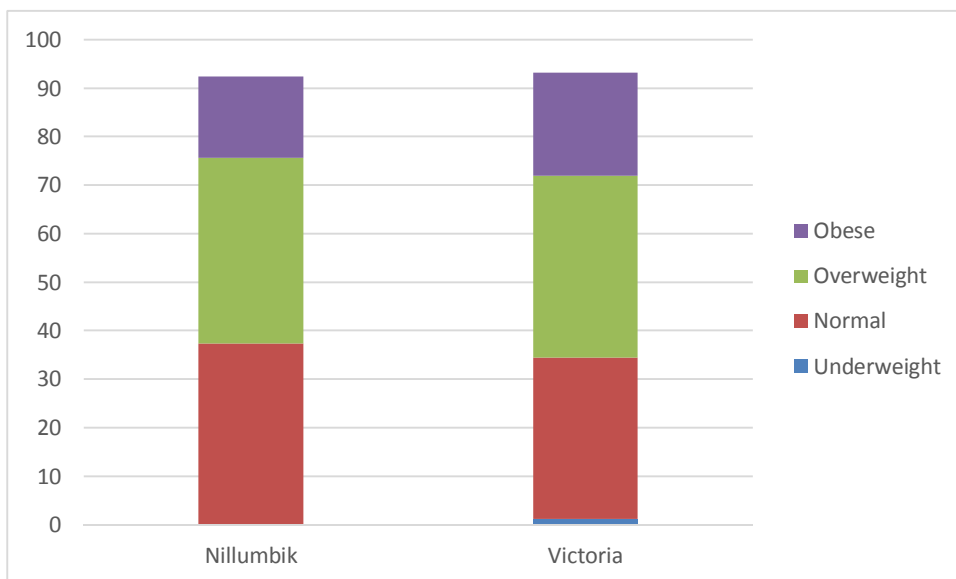


Figure 16: Body weight status, Victoria and Nillumbik, adults aged 50+

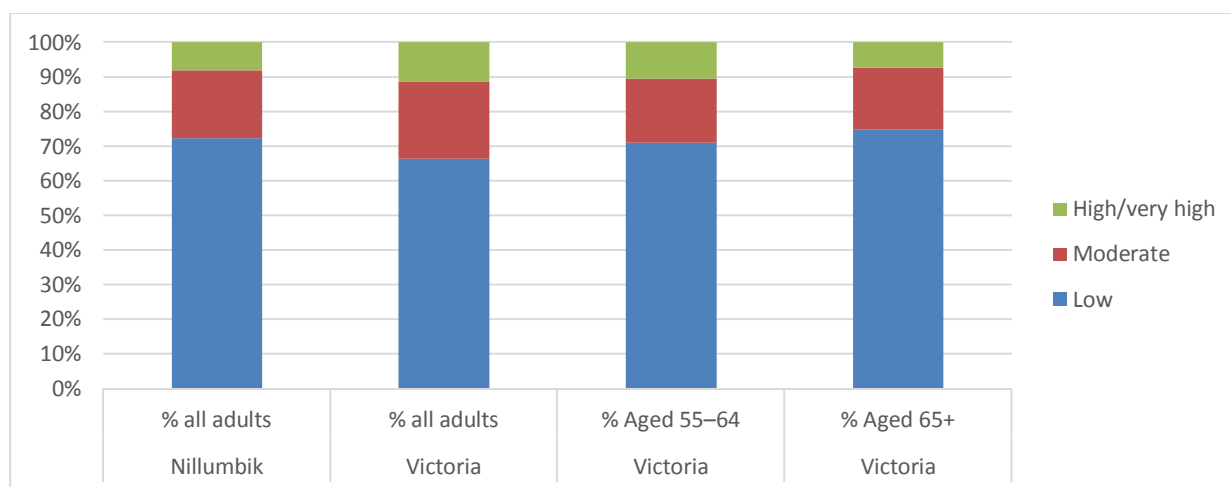


PSYCHOLOGICAL DISTRESS

The Kessler Scale (K-10) measures level of psychological distress. The Victorian Population Health Survey also asks about lifetime prevalence of anxiety and depression and whether or not a health professional has been consulted in the previous 12 months. Figures on these features of mental health are provided in the table below.²⁵ Nilumbik has similar mental health indicators to Victoria as a whole.

A relatively low proportion of adults aged 65 years and over report indicators of psychological distress.

Figure 17: Nilumbik and Victoria, percentage of the population with psychological distress, 2011–12



Data source: Victorian Population Health Survey

Table 18: Nilumbik and Victoria, indicators of mental health, 2011–12

	NILLUMBIK ALL ADULTS %	VICTORIA ALL ADULTS %	VICTORIA AGED 55–64 %	VICTORIA AGED 65+ %
Psychological distress				
Low	69.2	64.6	68.9	71.3
Moderate	18.8	21.5	17.8	16.8
High/very high	7.7*	11.0	10.2	7.0
Lifetime prevalence of anxiety and depression	20.8	20.0	22.3	16.8
Sought professional help in previous 12 months	11.7	12.4	10.3	5.2

²⁵ This table does not appear in the Whittlesea Data Story report.

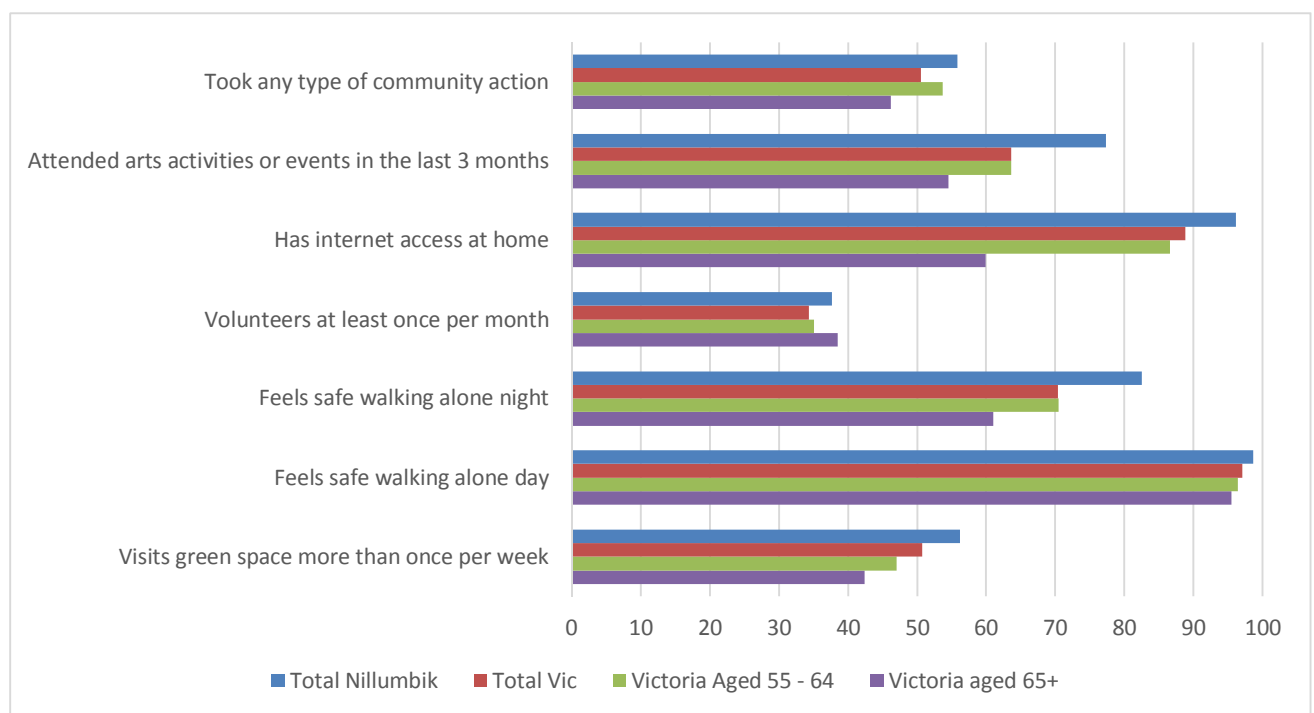
Community wellbeing indicators

The VicHealth Indicators Survey, undertaken in 2011, includes a range of measures of community wellbeing for Victoria and Victorian municipalities.

Scores for Nillumbik on **positive** community wellbeing indicators differed significantly from Victorian averages for three of the indicators included here: Feels safe walking alone at night; attended art activities or events in the last 3 months; and has internet access at home. All three indicators were higher for Nillumbik than for Victoria.

In general, adults aged 65 years or over were much less likely to have internet access at home than adults of all ages and adults aged 55 to 64 years.

Figure 18: Nillumbik and Victoria, VicHealth Indicators (positive), 2011

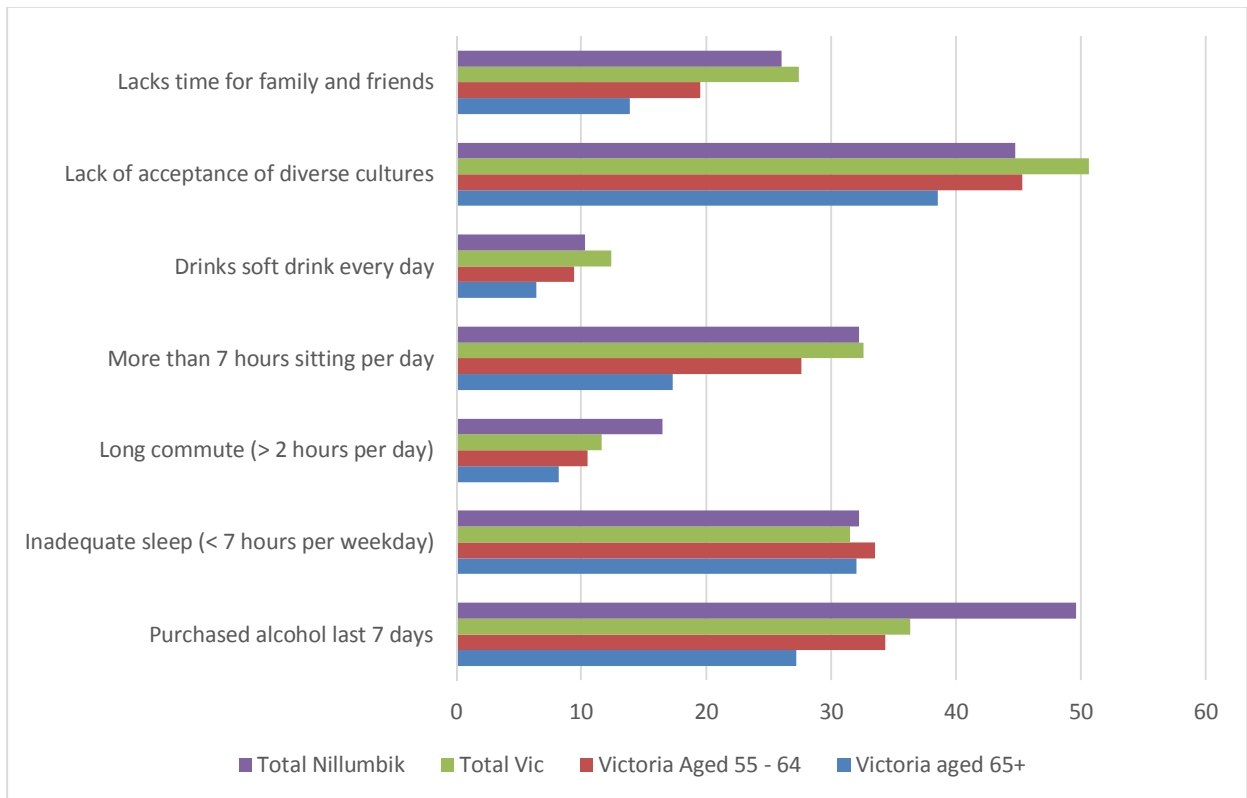


Data source; VicHealth Indicators Survey 2011

Scores for Nillumbik on **negative** community wellbeing indicators differed significantly from Victorian averages on only one of the indicators: purchasing alcohol within the previous 7 days (Nillumbik residents more likely than the Victorian average).

In general, adults aged 65 years and over were less likely than adults of all ages to spend more than seven hours per day sitting.

Figure 19: Nillumbik and Victoria, VicHealth Indicators (negative), 2011



Data source: VicHealth Indicators Survey 2011

Table 19: Nillumbik, Victoria 50+ and Victoria, VicHealth Indicators, 2011

	TOTAL NILLUMBIK	TOTAL VIC	VICTORIA AGED 55 – 64	VICTORIA AGED 65+
Purchased alcohol last 7 days	49.6	36.3	34.3	27.2
Inadequate sleep (< 7 hours per weekday)	32.2	31.5	33.5	32.0
Long commute (\geq 2 hours per day)	16.5	11.6	10.5	8.2
More than 7 hours sitting per day	32.2	32.6	27.6	17.3
Drinks soft drink every day	10.3	12.4	9.4	6.4
Visits green space more than once per week	56.2	50.7	47.0	42.4
Feels safe walking alone day	98.6	97.0	96.4	95.4
Feels safe walking alone night	82.5	70.3	70.4	61.0
Volunteers at least once per month	37.6	34.3	35.0	38.5
Has internet access at home	96.1	88.8	86.5	59.9
Lack of acceptance of diverse cultures	44.7	50.6	45.3	38.5
Attended arts activities or events in the last 3 months	77.3	63.6	63.6	54.5
Lacks time for family and friends	26.0	27.4	19.5	13.9
Took any type of community action	55.8	50.5	53.7	46.2

Data were also provided on request for age groups 50 years and over. These estimates are not age-standardised and so differ slightly from the figures in the table above.

In addition to the indicators highlighted above, the issue of having a long daily commute is one for Nillumbik adults aged 50 and over.

Table 20: Nillumbik and Victoria, VicHealth Indicators, aged 50+ years and all adults, 2011

	NILLUMBIK AGED 50+ %	VICTORIA AGED 50+ %	ALL ADULTS NILLUMBIK %	ALL ADULTS VICTORIA %
Purchased alcohol in the last 7 days	40.6	31.2	35.1	33.3
Drinks soft drink every day	6.7	8.3	5.3	10.5
Inadequate sleep (< 7 hours per night)	27.2	32.0	34.6	31.9
More than 7 hours sitting per day	28.9	22.0	27.2	25.4
Long commute (60+ minutes one way per day)	24.7	7.5	20.4	8.5
Visits green spaces less than once a week	50.0	56.5	46.1	52.9
(Low) acceptance of diverse cultures	34.5	54	41.1	50.1
Lacks time for family and friends	12.8	17.9	25.8	22.6
Feels safe walking alone (day)	98.9	97	97.6	97.2
Feels safe walking alone (night)	79.9	70.2	68.1	70.9
Volunteers at least once per month	43.3	41.8	36.7	41.1
Attended arts activities or events in the las 3 months	72.2	57.4	63.8	59.2
Took part in citizen engagement in last 12 months	56.4	54.9	45.9	55.5
Has internet access at home	89.4	69.1	81.8	77.9

WELLBEING

Wellbeing measured using the Australian Unity Personal Wellbeing Index is a measure of quality of life and a composite measure of life satisfaction in seven domains, including standard of living, health, achievements in life, community connection, personal relationships, safety and future security. The average score on all seven domains is combined into a Personal Wellbeing Index score and converted into a scale ranging from 0 *completely dissatisfied* to 100 *completely satisfied*. Normative data from indicate that average Personal Wellbeing on the scale for Australians is about 75.

Nillumbik's average scores were not significantly different from the Victorian averages. (Data in the following table provided by VicHealth are not age-standardised.)

Table 21: Nillumbik and Victoria, Wellbeing score, 2011

	NILLUMBIK 50+ YEARS	VICTORIA 50+ YEARS	NILLUMBIK ALL ADULTS	VICTORIA ALL ADULTS
Wellbeing score (average)	80.3	78.7	79.4	78.3

Data source: VicHealth Indicators Survey

Provision of intensive services

This section of the data report provides data on provision of services for older people funded directly by the Commonwealth Government, including packaged care in the community (low and high level), residential care (low and high level) and transition care. It does not cover Home and Community Care (HACC), which is funded by all three levels of government and described in detail in Part 2 of this report.

Two sources of data were used in this section: a 2015 list of places and provider counts and a list of providers with funding allocations (2014).

Data provided by the Department of Health Primary Health Network identified just 10 providers in Nillumbik—two providing Home Care Packages and eight providing residential care.

The following tables provide data on numbers of operational places for Banyule Statistical Areas (SA2).

Table 22a: Provision of intensive community services and residential care (operational places), 2015

SA2 NAME	SA2 CODE	HCP LEVEL 1	HCP LEVEL 2	HCP LEVEL 3	HCP LEVEL 4	RESIDENTIAL CARE	INNOVATIVE POOL	TRANSITION CARE
Wattle Glen – Diamond Creek	21197					101		
Eltham	21198		24			120		
Plenty - Yarrambat	21199					90		
Greensborough	21200					228		
Total		0	24	0	0	539	0	0

HCP = Home Care Packages

The following table compares Nillumbik's rates of operational places per 100,000 population aged 65 years and over with those for Victoria as a whole. The population projections used here are also from the Primary Health Network dataset. These figures show that Nillumbik is very poorly served by intensive community care services in comparison with average operational places across Victoria, but rates of residential care places are similar.

Table 22b: Provision of intensive community services and residential care (operational places), Nillumbik and Victoria, 2015

	NUMBER OF PLACES, NILLUMBIK	NUMBER PER 100,000 POPULATION AGED 65+, NILLUMBIK	NUMBER OF PLACES, VICTORIA	NUMBER PER 100,000 POPULATION AGED 65+, VICTORIA
Home Care Low	24	3.0	13,770	15.4
Home Care High	0	0	4,044	4.5
Residential Care	539	58.0	50,716	56.6

Ten services with Nillumbik postcodes were funded to provide intensive aged care services in 2014, altogether attracting \$24,425,838 in Commonwealth Government funding. None of these agencies are very large: Wattle Glen Private Nursing Home is the largest provider, with just 101 residential care places. Agencies with Nillumbik postcodes and the services they are funded to provide are listed in the following table:

Table 23: Providers of intensive community services and residential care, Nillumbik postcodes, 2014

	HOME CARE LOW PLACES	HOME CARE HIGH PLACES	RESIDENTIAL LOW CARE PLACES	RESIDENTIAL HIGH CARE PLACES	TRANSITION CARE PLACES
Bupa Greensborough				✓	
Deloraine Private Nursing Home			✓	✓	
Grace Villa Aged Care			✓	✓	
Liscombe House Hostel			✓		
Eltham Lodge Nursing Home			✓	✓	
Eltham Retirement Centre	✓				
Ian Rollo Currie Nursing Home				✓	
Outer Northern Community Options	✓				
Willandra Hostel			✓		
Wattle Glen Private Nursing Home			✓	✓	

Summary and conclusion

The current report focuses on health and wellbeing indicators in the Nillumbik area. The problem with having a mass of data and analyses to hand is how best to make sense of the information, some of which is contradictory or partial.

POPULATION

- Age: Nillumbik's population will age slowly in the coming decade. The number of people aged 50 to 59 years and over will decrease, while the population aged 75 to 84 will double in size. The population aged 70 to 74 years will increase by two-thirds (66.8%), and the population aged 65 to 69 will increase by over one-quarter (27.7%). The proportion of the population accounted for by people aged 50 and over will grow from 34% to 39%.
- Socio-economic advantage and disadvantage: Nillumbik suburbs all fall in the top two deciles for economic advantage and disadvantage.

HEALTH AND WELLBEING

- Prevalence of key health conditions is similar in Nillumbik to the prevalence in Victoria as a whole.
- Among Nillumbik adults aged 50 years and over, there is a comparatively low prevalence of diabetes. Consistent with this estimate, age-specific proportions of people registering with diabetes are relatively low, especially in the localities of Hurstbridge, North Warrandyte, and Kinglake West/Narbethong. However, the number of people registered with diabetes in Doreen/Mernda and Kinglake is high.
- The number of people living with dementia in Nillumbik is expected to increase by almost three times in coming decades, from 423 in 2010 to 1,217 in 2030.
- Nillumbik was ranked 46th in Victoria on the number of people in the municipality living with dementia, and is expected to move up the rankings (42nd in 2030 and 39th in 2050).
- Hospital admission rates for all three kinds of injury (falls, unintentional injury, and intentional injury) among people aged 50 years and over tend to be slightly lower in Nillumbik than in Victoria as a whole.
- Significantly more Nillumbik residents were non-smokers (67%) than the general population of Victoria (58%).
- In addition, although the proportion of adults who were alcohol abstainers was low in comparison to the general Victorian population (7% vs. 19%), the proportion at **low** risk of long-term damage due to alcohol was high (88% vs. 77%).

- Similar results were evident for adults aged 50 years and over. Significantly more Nillumbik residents were non-smokers (64%) than the general population of Victoria (54%). While the proportion of adults aged 50 years and over who were alcohol abstainers was low in comparison to the general Victorian population (13% vs. 22%), the proportion at **low** risk of long-term damage due to alcohol was high (84% vs. 74%).
- Just over one-half of Nillumbik adults aged 50 years and over engages in sufficient physical activity (60%) and meets guidelines for fruit consumption (56%).
- Risks for Nillumbik adults aged 50 years and over include low consumption of vegetables (89%) and overweight/obesity (55%).
- Nillumbik has a similar mental health indicators to Victoria as a whole.
- Scores for Nillumbik on community wellbeing indicators differed significantly from Victorian averages on three of the indicators (more favourable): Feels safe walking alone at night; attended art activities or events in the last 3 months; and has internet access at home.
- In the age group 50 years and over, a high proportion of Nillumbik residents face a long daily commute.

INTENSIVE AGED CARE SERVICES

- 10 providers were identified in Nillumbik—two providing Home Care packages and eight providing residential care.
- Examination of operational care places per 100,000 people aged 65 years and over indicate that Nillumbik is relatively poorly placed for intensive community care packages in comparison with average rates across Victoria, but rates of residential care provision are similar.
- Altogether in 2014, local agencies attracted \$24,425,838 in Commonwealth Government funding for intensive aged care services.

CONCLUSION

Nillumbik's population is ageing and service providers can expect increases in demand for health services associated with an ageing population, including dementia. While most indicators for Nillumbik are comparatively positive, as elsewhere in Victoria, obesity and low vegetable consumption are key health risk factors.

Appendix: About the data sources

This section provides detail on the data sources used in this report and includes definitions of terms used in the Victorian Population Health Survey.

VICTORIAN POPULATION HEALTH SURVEY 2011–12

The Victorian Population Health Survey 2011–12 used computer-assisted telephone interviews (CATI) with a representative sample of persons aged 18 years or over who resided in private dwellings in Victoria. Random digit dialling (RDD) was used to generate a sample of telephone numbers that formed the household sample for CATI. People who are homeless or itinerant were excluded from the survey, as were people in hospitals or institutions, frail older people, and people with disabilities who were unable to participate in an interview.

The survey sample was stratified by LGA, with a target sample size of 426 respondents per LGA. The response rate was 66.8%. Survey data were weighted to reflect (1) the probability of selecting the respondent within the household, and (2) the age/sex/geographic distribution of the population

All data were self-reported.

Table 24: Nillumbik and Victoria, Victorian Population Health Survey, 2011–12, sample size

SAMPLE	N
Nillumbik All	426
Victoria All	33,673

Table 25: Profile of respondents, Victorian Population Health Survey, 2011–12

	BENCHMARK DATA (%)	UNWEIGHTED SURVEY SAMPLE (%)	WEIGHTED SURVEY SAMPLE (%)
Sex			
Males	49	39	49
Females	51	61	51
Age group			
18–24	13.0	3.4	14.2
25–34	18.9	6.2	19.1
35–44	18.4	14.6	17.9
45–54	17.3	19.5	16.7
55–64	14.5	22.6	13.6
65+	18.0	33.7	18.4

Definitions of key terms

Hypertension: A person is conically diagnosed with hypertension is their systolic blood pressure is 140 mmHg or more or their diastolic blood pressure is 90 mmHg or more.

Smoking: A person is defined as an “ex-smoker” if he/she has smoked at least 100 cigarettes or equivalent in their lifetime.

Alcohol consumption:

- **High risk:** Men are considered at high risk of long-term harm if they consume seven or more drinks on an average day or more than 43 drinks/week. For women, high risk of long term harm is associated with the consumption of five or more standard drinks on an average day or more than 29 drinks/week.
- **Risk:** Alcohol consumption is considered risky in the long term if men consume five to six drinks on an average day (29–42/week) and if women consume more than three or four drinks daily (15–28/week).

Fruit and vegetable consumption:

- The recommended daily vegetable intake is five serves for persons aged 19 years or over, where a serve is defined as half a cup of cooked vegetables or a cup of salad vegetables.
- The recommended daily fruit intake is two serves for persons aged 19 years or over, where a serve is defined as one medium piece or two small pieces or fruit or one cup of diced pieces.

Physical activity: Accruing 150 or more minutes of moderate-intensity physical activity (such as walking) on a regular basis over one week (i.e., five-to-seven sessions per week) is believed to be sufficient for health benefits.

Information was collected on time spent doing three types of physical activity: walking (for more than 10 minutes at a time); vigorous household chores (excluding gardening); and vigorous activities such as tennis, jogging cycling or keep-fit exercises. Minutes of vigorous physical activity were weighted by a factor of two.

Overweight and obesity: Self-reported body mass index (BMI) was used. $BMI = \text{weight (kg)}/\text{height (m)}^2$

BMI less than 18.5 is considered underweight; 18.5 – 24.9 is normal weight; 25.0 – 29.9 is overweight; and 30.0 or more is obese.

Psychological distress: The Kessler 10 (K10) is a set of questions designed to categorise the level of psychological distress over a four-week period. It covers dimensions nervousness, hopelessness, restlessness, sadness and worthlessness. Each of the 10 items has five response options (all of the time, most of the time, some of the time, a little of the time, and none of the time). Items are summed to yield scores ranging from 10 to 50. Individuals are categorised on four levels of psychological distress: low (10–15); moderate (16–21); high (22–29) or very high (30–50).

VICHEALTH INDICATORS SURVEY 2011

The VicHealth Indicators Survey is a triennial, local government area survey of approximately 25,000 people. The survey design entailed the conduct of 300 interviews per LGA.

Data were collected through CATI using RDD. All Victorian residential landline telephone numbers were considered in scope. Excluded groups included those without landlines, those living in facilities such as residential aged care, prisons or hospitals, and homeless people. The participation rate was 53.5%.

Table 26: Nillumbik and Victoria, VicHealth Indicators, 2011, sample size

SAMPLE	N
Nillumbik 50+	180
Nillumbik All	302
Victoria 50+	16,440
Victoria All	25,075

NATIONAL DIABETES SERVICES SCHEME (NDSS) REGISTRANTS

National Diabetes Services Scheme data come from the database of registrants on the National Diabetes Services Scheme (NDSS). The NDSS is an initiative of the Australian Government administered by Diabetes Australia. The NDSS delivers diabetes-related products at subsidised prices and provides information and support services to people with diabetes. Registration is free and open to all Australians diagnosed with diabetes. Information that might allow identification of individuals has been removed, and only broad categorisation data has been retained such as postcode, age, gender, and Indigenous status.

The diabetes map uses ABS Population Projections for 2012 to 2101 to automatically calculate and increment population statistics according to the current year and quarter.

Table 27: National estimates of diabetes prevalence by age group

50-59	60-69	70-79	80-89	90+
6.7	12.5	18.1	17.2	17.2

AUSTRALIAN BUREAU OF STATISTICS DATA

The ABS data used are publicly available, and include population statistics such as number of people, gender, age groups, indigenous, advantage/disadvantage index and the geographic definition of electorates and postcodes. The map uses ABS Population Projections for 2012 to 2101 to automatically calculate and increment population statistics according to the current year and quarter.

ACCESS ECONOMICS, 2010

Dementia prevalence rates were taken from a previous Access Economics report that used a combination of published epidemiological studies and meta-analyses (Access Economics, 2009). Keeping dementia front of mind; Incidence and prevalence 2009–2050. Report for Alzheimer’s Australia, retrieved from <https://fightdementia.org.au/national/publications/access-economics-reports>). Assumed prevalence rates by age and gender are provided in the table below.

Table 28: Total Australian estimated dementia prevalence projection rates by gender (Access Economics, 2009)

AGE GROUP (YEARS)	MALE (%)	FEMALE (%)
< 60	0.03	0.02
60–64	1.2	0.6
65–69	1.7	1.3
70–74	3.5	3.3
75–79	5.8	6.3
80–84	12.1	12.9
85–89	21.1	24.4
90–94	31.5	35.7
95+	37.2	47.3

Estimated prevalence rates differ by group, and are generally higher, for example, in Indigenous Australians than in the general population.

Table 29: Australian Indigenous estimated dementia prevalence projection rates (Access Economics, 2009)

AGE GROUP (YEARS)	INDIGENOUS AUSTRALIANS (%)
45–59	2.6
60–69	16.9
70–79	16.4
80+	56.7