How does local government use evidence to inform strategic planning for health and wellbeing?

Geoffrey Russell Browne

ORCID ID: 0000-0003-1990-3050

Doctor of Philosophy

July 2017

Melbourne School of Population and Global Health

Faculty of Medicine, Dentistry and Health Sciences

The University of Melbourne

Submitted in total fulfilment of the degree
Abstract

Background: Globally, preventable non-communicable diseases are on the rise and present a serious risk to the sustainability of health care systems. Many preventable diseases are determined by factors outside of the health system and so addressing the social determinants of health (SDH) has significant potential to reduce the global burden of disease. Local government (LG) is the level of government closest to the people. It has extensive interaction with its communities and this results in unique knowledge of contemporary health issues as they manifest locally. Internationally, it is understood that as a provider of social infrastructure and services, LG also has critical potential to enhance SDH. In Victoria, Australia, many communities are experiencing significant public health challenges such as inadequate physical activity, poor diets and social isolation, all associated with low land-use densities, car dependence and poor access to healthy food. The Victorian Public Health and Wellbeing Act (2008), requires each of Victoria’s 79 LGs to develop an evidence-based Municipal Public Health and Wellbeing Plan (MPHWP) aimed at improving the community’s health and wellbeing by addressing SDH. MPHWPs must also have regard to the priorities of the Victorian State Health and Wellbeing Plan. However, LG health plans are only as good as the effectiveness of their interventions and the evidence used to inform these interventions. Although there have been recent efforts to improve the use of evidence in Victorian MPHWPs, there has been no systematic analysis of the evidence used by LG to develop their MPHWPs. Similarly, to date, there has been no systematic analysis of the extent to which MPHWPs address SDH. Thus, using a comprehensive content analysis of all LGs’ MPHWPs, and via interviews with key informants in LG, this PhD study explored how LG interpreted and prosecuted its obligations under the Act. Specifically, it examined how LG has interpreted the Sections that require it 1) to use evidence to inform its strategic planning for health and wellbeing, 2) have regard to the state health plan, and 3) improve the social determinants of health. The aim was to make policy recommendations that will enable LG to be a more effective agent of public health.

Methods: An analysis of the content of the 79 2013-2017 MPHWPs and supporting documents was undertaken. The quantitative component involved an analysis of each occurrence of
evidence in MPHWP's for its source, topic and type (descriptive or intervention). It also involved an assessment of whether the actions taken addressed State health priorities, and how they addressed SDH in two dimensions: policy area and distance ‘upstream’. The qualitative component sought to identify and analyse strategic statements describing LGs’ responsibility and goals in public health. Additionally, the experiences and perspectives of MPHWP managers from 16 LGs across Victoria were explored through semi-structured in-depth interviews using an analytical framework of barriers to and enablers of evidence use.

**Results:** MPHWP’s cited evidence from numerous sources, covering a wide range of health issues and their determinants. However, much of this evidence was descriptive without defining effective interventions. Additionally, much of the documented support for actions in MPHWP’s was sourced via community consultation rather than scientific research, resulting in some novel actions of unknown effectiveness. Key informants indicated that some intervention evidence diffuses into decision-making via professional networks and a range of documented sources to become tacit knowledge that guides actions. In most cases however, evidence supporting actions taken by LG was lacking. Regarding actions, MPHWP’s went well beyond the State Government’s public health priority areas to address a wide range of policy areas with a strong ‘upstream’ focus. Key informants indicated that this was because LG had strongly adopted the SDH model. The evidence suggests that LG has a high level of organisational efficacy to address health, but that LG would like to see more done to improve the environments that determine health. LG is therefore active both in working with partner organisations and in advocating ‘up’ to the state government to address SDH.

**Implications:** The results of this research suggest that the Victorian Public health and Wellbeing Act’s requirement to address SDH is strongly integrated in the documentation that supports LGs’ MPHWP’s. This has contributed to LG ‘punching above its weight’ to address SDH. In contrast, the requirement for MPHWP’s to be evidence-based has facilitated the use of descriptive evidence far more than it has intervention evidence. LG staff would benefit from increased evidence literacy – including the use of evidence typologies for appraising evidence – while MPHWP’s themselves would benefit from improved evaluation, particularly of community-derived actions. Recommendations for improving the evidence literacy of MPHWP planners, providing summaries of the latest intervention evidence and improving the
evaluation of LG actions to create LG-relevant intervention evidence were developed. These recommendations could be applied by both state-level policymakers and LG level planners in Victoria and beyond to create more effective municipal health plans, and to make an important contribution to community wellbeing and the sustainability of health care systems.
Declaration

This is to certify that:

- the thesis comprises only my original work towards the PhD except where indicated in the preface;
- due acknowledgement has been made in the text to all other material used; and
- the thesis is fewer than 100,000 words in length, exclusive of tables, figures, the reference list and appendices.
Preface

Within this thesis I have included one published first author paper (with two co-authors) as a thesis chapter. Additionally, two co-authored papers that were published during my PhD are included as Appendices E and F. In the case of all three papers I was the initiator and main author, contributing 80% of work. The first drafts of all three were initiated and written by me. The literature searches and analyses in each of the papers were also performed by me. Other co-authors provided assistance with the interpretation of the results and editing of manuscript drafts. As such, I have provided authorisation forms from each co-author of the published manuscripts. In the following instances, text from these publications has been used in this thesis.

- Text on pages 1, 3, 14, 20, 138-139, 215, 216-217 and 229-230 is from Browne et al. (2016). I was lead author and I contributed more than 80%.
- Text on pages 5-6, 24, 199-200, 203, 204 and 230-231 is from Browne et al. (2017) (Appendix E). I was lead author and I contributed more than 80%.
- Text on pages 15-16 about Health in All Policies is from Browne and Rutherfurd (2017) (Appendix F). I was lead author and I contributed more than 80%.

All work included in this thesis was carried out after my enrolment as a higher degree research candidate. I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.
Acknowledgements

Sincere thanks to my supervisors, Professor Billie Giles-Corti, Dr. Melanie Davern and Dr. Iain Butterworth, for their astute advice, guidance, encouragement and career mentorship. Billie and Melanie made my PhD journey an especially collaborative, enjoyable and rewarding experience, while Iain was a passionate advocate for all of our work. I also wish to thank my PhD Advisory Committee Chair, Dr. Helen Jordan, who provided helpful advice and support throughout my candidature and Drs. Anna Hurlimann and Ian Rutherfurd for their advice and support. Many thanks also to Myra Hoad, Emma Michelle and Antoinette Abou-Rizk for their friendly administrative support, and encouragement throughout.

The Place, Health and Liveability team at the McCaughey VicHealth Community Wellbeing Unit was an exemplar of a collaborative academic environment. I particularly wish to thank Drs. Karen Villanueva, Lucy Gunn and Suzanne Mavoa and for their comradery and mentorship. I also thank fellow PhD candidates and friends from across the Melbourne School of Population and Global Health and beyond, each of whom contributed uniquely to my navigation of candidature and academia more broadly: Dr. Danya Vears, Jaime Fontbana, Sam Croy, Allison Yates, Alison Brown, Anurika DeSilva, Shuaijun Guo, Maureen Murphy and Deb Batterham. I especially thank Dr. Melanie Lowe whose work was a particular inspiration.

I sincerely thank Tania Ivanka for her support which I will return in kind as she begins her PhD journey.

Finally, I deeply appreciate the time and generosity given by my interview participants. This work is dedicated to local government planners who work doggedly to improve the health and sustainability of their communities, against often powerful forces.

My PhD was funded by an Australian Government Research Training Program Scholarship, (previously Australian Postgraduate Award), the North & West Metropolitan Region of the Department of Health and Human Services (Victorian Government) and Community Indicators Victoria.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
</tr>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>AustLII</td>
<td>Australasian Legal Information Institute</td>
</tr>
<tr>
<td>CCTV</td>
<td>closed-circuit television surveillance</td>
</tr>
<tr>
<td>CIC</td>
<td>Community Indicators Consortium</td>
</tr>
<tr>
<td>CIV</td>
<td>Community Indicators Victoria</td>
</tr>
<tr>
<td>CO-OPS</td>
<td>community-based obesity prevention interventions</td>
</tr>
<tr>
<td>CSDH</td>
<td>Commission on the Social Determinants of Health</td>
</tr>
<tr>
<td>DALY</td>
<td>disability-adjusted life years</td>
</tr>
<tr>
<td>DHHS</td>
<td>Victorian State Department of Health and Human Services</td>
</tr>
<tr>
<td>EBDM</td>
<td>evidence-based decision-making</td>
</tr>
<tr>
<td>EBM</td>
<td>evidence-based medicine</td>
</tr>
<tr>
<td>EFH</td>
<td>Environments for Health</td>
</tr>
<tr>
<td>EHO</td>
<td>environmental health officer</td>
</tr>
<tr>
<td>G21</td>
<td>Geelong Regional Alliance</td>
</tr>
<tr>
<td>GDP</td>
<td>gross domestic product</td>
</tr>
<tr>
<td>HACC</td>
<td>home and community care</td>
</tr>
<tr>
<td>HiAP</td>
<td>Health in All Policies</td>
</tr>
<tr>
<td>HSD</td>
<td>Tukey's honest significant difference test</td>
</tr>
<tr>
<td>HTV</td>
<td>Healthy Together Victoria</td>
</tr>
<tr>
<td>IRSD</td>
<td>Index of Relative Socioeconomic Disadvantage</td>
</tr>
<tr>
<td>IAP2</td>
<td>International Association for Public Participation Australasia</td>
</tr>
<tr>
<td>KT4LG</td>
<td>Knowledge Translation for Local Government</td>
</tr>
<tr>
<td>LG</td>
<td>local government</td>
</tr>
<tr>
<td>LGA</td>
<td>local government areas</td>
</tr>
<tr>
<td>MAV</td>
<td>Municipal Association of Victoria</td>
</tr>
<tr>
<td>MPHHP</td>
<td>Municipal Public Health Plan (pre-2008)</td>
</tr>
<tr>
<td>MPHWP</td>
<td>Municipal Public Health and Wellbeing Plan</td>
</tr>
<tr>
<td>NCCMT</td>
<td>National Collaborating Centre for Methods and Tools</td>
</tr>
<tr>
<td>NSW</td>
<td>New South Wales</td>
</tr>
<tr>
<td>PCP</td>
<td>Primary Care partnership</td>
</tr>
<tr>
<td>PD</td>
<td>professional development</td>
</tr>
<tr>
<td>PHIR</td>
<td>population health intervention research</td>
</tr>
<tr>
<td>PVaW</td>
<td>prevention of violence against women</td>
</tr>
<tr>
<td>RCT</td>
<td>randomised controlled trial</td>
</tr>
<tr>
<td>SA</td>
<td>South Australia</td>
</tr>
<tr>
<td>SDH</td>
<td>social determinants of health</td>
</tr>
<tr>
<td>SEIFA</td>
<td>Socio-Economic Indexes for Areas</td>
</tr>
<tr>
<td>SES</td>
<td>socio-economic status</td>
</tr>
<tr>
<td>VPHS</td>
<td>Victorian Population Health Survey</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
</tbody>
</table>
# Table of Contents

Abstract .................................................................................................................................................. i
Declaration ........................................................................................................................................... iii
Preface ................................................................................................................................................... iv
Acknowledgements .............................................................................................................................. v
Glossary of acronyms .......................................................................................................................... vi

**Chapter 1: Introduction** .................................................................................................................. 1

1.1 Public health challenges in Australia ............................................................................................. 1
1.2 Victorian local government’s role in public health ................................................................. 3
1.3 The importance of evidence in public health planning ...................................................... 5
1.4 Rationale, aims and methods ...................................................................................................... 7
1.5 Significance of the research ......................................................................................................... 9
1.6 Structure of the thesis ..................................................................................................................... 9

**Chapter 2: Literature Review** ...................................................................................................... 11

2.1 Introduction .................................................................................................................................. 11
2.2 The social determinants of health .............................................................................................. 11
2.3 The role of Victorian LG in health and wellbeing ...................................................................... 16
2.4 Assessing LG’s role in SDH .......................................................................................................... 19
2.5 Evidence in decision-making ....................................................................................................... 22
2.6 Descriptive evidence in health planning ..................................................................................... 26
2.7 The importance of intervention evidence ................................................................................. 31
2.8 Evidence use in Victorian MPHWPAs – recent research ...................................................... 39
Chapter 3: Methods ................................................................. 43

3.1 Introduction ........................................................................ 43
3.2 Aims and research question .............................................. 43
3.3 Conceptual frameworks ...................................................... 44
3.4 Study design ...................................................................... 45
3.5 Document analysis .............................................................. 46
3.6 Qualitative document analysis ........................................... 47
3.7 Quantitative content analysis ............................................. 48
3.8 Interviews ......................................................................... 72
3.9 Summary ........................................................................... 78

Chapter 4: Evidence in Municipal Public Health and Wellbeing Plans ....80

4.1 Introduction ........................................................................ 80
4.2 Document attributes ........................................................... 80
4.3 Review of the method - evidence in MPHWPs ...................... 81
4.4 Results – evidence in MPHWPS ......................................... 82
4.5 Summary of findings ........................................................... 101

Chapter 5: Local government as an agent of health and wellbeing ......102

5.1 Introduction ........................................................................ 102
5.2 Review of the method – actions in MPHWPs ....................... 102
5.3 Results – actions in MPHWPs ........................................... 103
5.4 Alignment between evidence and actions .......................... 123
5.5 Qualitative analysis – LG’s responsibility and capacity in health planning ........... 127
5.6 Summary of findings ........................................................... 137
<table>
<thead>
<tr>
<th>Chapter 6: Published paper on Actions in Municipal Public Health and Wellbeing Plans</th>
<th>139</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Introduction</td>
<td>139</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 7: Interviews with key informants</th>
<th>147</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1 Introduction</td>
<td>147</td>
</tr>
<tr>
<td>7.2 Structure of this chapter</td>
<td>147</td>
</tr>
<tr>
<td>7.3 Interview participants</td>
<td>148</td>
</tr>
<tr>
<td>7.4 Adoption of a social determinants approach</td>
<td>149</td>
</tr>
<tr>
<td>7.5 Facilitators and barriers to evidence use</td>
<td>154</td>
</tr>
<tr>
<td>7.6 Summary</td>
<td>195</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 8: Discussion</th>
<th>197</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 Introduction</td>
<td>197</td>
</tr>
<tr>
<td>8.2 Evidence and information in municipal health planning</td>
<td>199</td>
</tr>
<tr>
<td>8.3 Local government as an agent of health and wellbeing</td>
<td>208</td>
</tr>
<tr>
<td>8.4 Opportunities for a stronger culture of evidence</td>
<td>218</td>
</tr>
<tr>
<td>8.5 Recommendations for Victoria</td>
<td>228</td>
</tr>
<tr>
<td>8.6 Limitations and directions for future research</td>
<td>230</td>
</tr>
<tr>
<td>8.7 Summary</td>
<td>232</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 9: Conclusion</th>
<th>233</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1 Answering the research question</td>
<td>234</td>
</tr>
<tr>
<td>9.2 Research translation during candidature</td>
<td>237</td>
</tr>
<tr>
<td>9.3 Final comments</td>
<td>239</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 10: References</th>
<th>240</th>
</tr>
</thead>
</table>
Appendix A – List of codes generated for Question 1 .................................................. 266
Appendix B – Coding special cases and avoiding possible errors ................................. 273
Appendix C – Interview facesheet ............................................................................. 274
Appendix D – Ethics approval ..................................................................................... 277
Appendix E – Published paper .................................................................................... 279
Appendix F – Published paper .................................................................................... 296
List of Tables

Table 3.1. Timing and duration of the two principle data collection phases ............................ 46
Table 3.2. Codebook 2: Sub-categories used in Question 2 .................................................. 54
Table 3.3. Codebook 3: Categories used for Question 3 ....................................................... 55
Table 3.4. Codebook 4: Categories used for Question 4 ....................................................... 57
Table 3.5. Codebook 5: Categories used for Question 5 ....................................................... 59
Table 3.6. Typical characteristics of actions coded to each category for Question 5 .......... 61
Table 3.7. Codebook 6: Categories used for Question 6 ....................................................... 62
Table 3.8. Results of the intra-rater reliability test of methodological stability ............... 70
Table 3.9. Content of the interview questions within themes .............................................. 75
Table 4.1. Comparisons of the amount of evidence used by councils (n = 11,164) according to council characteristics .............................................................. 84
Table 4.2. The 10 most frequently cited sources of evidence in 2013-2017 MPHWPs .......... 86
Table 4.3. The frequency of CIV use in 2013-2017 MPHWPs (n = 419) according to council characteristics ........................................................................................................ 87
Table 4.4. Broad topics of evidence used in 2013-2017 MPHWPs (n = 12,144) ............... 89
Table 4.5. Sub-topics of evidence in the 2013-2017 MPHWPs within the categories of ‘Health outcomes’, ‘Health behaviours’ and ‘Domains of public policy’ (n = 10,206) ................. 91
Table 4.6. Percentages of evidence from 2013-2017 MPHWPs in each type category (n = 12,144). ................................................................................................................... 95
Table 4.7. Intervention evidence as a percentage of all evidence in 2013-2017 MPHWPs by council characteristics ................................................................. 97
Table 4.8. Percentage of all evidence in 2013-2017 MPHWPs falling into each combination of categories for topic and type (n = 12,144). ......................................................... 98
Table 5.1. Comparison of the number of actions tabled per Victorian council in 2013-2017 MPHWPs (n = 5,210) according to councils’ revenue per capita ....................... 105
Table 5.2. Comparison of the number of actions (n = 5,210) tabled by Victorian councils in 2013-2017 MPHWPs according to councils’ SES ............................................... 106
Table 5.3. Comparison of the number of actions (n = 5,210) tabled by Victorian councils in 2013-2017 MPHWPs according to council location ................................................. 106
Table 5.4: Proportion of actions tabled in 2013-2017 MPHWP (n = 5,210) that did not explicitly address an Action Area from the State Health Plan by councils’ characteristics. .......................... 109
Table 5.5. Comparisons of the number of actions in the 2013-2017 MPHWP (n = 5,232) directed to each upstream level by councils’ revenue per capita. .................................................. 115
Table 5.6. Comparisons of the number of actions (n = 5,232) in the 2013-2017 MPHWP directed to policy area by councils’ revenue per capita. .................................................. 120
Table 5.7. Population characteristics of the three revenue per capita categories. ............... 122
Table 5.8. Comparison of the amount of evidence describing, and actions directed towards the thirteen policy areas. .................................................................................................................. 124
Table 7.1. Roles of the key informants.................................................................................... 149
Table 7.2. Five themes that influence evidence use in MPHWP (Oliver et al., 2014) ............ 155
Table 8.1. Suggested evidence typologies framework for MPHWP professional development. .................................................................................................................................................. 220
Table 9.1: Presentations at conferences during PhD candidature........................................ 237
Table 9.2. Presentations to industry partners during PhD candidature. ............................... 238
List of Figures

Figure 1.1. Map of Australia showing the location of Victoria with Victorian LG boundaries (Victorian Government, 2017, Wikimedia Commons, 2005) ................................................................. 4

Figure 2.1. The determinants of health and wellbeing in neighbourhoods (Barton and Grant, 2006). ................................................................................................................................................. 12

Figure 2.2. Descriptive and intervention evidence play different roles in health planning........ 26

Figure 2.3: Management theory has influenced the expectations of community indicators. Images from Wikimedia Commons (2006, 2011) ........................................................................................................... 28

Figure 2.4. The iceberg analogy: In isolation, an indicator is limited as a decision-making tool (Davern et al., 2016). .................................................................................................................. 31

Figure 2.5. The intervention evidence hierarchy (National Health & Medical Research Council, 2009). .................................................................................................................................................. 34

Figure 3.1. The process of content analysis (Neuendorf, 2002, Stemler, 2001) ...................... 49

Figure 3.2. Intervention areas within the three action areas of the State Health Plan (Victorian Government, 2011b). ......................................................................................................................... 57

Figure 3.3. Flow chart describing the sequence in which documents were coded. ............... 65

Figure 3.4. Structure of the content analysis results chapters. .............................................. 72

Figure 3.5. The process of developing and conducting interviews and analysing the results.... 74

Figure 4.1: The proportion of councils by occurrences of evidence used in 2013-2017 MPHWPs. ........................................................................................................................................... 83

Figure 4.2. The source of evidence in 2013-2017 MPHWPs by source category ..................... 85

Figure 5.1. The percentage of Victorian councils by number of actions in 2013-2017 MPHWPs. ........................................................................................................................................... 103

Figure 5.2. Proportion of actions (n = 5,210) in the 2013-2017 MPHWPs explicitly aligned with the two priority areas in the State Health Plan, by council location. ......................................... 107

Figure 5.3. Results of inductive coding of actions in MPHWPs that did not explicitly address a State priority area. .............................................................................................................. 110

Figure 5.4. Number of actions in the 2013-2017 MPHWPs categorised by distance upstream to which they are targeted (n = 5,232) ........................................................................................................ 111
Figure 5.5. Number of actions in Victorian 2013-2017 MPHWP (n = 5,232) targeted to each policy area. .................................................................................................................................. 117

Figure 8.1. Augmentation of Victorian State Government priorities as represented by the actions in MPHWP. .................................................................................................................. 214

Figure 8.2. Animated use of the sunset method for capturing changes in LG’s approach to address health via social determinants. .................................................................................. 217

Figure 8.3. Relative effort (width) invested into stages of the MPHWP cycle (indicative). ...... 223

Figure 8.4. Assessment and evaluation steps in the PRECEDE - PROCEED model (Green and Kreuter, 2005, p. 10). ................................................................................................................ 225
Chapter 1: Introduction

In his seminal book, *Rose’s Strategy of Preventive Medicine* (Rose et al., 2008), Geoffrey Rose observed that the natural, built and social environments in which we live are significant determinants of our health and wellbeing. By addressing social determinants of health (SDH) in these environments, much ill health can be prevented (Commission on Social Determinants of Health, 2008, Marmot and Bell, 2012).

In Australia, local government (LG) or municipal councils are the level of government ‘closest to the people’ (National Commission of Audit, 2014). They make laws that reflect local needs, administer subordinate land use legislation, and provide services to their communities. Since their inception, they have also played an important role in public health. Traditionally, this has been through prosecution of their health protection obligations in areas such as environmental health, food safety, immunisation, and incident and emergency response. However, due to the understanding that health is socially determined, LG’s broader roles – including statutory and strategic planning, and the provision of social infrastructure (Casey, 2005) – are now also understood to play a vital role in determining the health and wellbeing of citizens. The growing recognition of LG’s broad remit as an agent of health brings with it increasing responsibility to act for the public good, in a way that is efficient and effective (Kluvers and Tippett, 2010). However, the effectiveness of LG in creating healthy environments is only as good as the effectiveness of the interventions they employ. Gathering, understanding and applying knowledge about public health priorities and effective interventions that address these priorities is therefore a central task for health planners in LG. With reference to current legislation, this thesis explores how LG in Victoria, Australia, uses evidence to inform its strategic planning for health and wellbeing.

1.1 Public health challenges in Australia

Since the first quarter of the 20th century, the leading cause of ill health in developed countries has no longer been infectious diseases (Murray and Lopez, 2013). In the Australian context, between 1907 and 2005, Australian deaths by infectious disease have declined markedly
(Australian Institute of Health and Welfare, 2015). Now, chronic and ‘lifestyle’ diseases such as cardiovascular disease, cancer, obesity-related disease and chronic respiratory conditions are dominant and account for as much as 90% of all deaths in Australia (Australian Institute of Health and Welfare, 2016). Ischaemic heart disease, the most common cause of death, accounted for 15% of all deaths in Australia in 2011, and at 8%, stroke was the second most common underlying cause of death. There is also a high prevalence of mental health disorders. At some time in their life, around 30% of Australians will experience a mental health disorder such as depression, anxiety or substance use (Australian Institute of Health and Welfare, 2014). While life expectancy continues to rise and there have been improvements in the trends of some of these diseases, the prevalence of others, particularly cancers, is increasing (Australian Institute of Health and Welfare, 2014).

The aetiology – the study of causes and consequences (Oxford University Press, 2013) – of preventable, non-communicable diseases is different to that of infectious diseases. However, using an aetiological approach to look ‘upstream’ (Zola, 1970) to understand and map the relative influence of social determinants (Demaio, 2012, World Health Organization, 2009, Whitzman, 2012) can help to create knowledge about how health might be improved (Khaw and Marmot, 2008, Adler and Newman, 2002). For example, it is known that chronic diseases are influenced by lifestyle factors – particularly diet and physical activity – which in turn are influenced by the design of towns and cities, and by the nature and extent of community connections (Giles-Corti et al., 2016). City planning that creates low-density, car-dependent urban forms is therefore a risk factor for non-communicable disease because it discourages physical activity and social interactions (Sallis et al., 2016). Much is known about the effects of risk factors such as these on chronic disease and, more recently, interventions in urban design have been modelled to show significant potential to improve health and wellbeing (Stevenson et al., 2016). Despite this knowledge, however, less is known about how to successfully apply interventions that not only enable but encourage people to reduce risky behaviours.

The State of Victoria, with a population of just over six million in mid-2016, is one of the most densely-populated states of Australia (Australian Bureau of Statistics, 2015). Most of this population is urban, with 4.6 million people living in the greater urban area of Melbourne (Sykes, 2015). Global concerns in health are reflected in the Victorian context: the outer metro
areas of Melbourne are sprawling and car-dependent (Buxton et al., 2016), and while many Victorian regional cities have the sprawling characteristics of the outer metropolitan areas, smaller rural areas have ageing populations and some have become isolated and subject to economic and social decline (Kiem and Austin, 2013, Verrinder and Talbot, 2015).

1.2 Victorian local government’s role in public health

The World Health Organization’s (WHO) Commission on the Social Determinants of Health (CSDH) (2008) was explicit about the importance of local government in addressing the social determinants of health, raising expectations and endorsing LG’s role (Marmot et al., 2012). This has resulted in a better understanding that through the provision of social infrastructure – the facilities, structures and services that make a community more than just a collection of people (Casey, 2005) – LG plays an important role to address a range of social determinants and thus improve health (Harris and Wills, 1997, Thomas et al., 2009, ASR Research, 2009).

There are three tiers of government under Australia’s federal system: federal (national), state or territory, and local (England, 2014). LG in Victoria comprises 79 municipal areas, often referred to as local government areas (LGAs) or councils. LG is comprised of 33 predominantly urban municipalities located in the greater Melbourne area, 39 predominantly rural shires, six regional cities and one borough (Victorian Government, 2016a, Municipal Association of Victoria, 2015a). Eleven of the 79 councils are designated as ‘interface’ councils due to the unique set of conditions attributed to their position at the expanding urban fringe (Essential Economics, 2013). Figure 1.1 shows the location of Victoria within Australia, and provides an indication of Victorian LGAs.
In 1998, The Victoria Government gave important legislative recognition to health’s social determinants via an amendment to the Health Act (1958) (AustLII, 2013). The amendment required each Victorian council to prepare a four-yearly evidence-based municipal public
health plan (MPHP). In 2004-2005, a review of the Health Act resulted in its repeal and the creation of a new Act, the Public Health and Wellbeing Act 2008 (State of Victoria, 2008) (hereafter referred to as ‘the Act’) which came into effect on 1 January, 2009 (Victorian Government, 2010b). Importantly, this new Act adopted the WHO’s (1948) definition of ‘wellbeing’ to incorporate the understanding that health is more than simply the absence of disease (Victoria, 2008). The new Act added a requirement for the State to develop a Public Health and Wellbeing Plan (s. 49), and for LG plans to be consistent with it and the priorities therein (s.26(3)). Inclusion of the term ‘wellbeing’ both in the Act and in the title of MPHPs (henceforth referred to as MPHWPs), exemplified a maturation of public health policy in light of greater understanding of the social determinants of health (SDH), particularly inequity (de Leeuw et al., 2006).

Regarding evidence, the Act specifically states that MPHWPs ‘must include an examination of data about health status and health determinants in the municipal district’ (Section 26(2)(a)), and ‘identify goals and strategies based on available evidence for creating a local community in which people can achieve maximum health and wellbeing’ (section 26(2)(b)). Section 5 of the Act (2008), ‘Principle of evidence based decision-making’ is also relevant to the development of MPHWPs. This section states that ‘decisions ... about the use of resources and the choice of interventions ... should be based on evidence available in the circumstances that is relevant and reliable’.

1.3 The importance of evidence in public health planning

Broadly defined, evidence is information that describes something about the true state of the world. It is ‘the available body of facts or information indicating whether a belief or proposition is true or valid’ (Oxford University Press, 2013). Good evidence, that which most accurately describes a statement of fact, is vital for effective decision-making. It is only by knowing the true state of the world as closely as possible that the best decisions – particularly those intended to change that state – can be made (Nutbeam, 2003). Having access to the best, most reliable evidence enables LG to accurately determine its priorities in public health, and how LG can and should intervene to improve health. In the field of medicine, research practices create varying degrees of certainty as to what ‘the truth’ might be, with the quality of
evidence often judged against the ‘hierarchy of evidence’ (Greenhalgh, 1997, National Health & Medical Research Council, 1999, National Health & Medical Research Council, 2009). The hierarchy gives high regard to randomised controlled trials and systematic reviews of those trials, less regard to cross-sectional surveys and reports of individual cases, and very little regard to other forms of input such as community consultation.

In the field of public health however ‘evidence’ is inconsistently defined (Oliver et al., 2014). This is partly because public health is in the business of changing individuals by changing systems. Therefore, in public health, the evidence required for action is broader than that required by medicine (Butland et al., 2007, Kickbusch, 2010a), meaning that forms of knowledge which sit outside the hierarchy of evidence are often used. Thus, the definition of evidence in public health can include natural experiments (Craig et al., 2012), case studies, community consultation and even political advice (National Collaborating Centre for Methods and Tools, 2012). This broader definition often yields proposed solutions to public health issues that are contradictory or contested. Nevertheless, it has been argued that whatever the form, all such evidence should be considered, provided it is appropriate for the task (Petticrew and Roberts, 2009).

In Victoria, there are guides and briefings to aid LG in the development of MPHWP (Municipal Association of Victoria, undated, Haby and Bowen, 2010, Victorian Government, 2013c, VicHealth, 2002, Victorian Government, 2009, Victorian Government, 2013b, Victorian Government, 2012a) with many of these providing links to sources of evidence. While these documents contain some guidance on how to use evidence, there is limited information available to assist LG in considering the characteristics of evidence and its suitability for different tasks within the development of an MPHWP (Brownson et al., 2009a). For LG public health and wellbeing practitioners, the challenge of identifying the best evidence to guide the development of MPHWP is manifold. First, while the Internet has vastly improved access to information, including access to some forms of evidence, much research about ‘what works’ in public health is only available via journal subscriptions which are often not held by LG (Moodie, 2009, Stoneham and Dodds, 2014, Hurley and Taylor, 2014). Second, LGs are inherently political organisations and MPHWP managers are faced with the challenge of appropriately integrating other forms of information – such as community and councillor input – into the
MPHWP development process. Under these conditions, determining the relevance and reliability of evidence can be challenging for MPHWP managers who may have expertise in only one or two areas of public health, whereas a SDH perspective requires an understanding of multiple sectors (Kickbusch, 2010b, Marmot, 2005).

Despite the support of the State Government and the Municipal Association of Victoria (MAV), a 2011 analysis of decision-making in LG by Armstrong revealed that in the opinion of some council planners, MPHWP often fail to fulfil their potential as effective strategic health planning documents. Indeed, one council officer even called their MPHWP a ‘basketcase’ due to its failure to adopt a systems approach to public health (Armstrong, 2011).

1.4 Rationale, aims and methods

The previous section showed that, consistent with the CSDH’s statements about the potential of LG to improve public health, the Victorian government has strategically positioned LG to develop MPHWP that are evidence-based and that address the SDH (Commission on Social Determinants of Health, 2008). However, as shown above, the literature suggests there are challenges inherent to both these aspects of MPHWP.

Although some important work has been done to understand the use of evidence in MPHWP (Armstrong et al., 2013, Armstrong et al., 2014b) with some associated programs to improve the use of evidence (Armstrong, 2011, Waters et al., 2011), no systematic assessment of all the evidence used in all MPHWP has yet been conducted. Similarly, in regard to understanding the extent to which MPHWP address SDH, some work has been done that assesses MPHWP for the extent to which they addressed particular health issues and their determinants (e.g. food security (Clarke, 2012)). Meanwhile, methods for systematically evaluating policy documents’ actions against a social determinants framework have been proposed (Frieden, 2010, Sacks et al., 2008, Williams et al., 2008, Petersen and Kwan, 2011). However, to date, few of these have been used, and none have been applied systematically to all Victorian LG MPHWP.
In light of the challenges inherent in performing the Act’s requirements – that LG prepare evidence-based MPHWPs that address the SDH – it is timely to assess how well LGs are fulfilling their legislated obligations. Hence, this thesis sought to fill key gaps in the literature by examining the evidence used, the barriers to and facilitators of such use, and the actions tabled in MPHWPs to examine how local government in Victoria uses evidence to inform strategic planning for health and wellbeing. To this end this thesis had three key aims:

1) to understand the evidence that is used to develop MPHWPs, and the barriers and facilitators to the use of evidence, particularly intervention evidence.

2) to understand LG’s goals and efforts in addressing public health via MPHWPs, particularly with respect to SDH.

3) to develop a set of recommendations based on the findings of the research that improve the use of evidence in MPHWPs and that assist LG in refining its role as an efficient and effective agent of public health and wellbeing.

These aims bounded the review and determined the research methods. Mixed methods, designed to elicit different sorts of information, were used. To achieve the first aim, quantitative content analysis – both inductive and deductive – was used to collect and classify all occurrences of evidence in MPHWPs. The analysis of sources of evidence was inductive. The deductive component used Lowe and colleagues’ (2015) framework of 11 ‘domains of liveability’ and a modified version of Armstrong and colleagues’ (2014a) framework of ‘types of evidence for decision-making’ to categorise evidence. Qualitative key informant interviews were used to identify barriers and facilitators of evidence use, the results of which were analysed using Oliver and colleagues’ (2014) framework of six facilitating and inhibiting factors that influence the use of evidence. These frameworks are explored in more detail in Chapter 2, ‘Literature review’.

Content analysis of MPHWPs (both qualitative and quantitative) and qualitative key informant interviews were also used to achieve the second aim. Analysis of the data collected via these methods was performed with reference to State policy frameworks (Victorian Government, 2011b), Lowe and colleagues’ (2015) framework of 11 domains of liveability shown to be well-established determinants of health and wellbeing (Badland et al., 2015b, 2014), and Dahlgren
and Whitehead’s (1991) four ‘upstream’ levels in which the determinants of health occur. Again, these frameworks are explored in further detail in Chapter 2, ‘Literature review’.

### 1.5 Significance of the research

This thesis makes methodological, empirical and theoretical contributions to the field of municipal health planning. Methodologically, it seeks to demonstrate a proof of concept for assessing health plans for the way they address social determinants in two dimensions: policy area and distance ‘upstream’. This thesis also seeks to build upon previous research to refine a method of assessing evidence using three different typologies, each capable of detecting and classifying different characteristics.

Empirically, this research contributes to a better understanding of exactly what evidence councils across Victoria are using, and how such evidence is used to address the SDH via their MPHWP. The research also aims to contribute to a better understanding of the barriers to and facilitators of evidence use, as experienced by health planners during the development of MPHWP.

Theoretically, the research builds upon intervention science literature to propose principles for improved evidence use in Victoria. These principles address several of the noted barriers to the use of evidence through an emphasis on the importance of improved ‘evidence literacy’ among MPHWP managers and other LG staff, and through better coordination of research dissemination activities for both LG and the organisations that support it. Among these principles, the improved evaluation of MPHWP and the actions proposed therein are identified as being of particular importance.

### 1.6 Structure of the thesis

After the introduction (Chapter 1), Chapter 2 reviews literature relevant to this thesis in two broad areas: the adoption of a social determinants approach to health planning, and the use of evidence in health planning and the barriers that thwart its use. Chapter 3, ‘Methods’, outlines the conceptual frameworks that have guided the research and describes in detail the
document analysis and interview methods that were used. Chapter 4 provides the results of the document analysis as they pertain to the actions of MPHWP, while Chapter 5 provides the results of the document analysis as they pertain to the evidence in MPHWP. Chapter 6 is a published paper that presents and extends these results using a novel method to present the data. Chapter 7 outlines the results of the key informant interviews. The thesis culminates in Chapter 8, which discusses the results in light of relevant literature. Chapter 9 concludes the thesis, revisiting the findings in relation to the research aims.
Chapter 2: Literature Review

2.1 Introduction

This research is informed by literature in the disciplines of public health, public policy and implementation science. This chapter reviews this literature to establish the rationale for the research. It begins with the evolution and integration into Victorian policy of the understanding that health is significantly socially determined. In Victoria, Australia, the principle mechanism by which this understanding has been incorporated into LG policy and plan decision-making processes is through State legislation, specifically the Public Health and Wellbeing Act (2008). Because the prosecution of this legislation is the focus of this thesis, conceptual frameworks pertaining to the operationalisation of sections of the legislation are reviewed. These frameworks enable analyses of governments’ responses to the SDH. They also enable examinations of how governments use evidence and other forms of input in decision-making for the development of policy and plans to be conducted.

2.2 The social determinants of health

Extensive research supports the proposition that the social ecology of places we live – e.g. ‘the natural, built, social and economic environments’ as they are described in Environments of Health (Department of Human Services, 2001, p. 18) – play an important role in determining how healthy we are (Marmot, 2005). The condition of these environments are the ‘causes of the causes’ of health, with poor conditions determining poor health (Rose et al., 2008). This concept was vividly described in Irving Zola’s river parable where a physician recounts his experience of the practice of medicine.

There I was standing by the shore of a swiftly flowing river and I hear the cry of a drowning man. So, I jump into the river, put my arms around him, pull him to shore and apply artificial respiration. Just when he begins to breathe, another cry for help, so back in the river again, reaching, pulling, applying, breathing and then another yell. Again and again, without end, goes the sequence. You know, I am so busy jumping in, pulling them
to shore, applying artificial respiration, that I have no time to see who the hell is upstream pushing them all in (Zola, 1970).

Consideration of the ecology in which health issues occur is a systems approach; it acknowledges the dynamic interrelations between personal and environmental factors (Ramage and Shipp, 2009, Bronfenbrenner, 1979). The understanding that health is significantly socially determined is encapsulated in what has become known as the ‘social determinants of health’ (SDH) model (Wilkinson and Marmot, 2003, Commission on Social Determinants of Health, 2008). This model suggests that although ‘upstream’ social determinants manifest as ‘downstream’ experiences of poor health, as is often the case for symptoms, simply treating them is unlikely to be efficient and effective. This model was aptly described by Dahlgren and Whitehead (1991), and more recently modified by Barton and Grant (2006) to reflect neighbourhood environments (Figure 2.1).

Figure 2.1. The determinants of health and wellbeing in neighbourhoods (Barton and Grant, 2006).
The New Public Health (Baum, 2016) puts the relatively recent understanding of health’s social determinants into historical context. It defines ‘the new public health’ as that which, in contrast to ‘the old’, defines health positively, includes ecological sustainability as a vital determinant of health and acknowledges the importance of equity and social justice. In a similar vein, Hanlon et al. (2011) characterize public health as consisting of four waves since the 1830s. Each wave coincided with a stage in improved understanding of public health issues. The first wave is associated with the classic public health sanitation interventions that were developed in response to the unintended negative consequences of the industrial revolution. The second wave was the emergence of medicine as science. The third wave involved the emergence of the welfare state. The fourth wave was characterised by a range of efforts to combat disease risk, including behaviour change interventions. In proposing future directions, Hanlon et al. (2011) suggest the emergence of a fifth wave which takes a systems approach to tackling the fundamental causes of ill health and health inequities. While the term ‘social determinants’ is not mentioned, the fifth wave draws clear parallels with a need, as recognised by other researchers (Wilkinson and Marmot, 2003, Marmot, 2005, Rose et al., 2008, Commission on Social Determinants of Health, 2008) to address health via its determinants. Each successive wave has built upon, but also shifted the focus of effort from the previous wave. Because they are responsive to contemporary issues, each wave first results in a peak and then a ‘trough of public health activity’ (p. 30), with no wave continuing to have the same impact in perpetuity as when it first emerged (Hanlon et al., 2011).

The SDH model considers the broader social factors that influence people’s behaviour, and thus health. It stands in contrast to what has been termed ‘public health behaviourism’ (Watt, 2007, Basu, 2004). This is the individualistic approach of patient-centred medicine and the focus on health education and behaviour change as a means of preventing illness (Bacigalupe et al., 2010, Guttman and Salmon, 2004) which was a feature of the fourth wave of public health (Hanlon et al., 2011). The SDH model implies for example, that the obesity epidemic is not caused simply by the increased consumption of food. It acknowledges that food consumption is influenced by a complex web of biological and social interactions that include the availability and marketing of food, access to physical infrastructure, activity levels, psychology, the media (Vandenbroeck et al., 2007) and economics (Friel and Denniss, 2013). Indeed, the WHO suggests that ultimately, it is the distribution of power at all levels of society that determines health (World Health Organization, 2013). There is extensive evidence to
support the SDH model, not the least of which is the observed social gradient in health status which shows that at the population level, health strongly correlates with social status (Marmot, 2005, Marmot and Wilkinson, 2006, Marmot et al., 1991, Poulton et al., 2002, Wilkinson and Marmot, 2003).

Use of the word ‘determinants’ denotes causality and suggests that because the conditions under which we live determine our health, these conditions can – and should – be improved so that health can be improved. The SDH model implies that natural, built and social conditions are determined by government policies; and therefore policy – and politics – has a role to play in improving health and wellbeing. Indeed Marmot and other proponents (Pickett and Wilkinson, 2010, Commission on Social Determinants of Health, 2008, Friel and Denniss, 2013, Birn, 2009) maintain that ill health is not inevitable, but that policy as the root cause is failing to create the conditions for good health (Chan, 2008). Marmot and Bell (2012) assert that the investment in health ought to be via ‘the tax and benefit system’ (p. 57) and should be delivered according to the principal of proportionate universalism, that is, available to all, but with a scale and intensity according to need (Marmot and Bell, 2012) so that they don’t unintentionally further entrench inequalities (Lorenc et al., 2013). Marmot’s (2005) claim ‘that ‘because the major determinants of health are social, so must be the remedies’ (p. 1103), is representative of many proponents of the SDH model. It suggests that the prevention of poor health, as well as inequities in health is not just the domain and responsibility of health planners; rather, government at all levels and across all disciplines and sectors has a role to play (Lee, 2013, Bauman and Banta, 1977, Costanza et al., 2007).

A number of important international conferences have been held in an attempt to tackle social determinants. The First International Conference on Health Promotion was particularly important. It built upon the Alma-Ata Declaration – the first international declaration to emphasise the importance of primary health care (World Health Organization, 1978) – and in turn paved the way for the Ottawa Charter for Health Promotion (World Health Organization, 1986). Significantly, the Ottawa Charter recognised the benefits and challenges of investing in public health by addressing underlying determinants and was an attempt by the WHO to help its member states set goals for action. Signatories pledged to tackle health inequities by intentionally working more politically to address public health policy. In 2005, in response to the growing field of evidence, the Director-General of the WHO established the Commission on
Social Determinants of Health (CSDH). Its task was to ‘collect, collate, and synthesize global evidence on the social determinants of health and their impact on health inequity’ (Commission on Social Determinants of Health, 2008). It made 56 recommendations addressing three broad goals: ‘Improve daily living conditions’, ‘Tackle the inequitable distribution of power, money and resources’ and ‘Measure and understand the problem and assess the impact of action’.

The CSDH’s advocacy for intervention to address the social determinants of health is based on the pragmatic view that alleviating the social determinants of poor health, while requiring social investment, is cost-effective. It prevents diseases by tackling their root causes, thus reducing both the economic, and social burdens of disease. This is supported by research on the social gradient of health and wellbeing, which shows a decreasing marginal health benefit for those whose income is in the upper range. Wealth redistribution to improve health and wellbeing results in less of an impost on the health of those taxed the most as compared to the benefit gained by those most disadvantaged (Mackenbach et al., 2005, Easterlin, 1974, Rodgers, 1979, Bradshaw et al., 2013).

The Health in All Polices (HiAP) approach is exemplary of the understanding that health is significantly socially determined through diverse policy areas. This approach arose out of an understanding of the SDH, recognition of the necessity of intersectoral action on health (first conceptualised through the phrase ‘healthy public policy’ (Kickbusch et al., 2008)), and pre-existing approaches to assessment of the impact of major projects (i.e. Health Impact Assessment) (Collins and Koplan, 2009, Ståhl et al., 2006). The WHO defines HiAP as,

an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity. It improves accountability of policymakers for health impacts at all levels of policy-making. It includes an emphasis on the consequences of public policies on health systems, determinants of health and well-being (World Health Organization, 2014).

There has been a good deal of international activity under the catchphrase of HiAP, with at least eight jurisdictions adopting a version of the approach (Health in All Policies Task Force,
HiAP has also gained traction in strategic health planning, even to the local government level (Rudolph et al., 2013a, Whittlesea City Council, 2013, State of Victoria, 2008, Department of Human Services, 2001). Finland, (St-Pierre, 2008, Kickbusch, 2010a, Puska and Stähl, 2010, Melkas, 2013), California (Health in All Policies Task Force, 2010, Rudolph et al., 2013b, Strategic Growth Council, undated) and British Columbia (Greaves and Bialystok, 2011, Geneau et al., 2010) are notable for their development, application and documentation of the approach, while its application in South Australia has been particularly comprehensive (SA Health, 2012b, Lawless et al., 2012, Kickbusch et al., 2014, SA Health, 2011).

While HiAP seems a promising approach and some useful lessons have been learned from its implementation (Delany et al., 2016), evaluation of its effect on public health has, to date, been limited, partly because it is quite new and suitable evaluation methodologies are not yet well-formed (Baum et al., 2014, Greaves and Bialystok, 2011, Bauman et al., 2014). Further, HiAP’s ambition to address social determinants is a necessarily complex task, making effective evaluation and attributable improvement in population health difficult to determine. Nevertheless, the compelling, hortatory ‘call to action’ of HiAP, as well as its strategic approach for intersectoral action to address health via its manifold determinants, is commendable. Further, HiAP, through its use of certain principles and tools (i.e. the health lens analysis (SA Health, 2012a, Delany et al., 2016)), may provide a useful model for addressing other societal challenges, with particular potential identified for addressing the intersectoral determinants of environmental degradation (Browne and Rutherfurd, 2017) (see Appendix F).

### 2.3 The role of Victorian LG in health and wellbeing

As described in Chapter 1, each Victorian LGA is required under Section 26 of the Public Health and Wellbeing Act (2008) to develop a four-yearly evidence-based Municipal Public Health and Wellbeing Plan (MPHWP). This came about due to increasing understanding that health is significantly socially determined and that LG, due to its position in society as a provider of social services and infrastructure that significantly determine health, has an important role to play (Harris and Wills, 1997, Thomas et al., 2009, ASR Research, 2009). The purpose of Section 26 of the Act is to consolidate an awareness of LG’s potential to improve health, particularly by
addressing social determinants. The purpose of MPHWPs themselves is to encourage LGs to understand and address, as far as possible, the health challenges that their communities experience. Operationally, a MPHWP typically documents the public health challenges of the LGA and outlines the council’s four-year plan of actions to improve health and wellbeing via the delivery of services, programs and policy that facilitate health.

The Act requires MPHWPs to be consistent with the council’s municipal strategic statement, and either consistent or integrated with the Council Plan (sections 26(2)(e)(i) and (ii) and section 27), a requirement which recognises that much of councils’ decision-making can have an impact on health. Victoria does not adopt an approach as explicit as the HiAP approach (Lawless et al., 2012, Delany et al., 2016, Kickbusch et al., 2014, World Health Organization, 2014) which arguably represents the next level in the inter-sectoral incorporation of SDH. Nevertheless, the requirement for councils’ MPHWPs to be consistent with their other strategic planning documents acknowledges that in order to be successful, health and wellbeing planning must be coordinated across a council’s urban planning, environmental, transport and social policies (Municipal Association of Victoria, 2013). The coordination of health and wellbeing planning in close proximity to the Council Plan sends a clear message that health is a primary purpose of local government.

In addition to the requirement to align MPHWPs with council’s strategic and land use plans, there are four subsections of the Act that are of particular interest to this thesis. As a governing framework, these subsections set an expected minimum standard for MPHWPs. They are:

- **Section 26(2)(a),** which states that MPHWPs ‘must include an examination of data about health status and health determinants in the municipal district’;

- **Section 26(2)(b),** which requires MPHWPs to ‘identify goals and strategies based on available evidence for creating a local community in which people can achieve maximum health and wellbeing’;
• Section 26(2)(c), which requires MPHWP to ‘provide for the involvement of people in the local community in the development, implementation and evaluation of the public health and wellbeing plan’; and

• Section 26(3), which states that ‘in preparing MPHWP, a Council must have regard to the State Public Health and Wellbeing Plan prepared under section 49’.

The requirement to use evidence (Sections 26(2)(a) and (b)) is further reinforced by Section 5. It states that decisions as to ‘the most effective use of resources to promote and protect public health and wellbeing’ and ‘the most effective and efficient public health and wellbeing interventions’ ... ‘should be based on evidence available in the circumstances that is relevant and reliable’ (State of Victoria, 2008).

Victorian legislation is the expression of the constitutional authority of Parliament (Gleeson, 2008). Like much legislation, rather than being prescriptive, the Public Health and Wellbeing Act is outcomes-based and has its desired effect by bestowing broad discretions upon LG (Arjoon, 2006). These require the health and wellbeing planners charged with prosecuting the Act to make informed judgments of conduct, circumstances and consequences. Although the Act states that councils must prepare a MPHWP and that the MPHWP must meet certain standards, neither information about what adequately meeting these standards looks like, nor how to go about this is provided in the Act itself. As Steyn (2003) noted, ‘The apparent meaning of statutory language is the starting point, but not the end of interpretation’ (p. 166). As is often the case with legislation, the Act can be interpreted in more than one way, so its full intent must be inferred with help from additional sources.

The extent to which LG takes on the responsibility to tackle the social determinants of health can potentially represent a significant broadening of LG’s remit. The legislation brings with it the challenge of delivering on what Dollery et al. (2006) term a ‘maximalist’ role for LG. This term refers to the expectation that councils move beyond simply providing services to property (i.e. ‘roads, rates and rubbish’) and towards a broader remit that takes the form of services to people that are intended to improve public health (Allender et al., 2009). Simultaneously with the broadening remit, LG is also expected to be more accountable. For example, Van Der Knaap (2006) recognised that the focus of public policy evaluation has
shifted from inputs to outputs and, subsequently, from outputs to outcomes or ‘population results’ (Friedman, 2005). While these moves are encouraging, they are also challenging. Successfully understanding and integrating the myriad of tasks that LG may undertake to understand SDH and to develop an effective MPHWP is complex.

In recognition of the challenge that local governments face in developing evidence-based MPHWPs that effectively address SDH, the Municipal Association of Victoria (MAV), VicHealth (The Victorian Health Promotion Foundation, a statutory authority) and The Victorian State Department of Health and Human Services (DHHS) each provide resources to LG in the form of briefings and guides on the development of MPHWPs (Municipal Association of Victoria, undated, VicHealth, 2015b, VicHealth, 2012, 2013c, VicHealth, 2002, Victorian Government, 2009, 2013b, Victorian Government, 2012a). Section 26 of the Act does not define specific policy areas for LG’s public health planning. However, much of the supporting documentation described above is underpinned by Environments for Health (EfH), the state government’s framework for municipal public health planning (Department of Human Services, 2001). When published, Environments for Health was – and still is – important for firstly defining and secondly encouraging action in the total ecology in which residents live, ‘the social, economic, natural and built environment’. Environments for Health also re-iterated the importance of integrating MPHWPs with other council plans, reinforcing the concept that all departments of a council have a role to play. Importantly, EfH also incorporated an understanding of wellbeing into health planning (de Leeuw et al., 2006, G21, 2013), and is likely to have influenced the wording of the Act (Victorian Government, 2008).

### 2.4 Assessing LG’s role in SDH

The literature documents a range of frameworks that might be used to assess policy and plans for the way they address social determinants, but few of these have been used in practice (Exworthy, 2008, World Health Organization, 2010). For example, Lowe et al. (2013) conducted a review of international academic and policy-oriented literature on liveability indicators. A key focus was to identify and evaluate the indicators that have been used at a community scale to assess determinants of liveability. The researchers found that indicators fell into 11 broad domains of liveability shown to be well-established determinants of health and wellbeing –
'Crime and safety', ‘Education’, ‘Employment and income’, ‘Food and other local goods’, ‘Health and social services’, ‘Housing’, ‘Leisure and culture’, ‘Natural environment’, ‘Public open space’, ‘Social cohesion and local democracy’ and ‘Transport’ (Lowe et al., 2015, Badland et al., 2014). These liveability domains are now the subject of a program of research that will both develop their policy-relevant indicators and examine their associations with health and wellbeing (Giles-Corti et al., 2014, Badland et al., 2015a). The framework has not yet been used to assess Victorian LGs’ health and wellbeing plans. However, doing so would complement other work underway to provide to an indication of how councils are organising their efforts according to an important social determinants dimension, specifically, policy areas.

In 2014, a group of Dutch researchers examined how LG addresses the SDH. Using content analysis to map interventions from the Dutch District Approach for severely deprived areas, Droomers et al. (2014) categorised actions using a framework of six health-determining policy areas – ‘Employment and income’, ‘Education’, ‘Housing’, ‘Physical neighborhood environment’, ‘Social neighborhood environment’ and ‘Social safety’, each with between two and five sub-areas. The researchers found that districts tailored their programs to address locally-specific social determinants, and although at that time the program had not been evaluated, it was expected to result in positive future health impacts.

In similar work, but more locally, Phillips et al. (2016) used a priori coding based on a framework of 10 health-determining domains developed by Fisher et al (2015) to assess the extent to which health departments across Australia addressed the social determinants of child/youth health equity. Notably, these researchers found that while the policies addressed a wide range of health issues, the actions themselves tended to focus on the provision of or access to health services, to the neglect of broader policy domains. Importantly, the authors also found that there was a tendency for actions to take the form of downstream medical or behavioural interventions, a feature of the fourth wave of public health (Hanlon et al., 2011).

The Phillips et al. (2016) study broached the idea that policy intended to improve health and wellbeing can be analysed not only for the way that actions address the policy domains that determine health, but also against an additional social determinants dimension, specifically for how far upstream they are targeted (Barton and Grant, 2006, Dahlgren and Whitehead, 1991, Zola, 1970). This opportunity has also been recognised by a number of other researchers who
have proposed frameworks for evaluating policy actions based on whether they are targeted upstream, downstream or somewhere midstream (Frieden, 2010, Sacks et al., 2008, Williams et al., 2008, Petersen and Kwan, 2011). These researchers are informed by evidence from a range of fields from dentistry to obesity prevention (i.e. the WHO’s *Global Strategy on Diet, Physical Activity and Health* (World Health Organization, 2004)) and they vary in their descriptions of the number of stream levels (between three and five) to which actions might be targeted. These proposed frameworks are often populated with hypothetical actions that illustrate how they would be used, and authors often propose their use for systematically analysing policy for how it addresses SDH. However, there are few studies that have assessed policy for the way that it targets health according to these criteria.

One study that does is Gore and Kothari’s (2012) analysis of British Columbian and Ontarian (Canada) provincial policy documents. The authors categorised 121 provincial health-promoting initiatives according to whether they were downstream and lifestyle-based, that is, acting by way of behaviour change, mid-stream environment-base, that is, acting through improvements to living and working environments such as community spaces, schools and workplaces or upstream and structure-based, attempting to correct health inequities via education and advocacy on SDH. Initiatives were also categorised according to the extent to which they were developed towards implementation: ‘direct programs’ were ready to be implemented; ‘blueprints’ presented a plan that needed operationalization and ‘building blocks’ provided guidelines for the development of direct programs by other agencies. Because initiatives are rarely equivalent in terms of investment and other forms of commitment, this categorisation would be useful for also assessing such characteristics. Importantly however, the study showed that the greatest proportion of initiatives was lifestyle-based (downstream), rather than environment-based (midstream). Structural change (upstream) initiatives were the least common, indicating that overall, more effort was being directed towards downstream actions (Gore and Kothari, 2012). This framework made it possible to show how the totality of effort of the two Canadian provincial governments’ was being directed. Notably, the direction of effort was counter to that advocated by an understanding of the social determinants of health (Wilkinson and Marmot, 2003, Marmot and Bell, 2012, Commission on Social Determinants of Health, 2008). Nevertheless, the method developed by Gore and Kothari (2012) provides a proof of concept of a way of analysing actions according to how far upstream they are targeted, which could also be applied to Victorian MPHWPs.
2.5 Evidence in decision-making

As stated in Sections 1.2 and 2.3 above, three sections of the Act explicitly mention the importance of evidence and data in the development of MPHWPs. These sections of the Act are a major focus of this research and so an exploration of the idea of ‘evidence’ is warranted.

Evidence is a central concept in epistemology. It is broadly understood to describe information about the true state of the world and is often presented in support of an assertion (Kim, 1988). Beyond this however, the term ‘evidence’ is not consistently defined in the literature, and this is because judgements about whether information does indeed support an assertion can be contested (Arthurson et al., 2016). For example, some definitions of evidence are based closely on positivism as it is operationalized through particular disciplines, especially medicine. In these definitions, for information to qualify as evidence it must have been created through the use of empirical and scientific methods. In medicine, the term ‘evidence-based medicine’ (EBM) was coined in the 1970s with the rising interest in empirical demonstrations of the effectiveness of interventions (Braveman et al., 2011). It was operationalized through principles described by Archie Cochrane (1972) and further developed by Sackett et al. (1996, p. 71) to be the process of ‘. . . integrating individual clinical expertise with the best available external clinical evidence from systematic research’.

This definition of evidence has filtered across from medicine to public policy to give rise to the phrase ‘evidence-based decision-making’ (EBDM). Clarence (2002) notes that explicitly linking the terms ‘evidence’ and ‘policy’ within EBDM raises the question of whether evidence has not always been important to policy. Nevertheless, this historically recent interest in the value of scientific and social scientific research in policy- and plan-making has been attributed to the performance management-based, ‘What works is what matters’ election slogan of the British Labour government in 1997 (Clarence, 2002, Parsons, 2002).

According to one definition, EBDM in public health is ‘the process of integrating science-based interventions with community preferences to improve the health of populations’ (Kohatsu et al., 2004). Other definitions of EBDM fall back to being more positivist – that is, they suggest that only evidence which can be scientifically verified should be used in decision-making (Guba and Lincoln, 1994). Consistent with this, Jewell and Bero (2008, p. 179) define EBDM during the
development of policy and planning as that which ‘uses the best available evidence and excludes spurious information, all in the context of other political and institutional features’. This definition of EBDM is particularly applicable to intervention evidence, that which provides support for actions intended to improve health. Nevertheless, the principles that this definition embodies can also be applied to descriptive evidence, that which simply describes health or its determinants (described in Section 2.5.1).

In contrast to positivist definitions of evidence, other definitions do not set such a high standard and are more amenable to non-scientifically derived forms of information, such as political and public opinion (Berger and Luckmann, 1967, Guba and Lincoln, 1994). For example, both Armstrong (2011) and the Canadian National Collaborating Centre for Methods and Tools (National Collaborating Centre for Methods and Tools, 2012) suggest that information gathered via community consultation is indeed evidence, albeit ‘colloquial’ evidence as Lomas et al. (2005) call it. While colloquial evidence such as community input can be important for legitimising the knowledge, opinions and politics of the community (Scott, 2012), it is not created through scientific processes, and so using it as a basis for decision-making would be counter to positivist definitions of EBDM. Nevertheless, in regard to MPHWP, there is also a legislated requirement for community involvement (s. 26(2)(c)) (State of Victoria, 2008), although this requirement is described separately from sections in the legislation that require that MPHWP to be evidence-based.

Despite increased interest in rational and evidence-based policy, Innes (1990) stated that very little can be said with confidence about the influence of evidence on policy. Similarly, Bell and Morse (2011) state that evidence-based rationality itself does not exist. An extreme cynic, Lassnigg (2012), has gone so far as to call evidence-based policy a ‘mission impossible’ (p. 179), due to the limited, often legitimising way that evidence is used (Lorenc et al., 2014). There are two broad reasons for this. Firstly, the quality, availability and applicability of evidence varies considerably, and often information that might constitute ‘the best evidence’ is either not available to decision-makers or, perhaps more importantly, is not available in a form that is useful (Hurley and Taylor, 2014, Pilkington et al., 2016).

Secondly, even when reliable evidence is available, other forms of information – colloquial evidence such as political and community input (Lomas et al., 2005) – can exert their effect on
the decision-making process and divert policy from being truly evidence-based. Indeed, Churchman (1979) called politics, morality, religion and aesthetics ‘the enemies’ of rational decision-making. Since then, there has been much research on the factors at play that facilitate or prevent policy decisions from being evidence-based in the strictest sense of the word (McCaughey and Bruning, 2010, Petticrew et al., 2004, Stanhope and Dunn, 2011, Ward et al., 2012, Waters et al., 2011). These are examined in Section 2.7.

2.5.1 Evidence typologies

Evidence, as conceptualised by both the positivist (Jewell and Bero, 2008) and constructivist definitions (Armstrong, 2011, Lomas et al., 2005, National Collaborating Centre for Methods and Tools, 2012) can take a range of forms. Evidence can therefore be characterised using typologies, that is, systems of classification according to characteristics (Petticrew and Roberts, 2003). Using typologies can facilitate communication about evidence between professionals and help them use evidence appropriately, while the choice of typology depends on the characteristics of the evidence that need to be communicated. Depending on the information of interest, evidence might be categorised according to its source, its topic or the role it plays in the policy. A review of the documents provided to LG to assist it in developing MPHWP shows that there is some guidance on how to use evidence. However, consistent with the literature, there is limited typological information that guides LG in how to consider the characteristics of evidence (Brownson et al., 2009b, Newman et al., 2012). Specifically regarding the role of evidence, only Haby and Bowen (2010) explicitly distinguish between descriptive evidence – typically describing the population or environment – and intervention evidence – typically describing actions – as both playing important but quite different roles in policy development.

Regarding source for example, in preparing for new public health legislation in Western Australia Stoneham and Dodds (2014) surveyed LG officers from five LGAs to identify the sources of evidence accessed during the development of public health plans. The most frequently used sources were ‘soft’ (i.e. grey literature, professional reflections and community input) as opposed to ‘hard’ (i.e. peer reviewed literature). The authors stated that the predominance of soft sources raised concerns about the effectiveness of actions that were subsequently implemented based on the evidence.
Alternatively, characterising evidence by the issue or topic it describes can help policy-makers understand how well health plans cover issues of significance, as well as identify any potential research gaps. It also sheds light on the issues that policymakers have ‘on their radar’ as being important for health and wellbeing, and can reveal the extent to which LG is adopting a social determinants approach to health. The studies that have presented analyses of evidence in health policies and plans, unlike analyses of health media (Manganello and Blake, 2010, Wang and Gantz, 2007), are usually topic-specific, and so do not analyse the evidence used by its topic. Because the Public Health and Wellbeing Act (2008) addresses any and all public health issues, it would be helpful to know which health topics or determinants receive more attention in MPHWP.

Finally, and in addition to the classifications described above, evidence can be characterised by the role it plays in plans (Petticrew and Roberts, 2003). Under this typology, evidence might be broadly descriptive – descriptive evidence – or it could provide information that demonstrates what works to change a trend in public health – intervention evidence (Armstrong et al., 2014a). In a simplified, linear model of the socially determined aetiology or ‘causal chain’ (Petticrew et al., 2004, p. 813) of public health issues (Green, 2006, Craig et al., 2008), descriptive evidence can be thought of as that which illustrates phenomena, while intervention evidence can be thought of as that which is used to build the links between phenomena that determine health (Figure 2.2). Each of these types of evidence is discussed in more detail below.
2.6 Descriptive evidence in health planning

Descriptive evidence typically describes or characterises populations using quantitative methods (Rydin et al., 2003). This type of evidence is often used in planning (including MPHWP) for setting the scene by describing regional or local epidemiology and trends in behavioural epidemiology or demographics. Descriptive evidence about phenomena is also used in planning because of known or assumed relationships between populations and health determinants (Figure 2.2). Thus, in addition to epidemiology and demographics, descriptive evidence can quantify social determinants of health (Badland et al., 2014, Murphy et al., 2016). It might for example, quantify changes in employment or education rates, transport accessibility or the amount of open space in a given area. A 2014 examination of evidence in MPHWP Armstrong et al. (2014b) found a ‘strong preference’ (p. 14) for descriptive evidence over intervention evidence. This may be partly because descriptive evidence is relatively easier to create and obtain than intervention evidence (discussed below). Descriptive evidence is often gathered via surveys and ‘simply’ quantifies phenomena. It does not describe what is
effective to change phenomena – evidence that can only be obtained from intervention studies and their evaluation.

Much descriptive evidence, including at the LG level, is in the form of indicators. An indicator is a ‘measure or a set of measures that describes a complex social, economic or physical reality’ (Lowe et al., 2013 p. 44). Indicators are ‘signs or signals that relay a complex message, from potentially numerous sources, in a simple and useful manner’ (Kurtz et al., 2001, p. 49). In environment and public health planning, an indicator typically quantifies a fundamental issue of concern in a simplified way, tracks its change over time, and is used to inform decision-making (Scott, 2012). Indicators are often used in health planning to prioritise issues, evaluate the success of policy and, less appropriately, decide how to intervene to improve health (Innes, 1990, Scott, 2012).

Sirgy (2011) defines ‘community’ indicator programs as suites of indicators that are developed using a bottom-up approach (Magee et al., 2013, Dluhy and Swartz, 2006). That is, they are developed by policy-makers, but with large-scale public involvement, for use by citizens of a local area (Meck and Thompson, 1998), for example, a town or municipality (Holden, 2009, Smith et al., 2008, Njuki et al., 2008, Sirgy, 2011). The movement to develop and use community indicators of health, wellbeing and other phenomena important to communities is now significant, suggesting that policymakers consider them to be important (Community Indicators Consortium, 2017).

2.6.1 The ambition of community indicators

Community indicator programs are a form of descriptive evidence with a distinct ambition. Typically, an indicator is an artefact of a community’s values (Berger and Luckmann, 1967). However, in addition to the instrumental purpose of informing decision-making, community indicators also attempt to influence a community’s values. They were developed in response to dissatisfaction with economic and financial metrics such as the gross domestic product (Michalos, 2011, Hendrickson, 2010, Holden, 2006, Michaelson et al., 2009). A number of theories and political movements have criticised the validity of these traditional economic indicators of human progress. Principally among these are feminist (Waring, 1999, Waring, 2012), environmental (Smith et al., 2013, Costanza et al., 1997, Lawn and Clarke, 2010) and
health equity critiques (Pickett and Wilkinson, 2010, Kubiszewski et al., 2013, Jackson, 2008). In its way, each critique claims that a focus on economic indicators is an invalid way of measuring human progress. The critiques state that up to a point, economic development is important for quality of life, but there are a number of characteristics of social progress that indicators such as GDP do not measure (Sirgy, 2011).

Community indicator programs attempt to influence the direction of society through intentional choices about what is measured and what is not. By creating, tracking and publicising the results of indicators that are consisted with their worldview (Cobb, 2000, Cobb and Rixford, 1998), community indicator programs aim to make the performance of phenomena important to their community the object of scrutiny and, by extension, governable (Foucault, 1991, Meadows, 1993, Rydin, 2007). Community indicator programs are therefore clearly normative (Rydin, 2007, Meadows, 1993). As Davern, Gunn and colleagues (2016, p. 4) state, they are ‘a way of keeping issues of societal importance on the public and political agenda’.

The extent of community indicators’ influence therefore relies to a great extent on the veracity of Joseph Stiglitz’s maxim, ‘what we measure affects what we do’ (Stiglitz et al., 2009), a distortion of ‘you cannot manage what you do not measure’, attributed to management consultant Peter Drucker (Kaplan and Norton, 1996) (Figure 2.3). Stiglitz’s maxim however suggests that not only can indicators be used to influence societies’ values, they should be used to do so.

Figure 2.3: Management theory has influenced the expectations of community indicators.

Community Indicators Victoria (CIV) is a program that was based at the McCaughey VicHealth Community Wellbeing Unit at the University of Melbourne. It was developed in consultation with state and local government to align with State of Environment reporting and Growing Victoria Together, the then-strategic plan for the State of Victoria (Victorian Government, 2001, Wiseman et al., 2006). It is clear from Measuring Wellbeing; Engaging Communities (Wiseman et al., 2006) that the development of CIV was influenced by the movements that sought to create more valid measures of progress (Wiseman et al., 2006). Consistent with the definition and history of community indicator programs designed to both measure change and influence policy (Holden, 2009, Van Der Knaap, 2006), CIV states that community indicators are,

... a democratic resource for engaging citizens and communities in informed discussions about shared goals and priorities, a policy resource guiding evidence-based planning and action to address the issues identified as important by communities, and a reporting resource tracking and communicating progress towards agreed goals and outcomes (emphases added) (Community Indicators Victoria, 2015).

CIV provides a geographically-based online data repository of indicators for each of the 79 LGAs in Victoria with the aim of supporting ‘equitable, healthy, engaged and well-planned communities’ (Community Indicators Victoria, 2015). The relative advantage that CIV has in promoting the values embodied by its framework is that it is a ‘one-stop shop’ that makes existing knowledge from a range of primary data sources easy to access and understand for non-professionals (Community Indicators Victoria, 2015). CIV also makes significant amounts of data readily available to the public, thus fulfilling one of the requirements that Holden (2009) stated as important if alternative, more valid measures of progress are to gain profile and acceptance within the community.

The potential of MPHWPs as a medium through which CIV could be used to build stronger, more sustainable and healthier communities was identified early in the development of CIV (Wiseman et al., 2006, Community Indicators Victoria, 2013b). Cox et al. (2010) and, more recently, Davern and colleagues (2016) have reported in-principal and anecdotal support for CIV from partners, LG (including the MAV) and community members. Of particular value has been CIV’s ability to engage citizens, particularly disadvantaged groups, in the process of
municipal strategic planning (Cox et al., 2010). CIV was also rated ninth in the top 15 data sources for describing community wellbeing by the Victorian State Government (Pope, 2011). However, beyond this and a few other examples that demonstrates CIV’s use by specific municipalities (City of Ballarat, 2009, Davern et al., 2011), the full extent of its instrumental use in MPHWP is not known. From the review of literature on indicator programs, and indeed evidence generally (as discussed in Section 2.7.1), it is hypothesised that while CIV has a high degree of instrumental use in MPHWP, particularly those of low-income LGs, the significance of its role in defining community progress according to its social determinants worldview would be challenging to determine.

2.6.2 The limitations of descriptive evidence

Despite the ambitions of community indicators, several researchers describe their tenuous and inconsistent use in policy-making (Moreno-Pires and Fidélis, 2012, Holden, 2006, Maclaren, 2001, Gahin et al., 2003). Holden (2013) has stated that the instrumental use of community indicators in policy is rare. Others, such as Innes and Booher (2000), state that ‘millions of dollars and much time of many talented people has been wasted on preparing national, state and local indicator reports that remain on the shelf gathering dust’ (2000, p. 174). These authors state that this is likely due to community indicator programs’ relying on a simplistic, even naïve model of how information drives policy. They indicate that while there is truth in Stiglitz’s maxim, that ‘what you measure affects what you do’ (Stiglitz et al., 2009), measuring is not sufficient to fulfil community indicators’ ambitions of changing what is done.

Descriptive evidence – such as community indicators – is certainly important for providing information to health planning processes, but when used alone, it is insufficient for effectively intervening to improve health (Davern et al., 2016). This is because indicators are an abstracted and reduced representation of reality (Gasparatos et al., 2008, Meadows, 2016), that describe phenomenon in a way that is often dissociated from their causes and consequences (Moreno-Pires and Fidélis, 2012, Rychetnik et al., 2002). If indicators are to contribute meaningfully to analysis and policy, they often need to be complemented with other forms of evidence that scrutinize the causes of the trends, and how such trends may be affected (Cobb and Rixford, 1998). This is recognised by CIV. Using an iceberg analogy, CIV is
described as including indicators of what is happening, but not why trends are occurring or how they might be changed (Davern et al., 2016) (Figure 2.4).

![Diagram of iceberg analogy](image)

Figure 2.4. The iceberg analogy: In isolation, an indicator is limited as a decision-making tool (Davern et al., 2016).

### 2.7 The importance of intervention evidence

In addition to indicators, the development of plans that are effective in creating healthy and sustainable communities requires population health intervention research (PHIR), that is, scientifically-derived interventions, operating either within or outside the health sector, that have the potential to affect the distribution of health risk factors or determinants (Hawe and Potvin, 2009). Rather than simply relying on evidence that describes phenomena, PHIR requires a system-level understanding of the aetiology (i.e. the investigation and attribution of causality (e.g. Bauman (2005)) of public health issues (Potvin et al., 2014). Understanding causality is an essential first step in understanding why a trend is occurring. It facilitates the generation of first ideas, and then evidence, as to how the trend can be changed (Petticrew et al., 2004). This facilitates the creation of PHIR, which as Potvin et al. (2014, p. 114) state, should be ‘cumulative and transferable’.
The term ‘social determinants of health’ emphasises the social-ecological aetiology of health and wellbeing, and implies that solutions must address the full range of levels described by Barton and Grant (2006) (Eldredge et al., 2016). In Victoria, VicHealth recognises that causality is implied by an SDH framework in its poster, *Fair Foundations: The VicHealth framework for health equity* (2015a). This poster contained a version of the SDH framework first proposed by Dahlgren and Whitehead (1991). In VicHealth’s version, the SDH and the approach for tackling them were described as ‘The layers of influence and entry points for action’, phrasing which re-iterates the aetiological nature – the causes of the causes – of population health and wellbeing. While *Fair Foundations* did not suggest specific interventions, it emphasised that if plans intended to address SDH are to be effective they should use evidence to identify opportunities to build the links in the socially determined aetiology of health and wellbeing (see Figure 2.2).

There are several ways that descriptive evidence can be augmented to provide information that is capable of developing such plans. One method is to factor additional dimensions into descriptive evidence (Smeets and Weterings, 2003). An example of such an indicator is the Preston Curve, the relationship between life expectancy and the per capita income of nations. Consistent with an understanding that health is socially determined, the Preston Curve indicates that, on average, individuals born in richer countries live longer than those born in poorer countries (Bloom and Canning, 2007). In the iceberg figure (Figure 2.4) this indicator would sit in the middle level because it operationalizes a relationship between two factors. Innes (1990) states that, with regard to decision-making, even when the factors are demonstrably related in some way, additional evidence about what has been shown to work to influence trends is needed. Such indicators suggest how an undesirable trend might be addressed, but because of unknown factors, the interventions devised from them alone are refutable.

In comparison to this, at the next level down in the iceberg analogy, evidence might be action-specific, that is, it might describe interventions that have been evaluated and shown to be effective. This is intervention evidence (Armstrong et al., 2014a). An important distinction between it and descriptive evidence is that intervention evidence is causal and documents the way that activities or interventions affect outcomes. Intervention evidence is created through the use of scientific methods that are capable of excluding alternative explanations for the
change, and thus can be more challenging to create than descriptive evidence (Bauman, 2005, Howick et al., 2009). In health planning, intervention evidence might be used to provide a rationale for undertaking actions intended to build the links between determinants of health and health outcomes (Figure 2.2).

As noted in the introduction, in the medical sciences, knowledge about effective interventions comes from a range of studies, the quality of which is often judged against the ‘hierarchy of evidence’ (Figure 2.5). The criteria underpinning the hierarchy were first suggested by Campbell and Stanley (1963) and have since been built upon by Greenhalgh (1997) and the National Health & Medical Research Council (1999). The hierarchy is now often used to comprehensively assess evidence about interventions (National Health & Medical Research Council, 2009). From the best to the least well-regarded, the methods are: multiple studies which can include policy studies (Petticrew, 2009) collated via systematic reviews that demonstrate consistent findings and that consider magnitude and direction of associations (Victora et al., 2004); to single randomised controlled trials (RCTs); to longitudinal studies capable of linking causes to consequences (Oakes, 2004). The hierarchy places lower value on cross-sectional surveys and reports of individual cases. Informal, anecdotal or colloquial evidence (Lomas et al., 2005), such as that which is gathered from community consultation, is excluded from the hierarchy.
Natural experiments of policy or practice interventions provide a further source of evidence that can be used to develop interventions (Giles-Corti et al., 2013, Petticrew et al., 2005, Craig et al., 2012). They occur when groups of individuals are exposed to a policy or practice intervention which, in a designed study, might be considered experimental or control conditions. Randomisation is rare in natural experiments and so they are more susceptible to confounding. Further, as with all experiments, care must still be taken when drawing inferences of causality. Nevertheless, the ‘natural’ phenomena occurring in natural experiments can be more severe and timely than designed experiment would allow, and so they can provide policy- and practice-relevant evidence of where and how to intervene (Bronfenbrenner, 1979, Petticrew et al., 2005).

2.7.1 Using intervention evidence in health planning

Foucault (1991) argues that scientifically-derived, positivist forms of evidence remain one of the most widely accepted legitimising discourses. However, just as providing descriptive evidence about trends will not ensure the creation of effective health and wellbeing plans,
neither will simply creating intervention evidence and trusting in diffusion necessarily lead to its use and to subsequent beneficial impacts on health. In fact, there are a number of reasons why evidence may not be used appropriately in the policy development process (National Health & Medical Research Council, 2016). One of these is that LG may not have access to such evidence. Intervention research is often published in academic journals which are only available via subscriptions not held by local government (Hurley and Taylor, 2014, Moodie, 2009, Stoneham and Dodds, 2014). In other cases, intervention evidence might be made available, but describe an intervention which is inappropriate for direct transference into local policy and plans. As Nutley et al. (2003) describe, even when information about ‘what works’ is of good-quality, i.e. is relevant and reliable, its direct replication into a community context can be impractical. If such intervention evidence is to penetrate into LG plan-making in a meaningful way, it must often be intentionally translated into a form that is able to be used by health planners and health program managers (Glasgow, 2013, National Health & Medical Research Council, 2016). Research translation is a term used to describe the appropriate interpretation and use of evidence for use in policy and planning (National Health & Medical Research Council, 2016). The field uses a number of theories to understand and develop more effective forms of research translation including, ‘knowledge and change management, institutional and organisational learning, the diffusion of innovations, social psychology and research utilisation’ (Cherney and Head, 2011, p. 471).

Best et al. (2003b), for example, in their experience of research and practice in the way in which community health promotion is planned and implemented, found that several different models were used to describe how evidence move into practice. They also found inconsistency in the use of models. These model types ranged from social ecology, linear approaches, life-course modelling and community partnering. In acknowledging the benefits of each of these models, the authors proposed model integration via systems theory.

In addition to the extent to which research is translated, there are also other factors that affect its use. Discussions of both the barriers to, and facilitators of evidence use within the field of implementation science reinforce the fact that evidence (whether descriptive or intervention) is only one influence on plans and programs, particularly at the LG level (Reddel and Woolcock, 2004). Despite the rise in interest of evidence-based policy, now, more than ever, a combination of evidence, opinion and politics determine the form of programs of
interventions. Indeed, Fisher and Forester (1993, p. 22) state that the role of politics and public opinion in policy development has increased since the 1960s such that now, public policy development has taken an ‘argumentative turn’, becoming more discursive and contested. In many cases policy will be developed with reference to, rather than as a direct result of evidence. The challenges inherent in effective use of intervention evidence are exemplified by the fact that Weiss (1979) described six models by which research becomes utilised in decision-making: the knowledge-driven model, the problem-solving model, the interactive model, the political model, the tactical model and the enlightenment model. Of these, only the knowledge-driven model assumes that the sheer fact that knowledge exists means that it will be used in policy. In contrast, the enlightenment model proposes that it is the findings of neither single nor even related studies that inform action. Rather, planners use concepts and principles that have percolated through from the literature via professional networks to inform plans. Where this model predominates, planners will rarely ‘be able to cite the findings of a specific study that influenced their decisions’ (Weiss, 1979, p. 430). Additionally the interactive model suggests that when evidence does permeate into decision-making, it interacts with and is influenced by other forms of evidence and information (Weiss, 1979).

A number of studies have looked at the barriers to and facilitators of evidence use in the development of plans and programs for public health. For example, from interviews with 28 state policymakers across the United States, Jewell and Bero (2008) categorised hindrances to the effective use of intervention evidence as originating from institutional features, characteristics of the evidence – such as quantity, quality, accessibility and useability – and competing sources of influence – such as interest groups and pragmatic factors such as budgets. The factors that facilitated use of intervention evidence were characterised as training in its use, collaboration between researchers and policymakers, the linkage of research to concrete policy outcomes and framing policy issues to match the research. Similarly, in a systematic review of studies that examined the political and institutional aspects affecting the use of intervention evidence, Liverani et al. (2013) found that,

the concentration of power and political centralisation, levels of democratisation, institutional mechanisms and processes, turnover of staff in government bodies, the influence of donors and external organisations, the pressure of wider policy strategies
and political cultures, as well as the alignment of evidence with predominant values or existing political agendas . . . (p. 6)

each played a role in shaping how intervention evidence was used in health policy.

Following a review of studies on policy-makers’ own perceptions (itself a scaling up of the Innvær et al. (2002) systematic review), Oliver et al. (2014) identified barriers to and facilitators of intervention evidence use under six broad categories. The categories were; organizational factors, the characteristics of researchers and the research provided to policymakers, the characteristics of policymakers, the characteristics of the policy itself, contact and collaboration between those who create evidence and those in policy development who use it, and other factors. Despite the fact that these categories were developed principally from analyses of the use of intervention evidence, their application to analyses of the use of descriptive evidence is also possible.

‘Contact and collaboration’ refers to the range of factors that affect an organisation as an agent of health and wellbeing within a network of partnerships. It includes issues such as collaboration with partners that enables, for example, council’s ability to make good use of timing and to recognise opportunity. In regard to LG, it also includes the quality of relationships with policymakers and researchers within council as well as between academia and LG. It also refers to the extent to which trust and mutual respect encourage these as well as more informal and unplanned relationships (Oliver et al., 2014).

In regard to ‘organizational and resource factors’, Oliver et al. (2014) found that the availability and access to (as well as the cost of) research, processes, the extent to which managers supported evidence use, membership in professional organisations, the material and staffing resources available, managerial will and support for evidence use, and staff turnover can all affect the use of evidence. The characteristics of ‘research provided to policymakers’ that can affect the use of evidence are its clarity, accessibility, reliability, format and relevance or importance to council priorities. Factors that might affect the use specifically of intervention evidence also include perceived compatibility, competitive advantage and whether the intervention can be trialled (Oliver et al., 2014). As the category name ‘characteristics of policymakers’ suggests, policymakers themselves can influence the extent to which evidence –
particularly intervention evidence – is used to develop effective health plans. These characteristics include policymaker research skills in, and awareness of, evidence and its use, but also the influence of personal experiences, judgments and values on evidence use (Oliver et al., 2014).

Finally, ‘policy characteristics’ refers to the nature of the policy or plan itself. This includes the extent to which it is required and supported by government, including whether it is legislated or voluntarily initiated. Similarly, the extent to which guidelines, templates or frameworks are provided to the policy development process can also influence evidence use. Policy characteristics also include the broader policy conditions that influence evidence use (Oliver et al., 2014). As Armstrong (2011) found, in LG, this environment includes the influences that competing pressures – including from the residents, councillors and the media – have on the development of health plans.

Other literature suggests that facilitating policy characteristics is critical for the translation of research into health planning, as strong relationships between the creators and users of evidence have the capacity to enhance the other factors that Oliver et al. (2014) describe. For example, Pratt et al. (2016, p. 1) give examples of the successful use of intervention evidence enabled through ‘complex multidirectional interactions’ between creators and users. They suggest that effective use of intervention evidence only occurs through careful brokerage of relationships between health planners and researchers. They, like Armstrong et al. (2013) recognise that successful knowledge development and use in health planning is contingent on effective partnership between researchers and planners (Petitcrew et al., 2004, Best et al., 2003a).

Strydom et al. (2010) found that for evidence to be used effectively in the development of policy, both scientists and policy-makers must have a better understanding of the complexities of the others’ methods, a point re-iterated by Hyder et al. (2011). It is likely that where such understanding is lacking, bias, misinterpretation or even disregard for evidence can occur such that it never enters into decision-making and, from there, the health planning process. Supporting this, McCaughey and Bruning (2010) used a cognitive information processing framework to show that when health planners do not have a good understanding of the scientific method, the way they process information is vulnerable to subjectivity, implying that
they can be subtly influenced by non-rational factors. Howlett and Newman (2010) found that this is particularly the case for low- and middle-income countries, where political factors (as well as a lack of technical capacity) can hinder the development of evidence-based planning. With a particular emphasis on active living research, Giles-Corti et al. (2015) propose 10 strategies for facilitating the use of research in health-enhancing policy and planning. Many of these focus on building stronger relationships between researchers and decision-makers, so that each can understand and respond to the other’s needs and limitations, a point that is also emphasised by Armstrong et al. (2006b). Giles-Corti et al. (2015) also emphasise the importance of evaluation – including economic evaluation – of not only controlled experiments, but also of the natural experiments that often characterise the implementation stage of plans.

2.8 Evidence use in Victorian MPHWPs – recent research

As shown above, the lack of systematic and appropriate translation, plus the other barriers that hinder effective evidence use, can make it difficult for policy makers and planners at the LG level who may not have the necessary experience or resources, to find and implement the best evidence-based interventions (Wheeler et al., 2011). Recent work by Lawless et al. (2016) in the Australian states of South Australia (SA) and New South Wales (NSW) has shown that while LG staff have a good understanding of the value of addressing SDH, more investment in the provision of both practical information about interventions that have been shown to be effective as well tools capable of evaluating interventions at the LG level are needed. This, as well as the following recent research projects on Victorian LGs’ use of evidence in decision-making, provide background to and support the rationale for the current research.

In acknowledging the challenges that LG faces in using evidence appropriately, the Knowledge Translation for Local Government (KT4LG) project sought to understand and improve the way that LG in Victoria uses intervention evidence, with a particular focus on the prevention of childhood obesity (Waters et al., 2011, Armstrong et al., 2013). In the scoping phase of this project, Armstrong (2011) and Pettman et al. (2013) showed that the internet is an important source of freely-available information for LG. Their research also showed that while Commonwealth and State government websites play a role in providing evidence, reports by
non-government and not-for-profit agencies and service providers, such as external consultants, all attempt to exert influence. Blogs that interpret current issues from a particular political perspective were also influential. Armstrong states that because of the wide range of sources, the onus is placed on councils to find and judge the quality of information available (Armstrong, 2011). Armstrong also found that while the internet has vastly increased access to information, determining the relevance and reliability of evidence can be challenging for LG health practitioners who might have expertise in only one or two areas of public health, while a social determinants approach requires multi-sector evidence (Kickbusch, 2010b, Armstrong et al., 2013, Marmot, 2005, Armstrong et al., 2006b).

Specifically regarding the type of evidence that is used to inform obesity actions in MPHWP, Armstrong (2011) found that it was difficult to ascertain the degree to which intervention evidence was used to support decision-making. One interviewee raised the importance of linking evidence via flow-charts in what could be considered an illustration of aetiology (see Figure 2.2), ‘to assist to railroad the decision-maker I suppose by clearly showing that there is only one logical way to address the problem’ Armstrong (2011, p. 182). However, this was a unique example, suggesting that within the cohort there was a low level of evidence literacy (i.e. the ability to obtain, critically evaluate, and appropriately use evidence to make health planning decisions). Armstrong (2011) also found that in some cases, the influence of forms of internal council input, such as community consultation, could lead to actions that did not clearly play a role in building the links in the aetiology of health and wellbeing. The scoping phase also identified other system-level contextual factors that affected decisions, such as an organisation’s capacity to plan, implement and evaluate effective initiatives (Pettman et al., 2013). These influences exemplify the discursive nature of modern public policy development (Parkins, 2006) and the findings are consistent with later research (i.e. Oliver et al. (2014)) that describes factors such as organisational confidence, culture and partnerships as being significant for influencing the extent to which evidence is used.

After gathering information about barriers to effective use of evidence (Waters et al., 2011), a major part of the KT4LG program was an intervention intended to improve the use of evidence in LG. This involved the delivery of a facilitated program of evidence awareness, access, skills development and networking to staff in 14 councils between 2009 and 2011. Continuing this work, the project used surveys and interviews to assess three factors thought to impact on the
use of evidence. These were access, confidence and organizational culture (Armstrong et al., 2014b). The authors found that colloquial evidence, particularly community opinions, appeared to be used more than formal evidence. The authors found that in general, while sources of evidence external to the council, which tended to be more positivist, were useful for decision-making, internal evidence, which included community opinions was influential.

As a result of interviews conducted as part of KT4LG, Pettman and colleagues (2013) made three recommendations intended to lift the culture and practice of evidence use in Victorian LG health planning. While the first of these is ‘subsidise access to academic literature databases’, the others are more consistent with the research described above that emphasises the role of intermediary agencies as knowledge translators and brokers. Specifically, Pettman and colleagues (2013) emphasised the benefits of building a culture of evidence use through partnerships and mentoring with academia and other research institutions. Continuing on from this work, Allender et al. (2011) and Pettman et al. (2016) described the implementation and proposed evaluation of a national knowledge translation platform intended to broker links between the creators and users of community-based obesity prevention interventions (CO‐OPS). This platform was designed to facilitate the use of translated evidence by both pushing – making it available to LG – and pulling – responding to the need for professional development in evidence use through the creation of partnerships between the creators and users of evidence. The future evaluation of CO‐OPS will be useful for determining the effectiveness of the knowledge translation techniques that were adopted.

In the context of the requirements of the Act, and the significant interest in assessing and developing LG’s use of intervention evidence, it is timely to systematically assess all MPHWPs for the evidence therein. Assessing both the facilitators and barriers that prevent the effective use of evidence as identified by managers responsible for developing MPHWPs can also assist in assessments of recent knowledge translation interventions. As the research above indicates, it is not currently known what sources or types of evidence councils use to identify ‘entry points’ or interventions intended to improve health and wellbeing (see Figure 2.2). However, MPHWPs may be less efficient and effective than the Act would intend if, as Armstrong (2011, 2014b), Pettman (2013) and others describe, descriptive evidence predominates, or if intervention evidence is used, but is predominantly colloquial (i.e. community input).
2.9 Summary

Building on the rationale that was outlined in Chapter 1, this chapter reviewed the literature that forms the background for this research. The understanding that health is socially determined and the way that this has permeated public health at the level of LG was described. In Victoria this takes the form of legislated evidence-based MPHWPs that address SDH. Although there is some guidance and support for the development of MPHWPs, the literature indicates that the challenges of developing effective, evidence driven health plans can be significant. In Victoria, there has been no systematic analysis of all MPHWPs for the way that they use evidence to address SDG. With reference to recent work intended to improve the use of evidence in Victorian MPHWPs it is timely to review councils’ progress in the prosecution of their legislated obligations.

The literature review then described a number of methods for assessing health plans for the way they address SDH. These included methods for assessing actions for the way that they address the domains of public policy that determine health, as well as for how far upstream they are targeted. Next, the literature review described how evidence is conceptualised in public health, and showed that it is possible to adapt existing methods to analyse how evidence is being used to develop MPHWPs. Typologies capable of detecting different information inherent to evidence were reviewed, and this led to a focus on the distinction between descriptive and intervention evidence. Next, frameworks for identifying barriers to and facilitators of the use of intervention evidence were reviewed. The chapter concluded with a review of recent work that both assesses the extent to which intervention evidence about obesity prevention has been successfully translated into LG practice, and attempts to improve the way that this evidence is used. The next chapter outlines the research questions that have emerged from the rationale and aims that were established in Chapter 1 and the review of literature that was presented in Chapter 2, as well as the methods that were used to answer them.
Chapter 3: Methods

3.1 Introduction

This chapter outlines and provides rationales for the methods that were used to analyse the development of Victorian Municipal Public Health and Wellbeing Plans (MPHWPs). It begins by describing the aims and research questions that arose from the literature review. Next, it covers how particular conceptual frameworks informed the research, and the approach taken in the policy analysis and interviews. The specific methods employed for document analysis and key informant interviews are then outlined, including the approaches to data collection and analysis.

3.2 Aims and research question

The central aim of this research was to assess LGs’ prosecution of their obligations under Section 26 of the Public Health and Wellbeing Act (State of Victoria, 2008) to determine how LG in Victoria uses evidence to inform strategic planning for health and wellbeing. Within this were three key aims:

1) to understand the types of evidence that are used to develop MPHWPs and the barriers and facilitators to the use of evidence, particularly intervention evidence;
2) to understand LG’s goals and efforts to address public health via MPHWPs, including with respect to social determinants; and
3) to develop a set of recommendations based on the findings of the research that improve the use of evidence in MPHWPs, and that assist LG in refining its role as an efficient and effective agent of public health and wellbeing.

In order to develop methods capable of achieving the aims, four specific research questions were posed:

Question 1) What evidence is used in MPHWPs?

Question 2) What actions are tabled in MPHWPs?
Question 3) How does LG move from evidence to actions?

Question 4) What recommendations can be made to state and local government that will facilitate more efficient and effective municipal health and wellbeing planning?

### 3.3 Conceptual frameworks

The research was guided by conceptual frameworks pertaining to the two broad areas of the research; the use of evidence in MPHWP development, and local government’s determination of its responsibility and capacity to act in health planning according a social determinants of health framework.

The principle conceptual framework that was used is grounded in the social-ecological model of health. It is the idea that health and wellbeing are, to a significant extent, socially determined (Commission on Social Determinants of Health, 2008, Rose et al., 2008, Wilkinson and Marmot, 2003). This understanding has led to assertions that because the major determinants of health are social, so must be the remedies (Marmot, 2005). In turn, this assertion brings with it the implication that health inequity and the prevention of poor health is not just the domain and responsibility of health professionals. Rather, all policy areas have a role to play. This understanding has seen increasing prominence in health planning in Victoria, and is incorporated into the Public Health and Wellbeing Act (State of Victoria, 2008), the prosecution of which is the principle focus of this research.

The second conceptual framework is drawn from implementation science. As shown in the literature review, evidence can be characterised using typologies (Armstrong et al., 2014a, Petticrew and Roberts, 2003). Put simply, typologies are communication tools that are used to classify and communicate items according to their inherent characteristics. Although there is always a risk of inappropriate compartmentalisation, when used on evidence, typologies have the potential to identify conceptually-distinct characteristics. This can both aid in understanding the evidence that is used and help professionals to use the evidence more appropriately. The typological information that was deemed to be of value for answering the research questions posed in this thesis pertained to the source, the topic and the type of
evidence. No further deductive typology is needed for ‘source’, as the source of evidence – provided it is cited – is explicit making compartmentalisation unnecessary. The typology that was used for ‘topic’ was based on literature that was underpinned by the SDH model. The typology that was used for type was based on conceptual frameworks from the field of implementation science, specifically, those that draw a distinction between descriptive and intervention evidence (Davern et al., 2016, Petticrew and Roberts, 2003, Rydin et al., 2003). These are described in more detail in Section 3.7.3.

Additionally, conceptual frameworks that assist with recognition and differentiation of the barriers to the use of intervention evidence in policy were used. These build on the idea that intervention evidence does not inform policy in a rational and linear manner, but rather it permeates into policy through indirect means (Estabrooks et al., 2006, Stoneham and Dodds, 2014, Weiss, 1979). Furthermore, other forms of input, such as community, input can have an influence on the form of MPHWP.s This is particularly the case in Victoria, where community input into MPHWP.s is a legislated requirement under the Act. Models of research utilisation suggest that less formal and undocumented forms of input also influence the role that intervention evidence plays in policy development. In this context, Oliver et al. (2014) described five themes that are useful for describing the barriers to and facilitators of evidence, particularly intervention evidence use. These are: contact and collaboration which is the characteristics of the relationships between those who develop policy; organisational factors; the characteristics of the research provided to policy; the characteristics of policymakers; and the characteristics of the policy itself. Analysis of the interview results was performed with explicit reference to these.

### 3.4 Study design

In order to appropriately frame and answer the research questions, two distinct research studies were undertaken to ‘triangulate’ the MPHWP policy development process against existing literature (Denzin, 2012); a systematic analysis of the content of all 79 MPHWP.s and supporting documents (where available) and interviews with a selection of LG managers responsible for the development of the 2013 - 2017 MPHWP.s. Table 3.1 shows the timing and duration of the data collection phases of the studies.
Table 3.1. Timing and duration of the two principle data collection phases

<table>
<thead>
<tr>
<th>Method</th>
<th>Pilot test</th>
<th>Start</th>
<th>End</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPHWP document analysis</td>
<td></td>
<td>December 2013</td>
<td>January 2014</td>
<td>February 2015</td>
</tr>
<tr>
<td>Interviews with LG health and wellbeing managers</td>
<td>March 2015</td>
<td>March 2015</td>
<td>June 2015</td>
<td>4 months</td>
</tr>
</tbody>
</table>

3.5 Document analysis

3.5.1 A brief review of document analysis methodologies

Document analysis is one of several methods of discourse analysis that has been used to evaluate municipal policy documents (Kermode, 2001). It is ‘a research method that uses a set of procedures to make valid inferences from text’ (Weber, 1990, p. 9) by systematically identifying particular content within media (Holsti, 1969). Document analysis provides a summary of particular details encoded within a message, and is limited in neither the medium that can be assessed nor the types of variables that can be measured (Neuendorf, 2002, Weber, 1990). There are two broad forms of content analysis: quantitative and qualitative. Quantitative content analysis involves detecting the presence of particular manifest concepts in the text within documents, recording them, counting them and performing analyses on the number of occurrences in categories (Ryan and Bernard, 2000). Complementarily, qualitative content analysis involves collecting data from documents into themes to ‘examine meanings and patterns’ that may be either ‘manifest or latent’ (Zhang and Wildemuth, 2009, p. 318).

One of the limitations of quantitative content analysis is that it can be reductionist. That is, by simply counting manifest concepts in text, some of the higher-level semantic nuance in documents may be overlooked (Zhang and Wildemuth, 2009). Quantitative content analysis was felt to be valuable for establishing LG’s determination of its responsibility and capacity to act in public health. However, it was felt that due to the risk that simply counting evidence and actions of different types (described in Section 3.7) (Ryan and Bernard, 2000), would overlook
some important qualitative information, the ability to answer the research questions would be enhanced with the inclusion of a targeted qualitative analysis of MPHWPs. Therefore, in addition to the quantitative components of the content analysis, a limited qualitative analysis of MPHWPs was also undertaken.

3.5.2 Identifying and obtaining the documents

The documents to be analysed were council’s 2013-2017 Municipal Public Health and Wellbeing Plans (MPHWPs). Initially these were collected from council websites. For the 13 councils that had integrated the MPHWP with the council plan, this required collecting the Council Plan. If an MPHWP was not available from the website, the council was contacted and asked to provide it. In addition to the core MPHWP, many councils prepared a ‘community profile’ or a similar demographic profiling document. Where these were available and clearly relied upon to develop the core MPHWP, they were included in the analysis.

3.6 Qualitative document analysis

The qualitative component of the MPHWP analysis sought to identify and analyse strategic statements that described LG’s determination of its responsibility and capacity to act in public health. It sought to identify whether LG considered there to be disparity between responsibility and capacity, and if so, how councils were responding. Responsibility and capacity were defined respectively as what LG should and did do to improve public health and wellbeing.

In order to identify data that was relevant for this part of the analysis, MPHWPs were scanned for strategic statements about the LG’s responsibility and capacity. After an initial scan of four MPHWPs, such statements were found to occur in the early parts of MPHWPs, including the executive summary, mayor’s statement and introductions. They were also found in sections that set out each LG’s priorities in public health. Once verified that it would be feasible and useful to collect such statements, each MPHWP and supporting document was read, and each relevant statement was collected using NVivo 10/11. Once this was done for all documents, statements were collected and analysed.
Analysis of the statements was done in two stages. In the first stage, statements about capacity and responsibility were grouped into theme-specific categories (‘nodes’ in NVivo 10/11) generated using grounded theory, the systematic generation of themes from the data itself (Glaser, 1992). The themes that emerged included ‘partnerships’, ‘council’s limitations’, ‘first wave’, ‘fourth wave’, ‘fifth wave’ (referring to Hanlon and colleagues’ (2011) waves of public health), ‘capacity’ and ‘responsibility’. Once this was completed for all MPHWP, the content of all categories was reviewed and re-coding or ‘coding-on’ (when further analysis of data in a theme results in it being coded into an additional theme (QSR International, 2012)) was performed to ensure that all data were collected into the most appropriate theme/s.

In the second stage of analysis, the data collected under themes was qualified using sub-categories, for example, positive statements on capacity were grouped separately from negative ones, within the theme ‘capacity’. Data that appeared contradictory were also identified and recorded via coding-on. Finally the results of the qualitative analysis were written up by describing the main themes that were identified and by augmenting these with examples of text from the documents. The results of the qualitative analysis are described in Section 5.5 of Chapter 5, ‘Local government as an agent of health and wellbeing’.

### 3.7 Quantitative content analysis

A brief review of the literature on quantitative content analysis methods was completed to aid the development of the methods for the current study. The review showed that content analysis of LG documents has been used for a range of purposes. These include evaluating school plans for their moral and political values (Taylor et al., 2000), transport plans for evidence of public consultation (Bickerstaff and Walker, 2001) and strategic plans for their focus on sustainable development (Mazzara et al., 2010). In regard to the use of evidence in LG planning, Warner (2002) used a web search to complete a content analysis of US city governments’ council documents to evaluate their translation of a concern for environmental justice into measurable indicators. These studies provided insight into methods and protocols used in content analysis and helped inform the current research methodology.
Figure 3.1 shows a flow chart detailing the stages of quantitative content analysis, adapted from Neuendorf (2002) and Stemler (2001), that was used for this research. The way these stages are applied in this research is expanded upon in the following sections.

![Flow Chart]

Figure 3.1. The process of content analysis (Neuendorf, 2002, Stemler, 2001).

### 3.7.1 Developing rationale, objectives and hypotheses

The rationale for the quantitative component of the document analysis was that assessing specific content of the MPHWPs would be a valid way of establishing how evidence was used, what sort of actions were tabled and, through these, what LG determines its responsibility in public health to be.

The hypotheses for the quantitative content analysis were:

1) that evidence is used inconsistently by LGs in Victoria for the development of MPHWPs;

2) that councils lack access to evidence that adequately describes the aetiology of population health problems (i.e., why?) and workable solutions (i.e., how?);

3) that the actions of MPHWPs are predominantly targeted towards the middle two levels of Dahlgren and Whitehead’s (1991) description of the ‘aetiological distance’ at which social determinants ‘threaten, promote or protect health’ (p. 11);
4) that the actions of MPHWWPs address all areas of civic society identified by Lowe and colleagues’ (Lowe et al., 2013, 2015), but that for some groups of councils, certain policy areas attract more attention; and

5) that CIV is a significant evidence source for MPHWWPs, and is used more by councils with lower incomes.

3.7.2 Developing variables from concepts and defining categories

Documents were scanned for the way that evidence and actions were documented. Evidence was found to occur throughout most documents. In contrast, scanning the documents for actions showed that they were typically grouped in sections under priority areas, and were only found in MPHWWPs, not supporting profile documents. Once it was determined that it would be feasible to analyse the documents for the evidence that was used and the actions that were tabled, six questions were developed to ‘interrogate’ the documents. Three of these analysed evidence and three analysed actions.

As stated above, the purpose of the quantitative component was to collect and categorise all the evidence used, and all the actions tabled in MPHWWPs as well as their supporting documents. For the purposes of the quantitative component content analyses, evidence was defined as ‘any study, report, case study, data or indicator that is cited in the MPHWWPs (or the documents that support a MPHWP) and is used to inform the plan’ (Oxford University Press, 2013, Nutbeam, 2003). Regarding evidence, the study sought to identify each occurrence of evidence, and to determine:

1) the sources of evidence and other information that were used;
2) the topics of the evidence (Lowe et al., 2013, 2015); and
3) the extent to which types of evidence (descriptive or intervention) were used (Armstrong et al., 2014a).

Actions, as the second major focus of the content analysis, were defined as ‘a statement that was explicitly designated as an action or a statement of intent to do something intended to
achieve a particular aim’. Regarding actions, the study sought to identify all actions and for each, to determine:

4) how actions addressed the 14 priority areas of the State Health Plan (Victorian Government, 2011b);
5) how far ‘upstream’ in an SDH framework actions were targeted (Barton and Grant, 2006, Dahlgren and Whitehead, 1991, VicHealth, 2015a); and
6) the SDH ‘policy area’ to which actions were targeted (Lowe et al., 2013, 2015).

Gathering the data required coding the evidence, and other sources of information cited as well as the actions in MPHWPs against categories using the Nvivo 10/11 software packages (QSR International, 2017). The analysis was quantitative, so in all cases, single, complete sentences were coded. This helped ensure consistency when tallying data points in each category and comparing results between the categories. If whole sentences contained data that fit multiple categories, it was coded multiple times accordingly. In the case of graphs and tables, only the title was coded.

For Question 1, inductive coding was used, that is, the list of codes was derived from the content. The list of codes grew as coding progressed, and was finalised at 289 codes (see Appendix A). In contrast, coding for Questions 2 through 6 was predominantly deductive (Kermode, 2001) because the codes were based on either government documentation or pre-existing theoretical frameworks (See Section 3.7.3 below).

In order to collect the data for Questions 1, 2 and 3, documents were read, and the content was scanned for occurrences of evidence. When an occurrence was identified, the entire sentence containing the occurrence was coded by its source using NVivo 10/11. In effect, this process collected each occurrence of evidence as a data point and created a list of all occurrences of evidence for further analysis. Once a full list of all occurrences of evidence was collected for Question 1 for each document, that list was used to complete Questions 2 & 3. This technique is referred to as ‘coding on’ (QSR International, 2012) and is quite efficient as it precluded the need to return to the source documents (the MPHWPs) and sift through them again to collect data for answering Questions 2 and 3. A similar approach was used for
Questions 4, 5 and 6; all actions (complete sentences or statements) were collected as data points by coding them against Question 4, and once this was completed, the resulting list was used to ‘code on’ to collect data for Questions 5 and 6.

3.7.3 Creating the codebooks and instructions

This section describes how and why the information revealed via the coding process was necessary for answering the research question. It also describes in detail the categories that were used and how the coding occurred.

3.7.3.1 Question 1: What sources of evidence are used?

An assessment of the data sources used by councils enabled inferences about which ones councils find to be the most convenient, relevant or trustworthy to be made.

It was found that MPHWPs often cited the same source of evidence but at different levels of specificity. For example, the Index of Relative Socioeconomic Disadvantage (IRSD) is an indicator from the Socio-Economic Indexes for Areas (SEIFA) (Australian Bureau of Statistics, 2013b), which in turn is made available by the Australian Bureau of Statistics. Three different councils, each using the IRSD, can nevertheless cite it differently by referencing each of these as ‘the source’. NVivo 10/11 allowed the use of sub-codes, and so where this occurred, these were used to enable specificity when coding. NVivo 10/11 also enabled sub-codes to be aggregated up into parent-codes. Hence, each occurrence of evidence was coded as specifically as possible, and the results of coding could be aggregated as required.

3.7.3.2 Question 2: What is the topic of the evidence?

Categorizing the evidence cited in MPHWPs by topic area enabled an understanding of the range of issues that are considered by council to be important for health and wellbeing. Semi-inductive categorisation (i.e. categories derived from the data themselves) was used. First, the category, ‘Domains of public policy’ was used to capture occurrences of evidence that described civic society’s role in health. This was further categorised, using deductive coding, into the 11 domains of liveability established by Lowe and colleagues to be determinants of health and wellbeing. They were: ‘Crime and safety’, ‘Education’, ‘Employment and income’,
‘Food and other local goods’, ‘Health and social services’, ‘Housing’, ‘Leisure and culture’, ‘Natural environment’, ‘Public open space’, ‘Social cohesion and local democracy’ and ‘Transport’ (Lowe et al., 2015, Badland et al., 2014). The categories ‘Resource efficiency’ and ‘Land use & urban design’ were added because evidence on these issues was used in MPHWPs but did not fit into Lowe and colleagues’ categories. The rationales for these two additional inclusions are that resource efficiency is important for population health for two broad reasons. Firstly, the by-products and effects of inefficient resource use – whether energy, water or materials – can be harmful to health. Secondly, the inefficient use of natural resources contributes to their depletion. The ongoing provision of ecosystem services (including water, energy and materials) to humanity is a fundamental aspect of sustainability (Costanza et al., 1997), including standards of health (Millenium Ecosystem Assessment, 2005), and so inefficient use of resources can also be considered a threat to population health. ‘Land use and urban design’ is also a powerful determinant of health. The way that buildings, neighbourhoods and precincts are designed can have significant effects on issues such as health behaviours (e.g. walking versus sedentary behaviours), exposure to pollutants and ultra-violet radiation (Barton, 2009, Barton and Tsourou, 2000).

Evidence that did not describe a domain of public policy was inductively coded. This resulted in the following four additional categories: ‘General and non-specific evidence’, ‘Demographics’ (i.e. ‘who people are’), ‘Health outcomes’ (i.e. ‘what people have’) and ‘Health behaviours’ (i.e. ‘what people do’). If an occurrence of evidence described more than one topic, it was coded across into multiple categories.

Where possible, evidence that described ‘Health outcomes’ and ‘Health behaviours’ was further categorised using inductive coding. ‘Health outcome’ evidence was typically used in MPHWPs to provide councils with a snapshot of the health status of citizens, and identifies health issues of concern. Similarly, ‘Health behaviours’ can mediate social determinants to contribute or detract from health. The prevalence of health behaviours is important for LG to understand so that it can identify issues of concern and potentially influence such behaviours. Therefore, categorising such occurrences of evidence by sub topic makes it possible to infer which issues councils deem to be important in their community. For ‘Health outcomes’, the step of further inductively coding the evidence resulted in 17 sub-categories. For ‘Health behaviours’, further inductive coding resulted 13 sub-categories. These, as well as the
deductive codes used to categories evidence that described domains of public policy, are shown in Table 3.2.

Table 3.2. Codebook 2: Sub-categories used in Question 2

<table>
<thead>
<tr>
<th>Health outcomes</th>
<th>Health behaviours</th>
<th>Domains of public policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental health</td>
<td>Nutrition</td>
<td>Public open space</td>
</tr>
<tr>
<td>Special needs (disability)</td>
<td>Alcohol and drug use</td>
<td>Crime and safety</td>
</tr>
<tr>
<td>Overweight and obesity</td>
<td>Physical activity</td>
<td>Employment and income</td>
</tr>
<tr>
<td>Drug-related</td>
<td>Smoking</td>
<td>Health and social services</td>
</tr>
<tr>
<td>Self-reported health</td>
<td>Health advice</td>
<td>Housing</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Gambling</td>
<td>Education</td>
</tr>
<tr>
<td>Development</td>
<td>Sedentary behaviour</td>
<td>Transport</td>
</tr>
<tr>
<td>Cancer</td>
<td>Immunisation</td>
<td>Food and local goods</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>Visit to green space</td>
<td>Natural environment</td>
</tr>
<tr>
<td>Oral health</td>
<td>Sun protection</td>
<td>Leisure, culture and recreation</td>
</tr>
<tr>
<td>Respiratory disease (including asthma)</td>
<td>Sexual and reproductive health</td>
<td>Social cohesion and democracy</td>
</tr>
<tr>
<td>Infectious disease</td>
<td>Health insurance</td>
<td>Resource efficiency</td>
</tr>
<tr>
<td>Injury</td>
<td>Oral hygiene</td>
<td>Land use and urban design</td>
</tr>
<tr>
<td>Sexual health</td>
<td>Undefined</td>
<td>Other</td>
</tr>
<tr>
<td>Dementia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kidney disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undefined</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.7.3.3  Question 3: What type of evidence is used?

In this question, ‘type’ is based on conceptual frameworks that characterise evidence by the function that it plays in the document. Under this framework, all evidence can be thought of as sitting in a continuum, from describing a general health-related situation (descriptive evidence), to providing strong support for a particular intervention (intervention evidence) (Armstrong et al., 2014a, Petticrew and Roberts, 2003). Determining the type of evidence is useful for judging the veracity and merit of MPHWP content that is based upon it, such as contextual information, assertions and actions. For example, statements about the health
priorities of the municipality will ideally be supported with thorough epidemiological or perhaps health behaviour evidence, that is descriptive evidence. Likewise, proposed actions to improve public health will ideally be justified with published evidence that similar interventions, based on similar populations, have been shown through comprehensive evaluation to be effective, that is, intervention evidence. Therefore, to characterise evidence by type, an adapted version of Armstrong, Pettman and Water’s (2014a) typology was applied, and the categories used to code every occurrence of evidence. These are shown in Table 3.3.

Table 3.3. Codebook 3: Categories used for Question 3.

<table>
<thead>
<tr>
<th></th>
<th>Evidence of a general, regional or global situation</th>
<th>Descriptive evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Evidence of the municipal / local situation</td>
<td>Descriptive evidence</td>
</tr>
<tr>
<td>3</td>
<td>Evidence for possible solutions</td>
<td>Intervention evidence</td>
</tr>
<tr>
<td>4</td>
<td>Evidence for proposed actions</td>
<td>Intervention evidence</td>
</tr>
</tbody>
</table>

**Example coding**

Two examples of how the content analysis questions on evidence in MPHWPs were applied are shown below. Example 1 is further expanded upon to explain how coding occurred.

Example 1:

19.6% of residents consume soft drink on a daily basis (Ararat MPHWP, p.44).

In Example 1, the Ararat MPHWP sourced evidence from the LG Profiles, which are VicHealth collateral (VicHealth, 2013), which in turn is a statutory agency within the Victorian State Government. The topic of the evidence itself is nutrition which is a health behaviour, so the data is coded as ‘Health behaviour, nutrition’ for Question 2. Because the evidence describes a local, as opposed to a regional or national situation but does not describe what works to
influence the behaviour, for Question 3 it was coded as descriptive (of the local situation). This analysis is summarised as follows:

Question 1 – Source: LG profiles / VicHealth / Victorian Government
Question 2 – Topic: Parent category: D Health behaviour, Sub-category: Nutrition
Question 3 – Type: 2, Local situation (descriptive evidence)

Example 2:

Promoting safety and safe practices within the community can contribute to increasing the confidence of residents about safety (Glen Eira MPHWP, p.29).

In Example 2, the Glen Eira MPHWP sourced evidence from the Victoria Police, which is an organisation within the Victorian State Government. The evidence describes how perceived safety can be increased and thus the domain of liveability ‘Crime and safety’ is the topic area. Because the evidence provides some indication of interventions that might work to influence a trend, for Question 3 it was coded as a possible solution. This analysis is summarised below:

Question 1 – Source: Victoria Police / Victorian Government
Question 2 – Topic: Parent category: E Domain of public policy, Sub-category: Crime and safety
Question 3 – Type: 3, Possible solution (intervention evidence)

3.7.3.4 Question 4: Does the action address one of the 14 priority areas of the State Health Plan?

The next stage of analysis involved identifying all the actions and categorising them according to whether they explicitly addressed one of the intervention areas within the two ‘action areas’ relevant to LG from the 2011 Victorian Health and Wellbeing Plan (Victorian Government, 2011b). These action areas are shown in Figure 3.2. They are ‘Continue to protect the health of Victorians’ and ‘Keep people well’. ‘Continue to protect the health of Victorians’ contains five priority intervention areas that are principally directed towards environmental health issues and communicable disease control – Hanlon and colleagues
(2011) first wave of public health. ‘Keep people well’ contains nine priority intervention areas directed towards lifestyle-related risk factors – the fourth wave. The third action area, ‘Strengthen preventive healthcare’ is not relevant for LG. It focuses on medical screening and is based in the second wave of public health (Victorian Government, 2011b, Hanlon et al., 2011).

<table>
<thead>
<tr>
<th>Interventions</th>
<th>Keep people well</th>
<th>Strengthen preventive healthcare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue to protect the health of Victorians</td>
<td>- Healthy eating</td>
<td>- Cancer screening</td>
</tr>
<tr>
<td></td>
<td>- Physical activity</td>
<td>- Newborn screening</td>
</tr>
<tr>
<td></td>
<td>- Tobacco control</td>
<td>- Early intervention</td>
</tr>
<tr>
<td></td>
<td>- Oral health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Alcohol and other drug use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Sexual and reproductive health promotion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Mental health promotion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Injury prevention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Skin cancer prevention</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.2. Intervention areas within the three action areas of the State Health Plan (Victorian Government, 2011b).

Categorizing each action by intervention area makes it possible to assess how well councils are fulfilling their legislated obligations under Section 26(3) of the Public Health and Wellbeing Act (2008) which states that MPHWP’s should ‘have regard to the State Health Plan’. In addition to these 14 categories, the category, ‘Does not directly address a priority area action’ was added so that actions that did not explicitly address one of the Intervention Areas from the State Health Plan could be collected. The categories used for Question 4 are shown in Table 3.4.

Table 3.4: Codebook 4: Categories used for Question 4
<table>
<thead>
<tr>
<th>Action area</th>
<th>Intervention area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue to protect the health of Victorians</td>
<td>1 Communicable disease prevention and control</td>
</tr>
<tr>
<td></td>
<td>2 Immunisation</td>
</tr>
<tr>
<td></td>
<td>3 Environmental health</td>
</tr>
<tr>
<td></td>
<td>4 Food safety</td>
</tr>
<tr>
<td></td>
<td>5 Incident and emergency response</td>
</tr>
<tr>
<td>Keep people well</td>
<td>6 Healthy eating</td>
</tr>
<tr>
<td></td>
<td>7 Physical activity</td>
</tr>
<tr>
<td></td>
<td>8 Tobacco control</td>
</tr>
<tr>
<td></td>
<td>9 Oral health</td>
</tr>
<tr>
<td></td>
<td>10 Alcohol and other drug use</td>
</tr>
<tr>
<td></td>
<td>11 Sexual and reproductive health</td>
</tr>
<tr>
<td></td>
<td>12 Mental health promotion</td>
</tr>
<tr>
<td></td>
<td>13 Injury prevention</td>
</tr>
<tr>
<td></td>
<td>14 Skin cancer prevention</td>
</tr>
<tr>
<td></td>
<td>15 Does not directly address an action area</td>
</tr>
</tbody>
</table>

The State Health Plan describes the issues that fall under each intervention area, and this was used to guide the categorisation of the actions. For example, the State Health Plan includes breastfeeding as a facet of healthy eating so actions intended to promote breastfeeding were categorised under ‘7: Healthy eating’. Similarly, the prevention of violence against women (PVaW) is included in the State Health Plan as a facet of mental health promotion, so PVaW actions were coded as ‘12: Mental health promotion’ (Victorian Government, 2011b). Further inductive coding was used to categorise actions under ‘15: Does not directly address a priority area’. The criterion for this categorisation took the form of a question: ‘Does the action address an additional issue (i.e. not included in the State Health Plan) that typifies the first or fourth wave of public health?’ (Hanlon et al., 2011). This made it possible to determine whether LG had identified a need for action in additional intervention areas that were equivalent to those included in the State Health Plan.
3.7.3.5 Question 5: How far upstream in a SDH framework is the action targeted?

This question was used to identify the point in the social ecology of health to which actions are targeted. This enabled a comparative examination of council efforts to intervene to address health and wellbeing within a social ecology framework.

The majority of actions that councils take are in some way intended to improve the health and wellbeing of the community. However, to use Irving Zola’s river metaphor, the mechanisms range from direct (‘downstream’) to very indirect (‘upstream’) (Zola, 1970). The coding categories for this question therefore reflected the aetiological distance (from the experience of poor health) to which actions were targeted. Categorisation of these distances was based on a combination of VicHealth’s *Fair Foundations* and other literature describing the numerous causal pathways for health and wellbeing (Barton and Grant, 2006, VicHealth, 2015a). These resources are in turn based on Dahlgren and Whitehead’s (1991) original understanding of the multiple levels of influence encapsulated by the social determinants framework that ‘threaten, promote or protect health’ (p. 11), and that describe distinct levels at which interventions might occur. The categories that were used for coding the question are shown in Table 3.5.

Table 3.5. Codebook 5: Categories used for Question 5.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Individual lifestyle factors</td>
</tr>
<tr>
<td>2</td>
<td>Social and community networks</td>
</tr>
<tr>
<td>3</td>
<td>Living and working conditions and services</td>
</tr>
<tr>
<td>4</td>
<td>General socio-economic, cultural and environmental conditions</td>
</tr>
<tr>
<td>5</td>
<td>Tenuous or no apparent link to health and wellbeing</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>downstream</td>
</tr>
<tr>
<td></td>
<td>↑</td>
</tr>
<tr>
<td></td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td>upstream</td>
</tr>
<tr>
<td></td>
<td>–</td>
</tr>
</tbody>
</table>

Level 1 includes actions that are targeted at individuals or groups, and that have a behaviour change component. Level 2 actions, ‘Social and community networks’, only operate locally and are intended to build community connections such that they enhance community resilience. In contrast, Level 3 actions, ‘Living and working conditions and services’ take the form of facilities or infrastructure delivery, such as those that build healthy environments. Level 4 actions are socio-cultural and attempt to shift a fundamental characteristic of society such that benefits
trickle down to individuals over time. Examples of this might include advocacy campaigns in partnership with other local governments or the MAV to change state or federal legislation, or attempts to improve health and wellbeing through indirect means such as via environmental sustainability (Dahlgren and Whitehead, 1991, VicHealth, 2015a, Tait et al., 2014). Level 5, ‘Tenuous links to health and wellbeing’ was added to capture actions that had very indirect population health benefits, often because they were about council capacity building. Table 3.6 provides examples of the characteristics of actions that were used to code the four main categories.
Table 3.6. Typical characteristics of actions coded to each category for Question 5

<table>
<thead>
<tr>
<th></th>
<th>Characteristics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Types of action</strong></td>
<td><strong>Typical verbs that describe the action</strong></td>
<td><strong>Timeframe</strong></td>
</tr>
<tr>
<td><strong>1 Individual lifestyle</strong></td>
<td>Behaviour change, social marketing, delivery of a service</td>
<td>Implement, conduct, deliver, provide</td>
</tr>
<tr>
<td><strong>2 Social and community networks</strong></td>
<td>Delivery of social infrastructure</td>
<td>Establish, provide, connect, coordinate</td>
</tr>
<tr>
<td><strong>3 Living and working conditions and services</strong></td>
<td>Program development, strategic planning</td>
<td>Establish, develop, implement, deliver, maintain, map, monitor</td>
</tr>
<tr>
<td><strong>4 Socio-economic, cultural and environmental</strong></td>
<td>Advocacy, partnerships, legislative change</td>
<td>Advocate, build a case</td>
</tr>
</tbody>
</table>
3.7.3.6  Question 6: To what policy area is the action directed?

As is the case for the evidence that is cited in MPHWP, categorising the actions within MPHWP by policy area enabled an understanding of the range of areas in society that are considered by council to be important to address if health and wellbeing is to be improved. As was done for Question 2 on evidence, the categories for coding this characteristic of the actions were based on Lowe and colleagues’ (2013, 2015) 11 categories. The categories ‘Resource efficiency’ and ‘Land use and urban design’ were added for similar reasons to those described above for Question 2. ‘Research and policy’ was added as a sub-category of ‘Other or unable to determine’ because there were found to be several actions that focused on councils acquiring knowledge or establishing a position rather than taking action in a particular policy area. Research into gambling was prominent among these. The categories used for Question 6 are shown in Table 3.7.

Table 3.7. Codebook 6: Categories used for Question 6

<table>
<thead>
<tr>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>13</td>
</tr>
<tr>
<td>14</td>
</tr>
</tbody>
</table>
Two examples of how the codes were applied to actions are shown below:

Example 1:

*Continue to advocate to reduce the number of electronic gaming machines (EGM) in Ballarat* (Ballarat Council Plan, p. 42).

Gambling is not an intervention area in the State Health Plan, so for Question 4 this action is coded as ‘Does not explicitly address an action area’. In regard to Question 5, the action is aimed at changing an aspect of culture (i.e. gambling) over the long term, is strategic and necessarily involves other agencies including the state government and so is coded into ‘General socio-economic, cultural and environmental conditions’. Finally, although Lowe et al. (2013, 2015) note the challenge of defining gambling as an aspect of leisure and culture due to its negative effects on health, they do include it in this domain. Therefore with regard to Question 6, this action is coded as ‘Leisure, culture and recreation’. This analysis is summarised as follows:

- Question 4 – State Health Plan: 15 Does not explicitly address an action area
- Question 5 – Distance: 4 General socio-economic, cultural and environmental conditions (upstream)
- Question 6 – Policy area: 8 Leisure, culture & recreation

Example 2:

*Implementation of ‘Smile for Miles’ initiatives into early childhood*” (Buloke MPHWP p.23)

Smiles for Miles is a state-level preschool intervention initiative that aims to improve the oral health of children and their families in high risk areas across Victoria (Dental Health Service Victoria, undated). It explicitly addresses the ‘Oral health’ intervention area within the ‘Keep People Well’ action area of the State Health Plan and so is coded as such for Question 4. It operates through the education of a specific, identified vulnerable section of the community.
and is intended to improve health by addressing individual lifestyle factors. Therefore, it is coded as ‘1 Individual lifestyle factors’ for Question 5. Finally, because it is a health service, it is coded as ‘5 Health and social services’ for Question 6. This analysis is summarised as follows:

Question 4 – State Health Plan: Keep people well, Sub-category: 9 Oral health
Question 5 – Distance: 1 Individual lifestyle factors (downstream)
Question 6 – Policy area: 5 Health & social services

3.7.4 Developing protocols and pilot testing

Operationalization of the codebooks and rationales described above resulted in a coding protocol governing the document analysis. The protocol consisted of the rationales and guidelines described above, and some additional rules regarding how special cases and possible errors should be dealt with (see Appendix B). The entire process is summarised in the following flowchart, which helped to ensure that coding was done consistently and yielded reliable results.
Figure 3.3. Flow chart describing the sequence in which documents were coded.
In addition to the codebooks and flowchart, text from a hypothetical MPHWP was developed and coded to provide an example of how coding should occur with reference to each of the six questions. This text is provided below. The first nine boxes in the margin describe the way that data in the hypothetical document answers Questions 1, 2 and 3 about evidence. Only the last box categorises data in the hypothetical document that answers Questions 4, 5 and 6 about actions.

**Example text:** *The role of urban trees in alleviating the heat island effect and improving health and wellbeing*

In preparing to develop the MPHWP, council research officers referred to a review by MuniciPal Consulting of existing MPHWPs from 15 neighbouring councils. This review showed that 11 of the 15 councils either referred to climate change as an important issue to the community, or developed specific actions within their MPHWP in response to climate change <citation>. Similarly, the 2013 municipal survey of 20,000 residents showed that 62% were concerned about global warming <citation>. There is significant evidence now to demonstrate that the climate is warming and is affecting urban temperatures. The mechanism for this effect is principally the thermal mass of materials that is used to construct buildings and roads: concrete, asphalt, bricks and steel. These materials absorb and store heat far more than vegetation does <citation>. The following graph shows the correlation between global average atmospheric temperatures and urban air temperatures between 1900 and 2010 for seven international cities.

![Hypothetical graph](image)

Evidence also shows an increase in DALY due to skin cancers in the municipality <citation>. This evidence was presented to community members at the community consultation sessions for the MPHWP. When participants were asked about how much they
thought council should do in response, 15% of participants responded that council is ‘doing enough’, 73% of participants responded ‘council should do more’ and 12% of participants responded that ‘council should do much more’ <citation>.

Urban trees have been shown to mitigate some of the effects of climate change in urban areas, particular the increasing heat island effect. The following graph shows the effect of a comprehensive street tree improvement program in Port Elizabeth, South Africa, a town where the climate is similar to southern Victoria. The program saw the installation of 500 elm trees (*Ulmus* genus) over 2 years. The graph shows a 15% decrease in average summertime temperature after the program, clear evidence that large canopy deciduous trees can reduce the urban heat island effect.

<graph with academic citation>

This case study provides good evidence to continue the local program of street tree renewal. Council has investigated the feasibility of continuing the program of replacing senescing street trees around the municipality. This investigation showed that replacing dying trees and planting another 200 street trees in positions that will have a significant benefit for pedestrians through their effect in reducing the heat island effect is a cost-effective way of creating measurably reduced temperatures <citation>.

**ACTION:** Council will continue the senescing street tree replacement program and will also plant 200 new *Platanus* genus trees to mitigate the urban heat island effect and to assist in skin cancer prevention.

**ACTION:**
The success of the program will be monitored by measuring the change in temperature in areas where the trees have been planted as compared to control areas.

Coding was pilot tested using the MPHWPs and supporting documents of the North and West Metropolitan Region of Melbourne. This region was chosen for its diversity according to various metrics, and because of some research sponsorship provided by the region. This region covers 14 LGAs, five of which are designated as interface councils (Victorian Government, 2015b) and four of these are growth areas (Victorian Government, 2011a). The N&W region is also the most populated culturally and linguistically diverse region of Victoria (Australian Bureau of Statistics, 2012). As a group, the councils are spread across the range of socio-economic levels as designated by SEIFA (2013b, Australian Bureau of Statistics, 2013a).

3.7.5 Coding

Coding of the documents was completed using the software packages NVivo 10/11. While the development of codebooks is important for describing the method (as described above), use of NVivo 10/11 allowed for an integrated coding process that eliminated the need for traditional coding books and coding forms. Code books are replaced by designating text in documents as ‘nodes’ and coding forms are created on the fly with live coding which is saved against nodes. The development of the coding process led to the creation of 413 codes (including sub-nodes), the majority of which were generated by Question 1 (289 codes and sub-codes, see Appendix A).

Once all documents in the pilot test sample were coded, the output documents that NVivo 10/11 generated for all nodes were reviewed for errors. In particular, incorrect coding and failure to code by sub-node was corrected. Where this was the case, recoding or coding-on as relevant, was performed. Particular attention was paid to documents that were coded early in the process and to child nodes (sub-categories) that had similar names but were in different parent categories. After these refinements to the method were made, five additional MPHWPs from councils outside the N&W metro region were also coded as part of the pilot.
3.7.6 Reliability testing

Once coding of the 19 pilot documents was complete, the ‘stability’ of the method (repeatability over time, such that it gives the same results (Stemler, 2004)) was assessed five months later. This involved assessments of the intra-rater reliability of the way that data in MPHWP's had been coded. Due to the impracticality of conducting intra-rater reliability on all 19 documents, two plans were randomly selected – one for examining the reliability of the way that evidence had been coded and one for the way that actions had been coded – and were coded a second time.

Given that the ratings were categorical and that there was a large number of categories, a percentage agreement method was used (Dunn, 1989). This involved adding up the number of times that data, i.e. evidence or actions from the documents were placed into the same category each time they were coded, then dividing by the total number of (Stemler, 2001). For example:

\[
\frac{(\text{‘Time 1’ and ‘Time 2’})}{(\text{‘Time 1’ and ‘Time 2’}) + (\text{‘Time 1’ not ‘Time 2’}) + (\text{‘Time 2’ not ‘Time 1’})}
\]

The results of the intra-rater reliability tests are shown in Table 3.8.
Table 3.8. Results of the intra-rater reliability test of methodological stability.

<table>
<thead>
<tr>
<th>MPHWP</th>
<th>Time 1, and Time 2</th>
<th>Time 1, not Time 2</th>
<th>Time 2, not Time 1</th>
<th>% agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yarra City MPHWP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Actions</td>
<td>275</td>
<td>23</td>
<td>8</td>
<td>275/(275+23+8)*100 = 89.8%</td>
</tr>
<tr>
<td><strong>Glenelg health profile</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Evidence</td>
<td>254</td>
<td>17</td>
<td>19</td>
<td>254/(254+17+19)*100 = 87.5%</td>
</tr>
</tbody>
</table>

Many texts recommend 80% as the minimum acceptable score for reliability using percentage agreement (McHugh, 2012) so the scores shown in Table 3.7 were deemed satisfactory. Finally, coding of the remaining documents occurred between January 2014 and February 2015.

3.7.7 Analysis: tabulation and reporting

Analysis of the results of the content analysis was quantitative, using descriptive and inferential statistics depending upon the research question being asked. For example, to establish how evidence is used in MPHWPs, occurrences of evidence under each category for Questions 1, 2 and 3 were tallied. NVivo 10/11 was also used to run queries on the data. The tallies for each category, and where appropriate, the results of queries, were ascertained from NVivo 10/11 and exported into Microsoft Excel to produce tables. The document analysis covered all Victorian councils’ MPHWPs (a census) and so analysis was principally via descriptive statistics. Some statistical analyses that compared groups of councils for their
results were also performed using SPSS. For these, the following independent variables were used.

1) Council revenue per capita (Municipal Association of Victoria, 2015a, Sykes, 2015) divided into tertiles according to the 33rd and 66th percentile (low: $875 - $1,369, medium: $1,370 - $2,109 and high: $2,110 - $4,584).

2) Councils’ socio-economic status (SES) (using the SEIFA index of relative social disadvantage; (IRSD) (Australian Bureau of Statistics, 2013b)) divided into tertiles according to the 33rd and 66th percentiles (low: 895 - 980, medium: 981 - 1,008 and high: 1,009 - 1,098).

3) Councils’ location, according to whether they were within the Melbourne metropolitan (metropolitan and interface councils) or regional areas (rural and regional city councils) (Victorian Government, 2015b, Essential Economics, 2013).

The collection of data from the MPHWPs and their supporting documents under nodes (i.e. categories) enabled discussions to be enhanced through the use of example data from that category or, in the case of queries, specific combinations of categories typified by that category or combination of categories.

The results of the content analysis about evidence (Questions 1, 2 and 3) are presented in Chapter 4. The results of the content analysis about actions (Questions 4, 5 and 6) are presented in Chapter 5, as are the results of the qualitative component of the document analysis. A published paper that describes a novel way of analysing the actions of a selection of councils in two SDH dimensions is included as Chapter 6 (Figure 3.4).
3.8 Interviews

3.8.1 A brief review of interview methodology

An interview is a form of phenomenological research that is widely used in public health and governance research. It is an investigative session where the researcher asks questions of a subject to attempt to understand an issue from the subject’s point of view (Kermode, 2001). A semi-structured interview is based on an interview guide or ‘facesheet’ that ensures that information is collected about the same general areas from each interviewee (King and Horrocks, 2010). The benefits of semi-structured interviews are that beyond a definitive starting point, the interview is substantially guided by what the respondent says. The facesheet does not dictate the interview but is used to initiate lines of questioning that can be returned to when a line of enquiry is exhausted (Kvale, 1996). The structure provides more focus than a conversational approach and allows for the inclusion of interview-specific questions that allow more freedom than a fixed-response interview. Low (2012) states that the nature of the semi-structured interviews enables the analysis to delve deeper than interviewees’ initial self-presentations. By following a line of enquiry as it is raised, semi-structured interviews allow critical examinations of the assumptions and ideologies expressed. Both interviewer and interviewee can become deeply involved with the narrative as it emerges.
and which is useful for eliciting rich information about interviewees’ own experiences (Low, 2012).

A brief review of the literature on semi-structured interviews was performed to aid the development of the methods for the current study. The review showed that the method has been used for a range of specific purposes in the fields of health promotion, as well as in studies of governance and decision-making. For example Langer (2000) used in-depth interviews to understand the influence of research on health policy decision-making. For example, Sinclair (2002) performed semi-structured interviews to determine the role of community consultation in the development of sustainability policy in Manitoba, Canada, while in Scotland, Orr and McAteer (2004) conducted interviews with councillors and senior officers in LG to explore public participation in council decision-making. Specifically in relation to understanding how evidence as compared to other forms of input is used to inform policy, Petticrew et al. (2004) used semi-structured interviews in a workshop setting to gather data from senior policy advisors with a role in health policy development in the UK. In each of these cases, authors noted that the strength of semi-structured qualitative interviews is that they enable discourse about the issues being researched, which may often be unique to the profession or field being researched, to be ‘drawn out’ and better understood by the researcher.

Kvale (1996) describes seven main steps in semi-structured interviewing (see Figure 3.5). In reality, Kvale writes, the interview process may involve moving back and forth between the different stages. This may be necessary if, for example, an improved understanding of the themes under investigation arises at a later stage, or if it is possible to analyse and report the results of the interviews as they are conducted. The methods used for this research are described below with reference to these steps.
3.8.2 Thematising

‘Thematising’ is the creation of themes under which data can be collected and collated (Kvale, 2007). In the case of interviews, it is the organisation of specific questions within each theme of the research (Kvale, 2007). For the current study, these themes arose from the rationale of the study (Chapter 1) and were further refined as a result of the literature review (Chapter 2), and the results of the MPHWP document analysis (Chapters 4, 5 and 6). This led to refining the purpose of the interviews themselves, which was to obtain qualitative empirical knowledge of subjects’ typical and atypical experiences of the development of MPHWPs with regard to the three main themes of the research. As described in Chapter 1, the first theme was around how evidence, particularly intervention evidence but also other forms of research and community input translate into and are used in decision-making for the development of MPHWPs. The second theme was LG’s responsibility and capacity as an agent of public health (including in terms of the SDH), and the positioning of MPHWPs as a mechanism of this. A third, minor theme of the interviews was to understand the extent of the informative and influential roles of CIV in MPHWPs. The interviews addressed these three themes, complimented by a general theme whose questions were used to establish the interviewee’s role, experience and involvement in the development of the MPHWP. The semi-structured nature of the interviews also allowed for the interweaving of critical examinations of subjects’ assumptions and ideologies. The themes are described in the Table 3.9.
Table 3.9. Content of the interview questions within themes

<table>
<thead>
<tr>
<th>Theme</th>
<th>Content of questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>• Interviewee’s role and experience</td>
</tr>
<tr>
<td></td>
<td>• Interviewee’s role in the development of MPHWP</td>
</tr>
<tr>
<td>Responsibility and capacity in public health</td>
<td>• The role of MPHWPs within council, including integration</td>
</tr>
<tr>
<td></td>
<td>• The extent of council’s responsibility as an agent of health and wellbeing</td>
</tr>
<tr>
<td></td>
<td>• Council’s capacity as an agent of health and wellbeing</td>
</tr>
<tr>
<td>Use of evidence</td>
<td>• The type of evidence in MPHWPs (descriptive or intervention)</td>
</tr>
<tr>
<td></td>
<td>• Facilitators of and barriers to council’s use of intervention evidence;</td>
</tr>
<tr>
<td></td>
<td>• The role of other forms of information (non-evidence) in MPHWP development</td>
</tr>
<tr>
<td></td>
<td>• Ideal ways that intervention evidence could be obtained and used by councils</td>
</tr>
<tr>
<td>Community indicators</td>
<td>• The instrumental and influential roles of CIV</td>
</tr>
<tr>
<td></td>
<td>• Suggested improvements to evidence sources, including indicators such as CIV</td>
</tr>
</tbody>
</table>

3.8.3 Designing

Design refers to the development of the interview guide or ‘facesheet’. The facesheet detailed the key topics and questions that expanded upon the themes listed above. Specifically, each theme was explored via a number of questions. The facesheet constituted the formalised plan for collecting information. It was used to ensure that all topics of importance were covered, and that interviews were kept on track and to time. It was also a useful tool for ensuring consistency across interviews with different key informants (Kvale, 2007, Kvale, 1996). The facesheet is attached as Appendix C.

3.8.4 Sampling and recruitment

The interviewees were the senior LG staff member most directly responsible for the development of the MPHWP. Their titles varied (e.g. ‘environmental health officer’, ‘community development officer’, ‘manager health and wellbeing’ etc.) so assistance was sought from the MAV and councils to identify the most appropriate person. Potential
interviewees were sensitised to the research via an item that was placed in the December 2013 CIV newsletter (Community Indicators Victoria, 2013a). It gave a brief overview of the research and stated that interviewees would be sought in 2014/2015. In order to sample as representatively as possible, stratified random sampling was used to select three interviewees from each of the inner-urban, outer-urban / interface (including growth areas), rural, regional centre and (semi-) remote municipalities using Random.org, a web-based app that uses atmospheric noise to generate random numbers within a user-defined range. Potential interviewees were then contacted directly by email, inviting them to be interviewed about ‘the way the council had fulfilled its obligations to develop an MPHWP’. Potential interviewees were contacted again by follow-up phone call. Initial selection resulted in three of those contacted declining to be interviewed, two from regional centres and one from a rural municipality. When these occurred, additional random selections from the same groups were made. This resulted in 16 interviews.

3.8.5 Interviewing

The interviews took place between March and June 2015, at a point when most councils were at the implementation and evaluation stages of the MPHWP planning cycle (Victorian Government, 2013a). The majority of the interviews were conducted face-to-face at participants’ workplace. Three were conducted at regional public library meeting rooms and one at a state departmental office meeting room. One interviewee was interviewed over the phone because they were located in a remote Victorian municipality. Audio recording of the interviews allowed for listening and observation to take priority as the respondent was guided through the conversation until all the important themes had been explored.

Audio recording of the interviews required the respondent’s permission. All interviewees had already given verbal consent over the phone, and signed consent was sought at the start of each interview (University of Melbourne Ethics Application 1443272.3, see Appendix D). The addressing of key ethical issues included the development and delivery to potential interviewees of a plain language statement and consent form which addressed the need to obtain informed consent from participants and that their anonymity would be maintained. This latter consideration was important due to the political sensitivity of some of the topics that
were discussed. As per ethical requirements, recordings and transcripts were kept in a private and secure location, pseudonyms were used and other identifying information was anonymised when using interview data.

By the fifth interview, recognisable issues within each theme began to emerge, and after 12 interviews had been conducted, very little new information was gained. The final four interviews yielded increasingly diminishing returns, which indicated that there was no need for more sampling from the population beyond the 16 originally-planned interviews. It was determined, via cultural consensus, that saturation had been reached (Romney et al., 1986).

3.8.6 Transcription

The interviews were transcribed using Rev.com, an online transcribing services company. Interview transcripts were then read while simultaneously listening to the interview recordings to ensure accuracy. After any errors in the transcription were corrected, as part of ensuring accuracy, informants were provided with a copy of their interview transcript and asked to make any corrections. No corrections were required by the participants, and so analysis began.

3.8.7 Analysis and verification

Thematic analysis (Braun and Clarke, 2006) was performed on the interview transcripts with reference to the two main research themes; evidence use and LG’s responsibility and capacity in health planning. Although the following describes distinct stages to the analysis, it was recursive, and moved backwards and forwards between the audio recordings, the transcripts and the way that data was organised within themes. The first stage of analysis was done using Nvivo 10/11 (QSR International, 2017) by actively reading the transcripts and simultaneously listening to the recordings, with the questions in mind, to search for data that could assist in answering the research questions. Once data that assisted in answering a question was identified it was categorised, that is, collected under a node in NVivo 10/11. Data that did not directly contribute to answering the research questions were not coded. However, the vast majority of the interview data did contribute to some extent to answering the research
questions, and this indicated that the interview questions and resultant discussions were ‘on topic’.

In the first round of analysis, content was collected from the transcriptions and grouped into theme-specific categories such as ‘Capacity of LG’, ‘Social determinants’, ‘Evidence’ and ‘Indicators’. Once this was completed for all transcriptions, the content of all categories was reviewed and re-coding or coding-on (when further analysis of data in a theme results in it being coded into an additional theme (QSR International, 2012)) was performed to ensure that all data were collected into the correct theme/s. Next, qualitative content that had been collected under themes was qualified into sub categories, for example, positive statements on the capacity of LG were grouped separately from negative ones, but both as sub-categories within the theme ‘capacity of LG’. Statements about facilitators and barriers to research utilisation were coded against factors documented by Oliver et al. (2014). When items of content appeared to contradict each other, these were also identified and recorded via coding-on to ensure that they were recorded.

The complexities of the current research in Victorian local government are exemplified by the fact that there are both multiple stakeholders involved, as well as a high level of staff dedication to public health. At times this meant that views about priorities differed between stakeholders in MPHWP planning, and this lead to professional frustration. In the interviews, this occasionally manifested as strong language. In light of this, it was important to ensure anonymity. Therefore an initial draft of the interview results chapter was sent to all key informants allowing them to check that quotes were accurately transcribed, interpreted and appropriately anonymised. As a result of this process, one participant responded with a request to paraphrase rather than quote some interview data that they felt could possibly be attributed to them. This amendment was made without changing the way that the data contributed to the chapter.

3.9 Summary

This chapter detailed the methods employed for the research. The research aims and questions were outlined, leading into a discussion about how the conceptual frameworks from
intervention science and the social-ecological model of health guided this research. Each of the two methods, document analysis and interviews, were described in detail with reference to accepted procedures from the literature: Neuendorf (2002) and Stemler (2001) for the document analysis, and Kvale (2007) for the interviews. For the document analysis, the approach taken for the qualitative component was outlined, as were the rationales for each of the six analysis questions. For the quantitative content analysis, both the process of inductive coding (Question 1) and the development of deductive categories (Questions 2 through 6) were explained. The process of quantitative content analysis was illustrated with a flowchart and additional coding rules and guidance were provided in the form of a hypothetical example. The process and results of intra-rater reliability were described, and finally, an overview was provided of the way that the results were analysed.

For the interviews, the content of the facesheet, developed from the main themes of inquiry, was described, as was the method by which interviewees were recruited. The description of transcription and analysis focused on extracting data that could be used to answer the research questions. Consistent with the main themes of the research, particular attention was placed on how interviewees conceptualised LG’s responsibility and capacity to address health within a social determinants framework, and the facilitators of and barriers to the use of evidence, particularly intervention evidence, in the development of MPHWP.

The next three chapters report the results of the document analysis. The results of the questions about evidence (Questions 1, 2 and 3) are presented in Chapter 4. The results of the questions about actions (Questions 4, 5 and 6) and the qualitative component of the document analysis are presented in Chapter 5. A published paper that describes a novel way of analysing the actions (Questions 4, 5 and 6) of a selection of councils in two SDH dimensions is included as Chapter 6. Finally, the interview results are analysed and presented in Chapter 7.
Chapter 4: Evidence in Municipal Public Health and Wellbeing Plans

4.1 Introduction

This chapter introduces the results of the content analysis, including the attributes of the documents. It then goes into more detail about the results of the first half of the content analysis which focused on the evidence used in MPHWPSS and associated documents. It concludes with a brief summary of the findings relating to evidence. Descriptive analyses, rather than inferential, of the evidence in MPHWPSS were also published as a paper (Browne et al., 2017) which is included as Appendix E. The content analysis results then continue in Chapter 5, which looks primarily at the actions that are tabled in MPHWPSS. Chapter 5 also looks at the relationship between the evidence cited and the actions tabled in MPHWPSS, and describes the results of the qualitative component of the document analysis. Chapter 6 complements Chapter 5 as it is a published paper that describes a novel way of analysing the actions in MPHWPSS (see Figure 3.4).

4.2 Document attributes

The method that was used for identifying and collecting the documents described in the previous chapter resulted in a database of 116 documents, 79 of which were MPHWPSS or Council Plans into which the MPHWP was integrated, with the remaining 37 documents consisting of community profiles. In the 2013-2017 strategic planning period, 13 of 79 councils integrated their MPHWP into the council’s overall strategic plan, an increase from the previous (2009-2013) reporting cycle when four councils developed integrated plans. Anecdotal evidence from discussions with MPHWP managers suggests that this number has peaked. While some councils who have not yet experimented with this approach have expressed an intention to adopt it in the next planning cycle, some of the 13 councils who have done so have cited its limitations.
Across the 116 documents, the document lengths varied widely, from just three to 130 pages. This range is explained in part by the diversity of document formats that councils use, and particularly by the difference between community profiles and the MPHWP\textsc{s} themselves. While MPHWP\textsc{\textsc{s}} were relatively consistent in their format, profile documents varied considerably. Some took the form of data summaries and at times had very little contextual information. For example, the document with the fewest pages, the \textit{Warrnambool Health and Wellbeing Profile} (three pages), was simply a list of indicators with as many as 80 indicators on a page. At the other end of the spectrum, the \textit{Wodonga Social Profile} (130 pages) contained extensive descriptive data in the form of tables, graphs and paragraphs of text. Despite this range of formats, none of the profiling documents contained actions, and intervention evidence was rare in profile documents, so their content does not contribute to the analysis in Chapters 5 and 6.

\section*{4.3 Review of the method - evidence in MPHWP\textsc{s}}

Analysis of all 116 documents for the evidence therein contributed to answering Research Question 1: \textit{What evidence is used in MPHWP\textsc{s}?} As described in Chapter 3, ‘Methods’, for the purposes of the content analysis, evidence was defined as ‘any study, report, case study, data or indicator that is cited in the MPHWP\textsc{s} (or the documents that support a MPHWP) and is used to inform the plan’ (Oxford University Press, 2013, Nutbeam, 2003). Using this definition, Question 1 was operationalized using the following questions:

1) What sources of evidence were used?
2) What was the topic of the evidence (Lowe et al., 2013, 2015)?
3) What type of evidence (descriptive or intervention) was used (Armstrong et al., 2014a)?

As described in Chapter 3, data about evidence used in MPHWP\textsc{\textsc{s}} to enable the answering of these questions was collected through the reading and scanning the documents for occurrences of evidence. Each occurrence of evidence was coded three times, to answer the three operationalizing questions. When an occurrence was identified, it was coded by its source (Question 1) using NVivo 10/11. This resulted in the creation of a record of each
occurrence of evidence as a data point. Once a full list of data points for occurrences of evidence was collected for Question 1 for each document, that list was used to code-on (QSR International, 2012) to collect data that answered Questions 2 and 3. This avoided the need to return to the documents and sift through them again. In some cases evidence was categorised into more than one category for Questions 2 and 3, so the total amount of evidence categorised under each question can differ.

4.4 Results – evidence in MPHWPS

4.4.1 Amount of evidence cited

Across the 79 councils, 11,164 distinct occurrences of evidence use were recorded in the 116 documents. The analysis showed wide variation in the amount of evidence used by councils to prepare their MPHWPS. This ranged from 12 to 654 occurrences, with an average of 141.3 occurrences of evidence per council and a median of 105 occurrences. Adjusting for the number of document pages per council reduced this variation to between 0.5 and 10.3 occurrences per page.

Figure 4.1 shows the proportion of councils that fell into each category of number of occurrences. Overall, 65% of councils used between 12 and 149 occurrences of evidence, with the majority of councils (89%) using fewer than 250 pieces of evidence. Of note is that three councils used an atypically large amount of evidence in their MPHWP documents. One council used 467 items of evidence and two councils used more than 600 items of evidence each (633 and 654 occurrences).
Three analyses were performed to determine whether the amount of evidence in MPHWP
varied in relation to council characteristics. A one-way between-groups analysis of variance
was conducted to explore the impact of each council’s revenue per capita on the amount of
evidence in MPHWP. Councils were divided into three revenue per capita groups (Municipal
Association of Victoria, 2015a, Sykes, 2015) according to the 33rd and 66th percentiles.
Similarly, a one-way between-groups analysis of variance was conducted to explore the impact
of SES on the amount of evidence in MPHWP. Councils were divided into three SES groups
(using the SEIFA IRSD (Australian Bureau of Statistics, 2013b)) according to the 33rd and 66th
percentiles. An independent samples t-test was used to determine whether there was a
significant difference between metropolitan and regional councils (Victorian Government,
2015b, Essential Economics, 2013). The results of the analyses of the amount of evidence used
in MPHWP using these independent variables are shown in Table 4.1.

Figure 4.1: The proportion of councils by occurrences of evidence used in 2013-2017 MPHWP.
Table 4.1. Comparisons of the amount of evidence used by councils (n = 11,164) according to
council characteristics.

<table>
<thead>
<tr>
<th>Council characteristics</th>
<th>n</th>
<th>%</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue per capita a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (n = 26)</td>
<td>2,850</td>
<td>27.0</td>
<td>109.6</td>
<td>67.1</td>
</tr>
<tr>
<td>Medium (n = 26)</td>
<td>4,250</td>
<td>37.9</td>
<td>163.5</td>
<td>138.8</td>
</tr>
<tr>
<td>High (n = 27)</td>
<td>4,064</td>
<td>36.1</td>
<td>150.5</td>
<td>142.3</td>
</tr>
<tr>
<td>F(2, 76) = 1.4, p = .25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socio-economic status (SEIFA IRSD) b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (n = 28)</td>
<td>4,219</td>
<td>37.8</td>
<td>150.7</td>
<td>124.1</td>
</tr>
<tr>
<td>Medium (n = 24)</td>
<td>2,660</td>
<td>23.8</td>
<td>110.8</td>
<td>81.2</td>
</tr>
<tr>
<td>High (n = 27)</td>
<td>4,285</td>
<td>38.4</td>
<td>158.7</td>
<td>147.0</td>
</tr>
<tr>
<td>F(2, 76) = 1.1, p = .34</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan (n = 32)</td>
<td>5,013</td>
<td>44.9</td>
<td>167.1</td>
<td>156.9</td>
</tr>
<tr>
<td>Regional (n = 47)</td>
<td>6,151</td>
<td>55.1</td>
<td>123.7</td>
<td>88.8</td>
</tr>
<tr>
<td>t(77) = 1.6, p = .12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a low: $875-$1,369, medium: $1,370-$2,109, high: $2,110-$4,584
b low: 89-980, medium: 981-1,008, high: 1,009-1,098
c metropolitan: metropolitan and interface councils, regional: rural and regional city councils

Table 4.1 shows that on average, councils located in both high and low SES areas had 36 - 43% more evidence occurrences than those in medium SES areas. Similarly, councils with medium to high revenue per capita had 37-49% more evidence occurrences than councils with low revenue. Councils from country areas had areas 35% more evidence occurrences than those from metro councils. However, there were no statistical differences between the SES of council areas, council revenue, or metropolitan/regional location (p>.05).

4.4.2 Sources of evidence

As described in Chapter 3 ‘Methods’, each occurrence of evidence was coded for its source to determine which sources of evidence councils used in their planning (see Section 3.7.3.1). Overall, the source of 26% of occurrences was uncited and could not be determined. The
remaining occurrences were drawn from 216 sources (see Appendix A). These were grouped into 11 broad categories, as shown in Figure 4.2.

Perhaps not surprisingly, Victorian government departments and agencies were the most highly cited sources of evidence (29%), while Commonwealth departments were the second most cited sources (14%). Just over 8% of the evidence was sourced from LG itself. This was either community input (4%) or internal council data (4%). Occurrences of evidence were also categorised by their specific source to determine the most frequently used sources. The 10 most frequently used sources are shown in Table 4.2.
Table 4.2. The 10 most frequently cited sources of evidence in 2013-2017 MPHWP.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Data source</th>
<th>Occurrences</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Australian Bureau of Statistics (ABS)</td>
<td>1,325</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Local council (including community consultations)</td>
<td>1,047</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Victorian Health Promotion Foundation (VicHealth)</td>
<td>665</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Victorian Population Health Survey (VPHS)</td>
<td>557</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Victorian Department of Education and Early Childhood Development (DEECD)</td>
<td>464</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Community Indicators Victoria (CIV)</td>
<td>419</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Profile .id The Population Experts (private data broker)</td>
<td>305</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Victorian Department of Planning and Community Development (DPCD)</td>
<td>234</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>Primary Care Partnerships (PCPs)</td>
<td>161</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Victoria Police</td>
<td>160</td>
<td>1</td>
</tr>
<tr>
<td>11 - 216</td>
<td>206 other sources and unknown cited occurrences</td>
<td>5,827</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>11,164</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

As Table 4.2 indicates, a small number of sources were heavily used, with numerous sources used less frequently. Victorian State Government departments were the most frequently cited sources of evidence overall (29%), however Table 4.2 shows that the single most cited source of evidence was the Australian Bureau of Statistics (ABS). Five of the 10 most frequently cited sources of evidence were Victorian Government departments and agencies; VicHealth (third), DHHS Victorian Population Health Survey (fourth), Victorian Department of Education and Early Childhood Development (fifth), Victorian Department of Planning and Community Development (eighth) and Victoria Police (tenth) were the most frequently cited individual Victorian government sources that fell into this group. A small amount of evidence from industry-led not-for-profit organisations was cited (e.g. DrinkWise and The Australasian Gaming Council; n = 8).

Notably, the second most cited source of information (9%) was LG itself, through council-generated evidence and community consultation. Other notable sources were CIV, which was the sixth most cited source of evidence and the most frequently cited academic source.

86 | Page
private sector data provider, Profile.id The Population Experts, was the seventh most cited source of evidence and the most frequently cited privately-owned source.

4.4.2.1 The use of CIV in MPHWPs

With 419 occurrences across the 116 documents (Table 4.2), evidence from CIV was used by 51 of the 79 municipalities (65%) and was the sixth most cited evidence source across all municipalities. It is plausible that CIV constitutes a similar proportion of the unreferenced evidence. If so, this would raise the total number of CIV citations by 30%, to approximately 550 occurrences. The amount of CIV evidence that councils used was analysed against councils’ revenue per capita, SES and type. These results are shown in Table 4.3.

Table 4.3: The frequency of CIV use in 2013-2017 MPHWPs (n = 419) according to council characteristics.

<table>
<thead>
<tr>
<th>Council characteristics</th>
<th>n</th>
<th>%</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue per capita</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (n = 26)</td>
<td>135</td>
<td>32.2</td>
<td>5.0</td>
<td>7.6</td>
</tr>
<tr>
<td>Medium (n = 26)</td>
<td>160</td>
<td>38.2</td>
<td>6.1</td>
<td>9.5</td>
</tr>
<tr>
<td>High (n = 27)</td>
<td>124</td>
<td>30.0</td>
<td>4.8</td>
<td>5.8</td>
</tr>
<tr>
<td><em>F</em>(2, 76) = 0.2, <em>p</em> = .80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Socio-economic status (SEIFA IRSD)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (n = 28)</td>
<td>170</td>
<td>40.6</td>
<td>5.9</td>
<td>8.4</td>
</tr>
<tr>
<td>Medium (n = 24)</td>
<td>120</td>
<td>28.6</td>
<td>5.2</td>
<td>7.0</td>
</tr>
<tr>
<td>High (n = 27)</td>
<td>129</td>
<td>30.8</td>
<td>4.8</td>
<td>7.7</td>
</tr>
<tr>
<td><em>F</em>(2, 76) = 0.2, <em>p</em> = .86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan (n = 32)</td>
<td>128</td>
<td>30.5</td>
<td>5.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Regional (n = 47)</td>
<td>291</td>
<td>69.5</td>
<td>5.5</td>
<td>7.8</td>
</tr>
<tr>
<td><em>t</em>(77) = -0.2, <em>p</em> = .28</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a* low: $875-$1,369, medium: $1,370-$2,109, high: $2,110-$4,584

*b* low: 895-980, medium: 981-1,008, high: 1,009-1,098

*c* metropolitan: metropolitan and interface councils, regional: rural and regional city councils
Table 4.3 shows that CIV evidence was used more by councils located in low SES areas than in high SES areas, and more in regional areas compared with metropolitan areas. However, these differences were not significant. In terms of revenue per capita the pattern was less clear, and was not in the hypothesised direction. Councils with medium levels of revenue per capita used CIV data more than councils with both low and high revenue per capita. However, again, these differences were not statistically significant.

Manningham, which is an urban municipality with a high rate base, used CIV the most (32 occurrences). However, the council that used CIV for the greatest percentage of its evidence was Corangamite (21%, 21 of 99 occurrences of evidence). This council is in the middle SES tertile and also has a high level of revenue per capita. Eighteen councils used no CIV evidence but no pattern that might explain this was discernible; they were not grouped by any of SES, revenue per capita or location.

All CIV evidence in MPHPWs described either a health-related characteristic of the broader population or of the local community, rather than to propose a solution or provide evidence in support of an action. This is consistent with the understanding that indicators are descriptive and provide information on trends and status rather than on how those trends might be changed (Davern et al., 2016).

Categorising occurrences of CIV evidence by its 84 indicators showed that ‘Perceptions of safety’ was the most frequently used indicator (29 occurrences), ‘Feeling part of the community’ was used 24 times, and ‘Transport limitations’ was used 21 times. General references to CIV (data framework, metadata and indicator rationales) appeared 22 times. There were 16 general (non-indicator) references to CIV across the 116 documents and 29 CIV indicators were not used in any document.

In addition to categorising evidence by its source (Question 1), each occurrence was categorised by the topic it described using Question 2, and by type (description of intervention) using Question 3. The results of these analyses are described in the following sections.
4.4.3 The topics of evidence

Categorising the evidence in MPHWP by topic enabled an understanding of the range of issues considered by council to be important for health and wellbeing. Inductive categorisation (i.e. categories derived from the data themselves) was used, with five parent categories identified as follows: ‘General and non-specific evidence’, ‘Demographics’ (i.e. who the people are), ‘Health outcomes’ (i.e. what diseases/healthcare needs people have), ‘Health behaviours’ (i.e. what people do), and ‘Domains of public policy’. If an occurrence of evidence described more than one issue, it was coded multiple times. Table 4.4 shows the results of this categorisation.

Table 4.4. Broad topics of evidence used in 2013-2017 MPHWP (n = 12,144)

<table>
<thead>
<tr>
<th>Category</th>
<th>Occurrences</th>
<th>% of total occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>General and non-specific</td>
<td>599</td>
<td>5</td>
</tr>
<tr>
<td>Demographics</td>
<td>1,339</td>
<td>11</td>
</tr>
<tr>
<td>Health outcomes</td>
<td>2,724</td>
<td>22</td>
</tr>
<tr>
<td>Health behaviours</td>
<td>1,984</td>
<td>16</td>
</tr>
<tr>
<td>Domains of public policy</td>
<td>5,498</td>
<td>46</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>12,144</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

1 single occurrences of evidence could be coded multiple times, so n in Table 4.4 is greater than n in Table 4.2.

Notably, the greatest proportion of evidence cited in MPHWP and associated documents described the domains of liveability (public policy) rather than demographics, health outcomes or health behaviours, which are characteristics of the population. Overall, 46% of the evidence were characterised as ‘Domains of public policy’. Further detail and examples of evidence of this type are described below. In contrast, 22% of all evidence related to health outcomes, and 16% of evidence was about health behaviours. Eleven per cent of the evidence described the demographics of LGAs. This type of evidence is typically used to establish the context for the MPHWP. An example of this is:
98% of residents speak only English at home with other languages spoken at home including Italian 0.3%, Spanish 0.2%, Dutch 0.2%, Croatian 0.2% and French 0.1%.

Ararat Rural City, citing Australian Bureau of Statistics, 2012

Next, as described in Chapter 3, ‘Methods’, occurrences of evidence were coded into sub-categories within the following three (of five) parent categories that are shown in Table 4.4, ‘Health outcomes’, ‘Health behaviours’ and ‘Domains of public policy’. Sub-categorisation of the evidence within ‘Health outcomes’ and ‘Health behaviours’ was inductive. That is, the sub-categories were developed from the data themselves. Sub-categorisation of the evidence within ‘Domains of Public Policy’ was deductive, using the 11 domains of liveability identified by Lowe et al. (2013, 2015) as important underlying determinants of health and wellbeing. Results of this categorisation are shown in Table 4.5. In each case, if an occurrence of evidence could be described by more than one category or sub-category it was categorised multiple times. One example of evidence which describes three sub-categories – ‘Cardiovascular’, Cancer’ and ‘Mental health’ – within one parent category – ‘Health Outcomes’ – is:

The top three causes for avoidable mortality amongst [the] community are ischaemic heart disease, lung cancer and suicide.

Benalla Rural City Council, citing Victorian State Department of Health evidence
Table 4.5. Sub-topics of evidence in the 2013-2017 MPHWP within the categories of ‘Health outcomes’, ‘Health behaviours’ and ‘Domains of public policy’ (n = 10,206).

<table>
<thead>
<tr>
<th>Health outcomes</th>
<th>% of total occurrences (n = 2,724)</th>
<th>Health behaviours</th>
<th>% of total occurrences (n = 1,984)</th>
<th>Domains of public policy</th>
<th>% of total occurrences (n = 5,498)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental health</td>
<td>18.0</td>
<td>Nutrition</td>
<td>21.3</td>
<td>Social cohesion and democracy</td>
<td>17.2</td>
</tr>
<tr>
<td>Special needs (disability)</td>
<td>10.1</td>
<td>Alcohol and drug use</td>
<td>15.9</td>
<td>Crime and safety</td>
<td>15.1</td>
</tr>
<tr>
<td>Overweight and obesity</td>
<td>8.5</td>
<td>Physical activity</td>
<td>14.7</td>
<td>Employment and income</td>
<td>14.3</td>
</tr>
<tr>
<td>Drug-related</td>
<td>7.2</td>
<td>Smoking</td>
<td>12.1</td>
<td>Health and social services</td>
<td>9.1</td>
</tr>
<tr>
<td>Self-reported health</td>
<td>5.6</td>
<td>Health seeking visits</td>
<td>7.1</td>
<td>Housing</td>
<td>8.8</td>
</tr>
<tr>
<td>Diabetes</td>
<td>4.3</td>
<td>Gambling</td>
<td>6.4</td>
<td>Education</td>
<td>8.7</td>
</tr>
<tr>
<td>Development</td>
<td>4.1</td>
<td>Sedentary behaviour</td>
<td>5.2</td>
<td>Transport</td>
<td>7.4</td>
</tr>
<tr>
<td>Cancer</td>
<td>4.0</td>
<td>Immunisation</td>
<td>5.2</td>
<td>Local goods (incl. food security)</td>
<td>5.6</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>3.9</td>
<td>Sexual and reproductive</td>
<td>2.0</td>
<td>Natural environment</td>
<td>4.2</td>
</tr>
<tr>
<td>Oral health</td>
<td>3.2</td>
<td>Visit to green space</td>
<td>1.6</td>
<td>Leisure, culture and recreation</td>
<td>4.0</td>
</tr>
<tr>
<td>Respiratory disease (incl. asthma)</td>
<td>2.5</td>
<td>Sun protection</td>
<td>0.8</td>
<td>Public open space</td>
<td>2.3</td>
</tr>
<tr>
<td>Infectious disease</td>
<td>2.3</td>
<td>Health insurance</td>
<td>0.6</td>
<td>Resource efficiency</td>
<td>1.9</td>
</tr>
<tr>
<td>Injury</td>
<td>2.2</td>
<td>Oral hygiene</td>
<td>0.3</td>
<td>Land use and urban design</td>
<td>1.2</td>
</tr>
<tr>
<td>Sexual health</td>
<td>1.9</td>
<td>Undefined</td>
<td>6.8</td>
<td>Other</td>
<td>0.0</td>
</tr>
<tr>
<td>Dementia</td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kidney disease</td>
<td>0.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other and undefined</td>
<td>21.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Generally, ‘Health outcomes’ evidence described disease rates and avoidable deaths due to these diseases, although a large percentage of ‘Health outcomes’ evidence fell into the ‘Other and undefined’ category (21%) because it was not disease-specific. Rather, it described issues such as life expectancy, rate of hospital presentations and disability-adjusted life years data. An example of this is:

Avoidable deaths declined by 17% in absolute numbers and unavoidable deaths by approximately 7% in absolute numbers.

Yarra City Council, citing Victorian State Department of Human Services evidence

The most frequently cited topic of evidence in this category was mental health (18%). Examples include self-reported mental health, mental health disability adjusted life years and evidence about the incidence of different presenting issues. A specific example of evidence from this sub-category is:

Families reported 'high'/'very high' stress levels over past month.

Bayside City Council, citing Victorian State Department of Education and Early Childhood Development evidence

Notably, the second most cited topic within the parent category ‘Health outcomes’ was ‘Special needs’ (10.1%). Such evidence was typically a similar percentage to the population of the resident community with a disability or special care needs. A specific example of this is:

In 2011 5.3% of people in Hume had a profound or severe disability.

Hume City Council, citing ABS census data
Only 8.5% of ‘Health outcome’ evidence could be categorised as ‘Overweight and obesity’, and specific non-communicable diseases each comprised less than 5% of the evidence in this category (e.g. ‘Diabetes’ 4.3%; ‘Cardiovascular’ 3.9%).

In the ‘Health behaviours’ category the most frequently occurring evidence topics were major chronic disease risk factors: ‘Nutrition’ (21.3%), ‘Alcohol and drug use’ (15.9%), ‘Physical activity’ (14.7%) and ‘Smoking’ (12.1%). Respective examples of such evidence are:

88.45% of Latrobe residents do not meet the dietary guidelines for vegetable consumption.

Latrobe City Council, citing Victorian Population Health Survey

The number of people who had purchased alcohol in the past seven days was significantly less than the state average, with 32.2% compared to 36.3%.

Central Goldfields Shire, citing VicHealth

Physical inactivity is associated with an increased risk of ill-health and death, and has been linked to increased rates of overweight and obesity, CVD, some cancers, and depression.

Northern Grampians Shire, citing Victorian State Department of Health

Notably, the proportion of Australian 16-17 year-olds who had smoked in the past month had declined from 35% in 1984 to 17% by 2011.

City of Greater Dandenong, citing The Cancer Council
In terms of the ‘Domains of public policy’ that determine health, the highest frequency (17.2%) of evidence was the ‘Social cohesion and local democracy’ sub-category. An example of the type of evidence cited under this category is:

The Australian Social Inclusion Board found that although strong social networks, such as family and friends, are an important form of support and assistance, external support services also play an important part.

Yarra City Council, citing the Australian Social Inclusion Board, a former federal agency

Other frequently cited evidence within the ‘Domains of public policy’ category described ‘Crime and safety’ (15.1%) and ‘Employment and income’ (14.3%). Notably, only 9.1% of the evidence in the ‘Domains of public policy’ category related to ‘Health and social services’. Examples of evidence from each of these respective categories are as follows:

Total crime offences in [Ararat Rural City Council] are higher than the state average, 72.8 vs. 64.7 per 1,000 population, ranking it 19th in the state.

Ararat Rural City Council, uncited evidence

Primary production in our region provides economic support to local retail and affords employment across a wide range of sectors.

Mildura Rural City Council, citing Mildura Development Corporation

In 2012, the Northern Melbourne Medicare Local assessed the Nillumbik municipality as having 11 areas serviced by after-hours locum and 11 areas as not serviced.

Nillumbik Shire Council, citing General Practice Victoria
Of note is that the two categories that were added to Lowe and colleagues’ (2015) original 11 domains of liveability for the purposes of this study, ‘Resource efficiency’ and ‘Land use and urban design’, contained the least amount of evidence (1.9% and 1.2% respectively). This suggests that according to Victorian LG, the original 11 domains are the most influential health-determining domains.

4.4.4 Evidence type

In this study, the definition of ‘type’ was based on conceptual frameworks that characterise evidence by the function it performed in the document. Under this framework, evidence can be thought of as sitting in one of two broad categories: it can describe a general health-related situation (descriptive evidence), or provide support for actions (intervention evidence, such as evaluated case studies and RCTs) (Armstrong et al., 2014a, Petticrew and Roberts, 2003). These two broad categories are broken down further; descriptive evidence can describe a health or health-related phenomenon at either the regional or municipal scale, while intervention evidence can either point to ways that the health of the community might be improved, or provide direct support for a proposed action. Consistent with these four categories, all occurrences of evidence were coded as: describing a regional situation, describing a municipal situation, evidence for a possible solution, or evidence for a local action. The results from coding evidence against these four categories are shown in Table 4.6.

Table 4.6. Percentages of evidence from 2013-2017 MPHWPs in each type category (n = 12,144).

<table>
<thead>
<tr>
<th>Type</th>
<th>Descriptive evidence</th>
<th>Intervention evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describes a regional situation n = 1,554</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Describes a municipal situation n = 10,068</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td>Evidence for a possible solution n = 243</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Evidence for a proposed action n = 279</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>
Across all councils, the greatest proportion (96%) of evidence was descriptive and the greatest proportion of this (83% of all evidence) was descriptive of the municipality rather than a broader region, such as with national health issues. An example of this is:

66% report that there is a wide range of local community and support groups available in Knox, compared with 57% for Metropolitan Melbourne.

Knox City Council, citing the Victorian Population Health Survey

Descriptive evidence plays an important role in building the context for the MPHWP and in helping councils prioritise the issues to address. Evidence of this type was sourced from a broad range of organisations. Furthermore, all of the evidence that was sourced from CIV was descriptive. This is consistent with the understanding that indicators provide information on trends and status (descriptive) rather than on how those trends might be changed (intervention).

In contrast to the large amount of descriptive evidence, there was much less use of intervention evidence describing possible solutions (2%) or supporting local actions (2%), for example, how health and wellbeing might be improved. Respective examples of evidence of these types are provided below:

Research has also indicated that breastfeeding can improve infant-mother attachment where this is at risk because of maternal mental health problems or other issues impacting on parenting capacity.

Evidence for a possible solution from City of Greater Bendigo, citing Department of Employment Education and Training

60% of Hepburn persons support a smoking ban in outside dining areas.

Evidence for a local action from Hepburn Shire Council, citing VicHealth
For each council, intervention evidence was calculated as a percentage of all evidence used. These percentages were then averaged across tertiles for SES, revenue per capita and across groups according to type (Table 4.7).

Table 4.7. Intervention evidence as a percentage of all evidence in 2013-2017 MPHWPs by council characteristics.

<table>
<thead>
<tr>
<th>Council characteristics</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue per capita a</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (n = 26)</td>
<td>5.2</td>
<td>8.9</td>
</tr>
<tr>
<td>Medium (n = 26)</td>
<td>8.8</td>
<td>9.0</td>
</tr>
<tr>
<td>High (n = 27)</td>
<td>4.8</td>
<td>5.3</td>
</tr>
<tr>
<td>F(2, 76) = 2.1, p = .13</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Socio-economic status (SEIFA IRSD)b</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (n = 28)</td>
<td>7.9</td>
<td>9.9</td>
</tr>
<tr>
<td>Medium (n = 24)</td>
<td>5.0</td>
<td>7.6</td>
</tr>
<tr>
<td>High (n = 27)</td>
<td>5.7</td>
<td>5.7</td>
</tr>
<tr>
<td>F(2, 76) = 0.9, p = .39</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Location c</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan (n = 32)</td>
<td>4.3</td>
<td>5.1</td>
</tr>
<tr>
<td>Regional (n = 47)</td>
<td>7.5</td>
<td>9.5</td>
</tr>
<tr>
<td>t(77) = -1.8, p = .07</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a low: $875-$1,369, medium: $1,370-$2,109, high: $2,110-$4,584
b low: 895-980, medium: 981-1,008, high: 1,009-1,098
c metropolitan: metropolitan and interface councils, regional: rural and regional city councils

Table 4.7 shows that while there was some variation in the percentage of intervention evidence between councils, there were no statistically significant differences between these variables in terms of intervention evidence use. This indicates that across Victorian councils, the use of intervention evidence is consistently low and does not change with SES, revenue per capita or location. However, when compared in terms of their SES, councils in the lowest SES category had the highest average percentage of intervention evidence (7.9%) as compared to councils in the middle and high categories (5.0% and 5.7% respectively). When councils were compared in terms of revenue per capita, those in the medium category had the highest
average percentage of intervention evidence (8.8%). Finally, when compared in terms of location, regional councils had a higher average percentage of intervention evidence (7.5% as compared to 4.3% for metropolitan councils).

4.4.5 Further analysis - relationships between topic, type and source

To determine if there was a pattern between the topic and type of evidence, NVivo 10/11 was used to run queries (i.e. cross-tabulations) that calculated how much of the evidence fell into each combination of categories for topic (five categories: ‘General and non-specific evidence’, ‘Demographics’, ‘Health outcomes’, ‘Health behaviours’ and ‘Domains of public policy’) and type (four categories: ‘describes a regional situation’, ‘describes a municipal situation’, ‘evidence for a possible solution’, ‘evidence for proposed action’). As described above, some data was coded more than once, so the total number of occurrences (n = 12,144) is higher than that shown in 4.4.1. The results of this crosstab are presented in Table 4.8 in a matrix of 20 cells, where the value in each cell is a percentage of all the evidence used by councils. These results are consistent with those shown in Table 4.4 and table 4.6 that separately describe the topic and type of evidence.

Table 4.8. Percentage of all evidence in 2013-2017 MPHWP falling into each combination of categories for topic and type (n = 12,144).

<table>
<thead>
<tr>
<th>Topic</th>
<th>Type</th>
<th>Descriptive evidence</th>
<th>Intervention evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Describes a regional</td>
<td>Describes a municipal</td>
<td>Evidence for</td>
</tr>
<tr>
<td></td>
<td>situation</td>
<td>situation</td>
<td>a possible solution</td>
</tr>
<tr>
<td>General and non-specific</td>
<td>2.5</td>
<td>2.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Demographics</td>
<td>0.0</td>
<td>11.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Health outcomes</td>
<td>3.8</td>
<td>17.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Health behaviours</td>
<td>2.9</td>
<td>12.7</td>
<td>0.2</td>
</tr>
<tr>
<td>Domains of public policy</td>
<td>3.6</td>
<td>39.7</td>
<td>1.2</td>
</tr>
</tbody>
</table>
Table 4.8 shows that the greatest proportion (39.7%) of evidence was about a domain of public policy (topic) and was descriptive of the municipal situation (type). A simple piece of evidence that exemplifies this, because it describes ‘Public open space’ at the municipal level is,

*About 92% of the Shire is public land, including areas of the Alpine National Park and all of the Mount Buffalo National Park.*

Alpine Shire Council, – uncited evidence

The next-greatest percentage was evidence describing health outcomes at the municipal level, with 17% of all evidence falling into this combination of categories. This was followed by evidence describing health behaviours at the municipal level, with 12.7% of all evidence falling into this combination of categories. Examples of such evidence are, respectively:

*12.6% of residents experience high/very high levels of distress, which is slightly higher than the Victorian average*

Stonnington City Council, citing the Victorian Population Health Survey

*Bass Coast has a low participation rate in breast cancer screening*

Bass Coast Shire Council citing the Victorian State Department of Health

Table 4.8 shows that while 1.2% of all occurrences were intervention evidence for a possible solution that was based in public policy, only 0.2% of occurrences were intervention evidence for a possible solution that targeted health behaviours directly. Examples of evidence from these respective combinations of categories are:

*Increasing vegetation cover can reduce the urban heat island effect and thereby increase liveability and reduce energy use.*

City of Casey, uncited evidence
Increasing the number of local activities available was raised as a solution to increase levels of physical activity amongst residents.

Cardinia Shire Council, citing evidence from community consultation

In both these cases there are limitations to the value of the evidence for decision-making. For the first example, the evidence is uncited, which calls into question its reliability. Secondly, while it makes a general statement about what can be done to reduce the heat island effect, it does not describe or cite information about specific approaches to increasing vegetation cover that are locally relevant.

In the second example, the source is the community and, as such, it exemplifies the majority of intervention evidence used in MPHWPs, where 23% of all evidence for possible solutions and 78% of all evidence for proposed actions was sourced from consultations with the community. Despite the terminology used in preceding sections which led to this sub-category, and the fact that organisations such as the National Collaborating Centre for Methods and Tools (2012) define community opinion as a form of evidence, defining community ideas and support for particular actions as intervention ‘evidence’ is perhaps inaccurate. While community consultation is an important and indeed legislated requirement for the development of MPHWPs, relying predominantly on evidence from the community to support interventions may be problematic. This is because it simply takes the form of broad community support to do something, rather than describing an action that has been shown to be effective.

As a contrast to the large amount of community intervention evidence that was cited, State Government sources of intervention evidence were cited only 71 times, and academic sources only 17 times. Notably, there was only one occurrence of evidence for an intervention sourced from a health promotion non-government organisation:

A recent workshop held at Council on Food Sensitive Planning and Urban Design (FSPUD), highlighted benefits that a local food coalition could generate.

Mildura City Council, citing the Heart Foundation
Finally, of note is that when demographic evidence was analysed for its type, all such evidence described the municipality rather than the region or a broader area. Furthermore, consistent with an understanding that demographic evidence is necessarily only ever descriptive, none of the demographic evidence provided evidence for possible solutions or local actions.

4.5 Summary of findings

The results of the analysis of MPHWPs’ content showed that councils across Victoria are using a large amount of evidence from a very broad range of sources in their plans. The most cited source was the Australian Bureau of Statistics. Victorian government departments were significant amongst the top 10 evidence sources, as was Community Indicators Victoria, Profile.id The population Experts, Victoria Police and the Primary Care Partnerships. The analysis also showed that while councils use a large amount of evidence to describe health and wellbeing in the municipality, there is a notable dearth of intervention evidence, most of which is sourced from the community. Descriptive evidence about the population itself (demographics, health behaviours and health outcomes) constituted about 49% of all evidence. Of note was that 46% of all evidence was about the policy areas that determine health and wellbeing. Among this, significance amounts of evidence described aspects of ‘Social cohesion & democracy’, ‘Crime and safety’ and ‘Employment and income’ within municipalities, suggesting that LG considers these issues important for health planning. There was high consistency between councils in their use of evidence. When councils with different SES, revenue per capita and location were compared, they did not vary significantly in either the topics of the evidence that they used, or how much of their evidence described the situation versus provided support for interventions.
Chapter 5: Local government as an agent of health and wellbeing

5.1 Introduction

This chapter details the results of the analysis of actions in MPHWP. In addition, it provides an analysis of the relationship between evidence and actions, and a summary of the qualitative component of the document analysis. This component identified qualitative statements that articulated MPHWP managers’ understanding of their council’s responsibility and capacity as agents of public health. The chapter concludes with a summary of the findings of the document analyses and is complemented by Chapter 6, a published paper that describes further analysis of the actions in MPHWP.

5.2 Review of the method – actions in MPHWP

Analysis of the MPHWP for the actions therein contributed to answering the research question, ‘How does local government in Victoria use evidence to inform strategic planning for health and wellbeing?’ An action was defined as ‘a statement that was explicitly designated as an action’ or ‘a statement of intent to do something intended to achieve a particular aim’. The content analysis operationalised the research question using the following questions;

4. Did the action address one of the 14 priority areas of the State Health Plan (Victorian Government, 2011b)?
5. How far upstream in an aetiological framework was the action targeted (Barton and Grant, 2006, Dahlgren and Whitehead, 1991, VicHealth, 2015a)?
6. To what SDH ‘policy area’ (Lowe et al., 2013, 2015) was the action directed?

Data about the actions tabled in MPHWP were collected by reading the documents to identify and locate actions. When an action was identified, it was categorised, using NVivo 10/11, according to whether it addressed one of the 14 priority areas of the State Health Plan (Question 4). This resulted in the creation of a record of each action as a data point in NVivo.
10/11. Once a full list of actions was collected, the list was used to ‘code on’ (QSR International, 2012) to collect data to answer Questions 5 and 6.

5.3 Results – actions in MPHWP s

5.3.1 Number of actions tabled

Just over 5,000 (n = 5,210) actions were identified across the MPHWP s of the 79 municipalities. The number of actions per council ranged from just nine to 292. Figure 5.1 shows the percentage of councils according to number of actions.

![Figure 5.1. The percentage of Victorian councils by number of actions in 2013-2017 MPHWP s.](image)

The majority of councils tabled between one and 49 actions and almost 90% of councils tabled between one and 99 actions in their MPHWP. The number of actions tailed off quickly after this, with 6% tabling between 100 and 149 actions. Only six councils tabled more than 150 actions and only three tabled more than 250 actions.

An aspect of quantitative analysis of qualitative data – in this case counting the number of actions that councils tabled – is that information about the scale of actions is not recorded (Ryan and Bernard, 2000). For example, some councils tabled only a small number of strategic actions while others tabled a higher number of more specific actions. This difference in approach was often observed between councils that tabled a single MPHWP and those that tabled a core MPHWP plus annual action plans. While single MPHWP s were typically quite
strategic and the actions therein were all-embracing and did not include steps that would be undertaken to complete the action, annual action plans usually broke strategic actions into a number of more operational tasks. Take the following action as an example:

*Promote gender equity, prevent violence against women and support the right of women to engage and participate fully and equally in all aspects of community life, by ongoing implementation and monitoring of: Women’s Equity Strategy, Prevention of Violence Against Women Action Plan and Community Safety Strategy.*

Darebin City Council

Darebin’s action above is quite strategic, and stands in contrast to other similar actions on the same topic from another council’s MPHWP:

*Establish a partnership with local agencies in hosting events for Month of Action including White Ribbon Day.*

*Work with existing agencies to better understand data and services that support victims of family violence.*

Colac Otway Shire

Although the Darebin example signifies a more comprehensive action, under the current methodology it was counted as one action. In comparison, the two actions from the Colac Otway council were each recorded as individual actions. These examples demonstrate that actions were not necessarily equivalent in terms of effort, and so simply counting actions could not reveal the full extent of effort that a council devoted to an issue. This variation in the detail of actions contributed to the differences in the number of actions tabled per council as presented in Figure 5.1.

A one-way between-groups analysis of variance was conducted to explore the impact of councils’ revenue per capita on the number of actions that were tabled. Councils were divided into three groups according to their revenue per capita (Municipal Association of Victoria, 2015a, Sykes, 2015). Revenue per capita data was divided into tertiles according to the 33rd
and 66th percentiles, resulting in the following categories; low: $875-$1,369, medium: $1,370-$2,109 and high: $2,110-$4,584. The results of this analysis are shown in Table 5.1.

Table 5.1. Comparison of the number of actions tabled per Victorian council in 2013-2017 MPHWPs (n = 5,210) according to councils’ revenue per capita.

<table>
<thead>
<tr>
<th>Revenue per capita *</th>
<th>n</th>
<th>%</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (n = 26)</td>
<td>2,216</td>
<td>42.5</td>
<td>85.2</td>
<td>80.3</td>
</tr>
<tr>
<td>Medium (n = 26)</td>
<td>1,737</td>
<td>33.3</td>
<td>66.8</td>
<td>48.1</td>
</tr>
<tr>
<td>High (n = 27)</td>
<td>1,257</td>
<td>24.1</td>
<td>46.6</td>
<td>20.6</td>
</tr>
</tbody>
</table>

* low: $875-$1,369, medium: $1,370-$2,109, high: $2,110-$4,584

Table 5.1 shows that there was significant difference between the number of actions tabled per council in the three different revenue per capita categories ($F(2, 76) = 3.2, p = .04$). Post hoc comparisons using the Tukey HSD test indicated that councils in the lowest revenue per capita category had significantly more actions ($M = 85.2, SD = 80.3$) than those in the highest revenue category ($M = 46.6, SD = 20.6$). As described above, this could be explained by differences in reporting style between low- and high-income councils. For example, lower-income councils tended to table single plans which contained all actions for the four-year period, whereas higher-income councils tabled a core plan with fewer and more strategic actions, followed by three subsequent action plans which were not usually available for analysis. Councils in the medium revenue per capita category did not differ significantly from those in either the lowest or highest category.

Next, a one-way between-groups analysis of variance was conducted to explore the impact of SES on the number of actions in MPHWPs. Councils were divided into three groups according to their SES. SES data were divided into tertiles based on the SEIFA Index of Relative Social Disadvantage (IRSD) scores according to the 33rd and 66th percentiles. The SEIFA IRSD is a general socio-economic index that summarises a range of information about the economic and social conditions of people and households within an area, such as the number of households with low incomes and the number of people with no qualifications (Australian Bureau of Statistics, 2013b). The IRSD of councils ranged from 895 (most disadvantage) to 1,098 (least
disadvantage), and use of tertiles resulted in the following categories; low: 895-980, medium: 981-1,008 and high: 1,009-1,098. The results of this analysis are shown in Table 5.2.

Table 5.2. Comparison of the number of actions (n = 5,210) tabled by Victorian councils in 2013-2017 MPHWPs according to councils’ SES.

<table>
<thead>
<tr>
<th>Socio-economic status (SEIFA IRSD)</th>
<th>n</th>
<th>%</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (n = 28)</td>
<td>1,456</td>
<td>27.9</td>
<td>52.0</td>
<td>24.3</td>
</tr>
<tr>
<td>Medium (n = 24)</td>
<td>1,790</td>
<td>34.4</td>
<td>74.6</td>
<td>58.5</td>
</tr>
<tr>
<td>High (n = 27)</td>
<td>1,964</td>
<td>37.7</td>
<td>72.7</td>
<td>75.3</td>
</tr>
</tbody>
</table>

*a low: 895-980, medium: 981-1,008, high: 1,009-1,098

Table 5.2 shows that on average, councils with a low SEIFA score (more disadvantage) tabled fewer actions than their counterparts in the medium and high SEIFA categories, although the difference between them was not statistically significant ($F(2, 76) = 1.3, p = .26$).

Finally, an independent samples t-test was performed to compare the number of actions tabled by councils according to their location in either metropolitan Melbourne or regional Victoria, based on Essential Economics (2013) and Victorian Government (2015b) definitions. The results of this analysis are shown in Table 5.3.

Table 5.3. Comparison of the number of actions (n = 5,210) tabled by Victorian councils in 2013-2017 MPHWPs according to council location.

<table>
<thead>
<tr>
<th>Location</th>
<th>n</th>
<th>%</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan (n = 32)</td>
<td>2,619</td>
<td>50.3</td>
<td>81.8</td>
<td>76.9</td>
</tr>
<tr>
<td>Regional (n = 47)</td>
<td>2,591</td>
<td>49.7</td>
<td>55.1</td>
<td>33.8</td>
</tr>
</tbody>
</table>

*a metropolitan: metropolitan and interface councils, regional: rural and regional city councils
Table 5.3 shows that on average, metropolitan councils tabled more actions than regional councils, however the difference was not found to be statistically significant ($t(39.2) = 1.8, p = .07$).

### 5.3.2 Alignment of actions with the Victorian Health and Wellbeing Plan

The next stage of analysis categorised all councils’ actions according to whether they explicitly addressed one or more of the intervention areas within the action areas of the 2011 Victorian Health and Wellbeing Plan (see Question 4 above). The action areas were ‘Continue to protect the health of Victorians’ and ‘Keep people well’ (Figure 3.2). ‘Continue to protect the health of Victorians’ contained five priority intervention areas that were principally directed towards environmental health issues and communicable disease control, the first wave of public health (Victorian Government, 2011b, Hanlon et al., 2011). ‘Keep people well’ contained nine priority intervention areas directed towards lifestyle-related risk factors, the fourth wave of public health (Victorian Government, 2011b, Hanlon et al., 2011). The results of this categorisation for the four types of councils defined by Essential Economics (2013) and the Victorian Government (2015b) are shown in Figure 5.2.

![Figure 5.2. Proportion of actions (n = 5,210) in the 2013-2017 MPHWP explicitly aligned with the two priority areas in the State Health Plan, by council location.](image-url)
A large proportion (63%) of all actions were targeted to issues that were beyond the explicitly listed priority areas of the State Health Plan (Figure 5.2), with metropolitan councils tabling the highest percentage of actions of this type. This suggests that rather than just using the action areas of the State Health Plan, all councils – but particularly metropolitan councils – responded to their own knowledge about local priorities to guide the development of actions.

There was also a strong focus on actions that aligned with the ‘Keep People Well’ State priority, with 31.3% of all councils’ actions focused on this area. Regional centre councils tabled 10% more ‘Keep people well’ actions than metropolitan councils. Only 5.7% of all councils’ actions explicitly addressed the State priority of ‘Continue to protect the health of Victorians’ and rural councils tabled twice the proportion of actions of this type than metropolitan councils.

Environmental health, exemplified by the ‘Continue to protect the health of Victorians’ action area, has been a core function of LG for many years, whereas the prevention of chronic disease (‘Keep people well’) is a relatively newer role for LG. The disparity in results for these two action areas (31.3% as compared to 5.7%) might be explained by an emphasis in councils’ plans towards the prevention of chronic disease rather than environmental health (Hanlon et al., 2011).

Three analyses were performed to determine whether the percentage of actions directed beyond the State Health Plan priorities varied with councils’ characteristics, specifically SES, revenue per capita and location. One-way between-groups analyses of variance were used to investigate differences between councils’ revenue per capita and SES on the percentage of actions that were directed beyond the priority areas of the State Health Plan. An independent samples t-test was used to determine whether there was a difference between metropolitan and regional councils. The results of these analyses are presented in Table 5.4.
Table 5.4: Proportion of actions tabled in 2013-2017 MPHWP (n = 5,210) that did not explicitly address an Action Area from the State Health Plan by councils’ characteristics.

<table>
<thead>
<tr>
<th>Council characteristic</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue per capita</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (n = 26)</td>
<td>64.7</td>
<td>18.1</td>
</tr>
<tr>
<td>Medium (n = 26)</td>
<td>66.4</td>
<td>14.8</td>
</tr>
<tr>
<td>High (n = 27)</td>
<td>60.4</td>
<td>18.0</td>
</tr>
<tr>
<td>F(2, 76) = 0.8, p = .42</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Socio-economic status (SEIFA IRSD)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (n = 28)</td>
<td>62.7</td>
<td>18.5</td>
</tr>
<tr>
<td>Medium (n = 24)</td>
<td>63.4</td>
<td>16.1</td>
</tr>
<tr>
<td>High (n = 27)</td>
<td>65.3</td>
<td>16.8</td>
</tr>
<tr>
<td>F(2, 76) = 0.2, p = .85</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan (n = 32)</td>
<td>66.4</td>
<td>17.1</td>
</tr>
<tr>
<td>Regional (n = 47)</td>
<td>62.0</td>
<td>16.9</td>
</tr>
<tr>
<td>t(77) = 1.1, p = .25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[a] low: $875-$1,369, medium: $1,370-$2,109, high: $2,110-$4,584

[b] low: 895-980, medium: 981-1,008, high: 1,009-1,098

[c] metropolitan: metropolitan and interface councils, regional: rural and regional city councils

Table 5.4 shows that none of SES, revenue per capita or location resulted in statistically significant differences between councils targeting actions beyond the two action areas of the State Health Plan. This suggests that across Victoria, councils gave similar regard to the State Health Plan as required by Section 26 of the Public Health and Wellbeing Act (State of Victoria, 2008) when developing their actions.

Given that a large proportion (63%, n = 3,797) of all the councils’ actions did not explicitly match an intervention area of the State Health Plan, further inductive coding was performed to establish whether these actions addressed additional discrete issues that were consistent with the first and fourth wave of public health (Hanlon et al., 2011). This coding resulted in a third of these 3,797 actions (n = 1,278) being categorised into five new categories, ‘Community
safety’, ‘Disability’, ‘Gambling’, ‘Life-stage specific issues’ and ‘General mental health promotion’. These results are shown in Figure 5.3.

Figure 5.3 shows that a large number of these actions fell into the new category ‘General mental health promotion’. This new category is different from the State Health Plan category ‘Mental health promotion’ (Victorian Government, 2011b), as the State category focuses on addressing mental health conditions at the individual level. In contrast, many of the actions in the new category included preventative interventions targeted at the community level, such as encouraging volunteering, increasing inclusion of isolated people and fostering cultural diversity. Even though these types of initiatives are not explicitly listed as priority intervention areas by the state government, LGs appeared to consider them important enough to develop a number of actions in these areas.

5.3.3 Targeting of actions upstream

The next part of the assessment categorised all actions in the 2013-2017 MPHWPs for how far ‘upstream’ in a SDH framework they were targeted (Dahlgren and Whitehead, 1991, Zola, 1970) (see Question 5, above). The categories used for this were based on Dahlgren and Whitehead’s original understanding of the multiple levels of influence that ‘threaten, promote or protect health’ (Dahlgren and Whitehead, 1991, p. 11). The categories were: ‘Individual lifestyle factors’, ‘Social and community networks’, ‘Living and working conditions’ and
‘General socio-economic, cultural and environmental conditions’. The category ‘Tenuous links to health and wellbeing’ was included to capture actions that had very indirect population health benefits. Some actions targeted more than one level within this framework and so were coded twice. This resulted in 5,232 actions for this question. Additionally, 177 actions (3%) contained insufficient information for them to be categorised according to this question; this was often because a no description of how the action would be implemented was provided. An example of such an action is:

*Ensure Towong Shire residents have had opportunities to attain a higher level of health and safety, resilience and connectedness to their communities.*

Towong Shire Council

This action provides clear goals and aspirations for the community. However, it does not identify whether goals will be achieved through downstream behaviour change programs or building social networks, or more upstream advocacy programs intended to improve socio-economic, cultural or environmental conditions.

The results of the analysis of all councils’ actions against the categories for Question 5 are shown in Figure 5.4.

![Figure 5.4. Number of actions in the 2013-2017 MPHWPs categorised by distance upstream to which they are targeted (n = 5,232).](image-url)
Figure 5.4 shows that the greatest proportion of actions (47%) was targeted partially upstream towards ‘Living and working conditions and services’. Examples of such actions are:

*Maintain and create footpaths and kerbs with consideration and consultation for accessibility*

Ballarat City Council

*Develop infrastructure in public spaces that supports incidental activity, such as interactive art and play spaces.*

Kingston Shire Council

These actions exemplify this level because, as shown in Table 3.6, in both cases they are medium-term goals that aim to improve health through the provision of infrastructure and services. The large percentage of all actions that are targeted towards ‘Living and working conditions and services’ suggests that councils recognise and capitalise on their traditional role of services and social infrastructure provision to improve living and working conditions, which in turn will improve health and wellbeing.

The second greatest proportion of actions (25%) was targeted far upstream to improve the ‘Socio-economic, cultural or environmental contexts’ that determine health. An example of this is:

*Develop a long-term transport plan for the Shire. The plan should consider future opportunities associated with the growing population base, future education facilities in the Shire, issues associated with growing number of youth and ageing population.*

Golden Plains Shire

This action exemplifies an upstream category because it is quite strategic, necessitates longer-term activities and, if successful, should result in ‘trickle down’ health and wellbeing benefits. The large proportion of actions directed this far upstream suggests that councils recognise the importance of addressing powerful upstream cultural determinants – in the case of the example, transport accessibility.
Other actions addressed to this level specifically addressed SDH inequities, specifically, the influence of social and economic conditions within a community (Marmot, 2005). Many such actions used partnerships and advocacy because the intended outcome of the action constituted an attempt to influence issues that were beyond the authority of LG alone. Examples of this are:

*Partner with agencies ... to address health inequalities in terms of access and inclusion, diversity and gender equity.*

Moreland City Council

*Advocate for additional Aboriginal health services in the municipality.*

Whittlesea City Council.

Again, these actions exemplify this upstream category because they are intended to result in changes which, while indirect, should trickle down to improve health and wellbeing in the community. The large proportion of actions directed to this level suggest that councils are adopting a ‘maximalist’ role that goes well beyond the historic remit of ‘roads, rates and rubbish’ (Allender et al., 2009). Rather, councils are attempting to address equity by building social capital to foster the welfare of the whole community (Dollery et al., 2006).

Of note is the fact that relatively few actions (10%) fell into the downstream category, ‘Individual lifestyle factors’, and that these often constituted behaviour change programs. An example of this is:

*Develop targeted community education campaigns about the health consequences of sedentary behaviour (7+ hours of sitting).*

Darebin City Council

This action exemplifies this downstream category because, as shown in Table 3.6, it is responsive and specific to a health issue rather than acting on determinants of sedentary behaviour. That a smaller percentage of actions fell into this category suggests that councils are more concerned with addressing health via determinants than via behaviour change.
A small percentage of the actions (2%) were found to have ‘Tenuous links to health and wellbeing’ because they were internally focused, for example aiming to improve council processes. Two examples of such actions are shown below.

*Deliver efficiency gains through continuous improvement initiatives.*

Gannawarra Shire Council

*Manage spending levels within budgetary capacity.*

Brimbank City Council

Such actions are seen by the council as important for improving the efficiency of operations, and while this is an essential means by which the end of improved community health and wellbeing can be achieved, it has a much more indirect effect.

In order to determine if councils’ revenue per capita had an effect on the distance upstream to which actions were directed, the mean number of actions directed to each layer was cross-tabulated against councils’ revenue per capita using tertiles, as described above. A one-way between-groups multivariate analysis of variance (MANOVA) was performed to investigate the effect of revenue per capita on the distance upstream to which actions were targeted. The five dependent variables, ‘Individual lifestyle factors’, ‘Social and community networks’, ‘Living and working conditions’, ‘General socio-economic, cultural and environmental conditions’ and ‘Tenuous links to health and wellbeing’ were used. The independent variable was revenue per capita. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices and multicollinearity, with no serious violations noted. The results of this analysis are shown in Table 5.5.
Table 5.5. Comparisons of the number of actions in the 2013-2017 MPHWPs (n = 5,232) directed to each upstream level by councils’ revenue per capita.

<table>
<thead>
<tr>
<th>Distance upstream</th>
<th>Revenue per capita category a</th>
<th>n</th>
<th>%</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low (n = 26)</td>
<td>223</td>
<td>44.5</td>
<td>8.4</td>
<td>6.0</td>
<td>.037</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>147</td>
<td>29.3</td>
<td>5.7</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>131</td>
<td>26.1</td>
<td>5.0</td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>501</td>
<td>100</td>
<td>6.3</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td>Social and community networks</td>
<td>Low (n = 26)</td>
<td>374</td>
<td>52.5</td>
<td>13.4</td>
<td>10.8</td>
<td>.008</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>157</td>
<td>22.0</td>
<td>6.9</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>182</td>
<td>25.5</td>
<td>6.9</td>
<td>6.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>713</td>
<td>100</td>
<td>9.0</td>
<td>8.9</td>
<td></td>
</tr>
<tr>
<td>Living and working conditions</td>
<td>Low (n = 26)</td>
<td>1051</td>
<td>43.1</td>
<td>39.3</td>
<td>52.6</td>
<td>.183</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>807</td>
<td>33.1</td>
<td>31.6</td>
<td>22.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>579</td>
<td>23.8</td>
<td>22.0</td>
<td>14.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2437</td>
<td>100</td>
<td>30.9</td>
<td>34.3</td>
<td></td>
</tr>
<tr>
<td>Socio-economic, cultural and environmental conditions</td>
<td>Low (n = 26)</td>
<td>540</td>
<td>41.7</td>
<td>20.5</td>
<td>21.5</td>
<td>.112</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>466</td>
<td>36.0</td>
<td>17.9</td>
<td>18.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>289</td>
<td>22.3</td>
<td>11.0</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1295</td>
<td>100</td>
<td>16.3</td>
<td>17.0</td>
<td></td>
</tr>
<tr>
<td>Tenuous links</td>
<td>Low (n = 26)</td>
<td>27</td>
<td>31.0</td>
<td>1.0</td>
<td>4.1</td>
<td>.667</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>40</td>
<td>46.0</td>
<td>1.7</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>20</td>
<td>23.0</td>
<td>0.7</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>87</td>
<td>100</td>
<td>1.1</td>
<td>3.6</td>
<td></td>
</tr>
</tbody>
</table>

a low: $875-$1,369, medium: $1,370-$2,109, high: $2,110-$4,584

Table 5.5 shows that there were no statistically significant differences between councils with low, medium and high revenue per capita on the combined dependent variables: $F(2, 76) = 1.47, p = .16, Pillai’s Trace = .18, partial eta squared = .09. However, when the results for the dependent variables were considered separately (using a Bonferroni adjustment; five dependent variables, alpha adjusted from .05 to .01), the number of actions directed towards ‘Social and community networks’ was found to vary significantly between the three revenue categories.
categories \((p = .008)\), with twice as many actions tabled by the 26 councils in the low revenue group compared to the medium or high groups. This result is possibly a response to a need to improve social networks within the communities in municipalities with low revenue.

As Gorard (2013) notes, statistical analyses become less important when ‘the full population of cases is used’ – as was the case in the current study – ‘since then there is no sampling variation’ (Gorard, 2013, p. 54). Although not statistically significant, it is noteworthy that as a group, councils in the low revenue group also directed nearly twice as many actions towards both the downstream ‘individual lifestyle’ layer and the upstream ‘Socio-economic, cultural and environmental conditions’ SDH layer as those councils with high revenue. Low revenue councils also directed more actions than other councils towards ‘Living and working conditions’, although the difference was less marked. These results are consistent with the finding that low revenue councils tabled more actions overall (Table 5.1), possibly due to the tabling of a single plan, as described above.

5.3.4 Actions by policy area

Categorising actions by policy area constituted the final part of the assessment of councils’ efforts to address social determinants of health. Question 6 was used to categorise actions by the policy area to which they were addressed. The categories that were used were the 11 domains of liveability established by Lowe and colleagues (Lowe et al., 2013, 2015) plus two further categories, ‘Resource efficiency’ and ‘Land use and urban design’. If an action addressed more than one issue, it was coded multiple times. The following example is an action that was categorised twice, as both ‘Employment and income’ and ‘Education’:

*Partner with Local Learning and Employment networks to investigate opportunities to engage youth in education, training and in employment in Golden Plains.*

Golden Plains Shire Council

The results of the categorisation of actions into policy areas are shown in Figure 5.5.
Figure 5.5. Number of actions in Victorian 2013-2017 MPHWP (n = 5,232) targeted to each policy area.

Figure 5.5 shows that there were 546 actions that could not be categorised into policy areas. This is far fewer than the number that could not be categorised against the State Health Plan’s priority areas (Figure 5.2), which means that although many of councils’ actions do not directly address intervention areas noted in the State Health Plan, they do address health via broader policy areas which determine health.

Figure 5.5 also shows that the greatest proportion of actions (18%) targets the ‘Health and Social Services’ policy area (n = 959). Consistent with the definition of this category (Lowe et al., 2013), such actions cover a range of issues, and included service delivered by health services, youth services and community centres. Two examples that show the diversity of actions in this category are presented below:

*Co-ordinate and deliver immunisation services to protect children from vaccine preventable diseases.*

Banyule City Council
[Deliver] speech pathologist screenings at all kindergartens in Bass Coast Shire.

Bass Coast Shire Council

The second greatest proportion (14%) of actions was directed towards building ‘Social cohesion and local democracy’ (n = 715). Consistent with the definition of this category (Lowe et al., 2013), actions that fell into this category included those that facilitated membership of local community organisations, participation in decision-making, community inclusion of cultural groups, social support and volunteering. Examples are,

*Develop a Youth Engagement Strategy.*

Alpine Shire Council

*Convene and support Council’s Multicultural, LGBTI (Lesbian, Gay, Bi-sexual, Transgender and Intersex), and Disability and Inclusion Advisory Committees.*

Banyule City Council

The third most frequently occurring type of actions (10%) addressed ‘Leisure, culture and recreation’ (n = 548). Again, consistent with the definition from Lowe et al (2013), actions of this type included those intended to enhance leisure, cultural, sporting and entertainment opportunities. Examples of this are:

*Continue to promote Bonegilla Block 19 and Bandiana Army Museum as tourism and visitation destinations.*

Wodonga Shire Council

*Support delivery of a diverse range of entertainment options in the City to promote alternatives to gambling as a social activity.*

Melton Shire Council
Councils tabled relatively few ‘Land use and urban design’ (3%) and ‘Resource efficiency’ (3%) actions compared with other categories. This is noteworthy because these two categories were added to Lowe’s 11 original categories for the purposes of this analysis. This result supports Lowe’s categorisation of the domains of liveability, and her exclusion of these two categories as distinct policy areas. However, it is also noteworthy that, in comparison, the ‘Housing’ policy area had the fewest actions (n = 83), with only 2% of all actions addressing it.

Of the 5,210 actions, 10% could not be categorised into any policy area. This is because they were generic actions intended to enhance councils’ procedures rather than directly related to a policy area/s. In turn, approximately half of these (5% of all actions) were internally directed towards capacity building within the council, with the action often taking the form of research for the purposes of developing future actions. An example of this is provided below:

"Continue to build on the research and evidence base across the four environments of health for Manningham for planning future decisions."

Manningham City Council

Nevertheless, the fact that around 300 actions could not be categorised against a policy area suggests that the use of additional categories to capture other important health-determining activities would be valuable.

A large number (8%) of actions were targeted towards ‘Crime and safety’. This is notable as although community safety is within the remit of LG, its chief responsibility is to provide facilities and services rather than to prevent crime.

To investigate the effect of councils’ revenue per capita on the policy areas to which actions were directed, the number of actions directed to policy areas was cross-tabulated against councils’ revenue per capita (tertiles, as described above). A one-way between-groups MANOVA was performed to investigate the effect of revenue per capita on the policy areas to which actions were targeted. The 14 dependent variables were the 14 categories (13 policy areas plus ‘Other or unable to determine’). The independent variable was revenue per capita, using tertiles as described above. Preliminary assumption testing was conducted to check for
normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity with no serious violations noted. The results of this analysis are shown in Table 5.6.

Table 5.6. Comparisons of the number of actions (n = 5,232) in the 2013-2017 MPHWP directed to policy area by councils’ revenue per capita.

<table>
<thead>
<tr>
<th>Policy area</th>
<th>Revenue per capita category a</th>
<th>n</th>
<th>%</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other or unable to determine</td>
<td>Low (n = 26)</td>
<td>231</td>
<td>42.3</td>
<td>8.9</td>
<td>9.4</td>
<td>.235</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>162</td>
<td>29.7</td>
<td>6.2</td>
<td>7.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>153</td>
<td>28.0</td>
<td>5.7</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>546</td>
<td>100.0</td>
<td>6.9</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>Crime and safety</td>
<td>Low (n = 26)</td>
<td>195</td>
<td>45.6</td>
<td>7.5</td>
<td>7.5</td>
<td>.027</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>140</td>
<td>32.7</td>
<td>5.4</td>
<td>4.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>93</td>
<td>21.7</td>
<td>3.4</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>428</td>
<td>100.0</td>
<td>5.4</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>Low (n = 26)</td>
<td>100</td>
<td>42.7</td>
<td>3.9</td>
<td>4.7</td>
<td>.280</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>65</td>
<td>27.8</td>
<td>2.5</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>69</td>
<td>29.5</td>
<td>2.6</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>234</td>
<td>100.0</td>
<td>3.0</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Economic development</td>
<td>Low (n = 26)</td>
<td>105</td>
<td>35.1</td>
<td>4.0</td>
<td>5.4</td>
<td>.274</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>122</td>
<td>40.8</td>
<td>4.7</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>72</td>
<td>24.1</td>
<td>2.7</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>299</td>
<td>100.0</td>
<td>3.8</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>Food and local goods</td>
<td>Low (n = 26)</td>
<td>114</td>
<td>48.1</td>
<td>4.3</td>
<td>4.2</td>
<td>.014</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>50</td>
<td>21.1</td>
<td>1.9</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>73</td>
<td>30.8</td>
<td>2.7</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>237</td>
<td>100.0</td>
<td>3.0</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>Health and social services</td>
<td>Low (n = 26)</td>
<td>323</td>
<td>33.7</td>
<td>12.4</td>
<td>8.5</td>
<td>.964</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>307</td>
<td>32.0</td>
<td>11.8</td>
<td>9.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>329</td>
<td>34.3</td>
<td>12.2</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>959</td>
<td>100.0</td>
<td>12.1</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>Low (n = 26)</td>
<td>52</td>
<td>62.7</td>
<td>2.0</td>
<td>1.7</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>25</td>
<td>30.1</td>
<td>1.0</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>6</td>
<td>7.2</td>
<td>0.2</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>83</td>
<td>100.0</td>
<td>1.0</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Policy area</td>
<td>Revenue per capita category</td>
<td>n</td>
<td>%</td>
<td>Mean</td>
<td>Standard deviation</td>
<td>p-value</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>----------------------------</td>
<td>-----</td>
<td>-----</td>
<td>------</td>
<td>--------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Leisure, culture and recreation</td>
<td>Low (n = 26)</td>
<td>221</td>
<td>40.3</td>
<td>8.5</td>
<td>10.2</td>
<td>.178</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>204</td>
<td>37.2</td>
<td>7.8</td>
<td>9.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>123</td>
<td>22.4</td>
<td>4.6</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>548</td>
<td>100.0</td>
<td>6.9</td>
<td>8.3</td>
<td></td>
</tr>
<tr>
<td>Land use and urban design</td>
<td>Low (n = 26)</td>
<td>59</td>
<td>34.3</td>
<td>2.3</td>
<td>4.3</td>
<td>.135</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>86</td>
<td>50.0</td>
<td>3.3</td>
<td>5.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>27</td>
<td>15.7</td>
<td>1.0</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>172</td>
<td>100.0</td>
<td>2.2</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Natural environment</td>
<td>Low (n = 26)</td>
<td>114</td>
<td>51.4</td>
<td>4.4</td>
<td>9.0</td>
<td>.094</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>79</td>
<td>35.6</td>
<td>3.0</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>29</td>
<td>13.1</td>
<td>1.0</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>222</td>
<td>100.0</td>
<td>2.8</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>Public open space</td>
<td>Low (n = 26)</td>
<td>155</td>
<td>54.0</td>
<td>6.0</td>
<td>7.3</td>
<td>.004</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>91</td>
<td>31.7</td>
<td>3.5</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>41</td>
<td>14.3</td>
<td>1.5</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>287</td>
<td>100.0</td>
<td>3.6</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Resource efficiency</td>
<td>Low (n = 26)</td>
<td>62</td>
<td>41.9</td>
<td>2.3</td>
<td>4.4</td>
<td>.547</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>48</td>
<td>32.4</td>
<td>1.8</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>38</td>
<td>25.7</td>
<td>1.4</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>148</td>
<td>100.0</td>
<td>1.9</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>Social cohesion and local democracy</td>
<td>Low (n = 26)</td>
<td>327</td>
<td>45.7</td>
<td>12.6</td>
<td>11.4</td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>233</td>
<td>32.6</td>
<td>9.0</td>
<td>6.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>155</td>
<td>21.7</td>
<td>5.7</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>715</td>
<td>100.0</td>
<td>9.0</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td>Low (n = 26)</td>
<td>151</td>
<td>42.7</td>
<td>5.8</td>
<td>9.0</td>
<td>.261</td>
</tr>
<tr>
<td></td>
<td>Medium (n = 26)</td>
<td>123</td>
<td>34.7</td>
<td>4.7</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n = 27)</td>
<td>80</td>
<td>22.6</td>
<td>3.0</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>354</td>
<td>100.0</td>
<td>4.5</td>
<td>6.4</td>
<td></td>
</tr>
</tbody>
</table>

*a low: $875-$1,369, medium: $1,370-$2,109, high: $2,110-$4,584

Consistent with Table 5.1, councils in the low revenue category generally tabled more actions towards each policy area. There was a statistically significant difference between councils in the low, medium and high categories on the combined dependent variables (i.e. policy areas): Pillai’s Trace = .6, $F(2, 73) = 1.98, p = .006; partial eta squared = .30. This suggests that overall, a high proportion of the variance in the dependent variables can be explained by revenue per capita. However, when the results for the dependent variables were considered separately...
using a Bonferroni adjustment (14 dependent variables, alpha adjusted from .05 to .004), the only significant differences between the three revenue per capita categories were for ‘Public open space’ and ‘Housing’.

In the case of ‘Public open space’ ($p = .004$), the low revenue group of councils tabled almost four times as many actions as the high income group. In the case of ‘Housing’ ($p < .001$), nine times as many actions as the high revenue group were tabled by councils in the lowest revenue group (62%). Councils in the medium category tabled 30% of the actions of this type, and councils in the highest revenue category tabled only 7% of these actions. This result is possibly because there is a greater community need for housing in LGAs where councils’ revenue is lower, possibly as a result of lower personal incomes. In order to explore this result further, additional data describing characteristics of the populations of the three revenue per capita categories were collected. These are shown in Table 5.7.

Table 5.7. Population characteristics of the three revenue per capita categories.

<table>
<thead>
<tr>
<th>Revenue per capita category</th>
<th>Population characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median equivalized gross weekly household income$^1$</td>
</tr>
<tr>
<td>Low (n = 26)</td>
<td>$796$ (n = 40,792)</td>
</tr>
<tr>
<td>Medium (n = 26)</td>
<td>$713$ (n = 16,198)</td>
</tr>
<tr>
<td>High (n = 27)</td>
<td>$598$ (n = 5,619)</td>
</tr>
</tbody>
</table>

$^1$Community Indicators Victoria (2011)

$^2$Australian Bureau of Statistics (2014)

$^3$includes Age Pension – Centrelink, Age Pension – DVA, Service Pension – DVA, Income Support Supplement – DVA, Carer Payment, Disability Support Pension, Newstart Allowance, Parenting Payment – Single, Youth Allowance (Full time students/apprentices), Youth Allowance (Other) and Total Family Tax Benefit recipients
Table 5.7 shows that although median household income is higher in the low revenue per capita category, other descriptive data, particularly ‘Total selected government pensions and allowances’ indicate that populations in the low revenue per capita category may be more disadvantaged, which could account for LGAs in that category tabling more ‘Housing’ actions.

In contrast to the overall pattern of low revenue councils generally tabling more actions to each policy area (Table 5.6) the total number of actions directed to ‘Health and social services’ was notably consistent between revenue categories, with 34%, 32% and 34% of actions of this type tabled by councils in the low, medium and high revenue capita categories, respectively.

Finally, there were two policy areas – ‘Economic development’ and ‘Land use and urban design’ – where councils in the medium revenue group tabled the most actions (41% and 50% of the actions targeted to the respective policy area).

### 5.4 Alignment between evidence and actions

Section 4.4.4 (Chapter 4, ‘Evidence in Municipal Public Health and Wellbeing Plans’) provided an analysis of the amount of intervention evidence in MPHWPs and was useful for assessing the extent to which actions are evidence-based. Although actions where rarely directly linked to evidence, the data allowed for a comparison of the total amount of evidence that was used with the total number of actions that were tabled for each of the 13 policy areas (Lowe et al., 2013, 2015). This analysis contributed to answering the research question, *What is the link between evidence used and actions tabled?* Table 5.8 provides a comparison of the amount of evidence cited compared to the actions tabled with visual representation and ratio values. The final column indicates whether the ratio for each policy area is higher or lower than the mean ratio of 1.5:1.
Table 5.8. Comparison of the amount of evidence describing, and actions directed towards the thirteen policy areas.

<table>
<thead>
<tr>
<th>Policy area</th>
<th>Ratio of evidence to actions</th>
<th>Higher (↑) or lower (↓) than the mean ratio for all policy areas (1.5:1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crime and Safety</td>
<td></td>
<td>1.9:1 ↑</td>
</tr>
<tr>
<td>Evidence</td>
<td>826</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td>428</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>2.0:1 ↑</td>
</tr>
<tr>
<td>Evidence</td>
<td>477</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td>234</td>
<td></td>
</tr>
<tr>
<td>Employment and income</td>
<td></td>
<td>2.6:1 ↑</td>
</tr>
<tr>
<td>Evidence</td>
<td>787</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td>299</td>
<td></td>
</tr>
<tr>
<td>Food and local goods</td>
<td></td>
<td>1.3:1 ↓</td>
</tr>
<tr>
<td>Evidence</td>
<td>310</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td>237</td>
<td></td>
</tr>
<tr>
<td>Health and social services</td>
<td></td>
<td>0.5:1 ↓</td>
</tr>
<tr>
<td>Evidence</td>
<td>497</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td>959</td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td>5.8:1 ↑↑</td>
</tr>
<tr>
<td>Evidence</td>
<td>484</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Land-use and urban design</td>
<td></td>
<td>0.4:1 ↓</td>
</tr>
<tr>
<td>Evidence</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Actions</td>
<td>172</td>
<td></td>
</tr>
</tbody>
</table>
Table 5.8, continued

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Evidence</th>
<th>Actions</th>
<th>Ratio of evidence to actions</th>
<th>Higher (↑) or lower (↓) than the mean ratio for all policy areas (1.5:1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leisure, culture and recreation</td>
<td>219</td>
<td>548</td>
<td>0.4:1</td>
<td>↓</td>
</tr>
<tr>
<td>Natural environment</td>
<td>231</td>
<td>222</td>
<td>1.0:1</td>
<td>↓</td>
</tr>
<tr>
<td>Public open space</td>
<td>127</td>
<td>287</td>
<td>0.4:1</td>
<td>↓</td>
</tr>
<tr>
<td>Resource efficiency</td>
<td>106</td>
<td>148</td>
<td>0.7:1</td>
<td>↓</td>
</tr>
<tr>
<td>Social cohesion and local democracy</td>
<td>942</td>
<td>715</td>
<td>1.3:1</td>
<td>↓</td>
</tr>
<tr>
<td>Transport</td>
<td>412</td>
<td>354</td>
<td>1.2:1</td>
<td>↓</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td></td>
<td>1.5:1</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.8 shows some consistency between the amount of evidence included in the MPHWPs, and the number of actions within directed towards policy areas, with policy areas having on average 50% more evidence describing them than actions directed towards them. Across the 13 policy areas there was a strong but non-significant positive correlation between evidence and actions ($r = .53$, $n = 13$, $p = .06$).
Analysis of specific policy areas revealed some marked disparity between the amount of evidence and the number of actions. Nine of the policy areas had a lower-than-average ratio of evidence to actions. Such ratios may represent greater knowledge and confidence within councils about what can be done within these policy areas, thus necessitating less reliance on the evidence to develop actions. In particular, three policy areas had very low ratios of evidence to actions (ratio of less than 0.4:1): ‘Land use and urban design’, ‘Leisure, culture and recreation’ and ‘Public open space’. The reason for this might be that these are policy areas in which a LG’s experience is well established due to a longer historical remit. As a result, the LG may already have a good understanding of both the extent of services provided and what works to improve the area, and therefore needs relatively less evidence in order to understand and respond. Nevertheless, it should be noted that compared to some policy areas there are relatively fewer actions overall directed towards two of these three areas – ‘Land use and urban design’ and ‘Public open space’ – and so while the ratios are notable, there is generally less investment in these areas than in other policy areas.

Conversely, only four policy areas – ‘Crime and safety’, ‘Education’, ‘Employment and income’ and ‘Housing’ – had a high ratio of evidence to actions. It may be that these are policy areas in which a LG’s remit is relatively new as a result of a more recent understanding and adoption of a SDH approach. As a result of the relatively recent inclusion of issues exemplified by these policy areas into the MPHWP, councils may have less confidence and knowledge about the state of each of these and what works to undertake to improve them, and so they need to build their evidence base before more actions can be tabled. Alternatively, it may be that there is simply more evidence available about these policy areas as compared to others. ‘Housing’, with its very high ratio of evidence to action (5.8:1), is unusual among these. It may be that although LG understands that housing is significant and gathers a large amount of evidence to understand it, LG does not have the mandate to table many housing actions.

While Table 5.8 shows actual ratios of evidence to actions for each policy area, it does not suggest what an ideal ratio would be. If the average ratio (1.5:1) was deemed ideal for all policy areas, then these results effectively identify areas in which LG is confident in making decisions (areas with a ratio of 1.5:1 or higher), and those in which more support is needed (areas with a ratio of less than 1.5:1).
5.5 Qualitative analysis – LG’s responsibility and capacity in health planning

As described in Chapter 3, ‘Methods’, Section 3.6, the qualitative component of the MPHWP analysis sought to identify and analyse strategic statements describing LG’s determination of its responsibility and effort in public health. These statements were then analysed to identify what LG determines its responsibility to be particularly with reference to a SDH framework, how this compares with the LG’s own conceptualisation of its capacity to address public health, and whether the LG has identified ways in which its capacity can be improved.

The analysis yielded 173 statements from the 116 documents that fulfilled the criteria. The statements could be grouped into three main themes. The first of these themes is that LG understood that its responsibility in public health is broadening, and is certainly broader than it has been historically due to the incorporation of a SDH approach. The second theme covered the disparity between what LG understands it should do (responsibility) and what it does do (capacity). Despite the broadening remit, LG’s capacity to improve public health can be limited by both the reach of its jurisdiction in certain health-determining policy areas, and the resources it has available to it. The final theme looks at partnerships. In the context of a broadening remit and limited capacity in some areas, great importance is placed on partner organisations. Consistent with the multiple-sector, collaborative approach described by Frichitthavong (2011), partnerships have the capacity to both extend the capacity of a council’s promotion of a social determinants approach, as well as to work complimentary to LG in areas where its own capacity is low. The following sections elaborate on these findings through the use of example data from the analysis.

5.5.1 The broadening responsibility of LG in health and wellbeing

Strategic statements in the 2014-2017 MPHWPs indicate that Victorian LGs perceive their remit in public health to be broader than it has been historically, moving well beyond both an environmental health approach and public health behaviourism to strongly incorporate a social determinants approach to health. This is despite some examples of strategic statements that did harken back to public health behaviourism (Watt, 2007, Basu, 2004), an example of which is provided below:
The Towong Alliance aims to encourage individuals and the community to take responsibility for their own health.

Towong Shire Council MPHWP

In moving well beyond both an environmental health approach and public health behaviourism, several MPHWPs contained statements intended to place them in context with these phases in order to communicate the current remit of LG in public health. In doing so, most councils placed their responsibility firmly towards the later waves of public health, those that combat disease risk via behaviour change interventions (fourth wave) and via SDH indicated in the proposed fifth wave (Hanlon et al., 2011). This is exemplified by the following statement from the City of Casey’s MPHWP:

Over recent decades the role of Local Government in public health has widened beyond protecting the community from infectious disease and preventable illness, to the prevention of chronic disease and injuries. In achieving this, Council has a core role to build healthy environments from the outset, and deliver and fund services and programs that support health and wellbeing.

City of Casey MPHWP

In this case, the council drew clear distinction between activities typical of the first and fourth waves of public health to place a focus on chronic disease. Importantly, this statement clearly positioned LG as an actor that is capable of and responsible for influencing the determinants of health through the provision of infrastructure, facilities and services.

In regard to positioning statements like this, other LGs’ MPHWPs went further. Some included statements that provided strong evidence to support Dollery et al.’s (2006, p. 553) assertion that LG in Australia is moving well beyond the provision of ‘services to property’ (i.e. buildings, roads etc). Instead, LG is moving toward providing services to people, specifically their health and wellbeing. A particularly powerful example of this is provided below:
The primary purpose of the City of Stonnington is the wellbeing of the community.

Stonnington City Council MPHWP

There was a strong indication in most MPHWPs that LGs understood that having a significant impact in terms of this ‘primary purpose’ was both important and possible. As providers of diverse services and infrastructure, LGs generally took a very systemic approach to this, one profoundly influenced by the adoption of the SDH model. Specifically, there was a strong indication that councils understood that health and wellbeing are the result of the quality of the environments (i.e. social, economic, natural and built environments (Department of Human Services, 2001)) in which residents live. As a result of this understanding, councils understood that LG has a role to improve the quality of each of these, and that every activity undertaken and decision made by LG via integrated planning, such as the ‘active enrolment of a whole-of council commitment’ (City of Hobsons Bay MPHWP), was capable of contributing to health. This is exemplified by the following statements:

It is the council’s belief that public health and wellbeing is inherent in all council planning.

Wodonga City Council MPHWP

Everything we do can contribute to, and impact on, the health and wellbeing of our residents.

Mansfield Shire Council MPHWP

Statements of this kind indicate that many councils across Victoria understand the value of integrated planning, an approach that is exemplified by Health in All Policies (HiAP) (World Health Organization, 2014). Yet despite this good understanding of the value of integrated planning approach, only one council, Whittlesea, mentioned HiAP explicitly or tabled HiAP-related actions; ‘Develop a HiAP framework’ and ‘Pilot a HiAP framework’. Typically, the closest that councils came to referencing the HiAP approach was through references to HiAP terminology or tools, for example, where Ballarat mentioned the health lens analysis:
Local government has been identified as a key player to influence health and wellbeing by ensuring they use a health lens when creating policy, environments, social and economic opportunities for residents.

Ballarat City Council MPHWP

Whittlesea, one of the 13 (of 79) councils with an integrated MPHWP and Council Plan in 2013-2017, explicitly indicated the actions in the plan that were intended to address health and wellbeing using the symbol 🌶. This example is noteworthy because integration of MPHWPs and Council Plans is usually done to bring closer integration between all of the council’s activities (cf. the SDH approach). However, by indicating that some actions contribute to health and wellbeing Whittlesea implies that the others do not, suggesting that the goal of community health and wellbeing can be considered independent of the other goals of the council. This situation is in contrast to most councils’ recognition that all activities contribute in one way or another to health and wellbeing.

Strategic statements about the policy areas in which councils had responsibility to act for health and wellbeing were generally wide ranging, indicating an understanding of the breadth of SDH. They included, for example, ‘planning, infrastructure provision and maintenance’ (Horsham Rural City MPHWP), and ‘strategic planning and policy development, building and strengthening partnerships, providing services, facilities and infrastructure’ (Campaspe Shire Council MPHWP). When it comes to particular policy areas, statements generally reflect the 11 domains of liveability determined by Lowe and colleagues (2013, 2015) as being important for health and wellbeing. For example, strategic statements that described the areas in which LG would be most efficacious included, ‘enhancing transport, parks, waste management, land use, housing, urban planning … and creating safe public places’ (Stonnington City Council MPHWP), and ‘social connectedness, economic vitality, attraction of educational institutions and health services’ (East Gippsland Shire Council MPHWP). These strategic statements are strongly consistent with the analysis of actions in MPHWPs (Section 5.3.4), which demonstrates that in terms of their determination of the policy areas that LG should use to address health, councils ‘practice what they preach’.
In regard to upstream versus downstream capacity (Dahlgren and Whitehead, 1991, Zola, 1970), again, there was consistency between councils’ strategic statements of capacity and what they actual did as demonstrated through the systematic analysis of actions (Section 5.3.3). For example, in recognising the importance of upstream actions, one council stated that a major part of its role was to ‘advocate for the needs of the community to state and federal funding bodies’ (Campaspe Shire Council). Another council, in positioning itself predominantly as an agent of health via upstream actions stated that:

Local government is not in the business of treatment of health conditions, and it cannot make or force people to adopt healthy lifestyles. What Council can do, and do well, is to use its role as a planner, regulator, builder of infrastructure, service provider, advocate and partner on maximising choice and access to the determinants of good health.

East Gippsland Shire Council MPHW

Proportionality was another criterion used by some councils to determine their responsibility in public health. Proportionality refers to the idea that LG has a responsibility to take action in response to a public health issue that is in proportion to the issue’s severity (Victorian Government, 2008). Latrobe City Council, for example, made the following explicit reference to the Public Health and Wellbeing Act, Section 9 (2008), and applied analyses of proportionality as a way of determining its responsibilities in the disparate areas of public health:

Decisions made and actions taken relating to the Act should be proportionate to the identified health risk sought to be prevented, minimised or controlled.

Latrobe City Council MPWP, citing the Act, Section 9

The principle of proportionality is a robust criterion that can assist in the creation of certainty about LG’s responsibility. However, depending upon how it is applied, it also has significant potential to broaden the range of issues for which LG has responsibility, potentially beyond its capacity.
Several councils acknowledged that their responsibility as agents of public health is context-dependent and will necessarily evolve as better access to and utilisation of population health evidence brings a shift in priorities. For example, in their MPHWP, the Mornington Peninsula Shire Council stated that:

As new issues emerge, the … shire will refocus and continue to investigate the impacts of new factors affecting the community.

Mornington Peninsula Shire Council MPHWP

Similarly, in their MPHWP, Northern Grampians Shire Council stated that:

... the data explored in this paper points to a number of areas of concern in the Northern Grampians Shire which warrant greater investigation ... including obesity, nutrition, mental health, dental health for young people [and] chlamydia.

Northern Grampians Shire Council MPHWP

Such statements make it clear that generally, LG does not consider its responsibility in public health to be static. Rather, these statements acknowledge that LG has a responsibility to use the best evidence to stay abreast of current issues and to develop a suite of actions that is responsive to the priorities of the community, efficient and effective.

5.5.2 Limits to LG’s capacity to act in public health

Local government recognised that due to the adoption of a social determinants approach, it has an increased responsibility to address health through diverse policy areas and via upstream action. Despite embracing this increased responsibility, many Victorian LGs were also aware of limitations to their capacity to act as agents of public health. For example, the Banyule Council MPHWP, with reference to the its strategic direction on community safety and resilience, states that:
... this involves promoting and supporting individual and community safety in Banyule within the limits of Council’s influence and responsibility ...

Banyule City Council MPHWP

Statements like this imply that LG understands very well that while it has significant ability to tackle public health, it is not solely responsible, and that aspects of certain health determining policy areas – in this case aspects of community safety – are outside its control. In acknowledging factors that impinge on the capacity of LG to act, some councils made statements identifying a number of specific issues. One example of such a statement is:

... there are a number of factors beyond our control which may ultimately impact on the collective health and wellbeing of our community such as natural disasters, unemployment rates, road conditions of major highways, and individual’s informed choices about diet and physical activity.

South Gippsland Shire Council MPHWP

Other councils described processes specifically designed to determine their capacity to act on such issues. Ballarat City Council, for example, implied that it understood that while significant, there were nevertheless limitations to its capacity, and that in order to position itself effectively it was necessary to undertake,

... discussion on the feasibility of implementation and the acceptability of strategies to stakeholders.

Ballarat City Council MPHWP

Awareness of the need for formalised processes to determine what was within LG’s power to address was rarely as explicit as this in MPHWPs. However, MPHWPs that did include such statements often described the use of selection criteria. This is exemplified by the Warrnambool MPHWP, which included a decision-making framework that included, along with
criteria pertaining to state and community priorities and what the data showed, the following questions for determining whether council should act to improve health:

*Is it feasible to influence the issue either alone or in partnership? [And] do Council or partner organisations have the capacity (workforce or resources) to influence the issue?*

Warrnambool City Council MPHWP

Victorian LG has generally embraced a broad responsibility to address health, and this is the result of its adoption of an SDH approach. Despite this, Victorian LGs have also determined that there are specific health-determining issues that are beyond their capacity to address. Indeed, some statements may be taken as attempts to divest responsibility to address certain health-determining issues. What the analysis does show is that often, LGs drew a distinction between what should be done to improve community health, and what LG itself is capable of doing.

### 5.5.3 Bridging the responsibility/capacity gap: advocacy and partnerships

LG’s adoption of a social determinants approach to public health has generally resulted in the acknowledgment that compared to its historic role, LG has an increased responsibility for community health and wellbeing. Despite this increased responsibility, the previous section (5.5.2) showed that, often, LG’s determination of what it *could* do did not match what it *should* do. However, the analysis of strategic statements regarding the responsibility and capacity to address public health also showed that councils describe two broad methods by which this gap could be bridged. One of these was via a range of actions that were themselves intended to build capacity. In particular, the use of advocacy was mentioned by a number of councils as being particularly important for bridging the responsibility/capacity gap. The other was through the activation of partnerships. This section presents and analyses strategic statements that exemplify these two approaches.

Generally, such statements about advocacy describe the contribution that councils could have through ‘influencing policy and strategies to support healthy environments’ (Rural City of Wangaratta). A particularly effective example of this is:
We know that Council cannot [achieve community health and wellbeing] alone. Some of the best ideas come from within the community and need only the support and advocacy of local Council rather than its administration. State and federal government play an important role by setting up funding arrangements, legislative regimes and state-wide programs. They have the ‘big picture’ oversight.

Port Philip City Council MPHWP

Within the Port Phillip MPHWP, this statement leads on from statements about the scale of the council’s responsibility as an agent of public health, a scale that is the result of a social determinants approach. In stating that ‘Council cannot do it alone’, Port Phillip also acknowledges the limits of its capacity as an agent of public health. It then goes on to cite advocacy, ‘rather than administration’, as an important way in which it can help to achieve community health and wellbeing, implying that state and federal governments will be the target of this advocacy. In doing so, the council makes clear its position on its responsibility and its capacity to act, demonstrating that even though it may not have the power to address all SDH, it will leverage its position with state and federal governments on behalf of its community.

Along similar lines, another LG, Pyrenees Shire, also emphasised its advocacy role as a way by which healthy environments could be created:

Local government has both the authority and responsibility to fulfil a leadership and advocacy role in creating an environment where communities not only survive, but prosper.

Pyrenees Shire Council

Although perhaps not as strident as Port Phillip, Pyrenees Shire too noted that beyond the provision of services, facilities and infrastructures that are within its remit, there are limitations in what it can do to improve community health. In light of this, the council invoked its authority as a leader and representative to advocate on behalf of its community.
The advocacy approach taken by many Victorian LGs and exemplified by the above two councils is consistent with the results of the content analysis of actions by how far upstream in a SDH framework they were targeted. On the whole, Victorian LG’s capacity to act to improve health is through the provision of services and infrastructure (i.e. ‘Living and working conditions’ (see Figure 5.5). However, in order to bridge the gap between what can be done via this approach and what should be done, LG also directs a number of actions to the highest upstream level, ‘General socio-economic, cultural and environmental conditions’, with many such actions employing advocacy as the mechanism.

In addition to advocacy, the analysis revealed that the other principle way that LG bridges the gap between its responsibility and its capacity to act is through the use of partnerships. This is exemplified by the many strategic statements in MPHWPs that emphasised the importance of partnerships for increasing LG capacity to improve health. Mount Alexander Shire Council’s MPHWP, for example, stated that, ‘the Plan recognises that Council alone cannot address all of these elements’, thus implying that assistance from other agencies is important. Two further examples of strategic statements that emphasise the importance of partnerships are:

Though local government plays an important role in influencing health, it is through partnerships, collaboration and community involvement that health and wellbeing outcomes can be achieved.

Mildura Rural City Council MPHWP

Responsibility for injury prevention rests with a number of government departments, statutory authorities and the community and business sectors, emphasising the need for inter-sectoral collaboration.

Northern Grampians Shire Council MPHWP

In acknowledging the need for a collaborative approach to increase their capacity to act as agents of public health, LGs made reference to the idea of complementarity, an aspect of collaboration that takes advantage of the strengths of partnering organisations to fill identified
gaps in a council’s capacity. In summarising the way that complementarity can work, South Gippsland Shire Council stated that:

... some strategies will be the sole responsibility of Council to implement, whilst other strategies Council [will] contribute to in partnership with key health and community service organisations.

South Gippsland Shire Council MPHWP

Another beneficial outcome of collaboration identified was LGs’ ability to extend, via collaboration with partners, the influence of its social determinants approach to health and wellbeing via, for example, ‘leadership and coordination of public health initiatives’ (Kingston City Council MPHWP).

In conclusion, the results of the qualitative analysis of statements about the capacity and responsibility of LG show that, on the whole, councils embrace a social determinants approach to public health, a result that is consistent with the content analysis of actions. In adopting this approach, councils have tended to identify a level of responsibility for themselves in public health that is somewhat beyond their capacity. Important responses to this limitation have been the adoption of an advocacy role and the strategic use of partnerships with other organisations who are also agents of health and wellbeing.

5.6 Summary of findings

This chapter outlined the results of the quantitative and qualitative analyses of Victorian LG MPHWPs. The quantitative analysis looked at the actions and the relationship between evidence and actions for 11 policy areas. The qualitative analysis looked at strategic statements. In both cases, the analyses helped create a picture of LG’s determination of its responsibility and capacity to act and as an agent of health and wellbeing. The findings of the quantitative analysis indicate that Victorian LGs have strongly adopted a SDH approach. This is exemplified by the results of the analysis of actions against State priorities. A large proportion of all actions did not explicitly address one of the action areas for intervention from the State Health Plan, which cover lifestyle-related risk factors, environmental health issues and
communicable disease. In contrast, when actions were categorised against Lowe’s (2013, 2015) 11 domains of liveability, it was found that many actions were targeted towards policy areas that determine health. The policy areas in which councils were most active were ‘Social cohesion and local democracy’, ‘Health and social services’ and ‘Leisure, culture and recreation’. When actions were analysed for how far upstream they were targeted, it was found that the majority of actions were targeted some way upstream towards improving ‘Living and working conditions’, and towards improving ‘Socio-economic, cultural & environmental conditions’, findings that were broadly consistent for all Victorian councils.

The final quantitative analysis showed that there was a broad, positive correlation between the amount of evidence that councils used and the number of actions targeted towards the 11 policy areas. On average, there was 50% more evidence used than actions tabled. However, for some policy areas, such as ‘Housing’ and ‘Employment and income’, the ratio was markedly higher than this and may be indicative of areas in which LG is less confident in making decisions.

The qualitative analysis of strategic statements in MPHWPs supported and augmented the findings of the quantitative analysis. Analysis of strategic statements that articulated LG’s responsibility and capacity to act to address health identified three broad themes. The first theme was that, in adopting a SDH approach, LG’s responsibility in health planning is broader than either an environmental health or public health behaviourism approach would dictate. The second theme was that there is a gap between LG’s sense of responsibility and its own assessments of its capacity to act. The third theme was that, in recognition of this gap, LGs emphasise the importance of two approaches: the activation of partnerships to increase LG’s capacity to act, and LG’s role in advocating upwards to state and federal governments on behalf of their communities to improve the SDH of their communities.

The next chapter (Chapter 6) is a published paper that describes an additional step in the analysis of MPHWP actions. It presents a novel method for synthesising a qualitative picture of councils’ actions according to a SDH framework in two dimensions: distance upstream and policy area. Chapter 7 then builds on the results of the content analysis by outlining the experiences and perspectives of health and wellbeing planners from 16 councils across Victoria.
Chapter 6: Published paper on Actions in Municipal Public Health and Wellbeing Plans

6.1 Introduction

This chapter presents a paper published in the Australian and New Zealand Journal of Public Health in June 2015. It extends the analysis of actions presented in Chapter 5. Titled ‘An analysis of local government health policy against state priorities and a social determinants framework’ (Browne et al., 2016), this paper presents the results of the analysis of actions in the 14 MPHWPBs of the North and West metropolitan region of Melbourne, Victoria. Consistent with the method described in Chapter 3 (Section 3.7.2), the results presented are categorisations, using NVivo 10/11, of all actions according to the three questions:

4) Does the action address one of the 14 priority areas of the State Health Plan (Victorian Government, 2011b)?

5) How far upstream is the action targeted (Barton and Grant, 2006, Dahlgren and Whitehead, 1991, VicHealth, 2015a)?

6) To what SDH ‘policy area’ (Lowe et al., 2013, 2015) is the action directed?

In presenting these results, the paper aimed to build a holistic picture of councils’ efforts to address health and wellbeing according to two dimensions in a social determinants framework. The data used were the number of actions that had been categorised into each combination of categories for Question 5 – distance upstream – and Question 6 – policy area. Specifically, NVivo 10/11, was used to calculate the number of actions that had been categorised for each combination of categories for Questions 5 and 6. The method returned a total of 1,028 data points in a matrix composed of 52 individual queries (cells). The results for each cell were factored against the cell with the highest frequency of results (69), to convert all cell values to a relative percentage. The opacity of cells was then varied according to this value. In this way, the results are presented in a ‘sunset diagram’ that references Dahlgren and...
Whitehead’s well-known SDH framework (1991), but also provides an addition dimension: policy area.

Due to the complexity of this analysis and to meet the needs of this PhD’s industry partner, only data from the MPHWPs of the North and West metropolitan region of Melbourne were used. This region covers 14 local government areas, five of which are designated as interface councils (Victorian Government, 2015b), including four growth areas councils (Victorian Government, 2011a). This region is also the most populated, culturally and linguistically diverse region of Victoria (Australian Bureau of Statistics, 2012) and includes Wyndham, one of the fastest growing municipalities in Australia (Wyndham City Council, 2015). As a group, the councils are representative of the full range of socio-economic levels as designated by SEIFA (Australian Bureau of Statistics, 2013b, Australian Bureau of Statistics, 2013a), adding to the suitability for pilot testing of this novel method in preparation for its application in future studies.

The results show that LGs in the North and West are doing much that sits beyond the explicitly defined priority areas of the State. Specifically, the sunset figure shows that actions are spread across all of Lowe and colleagues’ (2015) liveability policy area ‘wedges’ – although not evenly – with a significant focus towards ‘Leisure and culture’ and ‘Social cohesion and local democracy’, two areas in which LG plays an important role. In regards to the distance upstream to which actions are targeted, there is a marked emphasis on ‘Living and working conditions’, also an area in which council plays an important role. Both the results of the analysis, and the implications of this novel method for future research are explored in more detail in Chapter 8.
An analysis of local government health policy against state priorities and a social determinants framework

Geoffrey R. Browne, Melanie T. Davern, Billie Giles-Corti

Abstract

**Objective:** Victorian local governments are required to develop Municipal Public Health and Wellbeing Plans that incorporate state-level health planning priorities and address the social determinants of health. This paper describes a novel method for evaluating councils’ performance against these requirements.

**Methods:** Deductive content analysis was used to categorise all actions in 14 local government MPHWPs against Victorian state priorities as well as against social determinants of health policy areas.

**Results:** More than 1,000 actions were identified. However, fewer than half directly addressed a state priority, with many actions addressing policy areas known to be broader determinants of health. In particular, there was a marked focus on leisure and culture, and on building social cohesion through changes to living and working conditions.

**Conclusions:** Councils are working beyond state priorities and there was a clear emphasis on addressing the diverse upstream ‘causes of the causes’ of health, rather than health promotion behaviour change programs.

**Implications:** The approach for data analysis and presentation provides a useful method for rapid appraisal of health and wellbeing actions relative to councils; and the State’s responsibility and efficacy in public health.

**Key words:** social determinants of health, local government, health policy

---

In his seminal book, *Rose’s Strategy of Preventive Medicine*, Geoffrey Rose observed that the natural, built and social environments in which we live are where the upstream ‘causes of the causes’ of health occur. This is now encapsulated by the phrase *social determinants of health* (SDH) and aptly visualised by Dahlgren and Whitehead (Figure 1). These have encouraged discourse about, and exploration of the social, economic and environmental aetiology of both good and poor health.

The SDH discourse has led to assertions that because the major determinants of health are social, so must be the remedies, a position that has been adopted by many proponents of the SDH model, including the World Health Organization. This assertion brings with it the implication that health inequality and the prevention of poor health is not just the domain and responsibility of health professionals. The WHO suggests that it is the distribution of power at all levels of society that ultimately determines health, a claim supported by observed social gradients in health status. Marmot and others maintain that ill health is not inevitable, but that policy as the root cause is failing. They assert that the mechanism of investment ought to be the tax and benefit system and should be delivered according to the principal of proportionate universality; that is, available to all, but with a scale and intensity according to need.

Local government (LG) is the level of government closest to the people and has unique knowledge and capability to address the intermediate SDH. In 2008, the Commission on Social Determinants of Health made explicit statements about LG’s potential to address health inequity and SDH, statements that contributed to an increased expectation and endorsement of local governments’ role. In particular, it has become more widely understood that social infrastructure – the infrastructure, facilities and structures that have the capacity to provide services equitably and that local government has significant responsibility to provide – is important for addressing social determinants, and thus improving health.
planning and prioritising MPHWPs alongside council plans. Importantly, *Environments for Health* recognised that decisions made outside ‘traditional’ health departments had an impact on health. It played an important role, redefining health and wellbeing as the principle purpose of local government. As a result, the 2008 revisions of the Act also required MPHWPs to be consistent with the council’s Municipal Strategic Statement and aligned or integrated with the council plan (sections 26(e)&(ii)).

Despite briefings and guides on the development of MPHWPs, there is no template for the development of plans, and fulfilling all of the legislated obligations regarding MPHWPs to a high standard can be challenging for local government. Limited resources and expertise, especially in rural municipalities, the need and value of consulting with the community on the development of the MPHWPs; and a tendency for council departments to ‘work in silos’ can limit the effectiveness of MPHWPs.

### Evaluating MPHWPs against state priorities and the SDH

Until now, the actions tabled in the MPHWPs of Victorian municipalities have not been analysed to determine how they address social determinants of health. Further, published methods for systematically evaluating the actions of local government policy documents against a social determinants framework in two SDH dimensions – policy area and ‘aetiological distance’ – are lacking. In light of local governments’ requirements under the Act and the challenges inherent to the fulfilment of these requirements, it is timely to assess how local governments have responded.

Content analysis is a method of document analysis that is used to “systematically and objectively identify special characteristics of messages. It has been used previously to analyse the content of municipal policy documents. Recently, a group of Dutch researchers used content analysis to map interventions from their government’s District Approach for severely deprived areas against six SDH categories. They concluded that districts tailored their programs to address locally specific social determinants, and that this was expected to result in positive future health impacts.

This study had two aims. The first was to develop and implement a method of content analysis for assessing the actions – the operational aspect of the MPHWP planning cycle – against state priorities and an SDH framework. The second aim was to use the method to identify, compare and explore actions to infer how LGs position themselves in terms of their responsibilities and efficacy as agents of community health and wellbeing.

### Method

The thematic content of the actions documented in MPHWPs was assessed through a systematic content analysis. All actions in MPHWPs were coded against defined (deductive) categories to answer three questions (listed below). An action was defined as any statement of intent to do something intended to effect a beneficial community health or wellbeing outcome. Actions were coded as complete statements and where an action targeted two or more categories, it was coded as such, creating multiple codes for that action. The three questions were:

1. Does the action address one of the 14 relevant priority areas of the Victorian Health & Wellbeing Plan?
2. How far ‘upstream’ in a social determinants of health framework is the action targeted?
3. What policy area does the action target?

The following sections detail the rationale for each question and the codes that were used.

#### State Plan priority areas

Section 26 (3) of the Act states that MPWHPs should have regard to the Victorian Public Health and Wellbeing Plan (the State Plan). Categorisation against the priority areas in the State Plan therefore allowed the level of consistency between MPHWPs and the State Plan to be assessed. Categories were derived from two Action Areas of public health practice relevant to local government. The third, *Strengthen preventive healthcare*, is primarily the responsibility of hospitals and the State Government and so was not used. Categories used were: *Continue to protect the health of Victorians*, which is grounded in the discipline of environmental health; and *Keep people well*, which is based on health behaviours and their influences. The 14 priority areas in these Action Areas are based on an understanding of important causes of morbidity and mortality in Victoria. They are: *Alcohol and other drug use, Communicable disease prevention & control, Environmental health, Food safety, Healthy eating, Incident and emergency response, Injury prevention, Immunisation, Mental health promotion* (further divided into specific & general for this analysis), *Oral health, Physical activity, Sexual & reproductive health, Skin cancer prevention and Tobacco control*. Priorities in the third action area, Sections 6 and 7 of the State Plan, define the sorts of issues that are considered to fall within each priority area. For example, actions intended to prevent race-based discrimination were coded as *mental health promotion - general* due to the description of this priority area in the State Plan.

The codes for this question were taken from Dahlgren and Whitehead’s original description of the four levels of influence on, or ‘aetiological distance’ from personal experiences of health. These authors describe such influences as those that “threaten, promote or protect health” (p.11).

#### Distance ‘upstream’ from the individual

All actions in MPHWPs are intended to improve the health and wellbeing of the community in some way but, as an understanding of the SDH would suggest, the mechanism of an action can range from direct to significantly ‘upstream’ in the aetiology of health. The purpose of categorising actions against the second question was assess the extent to which councils fulfil their obligations under Section 26 of the Act, which states that MPHWPs should “identify goals and strategies” based on “health determinants in the municipal district” (Section 26 (2a and 2b)).

The codes for this question were taken from Dahlgren and Whitehead’s original description of the four levels of influence on, or ‘aetiological distance’ from personal experiences of health. These authors describe such influences as those that “threaten, promote or protect health” (p.11).

#### Policy area

Actions were also categorised against policy area (Question 3) to gain an understanding of the range of areas of society that are considered by council to be important for
health and wellbeing. The categories used for this were based on 11 ‘domains of liveability’ shown by Lowe and colleagues to be well-established determinants of health and wellbeing. \(^\text{36,37}\) They are: Crime & safety, Education, Employment, Food & other local goods, Health & social services, Housing, Leisure and culture, Natural environment, Public open space, Social cohesion & local democracy and Transport. The category Resource Efficiency was added when it was found that such actions, also intended to contribute to an improvement in health and wellbeing, \(^\text{38}\) did not fit into any other category. The category Other or unable to determine was also added so that actions that did not clearly indicate a policy area could be recorded (e.g. actions on strategy development or general capacity building). This resulted in 13 main categories for this question. If an action explicitly addressed more than one policy area it was coded as such, and this accounts for the difference in totals in Table 1 and Figure 2.

For all three questions, subjectivity of coding was reduced through the development of a comprehensive coding guide and by reviewing the way that one MPHWP was coded, subsequently revising the guide, and then recoding that MPHWP. NVivo was then used to apply the method to the MPHWPs of councils from the North and West Metropolitan Region of Victoria, Australia. This region includes 14 LGs, four of which are designated growth areas. \(^\text{39}\) It is also the most populated culturally and linguistically diverse region of Victoria, \(^\text{40}\) and the councils therein are spread across the full range of socioeconomic levels. \(^\text{41,42}\)

Once coding of the 14 documents was complete, intra-reliability was assessed by the same coder (GB) randomly selecting one of the documents and coding it a second time five months later. Given the high number of categories, a joint-probability of agreement method was used. \(^\text{43}\) Once variation in coding tactics had been accounted for, the remaining variation ranged from 0% to 6%, with a mean of 0.7%; a level that was deemed within tolerance.

We then determined how actions had been coded for each combination of categories in Questions 2 and 3, that is, against aetiological distance and policy area. This returned a total of 1,028 data points in a matrix composed of 52 individual queries (cells). The results for each cell were factored against the cell with the highest frequency of results (69), to convert all cell values to a relative percentage.

This resulted in the following ‘sunset diagram’ where Lowe’s domains of liveability are displayed in the ‘wedges’ and Dahlgren and Whitehead’s levels of Social Determinants \(^\text{5}\) were displayed in the ‘arcs’. The opacity of cells was then varied according to the relative percentage. For example, 0 actions = 100% cell transparency (white), 19 actions = 72% transparency (shade of grey) and 69 actions = 0 transparency (black). This resulted in the sunset diagram (Figure 2).

## Results

The results from the first question on state priorities are shown in Table 1.

![Figure 1: The influences that “threaten, promote or protect health”. \(^\text{5}\)](image)

<table>
<thead>
<tr>
<th>Action Area</th>
<th>Priority Area</th>
<th>Occurrences</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue to protect the health of Victorians</td>
<td>Communicable disease prevention &amp; control</td>
<td>0</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Immunisation</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental health</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Food safety</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incident and emergency response</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Keep people well</td>
<td>Healthy eating</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical activity</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tobacco control</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oral health</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alcohol &amp; other drug use</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sexual and reproductive health</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mental health promotion - specific</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mental health promotion - general</td>
<td>232</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Injury prevention</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin cancer prevention</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

- (Does not directly address a priority area) 491

TOTAL number of action priorities 1,048
The intensity of shading in Figure 1 against state priority areas, Figure 2 shows that many actions do address broader policy areas where the upstream determinants of health occur. Effort is spread across all of Lowe’s liveability policy area ‘wedges’, although not evenly. Although far more actions can be categorised against Lowe’s categories compared to state areas, the fact that around 100 actions fall into Other or unable to determine suggests that use of additional categories to capture other important health-determining activities would be valuable.

The greatest effort is directed towards improving living and working conditions (487 actions). This is consistent with the understanding that LG has an important role to maintain and enhance both physical and social infrastructure that helps create a fair, equitable and healthy society. Although Table 1 shows that more documented effort is being directed towards upstream determinants of health and wellbeing than towards changing individual lifestyle factors, and only 24 (2%) were designed to address the upstream conditions that lead to housing stress. This is likely because the delivery of public housing and broader housing affordability issues is predominantly the responsibility of the State.

The large number (n=63; 5%) of actions targeted upstream and to areas that were ‘unable to be determined’ includes those that called for participation by other organisations and the State Government, yet the policy area was ambiguous with reference to Lowe’s categories. An example is “Ensure systems for monitoring and evaluation are in place to measure health and wellbeing outcomes and outputs across the life of the plan.”

### Discussion

**Evaluation of councils’ efforts against state priorities**

Although the leading cause of poor health is no longer infectious diseases, environmental health issues remain important to manage, and so are retained as priority areas by the State Government in its 2011 Plan. It is likely that councils’ relatively low number of actions addressing this action area (57 actions) indicates a de-emphasis, rather than an actual reduction of effort, and is due to responsibility for health and wellbeing planning moving out of councils’ environmental health departments and into strategic planning areas. Moreland City Council, for example, undertakes numerous activities in the areas of food safety, immunisation and environmental health, yet only nine such actions are listed in the MPHWP. Follow-up work in the form of interviews will ascertain the extent to which councils target these areas and whether the plan is representative of the quantum of effort. In contrast, the priority areas under Keep people well are better addressed (500 actions). They have their origins in more recent health promotion techniques that attempt to improve personal health through changes to behaviours, or a lifestyle-related ‘downstream’ approach. Of 1,048 actions, only 557 explicitly target a priority area, and this seems largely due to the fact that councils are taking a systems approach to health planning and are addressing the upstream causes of health issues, as discussed in the next section. Analysis of actions that could not be categorised against a state health priority could provide valuable input to priorities in the next State Plan.
Implications and further work

The method adopted was useful in assessing how comprehensively LGs in Victoria fulfil their obligations under Section 26(2) of the Act. A longitudinal comparison of actions from previous plans, represented using the above sunset diagram, presents an opportunity to run a natural experiment to track the change in priorities according to both policy area and SDH level that may have occurred as attention on issues has shifted.11 The method is also suitable for councils to self-assess their own draft actions and to communicate (e.g. during community consultation) their responsibility and efficacy to act in the interest of public health. Changes in legislation, in management (e.g. via the Regional Management Forums) or in the resources and training made available to LG may also result in a shift in local governments’ actions as represented by the sunset diagram. Observing the changes in the diagram and supplementing the work with other methods (e.g. interviews and surveys) would reveal whether there has been any shift away from programs targeting health behaviours. A shift away from actions focussed on the inner arc and towards the outer arc would be consistent with Harris and Wills’ statement describing a shift in emphasis “from the health of individuals to the health of communities”12 (p407).

All local governments in Australia have a legislated role in health protection. As the Australian Local Government Association acknowledge, their greatest potential is in preventative health, and much of this could constitute a powerful tool for shifting officers’ perspectives on the responsibility and efficacy of local government to address public health, and for comparing – at a glance – what is being done with some normative version of action to improve health and wellbeing – what ought to be done.

Conclusions

Categorising actions according to SDH, and presenting them via this sunset diagram provides a method to map actions against two evidence-based frameworks, one seminal, the other contemporary.1,36 When applied to the municipal health and wellbeing plans of a region of Victoria, it shows that councils are doing much that sits beyond the explicitly defined priority areas of the State, an approach that is consistent with an understanding of health’s social determinants. The method will provide a useful communication tool for councils and agencies in other jurisdictions and internationally to share information on initiatives being undertaken, whether during community consultation or when working with the State Departments. Most valuable, it can be used to measure how local governments’ role in health and wellbeing changes over time as understanding of health’s social determinants evolves.

Acknowledgements

The authors thank Iain Butterworth and Adrienne Campbell from the North and West Metro Region (Victorian Department of Health) and Helen Jordan from the Centre for Health Policy, University of Melbourne who provided helpful comments on an earlier version of this manuscript. GB is supported by an Australian Postgraduate Award and scholarship support from the North-West Region of the Department of Health; and BGC by an NHMRC Principal Research Fellowship (#1004900).

References


15. Harris E, Wills J. Developing healthy local communities beyond the explicitly defined priority areas of the State, an approach that is consistent with an understanding of health’s social determinants. The method will provide a useful communication tool for councils and agencies in other jurisdictions and internationally to share information on initiatives being undertaken, whether during community consultation or when working with the State Departments. Most valuable, it can be used to measure how local governments’ role in health and wellbeing changes over time as understanding of health’s social determinants evolves.

Acknowledgements

The authors thank Iain Butterworth and Adrienne Campbell from the North and West Metro Region (Victorian Department of Health) and Helen Jordan from the Centre for Health Policy, University of Melbourne who provided helpful comments on an earlier version of this manuscript. GB is supported by an Australian Postgraduate Award and scholarship support from the North-West Region of the Department of Health; and BGC by an NHMRC Principal Research Fellowship (#1004900).

References


15. Harris E, Wills J. Developing healthy local communities beyond the explicitly defined priority areas of the State, an approach that is consistent with an understanding of health’s social determinants. The method will provide a useful communication tool for councils and agencies in other jurisdictions and internationally to share information on initiatives being undertaken, whether during community consultation or when working with the State Departments. Most valuable, it can be used to measure how local governments’ role in health and wellbeing changes over time as understanding of health’s social determinants evolves.

Acknowledgements

The authors thank Iain Butterworth and Adrienne Campbell from the North and West Metro Region (Victorian Department of Health) and Helen Jordan from the Centre for Health Policy, University of Melbourne who provided helpful comments on an earlier version of this manuscript. GB is supported by an Australian Postgraduate Award and scholarship support from the North-West Region of the Department of Health; and BGC by an NHMRC Principal Research Fellowship (#1004900).
Chapter 7: Interviews with key informants

7.1 Introduction

This chapter presents the results of the semi-structured interviews conducted with LG health and wellbeing planners. The interviews were analysed with reference to the main themes explored in this thesis; LGs’ use of evidence in MPHWPs, and how this shapes their plans with reference to a SDH framework. The approach to analysis is based on the research questions that aim to establish how well LG is fulfilling certain requirements of the Act. These themes were also significantly informed by the results of the content analysis (Chapters 4, 5 and 6), as the interviews provided an opportunity to seek key informants’ views on and explanation for certain results. Specifically, the results showed that councils are working across all policy areas and at all levels in a social determinants framework, albeit not equally. Additionally, the content analysis revealed a paucity of documented intervention evidence in MPHWPs. Chapter 7 therefore explores the implications of the interview results with reference to recent literature about two main topics: the use of evidence in policy and plan-making, and LGs capacity to address health via social determinants.

Semi-structured interviews have been used previously to understand how different forms of evidence are used to inform policy (Petticrew et al., 2004). Armstrong et al. (2014a) also used key-informant interviews to identify barriers and facilitators to evidence use in Victorian LG. Hence, this study builds on and expands previous research by applying an existing framework of evidence-based public health, developed by Oliver et al. (2014), to the development of specific, legislated health plans, specifically the MPHWPs of Victorian LG. It advances this area of research by linking LG’s use of descriptive and intervention evidence to its determination of its responsibility and capability to address health within a social determinants framework.

7.2 Structure of this chapter

The chapter begins with a description of key informants’ characteristics. It then examines key informants’ understanding of and views about the value of a social determinants approach to MPHWPs. This is done with reference to Dahlgren and Whitehead’s (1991) multiple levels of
influence on health and wellbeing and, to a lesser extent, the 14 domains of liveability established by Lowe and colleagues (2013, 2015) to be determinants of health and wellbeing.

Next, perspectives on the use of evidence and other forms of information in MPHWP development are explored. This is done through the use of Oliver and colleagues’ (2014), framework of barriers to and facilitators of evidence use. This framework consists of five main themes, developed as a result of a recent systematic review of the use of evidence by policymakers, and is itself an expansion of a 2002 systematic review (Innvær et al., 2002). The five themes explored were ‘contact and collaboration’ – the quality of the relationships between those who create evidence and those in policy who use it, ‘organizational factors’, the ‘characteristics of the research’ provided to policy, the ‘characteristics of policymakers’, and the ‘characteristics of the policy’ itself.

It was clear from the content analysis that MPHWPs were developed as a result of syntheses of evidence in its broadest sense. Demographic data, health and behavioural epidemiology and, to a lesser extent, intervention evidence all played a role in informing the plans. But equally, pragmatic considerations, community consultation, expert opinion and, to a lesser extent councillor input were also heavily used. Although Oliver and colleagues’ (2014) five themes describe the barriers to and facilitators of the use specifically of intervention evidence, they also provided a useful framework for analysing barriers to and facilitators of the use of descriptive evidence, as well as a framework for examining the role of the other forms of information (councillor input, community consultation, etc.) that were used for the development of MPHWPs.

Finally, a summary of the main findings is provided. A discussion about the opportunities to build on these strengths and overcome barriers to LG’s role as an agent of health and wellbeing is included in Chapter 8, ‘Discussion’.

7.3 Interview participants

Semi-structured interviews were conducted with 16 key informants between March and June 2015. A further three people were invited to participate, but either did not respond or declined to be interviewed (an overall response rate of 84%). All participants worked in LG at
the time of the interview, and although they held positions at a variety of levels within their organisations, each was the person most directly responsible for developing the MPHWP. Their professional training was in environmental health, health promotion, community development or statutory planning, and all but one was female. Fourteen were interviewed about their role developing the MPHWP in the council in which they worked at the time of the interview. Two were interviewed about their immediate past role. Table 7.1 describes the roles and positions of the 16 interviewees.

Table 7.1. Roles of the key informants.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Officer</th>
<th>Coordinator</th>
<th>Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental health</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Health promotion</td>
<td>-</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Strategic planning</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Social/community development</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

7.4 Adoption of a social determinants approach

Through the interviews, it became apparent that health planning in Victorian LG continues to evolve. It has moved from being predominantly health protective (for example, tasks typically being undertaken by environmental health officers, the first wave of public health (Hanlon et al., 2011)), through to education and promotion based on individual or issue-specific behaviour change approaches (the fourth wave of public health (Hanlon et al., 2011)) and towards a more holistic, social determinants approach. All key informants were of the view that health is, to a significant extent, socially determined, and many took the view that virtually everything LG does plays some role in creating health and wellbeing. All key informants were critically informed by a systems approach to health and wellbeing. All were aware of and most used Environments for Health (EfH), the State Government’s framework for municipal public health planning. EfH espouses the SDH approach, interprets it and makes it accessible to those tasked with delivering MPHWPs (Department of Human Services, 2001). One key informant stated that they found EfH ‘really easy to use’ (Key Informant D). Similarly, another stated,
We love [EfH] in local government. I think other people [in local government] understand it much more than they understand the ‘determinants of health’ sometimes, because they can see themselves in a built, natural or economic environment. (Key Informant F)

However, another key informant, while receptive to the EfH approach, also stated,

We are guided to use EfH for writing [the MPHWP], and yet nowhere could I find a clear definition of . . . what those environments for health could potentially look like. [It would be good] to have a framework that is a little bit more, I want to say more prescriptive, gives us better guide as to what is, what are we talking about when we talk about social environment, built environment, economic environment and natural environment? (Key Informant G)

This indicates that for some MPHWP managers, at least, further interpretation of the EfH approach as it manifests in councils’ day-to-day operations might be useful.

When referring to the SDH, many key informants used Irving Zola’s SDH river analogy (Zola, 1970) without prompting. Most key informants were of the view that actions intended to address the upstream determinants of health were more ‘efficient’ than behaviour change actions.

Behaviour change is useful, encouraging behaviour change through literacy is useful, but without a supportive upstream environment it can be like banging your head against the wall. (Key Informant B)

This was particularly well-illustrated by one key informant’s comment about the ineffectiveness of downstream actions – in this case, behaviour change programs that encourage healthy eating, when the community is experiencing more systemic challenges.

We have so much else going wrong that putting any sort of food on the table is a challenge, and getting the child fed and to school. What they’re eating? It’s just not a priority. (Key Informant L)
When describing the extent to which the approach to MPHWP s adopted the SDH, as one key informant stated, policy areas such as education, housing and transport are ‘what make up the community’s DNA’ (Key Informant G). As such, the need to understand and respond to SDH played a prominent role in the development of MPHWP s, particularly in the prioritisation of issues when deciding on actions.

Despite key informants’ understanding of the SDH, there were some noted challenges associated with evolving the MPHWP to encompass such an approach. In particular, the consideration of the council’s capacity to have an impact on social determinants was an important criterion in prioritising issues to be addressed in the plan. Several key informants were conscious of LG’s limited ability to intervene in the appropriate policy areas and at the appropriate ‘layer of influence and entry point for action’ (VicHealth, 2015a, p. 2) and that this had an influence on the priorities. This is exemplified by the following statement:

In the areas where, obviously, the data was really bad, we thought, let's put that into the Council Plan. It sat there for little while and we looked at it and thought, what can we actually impact? What can we do [about it]? That’s [how we decided] what stayed. (Key Informant G)

Another challenge was related to organisational change, roles and responsibilities. In two councils, the adoption of a social determinants focus in the MPHWP resulted in the environmental health officer (EHO) being relieved from their responsibility for the plan and some resulting tension between staff. This is described by the following interview extract:

Yeah, they [the EHO] thought it was their responsibility and they didn't like this new kid on the block who had a health promotion background. They still felt that it was environmental health’s responsibility because they had done it since 1984 or something like that. (Key Informant G)

One key informant suggested that adoption of a SDH approach had drawn the focus of the MPHWP ‘too far’ upstream. She felt that this had resulted in a misrepresentation of council’s totality of efforts to act in health and wellbeing areas. As a result, many of the important and
ongoing downstream actions, for example those undertaken by EHOs, had been left out of the plan.

Nevertheless, the majority of key informants felt that their council’s MPHWP was mostly successful in adopting and representing their council’s balanced approached to SDH. Such an approach included actions targeted towards all layers and policy areas, albeit with more of an upstream focus. Repeatedly, key informants stated that because social determinants of health fell into a broad range of policy domains (c.f. Lowe et al. (2015)) for which council had responsibility, LG had significant responsibility and potential as an agent of public health. As one key informant stated:

Our roads, our footpaths, our children’s services, age and disability services, environmental health and agency management, waste management. You know? Basic stuff. Our environmental programs, our land care, our urban wetlands [are] all about health as well. (Key Informant E)

This position is particularly well-captured in the following responses to the question of whether councils’ capacity to act in health and wellbeing extended beyond health protection and health promotion:

Absolutely! Yep, absolutely. The guy out there mowing the lawn has a health and wellbeing outcome, in my view, and by raising the guy mowing the lawn’s awareness of that he might do a better job about it and care more about it because he’s actually improving the social fabric. (Key Informant B)

the big finding . . . when I go around and talk to people about health and wellbeing, when you start prompting, is that what they’re doing is influencing health and wellbeing. They might not say it, necessarily, but they’re certainly doing work towards it. (Key Informant D)

Although all councils adopted a social determinants approach and their plans contained numerous actions targeted towards upstream determinants, several key informants also stated that behaviour change programs were more likely to be demonstrably deliverable and
to have measurable outcomes. Downstream actions were also more politically attractive. As one key informant stated, councillors viewed behaviour change programs as ‘the stuff that’s shiny,’ because they, ‘can see it, they can sell it, they can tick it off’ (Key Informant F). Many respondents were aware of the need to continually educate councillors about the importance of addressing SDH, and of the fact that the MPHWP needed to continually evolve.

We just needed to get that message across that council is a leader in [the area of upstream actions] and needs to be a leader, and that it’s not just about physical health, there’s all these other social determinants that come into it. (Key Informant E)

One key informant reported success in this, stating that a social determinants approach was becoming more widely-accepted amongst councillors.

The comments a few years ago from our councillors were that, ‘we don’t do health; that’s not part of what we do’. But you break down the services within council, and we’re [very] much health and wellbeing focused. (Key Informant M)

Similarly, some key informants found that the value of working upstream was not always appreciated by all stakeholders. In particular, the ideas raised by community members during consultation sessions tended to be for downstream actions more than upstream. Key informants hypothesised that this was because over the years, community members have become familiar with health promotion taking the form of environmental health or behaviour change programs – ‘old-school’ health promotion, as Key Informant G called them – and as a result, community members tend to reflect this view back during consultation when suggesting interventions. In contrast, key informants generally stated that upstream actions were more valuable. For example,

[We] really want to push upstream and I think that’s where our healthy living programs and strategies, whereas our community is focusing more on its lifestyle behaviour. . . . It’s easy for them to see that if you work with people and try and change their behaviour, that’s very tangible. (Key Informant C)

Key informants indicated that the ongoing influence of council and community members meant that although there was an intentional effort to understand SDH and respond with
more effort upstream, they would ‘never get away from’ (Key Informant F) behaviour change programs.

The challenge of emphasising the benefit of a social determinants approach to other staff within council was not considered by key informants to be as difficult. However, key informants often stated that many council staff were focused on delivering services that are tied to funding. As such they are focused on meeting their obligations under these funding programs, rather than how their actions might play a role in fulfilling a strategic plan, like the MPHWP. This sometimes made it difficult to engage staff from other council departments in the development of the MPHWP:

There's a lot [of staff] who are providing service delivery purely . . . even though they play a key role in health and wellbeing, they're delivering a service, connected to their funding provider too. It's really hard to connect that. (Key Informant D)

Finally, it was encouraging to observe the dedication with which all key informants approached their role, particularly the opportunity they felt it afforded them to make a real difference to the lives of current and future residents of their municipalities. In this regard, the adoption of a SDH approach appears to have increased key informants’ sense of responsibility as agents of health and wellbeing and also to have been highly motivating. This is exemplified by the following extract:

Personally, I get the most job satisfaction from pushing upstream rather than doing walking groups [for example] . . . it's about when we're not here, but how to set things up now for the future. . . . You've got people that enjoy the ‘now’ and want to see 100 people attend this and 100 people attend that. But I get more satisfaction from knowing that people are going to be able to not have to drive past 50 million fast food outlets on their way home in 10 years’ time. (Key Informant F)

7.5 Facilitators and barriers to evidence use

As outlined in Section 7.2, key informants’ views and experiences of the barriers to and facilitators of evidence use in MPHWPs were framed according to the five themes developed
by Oliver and colleagues (2014). They are ‘contact and collaboration’ which describes the characteristics of the relationships between those who develop policy, organisational factors, the characteristics of the research provided to policy, the characteristics of policymakers, and the characteristics of the policy itself. Table 7.2 shows how this framework forms the structure of this section.

Table 7.2. Five themes that influence evidence use in MPHWP (Oliver et al., 2014).

<table>
<thead>
<tr>
<th>Barriers to and facilitators of evidence use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Contact and collaboration</td>
</tr>
<tr>
<td>2. Organisations and resources</td>
</tr>
<tr>
<td>3. Research and researcher characteristics</td>
</tr>
<tr>
<td>4. Policymaker characteristics</td>
</tr>
<tr>
<td>5. Policy characteristics</td>
</tr>
</tbody>
</table>

Types of evidence:
- *Descriptive* (for prioritising issues)
- *Intervention* (for deciding on actions)

Three of the five themes are further broken down to explore their nuances in the Victorian context. Firstly, there is considerable diversity in the way that local governments across Victoria approach health and wellbeing planning, particularly in terms of the resources and expertise that they are able to apply to MPHWPs. Therefore ‘organisational factors’ is broken into further sections to enable their a full exploration. Secondly, because descriptive and intervention evidence are quite different, in ‘research characteristics’, the idiosyncrasies of each and the way that these affect their use are discussed. Finally, because MPHWPs are required by legislation but remain at heart LG documents, there is a unique combination of factors that influence their development. As such, the theme of ‘policy characteristics’ is also broken into further sections to enable a full exploration of these factors.

### 7.5.1 Contact and collaboration

‘Contact and collaboration’ refers to the range of factors centred on LG as an agent of health and wellbeing within a network of partnerships. Specifically, this theme explores how councils’ use of partnerships facilitates or creates barriers to the use of evidence.
The interviews revealed that partnerships are very important and influential to the development of MPHWP's and the use of evidence therein. This is exemplified by the ways that municipal scans were often conducted. The municipal scan is a stage of the MPHWP cycle recommended by DHHS (Victorian Government, 2009, Victorian Government, 2012a, Victorian Government, 2012b, Victorian Government, 2013a). It involves a scan of demographic and epidemiological evidence that provides ‘a preliminary understanding of the health and wellbeing status of the community and the determinants that contribute to this status’ (Victorian Government, 2013a, p. 14). Some councils publish the results of the municipal scan online as a Municipal Health and Wellbeing Profile, Background Paper or similar document. These were included in the content analysis (Chapters 4, 5 and 6) if they were available.

In most cases, it appeared that partnerships worked well to facilitate the use of evidence in the municipal scan. Urban councils often had whole departments dedicated to the production of descriptive, community profile data. In rural areas, the municipal scan was often done by, or in collaboration with, the local Primary Care Partnership (PCP). The role of PCPs is to focus on building relationships between agencies and to facilitate health system reform in regard to health promotion and chronic disease management. They coordinate services to create a responsive and efficient health service system, and have particular regard for difficult-to-reach population groups and regional priority issues (HDG Consulting Group, 2008).

Conducting the municipal scan in conjunction with the PCP provided a basis for determining the health and wellbeing issues in not only the relevant LGA but also in neighbouring LGAs, so that a common approach could be adopted. Overall, key informants acknowledged the benefit of this collaboration to evidence use and the determination of priorities.

In terms of that alignment, the priorities that are in the PCP’s regional health plan are priorities in our plan. We have some extra ones as well that relate to our local government role, but there’s alignment in . . . the three regional priorities of healthy eating, physical activity and social connection. (Key Informant E)

However, unlike the PCP, the role of the council is not to develop actions targeted to specific groups within the community, but to provide the ‘baseline’ social services and infrastructure that facilitate health and wellbeing for all citizens. As such, when conducted by the PCP, the
municipal scan could not provide evidence and guidance at the local level on all issues, and occasionally there was a ‘lot more health and wellbeing issues than were identified [by the PCP]’ (Key Informant E).

While the PCP was often the main organisation with which council partnered, other organisations also played an important role in providing not only evidence to, but also determining the scope of the MPHWP. These included health service providers such as those that provided health and community care (HACC) services, Medicare locals, non-government, voluntary organisations and the MAV. The provision of evidence to council by these organisations included that which was descriptive of demographics and the health needs of the community and, to a lesser extent, evidence about the effectiveness of interventions. The provision of information and evidence about programs that were in place, including evaluation evidence that could provide information about programs’ success, was critical for deciding whether to incorporate such actions into the MPHWP. One key informant mentioned that they ‘really relied’ on organisations like the PCP and MAV to provide intervention evidence, and illustrated this with the following example:

there's an MAV Positive Aging person. [They] give us a list of resources every month. I, for instance, go through those and have a look, and one of the things that was useful out of that was out of Canada and how the WHO age-friendly work was applied in rural areas. (Key Informant K)

Quite apart from their importance to evidence use, partnerships were also identified by key informants as vital for the delivery of an effective health and wellbeing plan, a finding that is supported by the qualitative analysis of MPHWPs (Section 5.5). All key informants cited budgeting and resource constraints – particularly rate-capping, the imposition by state government of an upper limit on the rates levy-able by a council which came into effect in December 2015 (Victorian Government, 2015d) – as a major challenge in the delivery of health and wellbeing plans. Under these circumstances, building partnerships with other health service providers was generally seen as essential for increasing the capacity of the council to improve community health and wellbeing. However, in regard to the way that this affected the determination of councils’ responsibility for health and wellbeing in the MPHWP itself, key informants held two broad opinions. In most cases, councils worked closely with and
supported these organisations’ actions. At times, this led to the incorporation of the external agencies’ actions into the MPHWP itself.

We work with some of the community health services directly on initiatives. An example of that would have been the *Walk to School* initiative. The council got the funding and we partnered with the . . . health care group, our hospital, and community health agency, to implement that in schools. That was a kind of a direct connection. (Key Informant E)

Another key informant was more vehement on the essentiality of working closely with partners:

> Community health and wellbeing plans are not worth the paper they are written on unless you have a community that is willing to work together. Partnerships. Share funding. Share the development of policy at the local level to create change. They will not budge anything. They will not move anything and they are a frigging waste of my time. (Key Informant D)

Key informants stated that the benefit of what was effectively integrated health planning – which included sharing both evidence and the development of plans (‘co-designing plans’) – was that priorities and targets could be mutually agreed upon. Further, the benefit of including all partnering organisations’ actions in the MPHWP was that it provided a complete picture of the health and wellbeing initiatives occurring in the region. This enabled a definitive comparison between initiatives being undertaken and community needs as defined by the evidence in the municipal scan so that gaps could be identified and made explicit. However, there were also perceived to be risks associated with this, and some key informants described considerable consternation over decisions whether to bring all agencies’ actions under the umbrella of the MPHWP. In referring specifically to the challenge of determining the extent of council’s responsibility in the context of other agencies, one key informant asked,

> Of all the things we can do, what could they be? . . . Is this a MPHWP that [the LG] is responsible for? And therefore, [are] all the actions in here the ones that we have
control over? Or is this a document that everybody has ownership of, and buy-in, and collectively can influence? (Key Informant O)

For another council, the perceived corporate and reputational risk of partners failing to deliver on their actions resulted in the decision not to include them in the MPHWP.

the council has moved away from trying to capture all the actions that all the organizations in the community were doing. They couldn't control them. And couldn't afford to be accountable. (Key Informant B).

The interaction between evidence that informs an understanding of the health and wellbeing needs of a municipality and council’s determination of the extent of the role of the MPHWP is well-captured by the following extract:

I think councils need to be flexible on what’s core and what’s not core. There are some things that we're mandated and legislated to do. There are things that are nice to do, and there are things that tend to get dumped on LG that aren’t necessarily their job, but no one else does it so someone has to do it. (Key Informant H)

In summary, data gathered during key informant interviews demonstrate that councils use partnerships to effectively gather a wide range of descriptive evidence (e.g. demographic, epidemiological and health behaviour evidence) to understand the nature and extent of health issues in their municipality. There appeared to be fewer, but equally important examples of collaboration that facilitated the use of intervention evidence.

7.5.2 Organisational factors

According to Oliver and colleagues (2014), characteristics of the organisation itself can have an important effect on the extent to which evidence is used. These are: the material and staffing resources available, availability and access to research, council processes, the extent to which managers supported evidence use, managerial will and support for evidence use, and staff turnover (Oliver et al., 2014). In regard to Victorian LG and MPHWPs, several key informants made reference to the way that organisational factors influenced how evidence was used. Of particular note were the resources available to LG, the extent to which health and wellbeing
considerations were integrated across council, and council’s capacity to conduct rigorous evaluation of the MPHWP. These are discussed in the following sections.

7.5.2.1 Council resources

Key informants were from councils with widely-varying revenues, both in terms of total revenue and per capita of resident population, both of which could vary markedly. Despite this, all key informants cited budgeting and resource constraints as a barrier to the development of their MPHWP. In particular, rate capping (Victorian Government, 2015d) was frequently cited as a concern for council resourcing.

Notably, in one case, a key informant from a council that fell near the middle of the revenue scale referred to their council’s relative advantage as a disadvantage. When speaking about the difficulty in funding all the prioritised programs, they stated that because the municipality’s health and wellbeing data indicated that residents were fairly well off, the council attracted fewer funds from state government than the more disadvantaged municipalities.

Key Informant: We don’t have the socioeconomic indicators to put us in the same space as the X council and the Y council and the Z council and what have you.

Interviewer: I’m not sure I know what you mean by that. You don’t have the indicators?

Key Informant: We don’t have the poverty level of disadvantage.

Irrespective of the perceived extent of financial limitations, the fact that councils adopted a social determinants approach meant that MPHWP managers needed to understand data and evidence from a broad range of policy areas and about a broad range of health issues. In most cases there were fewer than five staff working on the MPHWPs, and key informants stated that this presented a significant challenge. For example, one key informant stated that the ability for only a small team to understand the breadth of health and wellbeing issues implicated by a social determinants approach was particularly challenging.
I found myself being almost in information overload. It was like I had all this information and was trying to make sense of it all, trying to pull together. What are the facts? . . . There was a time there where I just didn't know if I was ever going to see my way out of it. (Key Informant C)

The relative influence of intervention evidence as compared to other forms of input was also significantly affected by the resources available to councils. Where funding was limited, factors other than evidence played at least as important a role, as this key informant stated:

Opportunity, relationships, potential for partnerships, funding, how much I've got left when I'm scraping down the bottom of my budget barrel. If I've got $200 to do something, what could I do with it? It's very, in some ways, ad hoc, piecemeal, opportunistic. (Key Informant N)

The limited availability of and access to academic research is often a barrier to LGs’ use of evidence informed interventions (Hurley and Taylor, 2014, Moodie, 2009). Few councils have access to research databases, and even if they did, systematically reviewing evidence about effective health promotion strategies was beyond the capacity of even well-resourced councils. The broad remit that is required when social determinants are considered further increases this challenge (Dollery et al., 2006). That is, the same number of staff, funded to a similar level, now needs access to a broader body of literature than they would if the MPHWP were to adopt a simpler approach (e.g. environmental health or health promotion only).

In this vein, the interviews revealed that among the different rationales for actions, published academic evidence was rarely mentioned by key informants as playing a major role. While some understood the importance of published academic intervention evidence, they acknowledged that due to limited resources, its appropriate use was rarely fully utilised.

Specifically, key informants were asked about access to academic literature that provided information about evidence-based interventions. Some recognised the benefit that this would provide to the development of actions in the MPHWP, but were cautious about being overwhelmed with information. They indicated that when research intervention was sought
from academia, it was not done systematically due to paywalls, nor was it seen as necessarily advantageous. As one key informant put it,

I think that there's so much more information that I could access which I think would really help inform the work that we do. So that's probably something that I need to be working on. How can I get access, or am I just opening up Pandora’s box and making my life more complicated? (Key Informant C)

Those that did have access to academic databases did so because they were still enrolled at university, as the following extract illustrates. In such cases, key informants stated when they found intervention evidence, it was often shared among the network of MPHWP managers. However, the language that they used when describing this process illustrated that even those that did have access to academic databases could not articulate that evidence plays different roles in MPHWPs.

Key Informant F: I couldn’t tell you where or what databases we used or anything like that. At the time, I think most of us were also studying, so we had access to them . . . but we looked at some research papers as well. Just in terms of sort of understanding the analysis. It’s one where you can look at stats on trends and stats on employment, but they’re kind of looking at evidence [asking] what does it actually mean? How do you apply it? Does that make sense?

Interviewer: ‘Apply it’?

Key Informant F: Interpret it, maybe? How we kind of, would it like . . . a so what factor?

Interviewer: So, ‘what can we do’?

Key Informant F: Yes. That’s probably it. ‘What can we do?’

Interviewer: You looked for evidence for the interventions?

Key Informant F: Yeah, yeah. Yes.

This seems to indicate that MPHWPs managers often had neither a high level of evidence literacy, nor the time or resources to develop that literacy.
7.5.2.2  Council as a multidisciplinary agent of health and wellbeing

All key informants stated that both they and their staff who manage the MPHWP adopted a SDH approach, as described in 7.4 above. That is, they recognised the contribution that the many departments and services of the council play in creating a healthy environment in which people live, work, play and age. This in turn drove MPHWP managers to attempt to build the profile of the plan in the minds of all council staff so that it became a holistic and interdisciplinary plan that reflected councils’ broad remit in health. Key informants felt that this process was not universally successful. In particular, a key informant from one of the regional city councils felt that the large size of the organisation made it harder for her to convince other council staff – but especially staff in the area of economic development – of their role in health and wellbeing.

Of note is that several key informants cited the apparently prosaic matter of office co-location as very important for raising awareness among staff from diverse areas of council of the importance of their work to health and wellbeing. One key informant stated that having the built environment team located in a different part of town ‘was a problem just in terms of the opportunities, the connections . . . ’ (Key Informant E). Another stated that:

The issue . . . was that we were in different buildings. All social people were in one building and everybody else was in different suburbs. Having good relationships with transport people and the open space people was a little bit more difficult because you didn’t develop those relationships. (Key Informant J)

Nevertheless, where councils were successful in integrating the actions of diverse departments into the MPHWP, this tended to give actions a higher profile than they otherwise would have. It also helped the staff responsible for them to understand how their work complemented others’ to create a municipality that facilitated health and wellbeing.

This multidisciplinary approach to MPHWP development had implications for the degree to which evidence was used. When working with staff from across council, one of the processes used to develop new actions was brainstorming. At times, this generated ‘really random ideas’, many of which didn’t get taken up, because they were ‘just something that they’d thought of in that room’ (Key Informant N). Such actions were not necessarily scientifically verified and so
do not qualify as ‘evidence-based’. However, regardless of whether actions of this type were included in the final version of the plan, the benefit of involving staff from across council departments from the early stages of development was that it helped to ensure their engagement with the plan.

[The ideas for actions] will come from our other staff. Again this is partly about trying to come up with a plan that has a level of acceptance across council and therefore becomes easier to implement . . . . We [would] talk with other staff, and then we would talk with our external partners and say ‘now what do you think Council could do, or should do, around that’? That's where we would get our ideas from. (Key Informant E)

Another way in which an interdisciplinary approach to the MPHWP affected evidence use was when, as one key informant put it, ‘work that people are already committed to that had a health and community impact’ (Key Informant K) was sourced from council departments and collated under the banner of the MPHWP. Often such an action was included not because there was specific evidence supporting it, but because it was part of a longer-term strategy to improve health and wellbeing via, for example, the provision of facilities and services. Such actions are important responses to the socially determined nature of health and, as one key informant described, they are,

developed across the organisation. And not just from what the current data say. They try and go, ‘well this is an action one year, well we’re going to build upon that and do this next year’. (Key Informant B)

Incorporation of pre-existing or ongoing actions was often done with the aid of project management software such as InterPlan (CAMMS, 2015) or another similar package. Although the quality of information entered into PMS was dependent upon staff skill and commitment, these had the capacity to explicitly link existing project work, such as that which is grant-funded, to strategic corporate outputs (i.e. delivery of the MPHWP), ‘even if it doesn't occur to the person doing the action that it links into the MPHWP’ (Key Informant L).
At times, MPHWP managers became aware that some actions, ostensibly created to improve an aspect of health and wellbeing or address a social determinant, were in fact inadequately evidence-based. Rather, their rationale seemed to be a form of ‘bureaucratic momentum’:

in terms of the annual action plans, [the actions] generally come, . . . it’s a little bit hit and miss. Sometimes, unfortunately, it is what people are currently doing, like business as usual. (Key Informant F)

Similarly, in regard to the use of evidence to support actions by staff from other areas of council, another key informant noted that:

Solutions are meant to be generated from [staff] accessing whatever [evidence] they have around and whatever's being done now. That is not done at all well, I don't think. (Key Informant G)

This key informant went on to say that while other council departments drew evidence from a broad range of sources, the vast majority of it was descriptive of the community’s health and wellbeing, and far less of it was intervention evidence that directly supported actions:

Within our referencing of the MPHWP, you'll see that we've referred to 61 different types of evidence and data sources. Within that, there’s certainly some evidence-based information, [but] in the development of the actions? No. (Key Informant G)

In rarer cases, through the process of gathering actions from across council, MPHWP managers became aware of actions that were well supported by evidence. This was particularly the case for actions delivered by departments that were more strongly underpinned by medical rather than social science research and, as part of the first wave of public health planning (Yassi et al., 2001, Hanlon et al., 2011), had a longer history and more time to become established as evidence-based. This is exemplified by the area of maternal and child health. Two key informants identified this area as being evidence-based, implying that among the diverse council departments, actions from this area were unusual for having that quality.
For example, ‘Encourage, support and promote breastfeeding’. Maternal child health nurses really put that one in and I just stuck it in where it fits. I'm just saying that a lot of the strategies in here haven't been . . . evidence-based. (Key Informant J)

Maternal child health, for instance, if we picked up actions from their plans that sit under positive mental health, they do a whole range of services and programs that they know work for new mums with children, etc. (Key Informant I)

In contrast to these examples, key informants were generally of the view that evidence-based actions were particularly hard to identify in the new and emerging areas of public health. For example, in regard to the prevention of family violence, one key informant stated that,

There is, in some areas, a lot of information on what works. There are evidence-based resources. However, for issues such as family violence and diabetes, which are relatively new, we don't actually know what would work. (Key Informant M)

In contrast to this, another stated that evidence to support their ‘prevention of violence against women’ (PVaW) actions did exist, but was simply not presented in the plan itself,

We've got the [prevention of] violence against women program. That's rigorously evaluated and based on best practice and everything. But we haven't gone into that level of detail of explaining that within this plan. (Key Informant I)

The requirement to adopt a social determinants approach in health and wellbeing planning has generally given MPHWP managers the authority to work more closely across council departments. In many cases this is likely to have resulted in a stronger, more effective plan. However, a particular finding that arose from the need for MPHWP managers to work across council departments was that the quality of evidence that supported the actions undertaken by the different departments was not always strong.

7.5.2.3 Evaluation

A final organisational factor that was found to affect the extent to which evidence was used was councils’ capacity to evaluate its MPHWP and the actions therein. Key informants were of
the opinion that effective evaluation of the MPHWP had great potential to create evidence that supported actions, particularly novel interventions, but that generally, evaluation was poorly done. As one key informant stated,

We’re not great at . . . evaluation. We’re not good at impact or outcome evaluation. We’re very good at process evaluation in local government. Evaluation was very good at saying, ‘Yes, we did what we said we were doing.’ But we’re not good at saying whether it’s made a difference. (Key Informant F)

Key informants provided two main reasons for this: inadequate understanding of the difference between output and outcome evaluation, and difficulty attributing any positive population health results to actions in the MPHWP.

In regard to the first reason, generally key informants themselves had a very good understanding of the value of effective evaluation for building the evidence base. Most drew a clear distinction between evidence that demonstrated the extent to which actions had been delivered (outputs or process evidence) and evidence which demonstrated whether actions had been effective (impact and outcome evidence) (Weiss, 2007, Friedman, 2005, Victorian Government, 2010a). They also noted the importance of effective evaluation that is capable of creating the latter. However the majority felt that other council staff members were not as aware of the distinction thus the focus on evaluation of outputs only. Key informants stated that while project management packages such as InterPlan (CAMMS, 2015) are capable of tracking the implementation of actions and provide a starting point for evaluation, they are limited in their capacity to build the evidence base. As one key informant noted, ‘[project management software] tells you what happened, but in terms of effectiveness, it doesn’t tell you that’ (Key Informant L). Nor does project management software particularly encourage other staff to look beyond outputs to consider the outcomes of actions. As two key informants stated, attempting to evaluate health and wellbeing actions that had been collated from across council was ‘laborious’ (Key Informant L):

I will then go back to them, and I will say, ‘Okay, no, that's more of an achievement. You've got this many people to your session, but what impact did that have, and, more importantly . . . in terms of long-term changes, what has it done?’ (Key Informant N)
In general, existing project management software was felt to be useful but insufficient for ‘giving you the information that you need for a MPHWP’ (Key Informant C).

The other aspect of evaluation that has repercussions for the use of evidence is that the very nature of social determinants makes their effect on health difficult to conclusively demonstrate. This makes it inherently difficult to conclusively link any change in population health to a particular MPHWP action (Haby and Bowen, 2010, Petticrew et al., 2004). The interviews revealed that even when evaluation with reference to population outcomes was attempted, most key informants recognised that attribution of any improvement in population health to the MPHWP, let alone a specific action, was difficult. As one key informant stated,

If we go to [the evaluation report] we probably have actioned many of those things; how we determine they have an effect . . . you know, that’s a question. (Key Informant E)

Despite the lack of convincing outcome evidence, some key informants appeared to rely on tacit, even assumed knowledge of the effectiveness of actions and were optimistic about the ability of actions in the MPHWP to make a difference to population health. Simultaneously, they were not confident that success could be demonstrated,

My guess is that with a lot of this stuff, is certainly you can’t make a direct line between the action in here and an outcome at the end of the day. How do I then, link the two? I can’t. (Key Informant K)

With specific reference to the delay between actions and their effect on population health, one key informant was decidedly pessimistic:

Yeah. I think it’s always the dilemma with health promotion as well, that things take time in order to measure impact . . . . Has it changed the outcomes, the health outcomes, of our community? In four years? No. No, it hasn’t. (Key Informant G)

All key informants, however, reported either frustration or resignation at their inability to conclusively demonstrate effectiveness, and some spoke of the implications of this for future MPHWPs within a resource-constrained and political environment:
I think when you work in an environment where it’s numbers, figures, outputs, when you’re working upstream and it’s longer-term outcomes, you don’t have the immediate bang for buck to justify your existence. (Key Informant C)

Despite the challenge of creating program-specific outcome evidence, key informants took heart from the belief that as long as programs were common-sensical, the collective effort of councils would eventually be revealed through improvement in population health data. However, as one key informant noted, this would only be discernible if data to measure long-term trends in population health at the local level continued to be collected.

For me, going through the process in a year or two will be great because I’m hoping that some of the same sets of data will be available and some of the same questions will have been asked again so we can determine in our area, in our patch, if anything’s changed. (Key Informant H)

Key informants also perceived that a lack of a strong authorising environment for evaluation was a barrier to the creation and future use of evidence. Noting that all stages of the MPHWP cycle are important and that the skills required for each stage are unique, several key informants indicated that there was less time and effort devoted to evaluation than templates such as Guide to Municipal Public Health Planning (Victorian Government, 2013a) recommend. In particular, the emphasis on developing the plan itself and all that goes with this can sideline evaluation. As one key informant stated, ‘[Evaluation] is a skill in itself. I personally don’t think we stop long enough to evaluate properly’ (Key Informant M).

One key informant indicated that inadequate focus on evaluation compared with other planning stages led to it being less robust than is ideal, and that this had allowed inconsistency and even arbitrariness to affect the process.

Again, I don't think that we have capacity or resources to go into an evaluation around programs that we’ve had. There’s a huge reliance on external consultants to do evaluation . . . . Unfortunately, it’s very ad-hoc and driven by those people who think they know best. (Key Informant G)
In this context, there were perceptions that DHHS’ minimal involvement in evaluation also had an effect. Key informants implied that evaluation would be conducted more effectively and could make a stronger contribution to evidence if the department provided more support for it. They expressed irony when describing how the department’s level of interest for the MPHWP is disproportionate to its level of interest for the arguably equally important evaluation report.

The Department of Health, last time, while they said . . . ‘You must evaluate your own plan’, they didn't want to see it. I was really interested that they didn't even want to put a copy on file. Whereas everyone wants a copy of the new plan, and we have to provide a copy to the Minister or the relevant head of that department at that time. (Key Informant H)

In conclusion, regarding evaluation, while some key informants were sceptical of the effect of the MPHWP on public health, the majority were optimistic. However of greater concern to key informants was the ability to know this for certain. In this context, the absence of effective evaluation – particularly of novel interventions – was recognised by key informants as a major barrier to the creation of intervention evidence. This is well summarised by one key informant, who stated:

We think we’re making an impact at the community level . . . for the long-term we know probably that it’s made a difference, but to actually document that and then learn from it, I think that’s something that we could really build on. (Key Informant M)

### 7.5.3 Research characteristics

Oliver and colleagues (2014) found that the characteristics of evidence itself can affect its use in policy development. Consistent with this, the interviews revealed that the attributes of evidence that affected its use in MPHWPS were format, accessibility, reliability and relevance to council priorities. This section describes key informants’ perceptions of the way these attributes influenced their use of both descriptive and intervention evidence. In the section on descriptive evidence, particular attention is paid to the role that CIV played in influencing the priority areas of MPHWPs.
7.5.3.1 Descriptive evidence

When key informants were asked which sources of descriptive data and evidence they found useful for developing the MPHWP, their responses were consistent with the content analysis of MPHWPs (Chapter 4). The data sources that key informants found most useful when conducting the municipal scan were Commonwealth government agencies such as the ABS, state government departmental and agency sources such as VicHealth and the Victorian Population Health Survey (VPHS), community consultation, and internally-sourced data. Other evidence sources that key informants stated they found useful were Profile .id The Population Experts, Victoria Police, the Cancer Council and CIV.

Several key informants also experienced barriers to using descriptive evidence. One of these barriers was doubts about the reliability of data, particularly when comparisons of different data sources yielded discrepancies – as one key informant stated was the case for disability data – and when it seemed likely that increased community awareness about a topic led to increased reporting – as was the case for violence against women. While key informants stated that descriptive data such as that provided by the VPHS was useful for understanding regional trends in health, it was not always able to provide information at a geographic scale that was relevant to their policy development process:

We do have trouble finding localized data. Like the western region . . . often western region data are available, but what’s happening in [Municipality A] is really different to what is happening in [Municipality B]. Sometimes that’s hard for us. Even within the municipality, the suburbs are so different that you can’t always drill down. (Key Informant F)

Key informants recognised that it was important to overcome this barrier if they were to understand the nature of municipal heterogeneity and if ‘pockets of disadvantage’ (Key Informant J) were to be understood. This was frequently done through the use of a municipal community survey administered by one of several social research consulting companies. The benefits of a local survey are that it can be tailored to fill specific knowledge gaps. As the same key informant stated,
That's why our annual community survey is really useful, because we can say people in [X Suburb] feel much less safe than people in [Y Suburb], or people here ride their bikes to work much more than the people there [i.e.] that 'place-based' understanding; you just don't get that at the population health survey. (Key Informant F)

Another barrier when using descriptive evidence was access to but proscription from use in the MPHWP of certain types of data due to confidentiality. In particular, crime – specifically family violence, oral health and obesity – was mentioned by key informants as a topic about which data was often available but could not be made public or even shared with councillors. As one key informant stated,

We've looked at family violence data by small area which is confidential, so we can't do anything, we can't release the data, but internally we know that for this area [for example], there's very, very high incidence of family violence that actually links to alcohol, to drug abuse or to having a disabled person at home. And that influences our provision of services. (Key Informant L)

As this key informant describes, in most cases, confidentiality of this type did not hinder the development of targeted actions. However, one key informant stated that the inability to share data with others, particularly councillors and partners outside of council, could call into question the rationale for priorities and actions that the council may be seeking to enact in partnership.

Finally, it was notable that one key informant implied that the availability of background material on SDH and descriptive data meant that these were over-used in the MPHWP. This claim is not contradicted by the results of the content analysis (Chapter 4), which found that far more descriptive than intervention evidence was used.

I think there's probably a lot of information in there that may not necessarily need to be in there . . . how much information do we [need to] talk about health promotion? How much background, what context, the framing, The Ottawa Charter, Environments for Health . . . I mean, how much do the [MPHWPs] need? (Key Informant C)
This key informant did not specifically mention this with reference to the paucity of intervention evidence. Nevertheless, it is possible that a large amount of descriptive evidence is used in MPHWP s simply because it is available, and that this acts as a distraction to the exploration and inclusion of intervention evidence.

**Community Indicators Victoria**

Key informants indicated that Community Indicators Victoria (CIV) was a well-regarded evidence source. All key informants were familiar with it, and 15 of the 16 used it during development of the MPHWP. Key informants mentioned the utility of CIV as descriptive evidence is a first port of call for a rapid assessment of and prioritisation of local issues. Many of the key informants found CIV useful for efficiently showing trends over time and between councils in a way that council-derived data was not able to. This is exemplified by the following:

We really just looked at the CIV data for the council plan and said, ‘That's crap,’ [meaning poor health or wellbeing], ‘that's crap, that's crap,’ we'd better put that [issue] in. (Key Informant G)

One interviewee stated that CIV was critical to each priority, ‘giving us that basis to know where we're at’ (Key Informant I), and stated that it provided grounded evidence that was important for countering local media’s unsupported claims about issues such as safety.

Several interviewees expressed frustration that CIV does not yield data at a finer grain than municipal level or by gender without cost. Conversely, one key informant noted that LG-level data was still very useful, citing the (admittedly assumed) homogeneity of the LGA.

When you're just swimming in a sea of information to have something like that to go, ‘Yeah, they're the areas that we need to be focusing on,’ I just like every bit of it. The more data you can get at that community level, I just use it. [At the LG] level, yeah LGA level, because really, our communities are very similar, there's not a lot of difference. (Key Informant C)
In the establishment of baseline issues of significance, the convenience and reliability of CIV was highly valued, particularly when there was a poor level of evidence literacy in council.

CIV gave it to you on a platter, if you like. It was very accessible for people who, perhaps, were not as advanced in their understanding of data. Which was great because the development of the Plan wasn’t something that was done by people with a high level of understanding around data and research. (key informant I)

CIV was also used to infer the success of actions of the MPHWP, despite the fact that it does not have the capability to explicitly link actions to community health and wellbeing outcomes. This use of CIV demonstrates a desire amongst MPHWP managers to be able to source evidence that demonstrates whether actions are effective.

Only two of the 16 key informants referred to CIV in a way that suggested it played an active role in shifting council’s understanding of what defines health and wellbeing. In one case, a key informant described CIV as identifying different ways to measure social connectedness:

I think the [indicator] that I found really useful was the [ability to] borrow $2,000 from a neighbour, a friend or something, for social connection . . . . You’re always looking for different ways to measure social connectedness or those sorts of things. (Key Informant P)

In the other case, CIV was cited as ‘shifting thinking’ around definitions of safety (Key Informant F). The content analysis of MPHWPs showed that crime and safety are important issues for many LGs. One key informant emphasised the need to address crime and safety by building social cohesion rather than through police and closed circuit television (CCTV) surveillance. In describing this need, they made reference to the indicators in CIV as ‘personalising the data’, having a ‘neighbourly feel’ and ‘a special connectedness’. Of note is the this respondent indicated that CIV indicators sensitised users to new dimensions by which health and wellbeing could be assessed, in this case, definitions of community safety that support an argument against CCTV surveillance.

People feel safer when there’s more people around and all of that, so that data in CIV helps shift thinking a little bit. . . . This is what we want things to be like; we want social
connection. We want people to know their neighbour . . . CIV provides us the data of what a safer community looks like, where ABS doesn’t. (Key Informant F)

These examples are unique among the results of the interviews. Even though the reported use of CIV was high, intentionally using it as a way to shift what councils define as health and wellbeing was rare. This indicates that overall, CIV was used more instrumentally than influentially. That is, CIV was used more as a ‘reporting resource’ to ‘track and communicate progress towards agreed goals’ than as a resource that played a normative role to shift the direction of MPHWP towards issues ‘identified as important by communities’ (Community Indicators Victoria, 2015).

### 7.5.3.2 Intervention evidence

The content analysis showed that relatively little intervention evidence was documented in MPHWP. Consistent with this, key informants rarely drew a clear distinction between descriptive and intervention evidence. However, those who were aware of the distinct contribution that intervention evidence makes to support actions cited organisations such as the Planning Institute of Australia, the MAV and the National Heart Foundation as useful sources of evidence-base actions. *Health Together Victoria* (HTV), which was active in four of the municipalities, was also mentioned by several key informants as providing intervention evidence that was useful for deciding on the actions in the MPHWP. HTV is a prevention platform that took ‘a complex, whole of systems approach to tackling the rising rates of overweight and obesity and related chronic disease’ (undated, Victorian Government, 2015a).

However, some key informants stated that they were still waiting for the outcomes of HTV, and some appeared sceptical that these would be provided in a way that could assist MPHWP planning. One stated that although it had been some time since they had inquired, they believed some intervention evidence from HTV was confidential. Another wondered,

> Are they going to give us some answers on what works from having thrown money at the problem in particular areas? We haven’t heard anything yet. We hope that we will and that we’ll get some useful information out of those projects. (Key Informant L)

Of note was that although MPHWP managers’ access to literature that supported interventions was generally poor, this was not the case for all issues. As described above,
actions that were sourced from council departments whose foundation was medical rather than sociological, such as maternal and child health, were more frequently mentioned as being evidence-based, perhaps as a result of a longer history and stronger foundation in evidence-based medicine. In another case, a key informant conveyed a high degree of confidence about intervention evidence for a particular crime and safety issue and this provided a rationale for strong beliefs about interventions. However, in this case the evidence itself was sourced by an external consultant:

You look at the evidence for CCTV cameras . . . . There’s evidence to support CCTV as a policing tool in terms of apprehending offenders. [But] the evidence to support them [as a] community safety tool, for prevention of crime, it’s not there. I had an external consultant do that for me, the consultant sourced a lot of literature. (Key Informant F)

These responses were atypical. On the whole, key informants were equivocal about intervention evidence and rarely drew a distinction between it and descriptive evidence. Although this made it difficult to determine what they felt were the barriers and facilitators to its use, the wide field and complex nature implicated by a social determinants approach to public health were barriers to key informants’ ability to access, synthesise and apply specific intervention research to the development of actions. Nevertheless, a number of key informants described a more intuitive, ‘common sense approach’ to building rationales for interventions. By drawing upon the albeit disjointed evidence about the manifestation of social determinants and their own tacit experience of health and wellbeing actions within their communities, key informants felt they were often able to build a persuasive rationale for actions. However, they did acknowledge that proving the effectiveness of interventions developed this way was challenging. This is exemplified by the following key informant’s comments that despite the apparent logic of delivering mental health first aid training, proving its effectiveness was difficult:

We won’t necessarily see a decrease in suicides if, for instance, we do this [mental health first aid] training. And if we do . . . the ‘family violence after disasters’ training, we might see an increase in [attendance] rather than anything else, because people are more aware of it. (Key Informant K)
It is for this reason, as described above, that evaluation of the MPHWP and the actions therein was recognised by the majority of key informants as vital for building LG’s repertoire of intervention evidence.

7.5.4 Policymaker characteristics

As Oliver and colleagues (2014) found, the results of the current study suggest that the characteristics of policymakers themselves can influence the extent to which evidence – particularly intervention evidence – is used to develop MPHWPs. These characteristics include membership of professional organisations, whether the policymaker was a current university student, policymaker research skills in and awareness of evidence and its use, but also the influence of personal experiences, judgments and values on evidence use.

As described above, all key informants adopted the ecological model of health, regardless of the training and professional background. Of note is the fact that this included the only key informant who trained and was working as an EHO in their substantive role while responsible for developing the MPHWP. Environmental health, as the first wave of public health (Yassi et al., 2001, Hanlon et al., 2011) has not traditionally been concerned with non-communicable, ‘lifestyle’ diseases, their behavioural causes, or decisions in policy areas that influence these. However, in their case, they made the explicit statement that,

Everything we really do in council sits somewhere within what our [health and wellbeing] priority areas were, or it has a health outcome, whether it's footpaths or whatever. (Key Informant F)

Adoption of the ecological approach to health meant this MPHWP manager understood the importance of sourcing evidence about a broad range of health issues as well as their determinants when developing the MPHWP. However, despite recognition among key informants of this need, some were not confident in their ability to source evidence about social determinants. Often this was because of training and experience that had not exposed them to the systems approach to health.

In the context of the need to access numerous data sources about a broad range of health and health-determining areas, key informants sought to make the task of gathering and
synthesising evidence easier by falling back on their familiarity with the significant health and wellbeing issues of their LGA. For example, one stated that when ‘looking at data you look for surprising data’ (Key Informant K), that is, data which does not confirm their pre-conceived ideas about priorities.

All but one of the key informants was female, and so unlike Oliver and colleagues (2014), no clear differences in the approach to evidence use were detectable between genders. However age did appear to produce a pattern in the approach to and use of evidence between key informants. In particular, younger interviewees and those newer to LG often had a clearer conception of the distinction between evidence of different types and when to use it. As an example, when one key informant who had been in a role in community development for a number of years was asked how decisions to erect No Smoking signage around playgrounds were arrived at, rather than making reference to literature or case studies, they answered,

It’s now a state law, but we had a council policy so we had enforcement around that. We didn’t want to enforce, we wanted to educate, and that’s what we do in everything that we do. (Key Informant M)

When probed again, specifically as to whether published evidence, international case studies or some other form of evidence was used to inform the decision, they replied,

Probably. There had been other councils that had taken that step, so we did look at their work and what they had done, we knew that the state laws were in the pipeline, but our Council said we’ve waited long enough, we want to act on this, we want to lead the way, we want to have a strong voice in our community on this issue. (Key Informant M)

This key informant’s response indicates that in developing this action, anecdotal evidence about community will was the principle support and only weak intervention evidence, in the form of case studies from other councils was used to inform the action. While it is acknowledged that this may be an artefact of the issue of outdoor smoking, this is a phenomenon that was experienced during a number of the interviews with older key informants. It suggests less familiarity among this group with intervention evidence as a form
of evidence in and of itself, as compared to other forms of input to the development of actions.

By contrast, another, younger key informant appeared to better understand that descriptive and intervention evidence play different roles in the MPHWP, and that in regard to sensitising other staff in council about this, they were ‘... quietly trying to have influence over how people view evidence and view data’ (Key Informant G). This indicated that levels of evidence literacy among those tasked with preparing the MPHWP across councils are not consistent, but that those who have a higher level of literacy are striving to educate others, including in the use of intervention evidence.

7.5.5 Policy characteristics

Victorian MPHWP are unusual when compared to health and wellbeing plans required by most other jurisdictions. Firstly, they are required by legislation, and this implies (rather than enforces) that they meet a minimum standard. In particular, this legislation includes the requirements to both use evidence and to consult with the community in the development of the plan. The legislation also requires MPHWP to ‘have regard to’ the state-level plan, which at the time was the Victorian Health and Wellbeing Plan 2011-2015 (Victorian Government, 2011b).

Secondly, MPHWP may be integrated with the Council Plan, and this can have an effect on the way that evidence is used. Thirdly, support for the development of MPHWP, in the form of frameworks, guides and other resources, is provided by a number of departments and agencies. A substantial amount of this support covers issues such as the use of evidence and councils’ role to address the social determinants of health. Finally, because MPHWP are local government documents, there are further influences, including political influences and interest groups, which play a role in determining how evidence is used. As such, the last theme, policy characteristics (Oliver et al., 2014) is broken into sub-sections to enable a full exploration of these characteristics.

7.5.5.1 Legislation

Evidence-based policy
The Public Health and Wellbeing Act 2008 sets out specific requirements to use evidence in the development of the MPHWP. Sections 26(2)(a) and (b) of the Act state that an MPHWP ‘must include an examination of data about health status and health determinants in the municipal district’ and ‘identify goals and strategies based on available evidence for creating a local community in which people can achieve maximum health and wellbeing’, respectively. Both clauses are about gathering evidence that supports the determination of priorities. However, Section 26(2)(b) can also be construed as a requirement to use intervention evidence, i.e. evidence that demonstrates which actions have been or are likely to be effective.

From the interviews it was possible to establish that the legislated requirement for MPHWPs to be evidence-based was generally a facilitator to the use of evidence. However, as one key informant stated, ‘The practice of “doing the research and then informing the document”? It wasn’t that pure’ (Key Informant F), meaning the process wasn’t that purely rational, with actions developed in response to rational prioritisation of the issues and from evidence of effective interventions. Although all key informants indicated that they were aware of the requirement for the MPHWP to be evidence-based, when questioned about the different forms of evidence that might be used to inform the various stages of the policy development process, discussions often became clouded by processes-related experiences and anecdotes. This suggested firstly that the majority of key informants did not distinguish between evidence of the two broad types, descriptive and intervention. Secondly, it suggests that there were numerous other factors more significant than evidence that affected the way MPHWPs were developed. Often, the rationale for an action was multi-dimensional, as this key informant indicated:

[Health and Wellbeing Advisory Group members] had to think of things like, ‘Is it achievable? Is it going to be sustainable? Is it based on evidence? Is it building capacity?’ What were the other ones? Yeah, a lot of it was, ‘Could they deliver it within that calendar year, and did it address the determinants of health?’ (Key Informant N)

Ambiguity as to what constitutes evidence and the relatively low priority of intervention evidence, as compared to community input (see next sub-section) appear to have been factors contributing to the imbalance in the types of evidence that was used in MPHWPs (see Chapter 4). In particular, none of the key informants drew a distinction between the purposes of the
two clauses related to evidence, and few spoke explicitly about the distinction between descriptive- and intervention-level evidence.

This is particularly well-illustrated by the response of one key informant who, when asked about how evidence is sourced to support particular actions, described a blurring of the lines between descriptive and intervention evidence when building the case for an action:

I'd say it's not done in a particularly formal way. But we'd look at something and, for example, there's one [action] here around putting in infrastructure that promotes walking, cycling and active transport . . . . We know that there is a lot of evidence around how that kind of infrastructure can improve people's physical activity levels.

We also know that obesity and insufficient exercise, sedentary behaviour, is a really big issue . . . but it wasn't really in a, I would say, more formalized way. It was a sort of program logic way, I guess, in a sense. If we know that this [action] will support people to be more physically active and we know that [the municipality] has lots of issues with, say, obesity, diabetes, then, yes. By logic, this [action] would have an influence. (Key Informant N)

This key informant described how descriptive evidence, for example around activity levels, usually gathered during the municipal scan and subsequently put into the plan, determined the nature of the priorities. In contrast, evidence as to how infrastructure can improve people’s physical activity levels was diverse and not included in the plan, but the key informant implied that they were nevertheless aware of it, and were able to draw upon it to develop ‘common sense’ actions. In summary, the interviews revealed that while the clauses in the Act regarding evidence appear to have facilitated the use of descriptive evidence in MPHWP planning, they had not especially facilitated the use of intervention evidence in MPHWPs.

Community consultation

The Act also states that MPHWPs must ‘provide for the involvement of people in the local community in the development, implementation and evaluation of the public health and wellbeing plan’ (Section 26 (2)(c)). Of particular note, it is this clause, rather than the clauses
pertaining to evidence, that appeared to be one of the most influential factors for the inclusion of an action.

The majority of key informants mentioned that community consultation was essential input to the development of MPHWP. However, one of them was initially sceptical, and had reservations about its benefits related to its costs, particularly because they felt that council staff kept themselves well-informed of the issues:

I was very much, when I came in, ‘We know what the hell the issues are, why do we need to talk to people about them?’ [But] I get the value of that now, in that [the community] can give you the slant of, ‘Why this is an issue,’ but I don’t know if the ‘once every four years’ sort of big, formal, expensive process... is the way to do it, when you’ve got people on the ground all the time, talking to the community anyway.
(Key Informant L)

Key informants described how community consultation was often done by presenting the results of the municipal scan, for example evidence from the VPHS, at community consultations sessions, ‘grounding’ the community’s experiences of health against the descriptive evidence, gathering anecdotal evidence of the manifestation of such health issues, and then eliciting ideas for actions from the community. In such cases, key informants often stated that the issues raised as priorities during community consultation were typically compared to the published evidence by staff, ‘like me... making the judgment call’ as to whether the issue warranted inclusion in the plan, ‘based on all the evidence I know’ (Key Informant F).

Occasionally there was a mismatch between the issues raised as priorities during community consultation and what more formal evidence showed. Several key informants mentioned issues that the community felt were important and brought to consultation but, upon being informed by the descriptive evidence, were receptive to being corrected. For example,

[There is a] perception that gambling is a big issue. Gambling is a big issue, but our LGA has only about four venues. So, even though we have high losses, in comparison to
Other LGAs . . . it's not seen as a priority. But it's definitely on our radar. (Key Informant C)

Occasionally the issues raised by the community were not evidence-based. For example, in one LGA, community members raised concerns about the health and safety issues associated with smart meters during consultation for the MPHWP:

[smart meters] are quite controversial . . . . We actually have a bit of an action group in [our LGA], around the smart meters. So we had a number of letters around that. That was probably the biggest issue. But of course, from a state government viewpoint, they've got evidence to support why there needs to be smart meters. (Key Informant C)

When this occurred, council staff members were generally aware of the strengths and limitations of community input and were able to quickly deal with issues outside the scope of the MPHWP. For example, in another LGA, the issue of 'hoon' (loutish or anti-social) driving was often raised during community consultation sessions, including consultation for the purposes of developing the MPHWP:

For example, hoon driving, that came up. It always comes up, but again, it wasn't seen as something that fit within here, so whenever we did our consultations, we were very clear [about this] at the start. We said, 'This is the scope of this plan. This is the role and responsibility of council to shape those discussions.' (Key Informant N)

In this case, the council had already determined how it would respond to the issue. Generally however, councils were considerably open-minded about community opinions regarding what constituted a health and wellbeing priority. Key informants gave two main reasons for this. Firstly, to ignore community input could result in a loss of trust in LG processes. Secondly, council had the potential to be more effective as an agent of health and wellbeing when community initiative was harnessed. As one key informant put it,

you ask the question of where that priority has come from and why . . . . It may be around a particular local issue or a particular focus that someone's got energy behind. Those are legitimate priorities, especially in a small, rural area, if somebody's really ready to roll and put time and energy into it then they do it. (Key Informant K)
These examples show that community consultation was particularly important for prioritising health and wellbeing issues. Although council staff came to community consultation with some pre-determined notions of what constituted council’s role in health and wellbeing, they were also open to new issues, particularly when they could perceive that there was a grassroots level of community initiative that would assist LG to address that issue.

Of particular significance was the extent to which councils relied upon the community consultation sessions for the development of actions. Although the community’s ideas for MPHWP actions were sometimes channelled into the process by councillors, they were more commonly gathered directly from the community during the consultation process. An example of a council that placed great emphasis on the value of community input is given by the following response to the interview question, ‘How were actions decided upon?’:

Community input. The evidence is just the community saying what would be some of the actions that you do. We just put, ‘Here’s the facts,’ and just asked the public to sit there and think about what they’d seen work well or not. Yeah. We've got a pretty intelligent community out there, I think. We got a lot of ideas about things that they'd seen around or different things, so it was really good. (Key Informant A)

Within some LGAs, the degree to which the community was relied upon to generate ideas for actions and the trust that was accorded to the community was significant. For example, one key informant, when asked about the value of explicitly asking the community for ideas for actions, stated,

I don't have too much trouble with that, to be quite honest. I think that I actually do have quite a strong belief in the common sense knowledge of the people . . . if they believe it's going to be useful. If I can also get evidence to support it, well and good. (Key Informant K)

Actions that come from the community may be unsubstantiated and limited in effectiveness but can empower a community nonetheless, thus indirectly benefitting health (Minkler and Wallerstein, 2011). Therefore if, after implementation, evaluation of an action showed that it
was insufficiently effective, key informants suggested that the action could be adjusted and enhanced. As one key informant explained,

If, for instance, prevention of violence against women was to be a priority next summer . . . we would have gotten more knowledge and experience in the space, and so therefore our actions [would] evolve; whereas if we're starting, our actions are going to be sort of . . . less informed. (Key Informant F)

The literature suggests that evolving rather than discarding community-initiated actions is likely to be important for maintaining the community’s engagement with the MPHWP. Provided that such actions are evaluated, even if shown to be of limited success, they can be built upon to improve their outcomes and this can further build community endorsement and support for them (Green and Kreuter, 1992, Kreuter, 1992, U.S. Department of Health and Human Services, undated), thus indirectly improving health and wellbeing (Barten et al., 2010).

The interviews showed that, generally, the sections of the Act pertaining to community consultation were very well-implemented by councils. The community provided substantial input to both the identification of health and wellbeing priorities and to the development of actions intended to address these priorities. As one key informant stated, ‘At the end of the day, engagement – what the public's saying – is only one component’ (Key Informant A). Nevertheless, it is likely that the relative weight given by some councils to community consultation, in comparison to intervention evidence, has somewhat undermined the status of MPHWPs as ‘evidence-based’.

The Victorian Health and Wellbeing Plan

The Public Health and Wellbeing Act, Section 26(3) (State of Victoria, 2008) states that MPHWPs ‘must have regard to the State Public Health and Wellbeing Plan’. There are two ‘action areas’ in the Victorian Health and Wellbeing Plan 2011-2015 (the ‘State Health Plan’) that are relevant to LG. They are, ‘Continue to protect the health of Victorians’, which contains five priority intervention areas that are principally directed towards environmental health issues and communicable disease control, and ‘Keep people well’, which contains nine priority
intervention areas directed towards lifestyle-related risk factors (Victorian Government, 2011b). These are shown in Chapter 3, ‘Methods’, Figure 3.2.

In response to the question of why there were relatively few actions that explicitly targeted the action areas of the State Health Plan, key informants partially confirmed the hypothesis posed in Chapter 6 (Browne et al., 2016), that this was the result of a de-emphasis in the plan rather than an actual reduction in effort towards environmental health and lifestyle-related risk factors. Generally, key informants reported that the amount of effort directed towards issues such as food safety, immunisation, and incident and emergency response is consistent over time. They acknowledged that councils’ current emphasis on social determinants results in a misrepresentation of the sum of efforts directed towards environmental health. Nevertheless, key informants did report mixed influences of the intervention areas from the State Health Plan on the determination of priorities for the MPHWP. On the one hand, some stated that they were very important:

Yes, definitely, because you would be silly to do a plan that stood alone, as [the State priorities] are where we are likely to attract funding from. (Key Informant E)

Yeah, [the State Health Plan] fed into this . . . that’s where those priority projects came from. Definitely, the State Health and Wellbeing Plan, to make sure that our priorities were consistent with regional and state processes and also our PCP priorities. They’re integrated into here. (Key Informant M)

Others stated that while the priorities of the State Health Plan were used to guide the MPHWP, it was recognised that action areas also needed to be responsive to local needs. In some councils a decision to not adopt a priority of the State Health Plan was made after reviewing both council’s expertise in that issue and whether it was being addressed by partner agencies. For example,

but then, there’s actually quite a lot of activity that’s already happening and a lot of information that’s already around about skin cancer. (Key Informant E)

Such processes often resulted in a well-reasoned approach to the requirement to have regard to the priorities of the State Health Plan:
Did we look at [the priorities in the State Health Plan]? Yes we did. Did we align with all of it? No. Did we align with those that were relevant to our community? Yes we did. (Key Informant B)

For other key informants, the requirement to have regard to the State Health Plan was regarded as simply a ‘tick the box’ obligation:

So we met in our office. We went, ‘Oh what about the State Health and Wellbeing Plan?’ ‘Oh yeah, what about it?’ ‘Oh, we’ve “given regard to it”, we’ve met our obligations under the Act.’ (Key Informant F)

At the extreme, when asked whether the priorities played a role to influence the MPHWP, one key informant responded, ‘Nothing. They did not play a role at all’ (Key Informant H). They went on to suggest that this was because the prioritisation of issues therein was questionable:

We were pretty shocked that gender equity and violence against women wasn't in there, which is a huge priority for the whole LG [sector]. (Key Informant H)

Although not called out as discrete issues for intervention, gender equity and the PVaW are in fact included in the State Health Plan under ‘mental health promotion’. The fact that this was not picked up by this key informant suggests that at least some LG staff responsible for the MPHWP were either not especially familiar with the State Health Plan, or do not regard it very highly. Indeed, a similar response was given by another informant, who stated:

I think I've always felt it's a shame that, maybe I might be wrong, that VicHealth and the State Government don't call out gambling as a key health and wellbeing issue, and the incredible impacts on communities. I think that would be great to have that called that, or prioritized at a state level. (Key Informant I)

As is the case for gender equity and PVaW, gambling is in fact mentioned in the State Health Plan, but only twice, and while one of these is in regard to mental health promotion, it is only a passing reference. In any case, this comment is indicative of the view, held by several key informants, that the list of intervention areas included in the State Health Plan is, at best, not
exhaustive of the issues that MPHWs need to consider, and at worst is a mis-prioritisation of health issues, particularly when a social determinants approach is adopted.

Two key informants noted that the State Health Plan, in identifying particular priorities, created an expectation of support that was not fulfilled. In one case the key informant referred to State Government needing to support LG with funding programs that addressed its priority areas:

What I hear is, ‘Oh, your plan needs to reflect this,’ but funding opportunities to actually make it happen don’t necessarily follow through in that way. (Key Informant O)

In another case, a key informant specifically mentioned that support in the form of evidence-based and funded interventions was needed:

If you have, for example, alcohol as a priority in the Victorian Health and Wellbeing Plan, what programs and strategies are out there to deal with alcohol at the local level? . . . If they're going to put them in as priority areas then they need to support local areas to actually do something about them! (Key Informant G)

This is somewhat surprising as other key informants specifically commended VicHealth for its provision of intervention evidence that supported the State’s priority issues. Nevertheless, a chief conclusion is that while councils have fulfilled their obligations under the Act to have regard to the State Health Plan, the determination of health and wellbeing priority areas in MPHWs was not always strongly influenced by the State Health Plan.

7.5.5.2 Integration of the MPHWP with the council plan

The positioning of the MPHWP in relation to the council plan was seen by key informants as influential on the extent to which the plan was evidence-based. Two of the 16 interviewees worked in councils that had integrated their MPHWP and Council Plan as allowed under Section 27 of the Public Health and Wellbeing Act 2008. These two key informants observed that integration resulted in both administrative efficiency and better community engagement. These are exemplified by the following interview extracts:
[The benefits of integration] really depend, I think, on your resource capacity, and here there's very limited staff to do the work. So to integrate the two plans, I just felt, was going to save me an awful lot of time. (Key Informant M)

Because it is integrated, in theory it was jointly-led . . . . We didn't want [ consultation] to be viewed as two separate processes and two separate plans . . . . When we consulted with the community, we didn't say, ‘We're consulting on the council and on the health plan.’ It was only, ‘We’re consulting on the Council Plan.’ (Key Informant F).

Similarly, in cases where consultation for the MPHWP was integrated with consultation for the Council Plan, issues from a broader range of topics were elicited as opposed to limiting its scope to ‘health and wellbeing’. One key informant in particular noted that integration appeared to provide stronger support to a social determinants approach in health and wellbeing planning.

When we had the community consultations, we had, like, six tables set up with different themes. The themes were transport, education, employment. So, very ‘determinants of health’. (Key Informant F)

Conversely, key informants from councils with separate Council and MPHWP plans also cited the benefits of that approach to the appropriate use of evidence. In the view of several key informants, keeping the plans separate helped to ensure that health and wellbeing issues maintained a distinct priority and a more rational, evidence-based approach. These key informants stated that an integrated MPHWP and Council Plan, as a higher-level plan than the MPHWP, is more susceptible to political input. As a result, when health and wellbeing issues are included, they can be diluted – ‘greyed, dirtied’, per Key Informant D – and misdirected. Consistent with this, one key informant stated that,

The concern [with integration] was that, and this is still my concern . . . whilst it gets into the higher arena of the Council Plan it actually loses some of its importance, context and direction, and just gets lost within the political vision of council . . . . It doesn't have its own separate entity. (Key Informant B)
Similarly, another stated that,

[integrated plans] didn’t seem to mention health much at all, and my feeling was that it would be diluted. The Council Plan is a very general plan covering all of the priority areas of council, we couldn’t have as much detail if we integrated the health and wellbeing strategy because it would still be overshadowed by the fact that a Council Plan is such a broad plan, covering all areas of council operations. (Key Informant L)

It is noteworthy that although this key informant clearly stated that the Council Plan ‘covers all areas of council operations’, she indicated that she felt that integration would result in a weakening of the health and wellbeing aspects of the plan. This suggests that in this council, the understanding that health and wellbeing is determined by a broad range of policy areas was not as well accepted as it was, for example, in the council where the key informant stated that the ‘guy out there mowing the lawn has a health and wellbeing outcome’ (Key Informant B).

In summary, many of both the benefits and risks that are described in Including Public Health and Wellbeing Matters in the Council Plan or Strategic Plan (Victorian Government, 2013b) were raised by key informants, with a general tendency for those that did have an integrated plan to cite the benefits, and those that did not to also cite the benefits as they perceived them. Across all key informants there was general acknowledgement that integration has to be a considered approach, and that the circumstances have to be right for it to work. Specifically, in regard to the use of evidence, the prevailing view was that integration was a minor but not insignificant risk to the MPHWP being appropriately evidence-informed.

7.5.5.3 Frameworks, guidelines and resources for MPHWPs

As described above, all key informants were aware of EfH (Department of Human Services, 2001) and most were critically informed by its systems approach to health and wellbeing planning. There are a number of additional guides and resources available to the MPHWP development process (Municipal Association of Victoria, undated, Haby and Bowen, 2010, VicHealth, 2002, 2013c, Victorian Government, 2009, 2013b, Victorian Government, 2012a, 2012b, VicHealth, 2012) and many of these provide links to sources of descriptive evidence. Key informants’ opinions of these guides and resources were that they were useful in guiding
development of the MPHWP, with some implying that they played more of a role than the State Health Plan. However, one key informant mused that perhaps there were too many, and that consolidation was warranted. Key informants specifically mentioned VicHealth’s *Action Guides* (VicHealth, 2012) as making a positive contribution to accessible intervention evidence. One informant stated that,

[VicHealth has] got a whole range of various sources that local government can use in response to their priority areas. It’s fantastic. (Key Informant C)

In the same vein, another said,

that was helpful, because we knew they’d looked at the evidence . . . so we could say, ‘Okay, what we’re doing in this area lines up.’ . . . It’s succinct, it’s saying that based on the research and evidence, these are the things where it’s of best value for you to put your efforts here. ‘Don’t put your money into TV campaigns, it won’t work for issue X.’ (Key Informant L)

When asked if a MPHWP template would assist managers responsible for the MPHWP to use evidence, key informants expressed a range of views. At one extreme, a key informant who was fairly new to LG stated that a template ‘would be amazing’ if it also included recommendations about the process of embarking on the MPHWP, particularly how to deal with typical challenges such as, ‘managing community expectations, then partner expectations, then your own councillors’ (Key Informant I). When asked what sort of information should be included in such a template that would assist in using evidence, they stated that,

Key Informant I: Yeah, like a ‘how to’ guide of evidence sources.
Interviewer: Do you think you needed information on the quality, . . . which evidence sources you could trust, or which were well-respected, well-regarded?
Key Informant I: Yes. Also, just accessing them all quickly.

In contrast to these views, key informants who had been working in their role for some time felt no need for a template. Rather than a template, one key informant implied that more help
in recognising and using evidence of different types via ‘heading sections and maybe some suggestions as to what sort of information [to include]’ would be useful (Key Informant C).

Others indicated that a template would be too limiting, would not account for heterogeneity across councils, and could reduce the process to a ‘tick-the-box sort of exercise’ (Key Informant F), making one ‘a bit dumb to the whole process’ (Key Informant A). Another claimed that a template would be unnecessary because as a strategic planner, ‘I should be able to write this sort of stuff’ (Key Informant B). Irrespective of key informants’ views on how useful a template would be to them personally, most agreed that an MPHWP template would be a useful resource for MPHWP managers who were new to the role to fall back on.

One key informant mentioned that A practical guide to conducting annual reviews of Municipal Public Health and Wellbeing Plans (Victorian Government, 2012b) provided useful advice for reviewing the MPHWP. However, others stated that more support from the regional office of DHHS regarding review and evaluation of MPHWPs was needed. As stated above, evaluation was recognised by key informants as an area that should be improved, as it has great potential to contribute to managers’ repertoire of MPHWP-relevant intervention evidence.

7.5.5.4 Councillor and political influences

Key informants held a range of views about the extent to which councillors influenced the development of MPHWPs, including the extent to which they were evidence-based. In one case a key informant stated that the mayor, who had extensive experience in community development, took it upon herself to be ‘the MPHWP champion’. When asked whether this meant that the MPHWP became a political document, the key informant stated that rather than compromising the development of priorities or the way that evidence was used it meant, the MPHWP actually benefited from a higher profile:

There was that additional pressure of making a super-good document . . . . because the councillor involved chaired the health and wellbeing advisory committee. It's very much her domain . . . . In many ways, it was helpful, as well, for us in giving it the profile too. Councillors can have a really positive influence on issues, I think. (Key Informant I)
Occasionally a councillor had particular expertise in an area of health and an understanding of the importance of social determinants. In one case, where a mayor had expertise in PVaW and other family violence issues, this helped to build an understanding of the role of the MPHWP across council staff:

certainly when we had [that particular mayor, they were] very passionate about those issues. I think, as a council, there's more awareness now than there used to be, of council having a role in health and wellbeing . . . . there was no understanding of that when I started here. (Key Informant L)

However, this style of councillor involvement was rare among the councils involved in the interviews. The majority of key informants simply felt that councillors fulfilled their role as community representatives and effectively represented citizens’ views about health and wellbeing issues, particularly in terms of the priority areas that warranted attention. They went on to indicate that councillors who were more experienced with municipal processes and understood the purpose of the MPHWP within a hierarchy of plans adopted a ‘hands-off’ approach:

Our Councillors and executives really said, ‘Nah officers, you've got this. Run with it.’
So we were very fortunate that we didn’t have a lot of council involvement in it. They trusted us, but we kept them briefed so they knew what the process was. (Key Informant F)

In cases where the Council Plan and the MPHWP were separate, the MPHWP appeared to have been regarded by councillors as the least important of the two, and this meant that they were happy to leave the staff responsible for developing the MPHWP to their own devices. Several key informants stated that with the councillors’ attention focused more on the Council Plan, the MPHWP was free to be more evidence-based than it might otherwise have been:

The majority of [our councillors] won’t [wish to be involved] because their focus was primarily on the Council Plan. Provided the MPHWP wasn’t inconsistent with their longer-term vision and was working towards achieving that, they were happy. (Key Informant B)
This key informant went on to say that, as a result,

In [this council, the MPHWP is] not a political document, it’s an evidence-based, data-driven document to try and get real outcomes. (Key Informant B)

In less ideal cases, key informants reported that when councillors had been recently elected, and particularly if they had been elected on a single-issue or narrow agenda (often related to perceived economic wastage), their involvement in the development of the plan was a barrier to both the judicious use of evidence and to the plan’s progression through to publication. Occasionally directors and others in senior management could create a buffer between MPHWP managers and councillors that minimised this. However, at times, key informants experienced considerable frustration with councillors, stating, for example:

there wasn’t a trust between officers and council when these [councillors] came on board . . . . Everything that was put forward to them was just debated, scrutinized and just nothing would get through. You were just bogged down with everything. (Key Informant A)

As one key informant noted, councillors who are new to LG and are elected on a single-issue platform face the challenge of familiarising themselves with the broad remit of council that is implicated by a social determinants approach (Commission on Social Determinants of Health, 2008).

If [councillors] have come on a ticket of change and ‘cutting government spending’ and different things, this way of thinking is really hard for them. They struggle with that. (Key Informant D)

Nevertheless, one of the key informants who had experienced this stated that after some time in office, councillors, to their credit, do educate themselves on the scope of LG’s role and the MPHWP’s position within that.

Overall, the predominant view held by key informants was that councillors ‘are much more interested in what the community says rather than what the data says’ (Key Informant F). However, given that they are the community’s elected representatives, this seems justifiable.
Several key informants indicated that they understood it to be their responsibility to use this input judiciously, and to ensure that it plays its appropriate role in the process of developing evidence-informed MPHWs.

7.6 Summary

The interview results showed that MPHWP managers have deeply incorporated an understanding of the social determinants of health into the MPHWP development process. On the whole, they feel they have been successful in raising awareness amongst staff of LG’s responsibility and potential to address health through its diverse services and functions. Although behaviour change actions continue to be important for their ability to engage both councillors and community, MPHWP managers are pushing hard to emphasise the efficiency of upstream actions.

Of note is the fact that Oliver and colleagues’ (2014) list of ‘factors that affect evidence use’ provided a useful framework for analysing the interview results, specifically the issues that key informants raised as facilitators of and barriers to the use of evidence. Via this framework, it was possible to determine that contact and collaboration with other organisations, such as the PCP, the MAV and VicHealth, were important facilitators to the use of descriptive evidence and, to a lesser extent, intervention evidence. Organisational factors such as limited resources and inadequate evaluation were reported as barriers to the use of intervention evidence, and key informants provided some indication as to how these could be overcome.

With regard to the characteristics of the research itself, key informants indicated few barriers to the use of descriptive evidence apart from some issues with access and reliability. Indeed, some key informants indicated the opposite problem: too much descriptive evidence. It is even possible that the easy availability of data and other descriptive evidence may be diverting attention away from MPHWP managers’ increased understanding and use of intervention evidence. The results also indicated some effect of policymakers’ characteristics on evidence use, although this did not appear to be determined by their professional training or substantive role in council. Rather, the chief finding was that MPHWP managers who were newer to the role drew a clearer distinction between the two broad types of evidence than those who had been in LG for some time.
Finally, and perhaps most importantly, key informants revealed that there were a number of aspects of the policy context inherent to MPHWPs that affected the way that evidence was used. Significant among these was that the legislated requirement for community consultation during preparation of the MPHWP may have somewhat undermined the use of intervention evidence. Additionally, the results suggest that the legislated requirement for MPHWPs to be evidence-based has encouraged the use of descriptive evidence. However, the legislation and documentation that support MPHWPs are ambiguous about the different types of evidence, and this may have contributed to sub-optimal levels of evidence literacy and, in turn, poor understandings and use of intervention evidence. Additionally, there were barriers preventing direct access to scientifically-derived intervention evidence. This means that rather than this form of evidence playing a direct role in the development of actions, it diffused into the decision-making process to take the form of tacit, rather than explicit, knowledge about ‘what works’.
Chapter 8: Discussion

8.1 Introduction

Globally, preventable non-communicable diseases are on the rise and present a serious risk to the sustainability of health care systems. Local government, as the level of government closest to the people, has unique knowledge of health and its determinants as they manifest locally and is therefore well-positioned to make an important contribution to reducing the global burden of disease. The World Health Organisation’s Commission on the Social Determinants of Health (2008) was explicit about the importance of LG in addressing the SDH. More recently, both the New Urban Agenda, the draft resolution of ‘Habitat III’, the United Nations Conference on Housing and Sustainable Urban Development and the Shanghai Declaration (Ninth Global Conference on Health Promotion) have re-iterated the imperative for LG to be active in defining and implementing inclusive and effective policies that reduce inequality to create sustainable health and wellbeing (United Nations, 2016, World Health Organization, 2016).

In Victoria, Australia, the role of LG in promoting health and addressing the SDH has been formalised through the legislated requirement for Victoria’s 79 LGs to prepare an evidence-based MPHWP (Victorian Government, 2008). However, the increasing expectation for LG to address health as well as its determinants at the local level is not without challenges. In particular, a SDH perspective to health planning requires LG planners to find and appraise the relevance of evidence from a wide variety of subject fields and to decide upon actions in multiple sectors, a task which can be challenging for those who might have expertise in only one or two areas of public health (Kickbusch, 2010b, Marmot, 2005). In addition, public health priorities at the local level are inherently political, particularly when a SDH approach is adopted (Pickett and Wilkinson, 2010, Commission on Social Determinants of Health, 2008, Friel and Denniss, 2013, Birn, 2009). In Victoria, key programs designed to improve the use of evidence in LG planning for particular health issues have been developed (Waters et al., 2011, Pettman et al., 2016, Armstrong et al., 2013, 2014b). However, no systematic assessment of all evidence documented, or evaluation of the barriers to and facilitators of evidence use in
MPHWPs have been conducted. Similarly, to date, no assessment of the way that Victorian LGs position MPHWPs with reference to SDH has been conducted.

Bringing together concepts from public health and implementation science, this study examined the types of evidence that LGs in Victoria used to develop their MPHWPs. It also explored the actions that LG undertook in statutory public health planning, including through a new method of mapping the actions in MPHWPs against a SDH framework (Browne et al., 2016). The results showed that MPHWPs are rich in descriptive evidence, but contain very little intervention evidence. This may be due to ambiguity in the way that ‘evidence’ is defined in the legislation and other documents that support MPHWP development. Moreover, decision-making processes used within LG to move from evidence to actions remain somewhat ‘opaque’ (Exworthy, 2008, p. 325) and so more research is needed to understand them. However, it was clear that when deciding on actions, health planners drew on a wide range of descriptive evidence as well as on their own knowledge (Kislov et al., 2011), sourced from professional networks. Notably, informal community input, what has been called ‘colloquial evidence’ (Lomas et al., 2005) – the gathering of which is a requirement under the Act – was particularly influential in the development of MPHWPs. The mix of evidence and other inputs has provided LG with a sound understanding of the socially determined nature of health and wellbeing. As a result, many of the actions within MPHWP address upstream determinants of health and go well beyond the priority areas defined in the State Health and Wellbeing Plan (Victorian Government, 2011b), which focused on environmental health issues, communicable disease control and lifestyle-related risk. Despite the strong, locally responsive SDH approach of MPHWPs, evaluation of actions was recognised by LG health planners as a weakness in the planning cycle.

This chapter begins by discussing the results of the analyses of evidence in MPHWPs with reference to the literature from implementation science as it relates to public health. Particular attention is paid to the processes by which LG moved from evidence to actions. The second part discusses the results of the analyses of actions and key informants’ views of LG’s responsibility and capacity as an agent of public health. Given the important findings relating to evidence in MPHWPs, the third part of the discussion steps back to explore opportunities for developing a stronger culture of evidence use, including through the use of evidence typologies. The chapter then consolidates the key strategic directions that are identified
through the study to present a number of recommendations for supporting LG to develop more effective MPHWP. Finally, the limitations of the study are made explicit and suggestions for future research are made.

8.2 Evidence and information in municipal health planning

A major finding of the quantitative component of this study was that in contrast to descriptive evidence (96% of all evidence), very little intervention evidence (4%) was documented in MPHWP. This raised the possibility that actions in MPHWP were, on the whole, not evidence-based. Triangulation (Denzin, 2012) of the quantitative content analysis with results of the key informant interviews was invaluable for gaining deeper insights into the way that MPHWP were developed. This section first explores the situations where actions appeared to be developed in an absence of compelling intervention evidence. It then explores the implications of the two main scenarios where intervention evidence was used for the development of actions. The section also includes an exploration of the implications of the extensive role that community input played in the development of actions. Finally, the sources and topics of evidence in MPHWP and their implications are discussed.

8.2.1 A SDH approach to health planning calls for new intervention evidence

The interview results confirmed that, in many cases, actions were developed in an absence of compelling intervention evidence. Key informants sometimes indicating that little is known about what works to address health and wellbeing issues, thus suggesting a poor extent and quality of evidence translation into a form that was useful for LG. This finding is consistent with and expands on Armstrong (2011) and Pettman et al. (2013), who found that, specifically with respect to obesity prevention in LG, actions were often developed in the absence of scientifically-derived intervention evidence. In the current study, the finding was exemplified by key informants who, in singling out maternal and child health, suggested that actions in many other areas of public health and liveability were not evidence-based. As Green stated in 2006, much of the research in public health appears to remain ‘not very practice-based’ (Green, 2006, p. 406) and its relevance in community settings can be poorly translated. This situation was illustrated in some key informants’ statements regarding what they called the ‘new areas of public health’ which included family violence and diabetes, areas in which they
claimed much less was known about what works. Often, relevant intervention evidence is only available via journal subscriptions, which are often inaccessible to LG. Moreover, even if journals are accessible, systematically reviewing and interpreting evidence related to the myriad of health issues that LG is charged with addressing is beyond the capacity of even well-resourced councils (Lawless et al., 2016). In Victoria, effort to develop LG health planners’ use of evidence in obesity prevention programs was provided via the KT4LG training program delivered to 14 Victorian councils between 2009 and 2011 (Waters et al., 2011). More recently, the delivery of CO-OPS, a national knowledge translation and exchange platform to support best practice in community-based obesity prevention (Pettman et al., 2016, Allender et al., 2011) – which as of July 2017 is yet to be evaluated – attempted to improve LG’s access to and understanding of intervention evidence. However, if these programs have led to any increase in evidence-based obesity prevention interventions, the current research has shown that they do not appear to have benefitted the development of LG actions intended to address broader social determinants. Indeed the findings indicate that in the opinion of MPHWP planners, evidence about ‘what works’ within the more upstream disciplines implicated by a SDH approach (such as transport, land-use planning, engineering) remains poorly understood and is not well integrated into planning decisions.

In terms of making evidence accessible, leading Australian health promotion NGOs (e.g. National Heart Foundation Australia, Cancer Council Australia and Diabetes Australia) play an important role translating evidence in each of their priority areas for use in LG health planning and practice. Many of these, such as VicHealth’s Action Guides (2012) and the Heart Foundation’s Healthy by Design (2004) (now superseded by Healthy Active by Design (2017)) adopt a social determinants approach and are designed for use in MPHWP development, so it was surprising that these sources of evidence were rarely cited in MPHWPs. It is clear, therefore, that MPHWPs would benefit from greater translation and dissemination of evidence in ways that enable LG practitioners to access and apply it in the their setting (Armstrong et al., 2006a). Such translation and dissemination should include evidence from interventions across the range of policy areas implicated by the broad SDH approach that Victorian LGs have adopted in their health planning.

While the translation of existing research requires work, it is also likely that in some cases, the evidence for effective actions does not yet exist. The literature suggests that the complexity of
interactions between upstream SDH factors is an important reason that such evidence often
does not exist (Butland et al., 2007, Victora et al., 2004, Kickbusch, 2010a, Baum et al., 2013).
As Oberlander (2013) states, this complexity means that there are significant challenges
inherent to developing and evaluating the types of large, multi-centre randomised controlled
trials (RCTs) needed to create intervention evidence. Identifying what works to address social
determinants is therefore challenging (Petticrew et al., 2004) and requires significant research
investment. Natural experiments of community health promotion programs offer an
alternative to RCTs (Craig et al., 2012). However, they too require ‘equally rigorous but more
comprehensive’ evaluation if they are to inform health planning (Braveman et al., 2011, p.
S58). Thus, the evaluation of novel and community-derived actions has significant potential to
build the evidence base, and is discussed in Section 8.4

8.2.2 Evidence-informed actions in MPHWPs

Some key informants refuted the inference, derived from the content analysis that MPHWPs
were on the whole poorly evidence-based. These informants indicated that scientifically-
derived intervention evidence was used during decision-making to develop MPHWPs, but was
usually not documented in the MPHWP itself. Although these key informants gave no clear
reason why this was the case, based on the interviews it can be inferred that there were two
main scenarios where this occurred:

1) where evidence in support of an action was used in other internal documents and/or
processes but was not included in the MPHWP itself; and
2) where there was no clear process through which the action was derived and therefore
no discrete piece/s of evidence supporting it that could be documented.

Actions in the area of maternal and child health were provided as exemplars of the first
scenario. On several occasions, it was suggested that all the services delivered to children and
new mothers were evidence-based even when the evidence was not included in the MPHWP.
In such cases, there was a clear implication that intervention evidence was excluded from the
MPHWP because it was not seen as important or there did not appear to be a place for it in
the plan.
As to the second scenario, some key informants argued that often there was no clear process through which actions were derived and no discrete evidence supporting those actions that could be documented. However, in these circumstances, key informants indicated that scientifically-derived intervention evidence often ‘diffused’ into LG decision-making processes through peer-to-peer communication, informal networking and advice from population health experts in state agencies (Lawless et al., 2016). Petticrew et al. (2004) state that this so-called ‘diffusion of evidence’ is consistent with the enlightenment model of research utilisation (Weiss, 1979). When support for an action ‘diffused’ into the planning process, the MPHWPs typically did not include any discrete piece of evidence, nor, just as Weiss describes, were planners ‘able to cite the findings of a specific study that influenced their decisions’ (Weiss, 1979, p. 430).

As one key informant described, diffuse knowledge took the form of professional ‘common sense’ built up through their years of experience and exposure to evidence and experts while in the role. Kislov et al. (2011, p. 4) call this ‘tacit knowledge’. These authors claim that such knowledge is formed continuously by combining and modifying evidence that diffuses through everyday interactions that occur continuously within professions. Although tacit knowledge stands apart from explicit, codifiable evidence, in the case of MPHWPs it was often seen as sufficient for providing a foundation for the development of actions. Thus, for many MPHWPs, the evidence supporting actions derived under the second scenario was intangible and intuitive, but compelling nevertheless. Petticrew et al. (2004) state that there is now considerable evidence to suggest that within policy and program development, decision-making using tacit knowledge is likely to be prevalent, a process which necessarily does not facilitate its documentation. Despite its prevalence, actions developed in this way can be of unknown effectiveness.

The fact that both the evidence supporting actions and decision-making processes were rarely included in MPHWPs can be attributed to weaknesses in both the Act itself and the documents developed to support LG prosecute the Act. Sections 26 (2)(a) and (b) of the Public Health and Wellbeing Act (2008) that require LG to use evidence in the preparation of MPHWPs make no distinction between forms of evidence. Neither do they call attention to the unique value of intervention evidence or explicitly call for its inclusion in MPHWPs. Furthermore, this situation is not readily addressed in the materials produced by the DHHS and other organisations to
support LG in its development of MPHWPs (Municipal Association of Victoria, undated, Haby and Bowen, 2010, VicHealth, 2002, 2013c, Victorian Government, 2009, 2013b, Victorian Government, 2012a, 2012b, VicHealth, 2012). In short, these documents do little to build evidence literacy within the community of MPHWP planners. As a result, the legislated requirements for MPHWPs to be evidence-based have facilitated the use of descriptive evidence, but have not had the same influence on intervention evidence in MPHWPs.

An important implication that can be drawn from these scenarios is that encouraging MPHWP planners to explicitly document decision-making processes and the intervention evidence used therein is likely to help raise evidence literacy in LG. This would contribute to the development of more effective actions and to better community health outcomes (Green and Kreuter, 2005). Where actions are evidenced-based, inclusion of this evidence in the publicly-available MPHWP can increase stakeholders’ confidence in the effectiveness of plans overall. Where there is no clear intervention evidence supporting an action, documenting the (albeit imperfect) decisions made during development of MPHWPs will sensitise MPHWP planners to the distinct roles that descriptive and intervention evidence play and encourage them to think about the link between the two. In turn, this would prompt planners to critically examine the rationale and logic by which actions are developed and would also encourage them to seek evidence-supported actions. In summary, health planners should document intervention evidence where it exists, and decision-making process where it doesn’t. This process would assist in raising the evidence literacy of MPHWP planners, and in turn, will result in MPHWP planners becoming more aware of the importance of stronger justifications for actions, and ultimately would improve health and wellbeing outcomes.

8.2.3 The significance of community input

The interviews revealed that consistent with the literature (Rütten et al., 2003, Reddel and Woolcock, 2004, Estabrooks et al., 2006), the development of MPHWPs’ actions was heavily informed by other forms of information besides intervention evidence. In some cases, actions were tabled in MPHWPs principally because they were part of a program with continuing funding or because they built on a long running-campaign. In other cases pragmatic criteria similar to those used for goal-setting in policy development such as the ‘SMART’ criteria (Specific, Measurable, Achievable, Relevant & Timely (Doran, 1981)), or whether the program
was sustainable and achievable were influential. Significantly, however, the results showed that informal community support or ‘colloquial evidence’ (Lomas et al., 2005) for actions was highly influential in LG health planning. This was not surprising because the Public Health and Wellbeing Act (2008) requires MPHWPs to be developed in consultation with the community. However, the disparity in prevalence of informal community input versus scientifically-derived evidence in MPHWPs suggests that when deciding on actions, Victorian LG places more importance on informal community input than it does on intervention evidence. Often the community advocated for downstream behavioural-type interventions because these, rather than a social determinants approach to health planning, was what they were familiar with.

Informal community input is rarely scientifically derived so basing actions on it can be problematic in evidence-based health planning. Nevertheless, as the Planned Approach to Community Health (PATCH) program implemented in the US from the mid-1980s (Hanson, 1988) demonstrated, knowledge about what constituted effective community-based health interventions is ‘by no means complete’, but ‘a strong core of representative local support and participation in the process’ (Kreuter, 1992, p. 3) is vital for success (Green and Kreuter, 1992). This, as well as more recent research by Minkler and Wallerstein (2011) and Christens et al. (2016), showed that a community that ‘knows itself’ and is actively involved in health planning, including via action research, can drive an LG to experiment with innovative, bottom-up interventions (i.e. derived from the community). Even if community-derived interventions are limited in effectiveness, they nevertheless enable community buy-in and empower a community, thus indirectly improving health and wellbeing. Additionally, interventions developed by the community or with strong community support can provide a foundation upon which knowledge about what does work can be built (Minkler and Wallerstein, 2011), provided they are rigorously evaluated and further developed in response to evaluation. Evaluation is covered in more detail in Section 8.3.

8.2.4 Other sources of information and evidence

The content analysis showed that although MPHWPs are evidence-rich, a high percentage (26%) of the information drawn from other sources was not referenced. This finding is not atypical for grey literature (such as MPHWPs), which is often developed in a dynamic policy space, is generally not controlled by commercial publishing interests and is often not subject to
academic-like standards (Bates and Maack, 2010). The use of credible evidence is an important way in which confidence in MPHWPs and the actions therein can be established (Lawrence et al., 2014). The implications of this are that encouraging LG to cite the source of all evidence used and to provide evidence that supports all statements will increase confidence in MPHWP planning, help build evidence literacy among planners and ultimately contribute to improving the effectiveness of MPHWPs.

Evidence in MPHWPs was sourced from over 200 diverse organisations, indicative of the breadth of health issues and policy areas relevant to health planning in Victorian LG. This figure is also suggestive of the challenge, re-iterated through the interviews, of compiling a comprehensive community profile during MPHWP development. It also provides further support to the recommendation for evidence summaries to be provided to LG to assist with MPHWP development (see Section 8.5).

Sources ranged from Commonwealth and Victorian government departments and agencies, professional associations, industry groups and included privately-owned data brokers. Much of the evidence provided by these organisations was primary evidence from a small number of sources (such as the ABS census, the VPHS and VicHealth) that was either re-branded or re-analysed to answer specific questions. Further research would be needed to determine the extent to which each of these primary sources was used. However, the fact that numerous secondary evidence sources relied on a small number of primary data sources highlights the importance of primary sources to LG planning, and is particularly informative given recent discussions about the cost and value of data collection programs, particularly the five-yearly national census (Biddle, 2015).

Community Indicators Victoria was the sixth most frequently used source of evidence. This result, plus the positive comments gathered during the interviews, is testament to CIV’s usefulness as an indicator program to the MPHWP development process. These results suggest that, at the time when MPHWPs were developed, CIV was satisfying an evidence need and was considered by LG practitioners to be an important and reliable evidence source for the development of MPHWPs. It also indicates that CIV has been successful in achieving a principle objective of providing evidence to inform MPHWPs (Wiseman et al., 2006, Community Indicators Victoria, 2013b). In addition, two interviewees made reference to CIV playing an
‘influential role’ (Foucault, 1991, Sirgy, 2011, Rydin, 2007), in defining the scope of health and wellbeing. In one case CIV was credited with providing MPHWP s with a different way to measure social connectedness, while in the other, CIV was used to sensitise the MPHWP manager to new dimensions by which health and wellbeing could be defined. However, these examples were unique among the results of the interviews, which were not able or designed to detect the full extent of the ‘influential’ use of CIV. That is not to say that CIV played a minimal role in shifting the definition of health and wellbeing in MPHWP s. The role that CIV played in this could well have been significant, but occurred within a framework of collective impact alongside other policies, programs and movements (Kania and Kramer, 2011). The collective impact model recognises that no single program can solve the challenging policy issues of improving health, equity and sustainability, let alone shift the definition of ‘progress’ that is used in policy and planning (Cobb and Rixford, 1998, Eckersley, 1998). Collective impact implies that the extent of the influential role of CIV on MPHWP s would be difficult to detect, and therefore requires further research to establish.

8.2.5 The topics of evidence

In terms of the topics, the greatest proportion of evidence described upstream policy areas that determine health and wellbeing (Lowe et al., 2013, 2015) (46%), rather than health outcomes (21%) or health behaviours (17%). This is an indication that LG has strongly adopted a social determinants approach to health planning, a role for LG that is consistent with that described by the CSDH (2008). This is a marked comparison to priorities in the 2011 State Health Plan to which MPHWP s must ‘have regard’ (Victorian Government, 2011b). Although the State Health Plan acknowledges health as socially determined, its intervention areas focused on environmental health, communicable disease control and lifestyle-related risk rather than upstream determinants. Significant among the upstream policy areas that LG covered in the evidence they gathered were ‘Social cohesion & democracy’, ‘Employment and income’ and ‘Crime & safety’. In contrast, evidence describing ‘Health and social services’ was a less frequently evidenced policy area. The implication is that LG in Victoria understands that health is determined not just by the provision of health and social services, but by a broad range of policy areas, and for the development of an effective MPHWP, these need to be thoroughly understood through descriptive evidence. In particular, the strong focus on evidence about social cohesion & democracy and employment and income’ is consistent with
research that recognises the influential role that these determinants have on wellbeing (Kawachi et al., 2013). The finding also lends further weight to the recommendation made above, that more evidence about effective interventions in the policy areas that determine health is needed to complement the extensive descriptive evidence about these areas.

Evidence about the other two broad topics ‘Health behaviours’ and the ‘Health outcomes, i.e. the incidence of disease, was less frequently documented. Nevertheless, key informants’ comments about these broad topics were indicative of their importance to the development of MPHWPs. The incidence of diseases is important for LG to understand for service provision and resourcing purposes. Similarly, behaviours can be risk factors for chronic disease, are considered to be intermediate determinants of health (Viner et al., 2012) and so are important for understanding the context of proposed interventions. The three most frequently described health behaviour topics were ‘Nutrition’, ‘Alcohol and drug use’ and ‘Physical activity’. The most frequently described incidence of disease topics cited were ‘Mental health’, ‘Special needs’ and ‘Overweight and obesity’. The amount of evidence that LG gathers about these issues may be affected by data availability. However, it seems more likely that the amount is indicative of these topics’ high importance to LG. For health behaviours, the three most frequently described topics align closely with the lifestyle-related risk factors that the State Health Plan (Victorian Government, 2011b) identifies as priority areas for interventions. There is therefore consensus between local and state government regarding these priorities, despite the occasional claims by some key informants that the State Health Plan did not play any role in guiding the MPHWP.

The greater amount of evidence about ‘Mental health’ and ‘Overweight and obesity’ is also consistent with the State Health Plan which identifies these topics as priority intervention areas (Victorian Government, 2011b). In contrast, LG reported a relatively large amount of evidence about ‘Special needs’ (disabilities), whereas the State Health Plan does not identify disability as a specific intervention area. This is consistent with contemporary understandings of health equity which define people with disabilities as a health disparity population (Krahn et
The State Plan does, however, acknowledge that disabilities can result from or exacerbate diseases, citing mental illness as the largest single contributor to the disability burden in Victoria (Victorian Government, 2011b). LG is an important provider of Home and Community Care (HACC) services for people with disabilities, so it is likely that MPHWP planners saw a need to gather this information to understand the extent of disability within their communities to inform service provision. New HACC funding and management arrangements that transfer some clients to the National Disability Insurance Scheme (Department of Health & Human Services, 2016a, Department of Human Services, undated) might result in LG needing to gather less disability data in the future. Further research would be needed to determine how policy changes such as this affect the evidence that LGs gather.

8.3 Local government as an agent of health and wellbeing

Although there is considerable opacity surrounding the methods by which LG arrived at actions, the analysis of MPHWPs revealed much about the characteristics of the actions themselves. In conjunction with the key informant interviews, analysis of MPHWPs provided valuable data for determining that during the 2013-2017 MPHWP planning period, LG strongly adopted a social determinants approach.

With 37% of all actions targeting a state government priority area (Victorian Government, 2011b), Victorian LGs could be said to have satisfactorily prosecuted Section 26(3) of the Public Health and Wellbeing Act (2008) that requires them to ‘have regard’ to state priorities. However, the term ‘have regard’ does not require LG to strongly adopt the priorities of the State Health Plan, and indeed this is what occurred. To paraphrase Wylie and Blunt (New Zealand Co-operative Dairy Co Ltd v Commerce Commission, 1991), to Victorian LGs, the words ‘have regard’ meant no more than they say: LG did not ignore the state priorities and generally gave them the attention, thought and such weight as was considered appropriate. But having

---

1 Defining people with disabilities as a health disparity population would necessitate a reclassification of evidence about disabilities as demographic rather than epidemiological evidence. This would have implications for future analyses of evidence and for the formulation of evidence typologies.
done that, LGs often concluded that the state priorities were not of sufficient significance to outweigh other considerations which they were obligated to take into account in accordance with their statutory function. As a result, despite some variation in the way that councils directed actions in terms of distance upstream (Dahlgren and Whitehead, 1991, Zola, 1970) and policy area (Lowe et al., 2013, 2015), the broad approach taken by all Victorian LGs resulted in almost two thirds of actions targeting issues other than state government priorities.

Results from the key informant interviews suggested two interacting reasons for this. First, the development of MPHWP was significantly locally responsive. Second, Victorian LG has strongly adopted a social determinants approach to health planning. These reasons and their implications are further explored in the following sections. In doing so, the metaphor of waves in public health – cultural shifts in the focus of public health efforts (Hanlon et al., 2011) – is used. The waves metaphor facilitates a comparison of the focus of state and LG health plans, framed as responses to priorities in public health as they have changed since the 1830s.

8.3.1 The locally responsive nature of MPHWP

The interviews revealed that councils conducted their own extensive research, and that this led them to establish local priorities and to develop local actions, rather than be strongly influenced by the priorities of the State Plan. The interviews also showed that, for certain issues that appeared in the State Health Plan, a multiple sector, collaborative approach was used (Frithitthavong, 2011) with LG identifying other organisations and agencies that they deemed better equipped to lead those initiatives. Skin cancer prevention was mentioned as a specific example, with the Cancer Council responsible for leading initiatives. On other occasions, respondents indicated that insufficient funding support from state government to address certain priorities (e.g. alcohol and other drug use) was a factor leading councils to develop few actions in those areas. More detailed research is needed to determine the exact mix of reasons prompting LG to invest less in State Plan priority areas. Nevertheless, the results indicate that in being responsive to local needs, councils identified that the prioritisation of issues in the State Health Plan was often inappropriate for LG. Broadly speaking, it appears that during the 2013-2017 MPHWP cycle, there were disparities between state and local public health priorities.
These disparities are illustrated through an examination of the emphasis LG placed on environmental health and lifestyle related risk factors. Environmental health has been called the ‘first wave’ of public health because it was a response to the spread of infectious diseases due to over-crowding, lack of sanitation and malnutrition brought about by the industrial revolution (Yassi et al., 2001, Hanlon et al., 2011). Even though infectious diseases attributable to poor environmental health practices are no longer a principle cause of illness (Murray and Lopez, 2013), environmental health remains important to manage, and as such had a strong presence in the 2011 State Health Plan (Victorian Government, 2011b). Despite this, relatively few actions in MPHWP addressed this action area (‘Continue to protect the health of Victorians’, 5% of actions). Similarly, MPHWP contained relatively few actions (31%) that aligned with the ‘Keep people well’ action area which targeted lifestyle-related risk factors, the fourth wave in public health (Hanlon et al., 2011). The interviews with key informants indicated that councils continue to implement locally-responsive initiatives in these intervention areas, but that their full range was often not documented in the MPHWP. Thus, the low proportion of actions directed to these intervention areas can be partially attributed to their de-emphasis in MPHWP, rather than an actual reduction of effort. Further research would be needed to determine the extent of the disparity between tabled actions and actual effort. Nevertheless, even if the full range of actions addressing these areas had been included in the plan, it is likely that they would remain a small proportion of all actions. Thus, local prioritisation appears to have resulted in environmental health issues, communicable disease control and lifestyle-related risk factors taking a lower profile in strategic planning documents. This operationalizes Hanlon and colleagues’ (2011) idea that these intervention areas are historic waves of public health, and their under-emphasis in MPHWP is representative of the ‘trough of activity’ that occurred once the majority of public health benefit achievable by focusing on these intervention areas has been realised Hanlon et al. (2011, p. 30).

The hypothesis that MPHWP are locally-responsive rather than guided by the State Health Plan (2011b) priority areas is also supported by councils across Victoria identifying a number of issues that were equivalent to, yet distinct from the intervention areas of the State Health Plan. That is, issues that matched the first and fourth waves of public health (Hanlon et al., 2011), but were not listed in the State Health Plan. Specifically, the analysis showed that the following issues were identified by LG as important: ‘Community safety’, ‘Disability’, ‘Gambling’, ‘Life-stage specific issues’ and ‘General mental health promotion’. 'Violence
against women’ was also an issue to which MPHWP\textsc{s} gave considerable weight. Although this was included in the 2011-2015 State Health Plan as an aspect of ‘Mental health promotion’, many key informants felt that the 2011-2015 State Health Plan under-represented this issue.

An important implication of LG not feeling significantly beholden to the priorities of the 2011-2015 State Health Plan is that it would be beneficial for the state health department (DHHS) to be aware of and responsive to LGs’ perception of priorities in public health. As the level of government closest to the people (National Commission of Audit, 2014), LG has unique experience of public health priorities as they manifest at the community level. While there are significant positives to LG receiving guidance from (i.e. ‘having regard to’) State-level priorities, as was shown in the PATCH program in the US, communities must also ‘make their own decisions, based on assessments of health needs and resources at their own levels’ (Mason, 1990, p. 28). In the case of Victoria, the state government has recently acknowledged that LG’s locally responsive approach has resulted in the shift in state-level priorities reflected in the current State Health Plan (2015-2019). Specifically, the current plan makes reference to the findings published in Chapter 6 (Browne et al., 2016)$^2$, to acknowledge that although councils responded to many of the priority areas of the State Health Plan, many councils,

\[\ldots\] noted that their contributions to the health and wellbeing of their communities go beyond the priorities listed in the first plan. Additional areas included in some council plans were problem gambling, community safety, immunisation, land-use planning and family violence (Victorian Government, 2015c, p. 6).

State government’s acknowledgment of local priorities is a commendable response to the findings of this research, and is suggestive of the Victorian State Government’s increasing recognition of LG’s role in, potential for and commitment to community health and wellbeing.

$^2$ This is partly a result of the \textit{Place Health and Livability} research group at the University of Melbourne’s input into the drafting process, the principle author of which is the author of this PhD, see Section 9.2.
8.3.2 The adoption of a social determinants approach in MPHWPs

The second reason why LG in Victorian tabled fewer actions explicitly addressing state government priority areas is that unlike the 2011 State Health Plan, LG strongly adopted a social determinants approach in MPHWPs. The results showed that LG across Victoria considered both that it had a responsibility for, and could be effective in health planning by extending its actions well beyond environmental health issues and communicable disease control (first wave of public health) and lifestyle-related risk factors (fourth wave) to address the diverse policy areas that determine health (Hanlon et al., 2011). Additionally, the majority of actions were directed ‘upstream’ (Dahlgren and Whitehead, 1991, Zola, 1970) rather than towards actions that encouraged behaviour change. This appeared to be an intentional response to LG’s understanding that health and wellbeing is determined by upstream causes, and is consistent with recent studies on LG in South Australia and New South Wales (Lawless et al., 2016). This approach is also consistent with the LG role as described by the WHO’s Commission on the Social Determinants of Health (2008), to maintain and enhance the social infrastructure that helps create a fair, equitable and healthy society (Thomas et al., 2009, Richardson and Mumford, 2002, ASR Research, 2009). Moreover, this focus is not unexpected given that continued population growth across Victoria has meant that there is a continuing need to improve the connectivity and quality of infrastructure (Essential Economics, 2013). It is also apparent that LG in Victoria has been influenced by literature such as EfH (Department of Human Services, 2001) and the CSDH (2008) which emphasise LG’s potential to address health via its social determinants.

In regard to the specific policy areas in which Victorian LG was active, councils in the low revenue per capita category generally targeted more actions to all areas, with this trend exaggerated to the point where it reached statistical significance for the policy areas ‘Public open space’ and ‘Housing’. This was partially an artefact of reporting style differences between low- and high-income councils. Specifically, lower income councils tended to table single plans which contained all actions for the four-year period, whereas higher income councils tabled a core plan with fewer, more strategic actions, as well as three subsequent internal action plans which were not available for analysis. Further research is needed to determine whether the policy areas towards which councils directed actions was affected by issues other than differences in reporting style.
Across all councils, significant effort was directed towards ‘Health and social services’ (959 actions), ‘Social cohesion and local democracy’ (715 actions) and ‘Leisure and culture’ (548 actions). The effort directed towards these policy areas is consistent with councils’ contemporary remit as a provider of community social infrastructure, the facilities, structures and services that make a community more than just a collection of people (Casey, 2005). In the context of lower-income councils directing more actions overall (as described above), the non-significant difference where all councils directed a similar number of actions to ‘Health and social services’ stands out. It suggests that in the 2013-2017 MPHWP planning period, in relative terms, low income councils invested less into health services, youth services, community centres and similar social infrastructure compared to other policy areas. This may be because such services are relatively costly, so low revenue councils are able to plan fewer of them. Further research is needed to determine if this is the case or if there are other reasons, such as a perceived lack of need to invest in such services.

Even though councils in the lowest revenue group tabled nine times as many ‘Housing’ actions as those in the high revenue group – a result which was explained with reference to data that showed that populations in low revenue councils are likely to be more disadvantaged, and that the need for housing is greater in such LGAs – overall, ‘Housing’ was not well represented. Beer and Prance (2013) state that direct housing provision (social and community housing) has historically been a state-level responsibility, accessing joint state and federal funds. Conversely, LG has not had a major role to directly manage housing and is typically only involved through statutory and strategic planning (e.g. freeing up land opportunistically for community housing), building approval processes, and the structure of rates and other charges. However, this is a situation that may change in the future with recent decisions by the Council of Australian Governments creating greater certainty and expectations for all tiers of government, including LG, about their obligations to reduce homelessness (2013, Beer and Prance, 2012). It is possible that this change to housing policy will manifest as a further ‘maximizing’ (Dollery et al., 2006) of local government’s remit as an agent of public health. Application of the methods used during this research to subsequent MPHWPs should be able to detect such changes, and would constitute a natural experiment (Petticrew et al., 2005, Craig et al., 2012) for determining whether a change of policy in one of the domains of liveability at the federal level (i.e. housing) ‘trickles down’ to have implications for LG’s remit in public health as manifest by the actions in MPHWPs.
The content analysis also showed that significant effort is directed towards capacity building within LG, a finding that was reinforced during the qualitative component of the document analysis. The processes that councils used for this were designed to maintain a foundation of knowledge about local health and wellbeing issues and this indicates that LG considered its responsibilities and role in public health to be dynamic. That is, LG knew that it needed to gather health and wellbeing data and evidence continually to maintain strategic management capability in health planning (Poister and Streib, 1999). This approach ensures that as LG becomes aware of each new or emerging health and wellbeing issue, it can establish a position regarding both its responsibility and its capacity to address the issue.

In summary, during the 2013-2017 MPHWP cycle, Victorian LG health planning was both locally responsive and strongly adoptive of a SDH approach. The approach taken can be summarised via a modified version of the action areas from page four of the 2011-2015 State Health Plan (Victorian Government, 2011b) illustrated in Figure 8.1.

![Image of Figure 8.1](image.png)

**Figure 8.1.** Augmentation of Victorian State Government priorities as represented by the actions in MPHWPs.

Figure 8.1 shows the original three Action Areas of the State Health Plan (Victorian Government, 2011b) and equates these with Hanlon and colleagues’ (2011) first, fourth and second wave of public health. Figure 8.1 adds a fourth area, ‘Address social determinants’, and equates this with the fifth wave in public health. Also shown is the level of priority LG places on each of these waves according to the results of this research which indicates that despite the priorities of the State Health Plan (Victorian Government, 2011b), it is the fifth wave that LG
considers to be its highest priority. This has resulted in a suite of actions that is targeted more upstream than towards behaviour change, and while targeting a broad range of domains of liveability, retains significant emphasis on the policy areas that are a priority for LG, such as the provision of services and infrastructure. The results indicate that LG is ‘punching above its weight’ to adopt a maximalist role in health planning (Dollery et al., 2006), one that goes well beyond environmental health and lifestyle-related risk factors to address health via determinants.

As discussed above, the 2015-2019 State Health Plan has been responsive to the disparity that was observed between state and LG priorities during the 2013-2017 MPHWP cycle. Commendably, this has resulted in the new State Health Plan having a stronger focus on the social determinants of health (Victorian Government, 2015c).

8.3.3 The utility of the sunset analysis

Using the sunset analysis of actions in MPHWPs enabled the entirety of a council’s (or in the case of Chapter 6 (Browne et al., 2016), a group of councils’) documented efforts in public health to be synthesised and mapped against two important SDH dimensions: policy area (Lowe et al., 2013, 2015) and distance upstream (Dahlgren and Whitehead, 1991, Zola, 1970). In synthesising the entirety of a council’s actions, use of the sunset diagram enabled a picture of what Fearon et al. (2013) call councils’ ‘organisational efficacy’ – a sense of organisational capability to influence public health – to emerge. In addition to the point-in-time, rapid assessment of councils’ totality of effort to address health and wellbeing, there are a number of situations where such an assessment will be useful.

The SDH model points to the need for inter-sectoral action, suggesting that most, if not all, of a council’s departments have a role to play in creating healthy communities (Commission on Social Determinants of Health, 2008), a need which is further operationalized through the Health in All Policies approach (World Health Organization, 2014). Despite this, this research showed that during consultation there was a tendency for the community – and to a lesser extent, councillors – to focus somewhat inappropriately on downstream (or ‘old-school’, as one key informant called them) health-promoting actions, a phenomenon that was also reported by Baum et al. (2013). This indicates a sub-optimal level of understanding of the SDH
among these stakeholders. The sunset analysis could therefore be used in the early stages of MPHWP development for eliciting discussion about the SDH, and to establish consensus among staff on an ideal mix of actions in which council should invest.

Secondly, changes in legislation, in the management and strategic direction of LG, or in the resources and training made available to LG can each result in a shift in LGs’ actions, a shift to which the sunset analysis is particularly sensitive. Ideally, as increasing awareness of the importance of SDH permeates into decision-making, this will have the effect of ‘changing the practices of social systems’ (Bandura, 1998), in this case the practices of LG. A longitudinal comparison of MPHWP priorities, as shown via successive analyses of plans using the sunset method, presents an opportunity to provide data to a natural experiment designed to detect whether there is a change in actions tabled as a result of shifting policy attention on social determinants (Petticrew et al., 2005). Observing the changes in patterning within the diagram (e.g. via animation, see Figure 8.2) would reveal, for example, whether there has been a shift away from programs targeting health behaviours, and towards upstream determinants. For example an observed shift away from actions focused on the inner arc and towards the outer arc would be consistent with Harris and Wills’ (1997) statement describing a need to shift the emphasis of health planning ‘from the health of individuals to the health of communities’ (p. 407). Similarly, an increase in the shaded intensity of the housing wedge would support the hypothesis that LG has increased its effort in this area as a result of the policy changes identified by Beer and Prance (2013).
Figure 8.2: Animated use of the sunset method for capturing changes in LG’s approach to address health via social determinants.

Finally, for jurisdictions which do not have legislated health and wellbeing plans, the sunset method can be used to assess how well existing plans address the SDH. All LGs in Australia have a legislated role in health protection, but currently the focus of legislation is on the first and fourth waves (Hanlon et al., 2011). Although Western Australia’s new Public Health Act (2016a) requires LG to contribute to the objective of creating ‘a healthy environment for all Western Australians’ (Section 3(1)(b)) (Tan and Artist, 2013, Lawless et al., 2016, Western Australia, 2014), only Victorian local government is explicitly legislated to address SDH. However, as the Australian Local Governance Association acknowledges (Australian Local Government Association, undated), LG’s greatest potential is in preventative health, and much can be gained by addressing social determinants, a potential that is common to local government internationally (Commission on Social Determinants of Health, 2008). In the absence of legislated health and wellbeing plans, the sunset method of analysis presents an opportunity to analyse the range of existing strategic plans to evaluate their intended impact.
on SDH. As described above, doing so could be influential for shifting officers’ perspectives on LG’s responsibility and capacity to address public health via social determinants; and eliciting discussion about whether what is being done to address SDH is consistent with what ought to and can be done.

8.4 Opportunities for a stronger culture of evidence

Victorian LG is not unique in the challenges it faces using evidence to develop effective municipal health plans. Jurisdictions internationally have described the challenge of efficiently obtaining and using appropriate scientifically-derived evidence while also balancing the community’s priorities for public health (Jewell and Bero, 2008, Liverani et al., 2013, Nutley et al., 2003). The results of this research point to a number of opportunities to increase the use of intervention evidence in MPHWPs, thus increasing the effectiveness of health plans (Harding et al., 2016).

First, future legislative reviews should consider the benefits of amending the Act (2008) to clearly distinguish the roles that descriptive and intervention evidence play in effective MPHWPs. Such an amendment would not need to be verbose. It would, however, provide a strong foundation for further translation that would assist LG in fully understanding and making use of each type of evidence (Steyn, 2003). Second, implementation science – the creation, synthesis, verification, translation and use of evidence (Nilsen, 2015, Fogarty International Centre, 2016) – is a multifaceted and complex discipline. LG cannot be expected to be proficient in all these tasks, particularly given its increasingly broad remit in public health due to the adoption of a SDH approach. Therefore, regardless of whether the Act is amended as suggested, translating the intent of the Act to encourage LG to use both broad types of evidence appropriately would be valuable. This is a task that necessarily falls upon the organisations that support LG in MPHWP planning which, in Victoria, includes the DHHS and, to a lesser extent, the MAV and VicHealth. Third, regardless of whether a clearer mandate for evidence use comes from the legislation itself, the evidence literacy of MPHWP planners needs to be improved. Finally, improved evaluation of MPHWPs and the actions contained therein – particularly of novel interventions – is needed.
The following sections discuss the third and fourth of these opportunities in more detail. They are in turn brought together in a section that explores the benefits of using the PRECEDE - PROCEED model (Green and Kreuter, 2005), an established method of program development and evaluation that has been developed to facilitate both the strategic use and the creation of evidence. Finally, the discussion looks at how a recent Victorian health planning document, the Public Health and Wellbeing Outcomes Framework (Victorian Government, 2016b), can support evaluation, and potentially facilitate improved use of intervention evidence.

### 8.4.1 Increasing evidence literacy through evidence typologies

The findings of this research suggest that providing more guidance on how to use evidence in MPHWP planning would be beneficial for LG planners. While some useful resources do exist (National Collaborating Centre for Methods and Tools, 2016), improving planners’ evidence literacy – a term borrowed from clinical health care (Dawes et al., 2005) and development studies (Newman et al., 2013) – would increase the efficiency and effectiveness of LG health planning. Evidence literacy is defined as the ability to recognise, obtain, critically appraise and appropriately use evidence (Emanuel et al., 2010, Rootman and Gordon-El-Bibety, 2008). The evidence literacy of LG health planners should be improved via professional development (PD) on the use and interpretation of survey data, literature searching (where available), recognising the strengths of different research designs, understanding systematic reviews, and identification of the point at which sufficient evidence has been gathered to build a case for action (Dawes et al., 2005). Additionally, the findings of this research suggest that the development and use of evidence typologies would add value to evidence literacy PD programs. Generally, the purpose of typologies is to make sense and classify items by their similarities and differences. Regarding evidence specifically, the use of typologies such as those used in this research, adapted from Petticrew and Roberts (2003) and Armstrong et al. (2014a), will increase MPHWP planners’ ability to appraise, classify and appropriately use evidence. Typologies would sensitise planners to the appropriate use of different forms of evidence and assist them in ensuring that evidence is ‘fit for purpose’ (e.g. Horses for Courses) (Petticrew and Roberts, 2003), used appropriately and that spurious claims are not made as a result. An example framework of evidence typologies that would assist in building evidence literacy is provided in Table 8.1. Three typologies are suggested (Table 8.1), although other useful typologies beyond these three may also exist. For example, identifying evidence by
population sub-group would enable LG to judge whether health equity is adequately addressed in the MPHWP.

Table 8.1. Suggested evidence typologies framework for MPHWP professional development.

<table>
<thead>
<tr>
<th>Typology</th>
<th>Purpose</th>
<th>Type of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Type</td>
<td>What are you trying to do?</td>
<td>Understand the community and environment → Descriptive evidence, see typology ‘2: Topic’</td>
</tr>
<tr>
<td></td>
<td>Choose/design an appropriate intervention</td>
<td>→ Intervention evidence - What was done? - What was the experimental design? - Where was it done? - How was it evaluated? - How successful was it? - Is it transferable?</td>
</tr>
<tr>
<td>2: Topic</td>
<td>What do you need to understand?</td>
<td>Who people are? → Demographic evidence</td>
</tr>
<tr>
<td></td>
<td>What people do?</td>
<td>→ Behavioural epidemiological evidence</td>
</tr>
<tr>
<td></td>
<td>What people have?</td>
<td>→ Epidemiological evidence</td>
</tr>
<tr>
<td></td>
<td>Social determinants?</td>
<td>→ Social cohesion and local democracy - Crime and safety - Employment and income - Health and social services - Education - Food and local goods - Natural environment - Leisure, culture and recreation - Public open space</td>
</tr>
<tr>
<td></td>
<td>The upstream factors that influence health?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What ‘policy domain’ do the factors reside in?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Can factors be measured?</td>
<td></td>
</tr>
<tr>
<td>3: Source</td>
<td>Is the source appropriate for the purpose?</td>
<td>• What is the source? Is it identifiable? • Is the source a state or commonwealth agency? • Is the source an academic organisation? • Is the source a reputable public or private organisation? • What primary data was used to create the evidence? • For what reason was the evidence originally gathered / created? • Are there real or perceived conflicts of interest if the evidence is used? • Is it a community source? If so is it appropriate to use in this case?</td>
</tr>
</tbody>
</table>

Professional development programs on evidence literacy should be delivered by organisations that have a role assisting LG in the preparation of MPHWPs, such as the DHHS, the MAV and
VicHealth. PD programs would need to have evaluation built into them so that they could be continuously improved. Indicators of success would measure change in staff ability to more effectively identify appropriate evidence, respond to colloquial evidence, determine local health and wellbeing priorities and identify relevant intervention evidence from which local actions could be developed. Ultimately, successful PD programs on evidence literacy would contribute to improved community health and wellbeing outcomes.

### 8.4.2 The importance of evaluation

The mix of inputs into decision-making processes in MPHWP development often resulted in actions that had either a strong level of community endorsement or were strongly community-derived. Both PATCH and other more recent programs have demonstrated that involving communities in the development of health plans is valued by planners for the community engagement it elicits (Green and Kreuter, 1992, Christens et al., 2016, Greenhalgh et al., 2016, Armstrong et al., 2014b). However, the effectiveness of community-derived actions is often unknown at the outset, and can result in failure or even unintended negative consequences. On the other hand, incomplete knowledge about interventions is often inevitable, and benefits of trialing and learning from community-derived and endorsed interventions might even outweigh risks, providing that comprehensive evaluation is undertaken. Indeed, there are numerous cases in health promotion where incomplete knowledge about an intervention has not prevented its implementation and has led to unintended results, but also to useful information that has improved future programs (Cho and Salmon, 2007). For example, the National Advisory Committee on AIDS’ (1987) ‘grim reaper’ campaign was developed from a broad and somewhat unformed evidence base, which led to some serious unintended consequences (Sendziuk, 2003, Batrouney, 2014). Although an older campaign, it is well-known for highlighting the critical role that evaluation plays in building the evidence base about what works. In this case, subsequent extensive evaluation of campaign impacts contributed greatly to sexual health promotion campaigns, including a better understanding of the need to address the social determinants of sexual health (Aral et al., 2012).

Delivery of the four-yearly MPHWP process is often described as a closed cycle with evaluation as an essential component for completion of the cycle (Victorian Government, 2012b, 2013a). Ideally, evaluation of all actions contributes to the cycle, plays a role in building the
intervention evidence base for future plans and contributes to improving programs that will influence community health and wellbeing (Grembowski, 2016). Furthermore, evaluation of actions with strong community support but unknown effectiveness is vital for retaining community buy-in. Many of the actions in MPHWPs have the characteristics of natural experiments of interventions that would be difficult to implement under controlled conditions (Petticrew et al., 2005), and so their evaluation should not be underestimated for its importance to future LG health planning.

Despite the benefits of evaluation, the current study revealed that the evaluation of MPHWPs was poor for both organisational and legislative reasons. While MPHWP managers were often aware of the importance of evaluation, it was not a strong aspect of LG health planning culture. Consistent with recent research on LG in South Australia and New South Wales (Lawless et al., 2016), several key informants bemoaned a lack of understanding among their colleagues from departments outside health planning of the importance of distinguishing even between the evaluation of outputs and outcomes (Friedman, 2005), let alone between multiple stages of evaluation such as those described by Green and Lewis (1986).

Key informants also indicated that evaluation is done poorly because of the broader remit that MPHWPs have recently adopted (Allender et al., 2009, Dollery et al., 2006). The increased burden of developing a health plan that assesses and is responsive to social determinants means that compared to that which is recommended by the Victorian State Government (Victorian Government, 2012b, 2013a), investment across the planning cycle is unbalanced. As a part of this, evaluation comes in at second place, (or worse) compared to other stages of the MPHWP cycle. This is shown in Figure 8.3 which adapts a MPHWP planning cycle figure from Guide to Municipal Public Health and Wellbeing Planning (Victorian Government, 2013a, p. 9) (top left of Figure 8.3) showing the actual amount of effort investing into the six stages of the MPHWP cycle, as revealed by this study. Evaluation and, as described in 8.2, Planning Decisions appear to attract insufficient attention. As an aspect of the insufficient investment in evaluation, this study shows that some LGs currently rely on external consultants for identifying and collating evidence about the effectiveness of MPHWP actions. As the interviews showed, this outsourcing appears to have compounded the low level of knowledge about and ownership of MPHWP evaluation within Victorian LG.
Figure 8.3. Relative effort (width) invested into stages of the MPHWP cycle (indicative).

A second and related reason for poor evaluation of MPHWP actions is that unlike Healthway, the Western Australian Health Promotion Foundation, which is explicitly legislated to evaluate its health promotion activities (Western Australia, 2016b, s.(7)(1)(f)), the Victorian Public Health and Wellbeing Act (2008) contains only a few weak references to evaluation. For example, Section 24(c) includes a subsection about ‘health policies and programs’ which explicitly requires LG to develop and implement MPHWPS, but not to evaluate them:

The function of a Council under this Act is to seek to protect, improve and promote public health and wellbeing within the municipal district by . . . developing and implementing public health policies and programs within the municipal district (Section, 24 subsection (c)).
Similarly, Section 26 of the Act, which is specifically about MPHWPs, mentions evaluation but does so as an aspect of community involvement in the broader MPHWP cycle rather than as an important stage in itself:

Provide for the involvement of people in the local community in the development, implementation and evaluation of the public health and wellbeing plan (Sections 26(2)(c)).

The low profile of evaluation in the Victorian Public Health and Wellbeing Act is likely to be an important reason why, as key informants opined, little resourcing was made available to the process by state government. Key informants also indicated that the lack of any explicit and publicised sanction imposed upon LG for failing to develop – let alone evaluate – an MPHWP appears to have also contributed to the dearth of evidence about ‘what works’ in LG health planning. This research indicates that future legislative reviews should consider the benefits of raising the profile of evaluation in the Act (2008). Furthermore, the DHHS should provide additional resources and incentives to LG that encourage more comprehensive MPHWP evaluation.

### 8.4.3 Improving evidence and evaluation through use of PRECEDE–PROCEED

Both the proposed model of evidence literacy and the identified need to improve evaluation will be more easily integrated into the MPHWP planning process through the use of an existing framework of program logic. While there are numerous health program development and evaluation models that could be used (Angus et al., 2013), the ‘PRECEDE–PROCEED’ model, first proposed in 1974 by Lawrence W. Green (1974), has been used extensively and successfully in a range of settings (see de Jersey et al. (2017), Martin et al. (2016), Gielen and Green (2015), Moshki et al. (2016), Popoola and Mchunu (2015) for recent examples). It is designed to help health planners analyse situations efficiently, and design, implement and evaluate health programs (Green and Kreuter, 2005). It consists of nine phases, outlined in Figure 8.4.
Phases 1 to 3 of PRECEDE–PROCEED require planners to undertake a situational analysis, gather epidemiological evidence, identify behavioural factors and understand the determinants of health that affect a community (Green and Kreuter, 2005). These phases align closely with Section 26 (2)(a) of the Act (2008), which states that MPHWP must include an examination of data about health status and health determinants in the municipal district. This clause is in turn supported by state government advice that the preparation of a community health and wellbeing profile is an important stage in strategic MPHWP planning (Victorian Government, 2013a). These tasks will be made easier if planners have been trained in the use of evidence typologies and have a good ability to recognise and appraise descriptive evidence capable of providing the needed information.

Green and Kreuter (2005, p. 197) call phases 4 and 5 ‘intervention matching, mapping and patching’. These are the stages where planners currently use their experience and skillsets (i.e. tacit knowledge (Kislov et al., 2011)) of the range of possible interventions to develop...
programs targeted to the priorities they have identified. However, with improved evidence literacy, including the active use of typologies and questions such as those listed in Table 8.1 under ‘choose / design an appropriate intervention’, planners will be better equipped to seek out, identify and appraise interventions that have been used in related settings. Ideally, this would be done systematically, and result in a pooling of information about prior interventions D’Onofrio (2001). However, even with improved evidence literacy, the identification, translation and synthesis of intervention evidence is not a task that LG can be expected to undertake alone. This reiterates the need, described above, for organisations that support LG in its MPHWP planning role to translate and disseminate relevant intervention evidence from the broad range of policy areas (e.g. transport, housing, land use planning etc.) implicated by the SDH approach adopted by Victorian.

Importantly, the PRECEDE–PROCEED model is especially valuable for MPHWP planning because it incorporates evaluation into the program planning cycle from the outset. Specifically, phases 7 and 8 require planners to evaluate the process and impact effectiveness of programs using the same indicators that were used to identify the need for the program. Thus, in the PRECEDE–PROCEED model, the procedure for evaluation is planned into program delivery. Consistent with the literature, a principle challenge of evaluation identified by key informants was the ability to conclusively demonstrate that particular actions result in any improvement in population health (Haby and Bowen, 2010, Glasgow et al., 1999). Phase 9 of PRECEDE–PROCEED addresses this by reiterating the importance of tracking population level indicators to determine whether, collectively, programs are improving quality of life (Green and Kreuter, 2005).

8.4.4 The Victorian Public Health & Wellbeing Outcomes Framework

Consistent with phase 9 of the PRECEDE–PROCEED model, key informants noted the importance of setting and monitoring progress towards state-level goals for population health. The new Victorian Public Health and Wellbeing Outcomes Framework (‘the Framework’), launched in November 2016 (Victorian Government, 2016b), is likely be beneficial in this. The Framework creates certainty regarding Victoria’s priorities for health and wellbeing by setting targets within a framework of indicators, outcomes and domains that is in turn guided by the priorities in the 2015–2019 State Health Plan (Victorian Government, 2015c). Importantly, the
Framework creates a state-wide context for LG’s MPHWP actions by articulating the Victorian health and wellbeing goals towards which council-level programs should contribute. It also provides a strong ethos for evaluation, creating an expectation that programs intended to achieve the targets will be evaluated for both their outcomes and their outputs. As Parliamentary Secretary for Health Mary-Anne Thomas stated:

Health planning has traditionally focused on what is put into programs. The Outcomes Framework turns this on its head to focus on what we get out of them (Thomas, 2016, November 7)

Additionally, the Prevention.health website, which sites alongside the Framework, invites those who deliver health and wellbeing programs – including LG – to submit case studies on ‘the outcomes of actions in population health’ (Department of Health & Human Services, 2016b). Prevention.health therefore has potential for ‘pooling’ (D’Onofrio, 2001) case studies of what has been shown to work and, provided it is adequately funded, promoted and user-friendly (Davies and Silloway, 2016), making these widely available. Once a sizable pool of evaluated programs has been built, LG would be able to interrogate Prevention.health for the range of topic-specific interventions that have been attempted by other councils, as they can Healthy Active by Design (Shilton et al., 2014, The Heart Foundation, 2017). LG could then use this information to determine the feasibility, and the likely costs and benefits of implementing the interventions locally (Green and Glasgow, 2006).

Despite the potential of Prevention.health to complement the existing resources available to LG accessing case studies of what works, evidence shows that no singular knowledge translation strategy is effective in all contexts, and that multilevel approaches are needed (Colditz et al., 2008, LaRocca et al., 2012). Therefore, Prevention.health has the potential to also – and potentially more effectively – develop, with reference to existing guidelines (Haby and Merkes, 2011), and disseminate intervention evidence summaries relevant to LG practice. In the spirit of the IAP2 (2016) framework that emphasises the benefits of community co-designed plans (Kothari and Wathen, 2017), LG could use such summaries to confirm or challenge the merit of colloquially-derived interventions while maintaining good relationships with community members who have provided their time to the process. This process has the added potential of increasing health and governance literacy within the community, thus
potentially enhancing the quality of the colloquial evidence that is provided in subsequent planning cycles.

8.5 Recommendations for Victoria

This section consolidates the proposed key strategic directions that arose in previous sections to present recommendations that will make MPHWPs more effective in creating health and wellbeing. Drawing on the results and literature, these recommendations aim to help overcome barriers to the use of evidence in MPHWPs, create better coordination between local and state governments to ensure that each fulfils its potential as an agent of public health, and enhance LG’s capacity to address SDH. The recommendations are in two sections: those targeted to LG, and those that are targeted towards organisations that provide support and strategic guidance to LG in its delivery of MPHWPs, specifically DHHS but also VicHealth and the MAV.

8.5.1 Recommendations for local government

- Include all health and wellbeing actions that council undertakes in the MPHWP so that the plan more accurately represents council’s totality of effort in public health.
- Provide citations for all evidence used in MPHWPs.
- Include summaries of decision-making processes in the MPHWPs, including any intervention evidence used therein, for greater transparency of decision-making processes.
- Adopt a model for health program planning and evaluation (such as PRECEDE–PROCEED).

8.5.2 Recommendations for State Government (e.g. DHHS, VicHealth) and the MAV

- Future amendments of the Public Health and Wellbeing Act (2008) should;
  - distinguish the six stages of the MPHWP cycle, giving greater profile to evaluation,
  - articulate a distinction between descriptive and intervention evidence to assist in building evidence literacy, and
  - require LGs to submit a four-yearly MPHWP evaluation report to the State health department, in addition to the MPHWP itself.
- Provide regular and funded professional development programs to MPHWP managers that build evidence literacy. Programs should use evidence typologies that sensitise users to attributes such as source, topic and the different roles (i.e. descriptive/intervention evidence) that evidence can play in MPHWPs.

- Provide professional development to LG councillors and CEOs on SDH, LG’s broadening remit as an agent of public health, the benefits and techniques of evidence-based planning, and the importance of program evaluation.

- Provide regular, funded professional development on health program evaluation that is specifically designed for MPHWP managers.

- Encourage LG to document the decision-making processes that are used to move from evidence to actions in MPHWPs. Documentation could be informed by established models (e.g. PRECEDE–PROCEED) and should include the extent to which intervention evidence and other information is used.

- Build a higher level of expectation of effective program evaluation into the literature that is provided to LG to support the development and implementation of MPHWPs.

- Provide quasi-competitive grants (incorporating considerations of relative disadvantage) to LG to enable them to evaluate novel interventions, especially those that have strong community involvement or are developed and implemented as a result of community consultation.

- Encourage MPHWP managers to submit case studies of evaluated interventions to the Prevention.health website. The DHHS should consider screening, collating and making these case studies available so that a record of ‘what works in health planning’ is available to all Victorian LGs.

- Provide LG with summaries of relevant (i.e. based on state priorities and their upstream determinants) local and international intervention evidence. This could be via Prevention.health and could be complemented by a pool of intervention case studies.

- Provide increased funding to LG to enable it to develop and implement MPHWPs. The level of funding should be commensurate with LG’s broadening remit in public health – that which goes beyond environmental health issues, communicable disease control, lifestyle-related risk factors and, increasingly, addresses social determinants.
8.6 Limitations and directions for future research

The methods developed and used in this research helped clarify the extent to which Victorian LG 1) used evidence in MPHWP planning, and 2) developed actions intended to improve the health and wellbeing of their communities by addressing SDH. As a result, a clearer picture of the barriers that Victorian LG experiences as it goes about developing MPHWPs was created. The analyses, particularly the sunset analysis, were also able to present a synthesised picture of LGs’ efforts in health and wellbeing planning. In the context of the legislative framework under which Victorian LG operates and the resources available to it, the results provide a comprehensive overview of LG’s organisational efficacy as an agent of public health. Effectively, the analysis constitutes a valuable ‘status report’ for Victoria, against which comparative analyses of LG health promotion in other jurisdictions could be conducted (e.g. those where LG is legislated to prepare public health plans versus those where it is not). However, there remain some limitations to the study that should be considered and addressed in future research.

8.6.1 Limitations in analysing evidence and actions

Quantitative content analysis involves detecting the presence of particular manifest concepts in text, recording them, counting them and performing analyses on the number of occurrences in categories (Ryan and Bernard, 2000). As with any such analysis, the method developed for the current research was designed for a particular purpose, and the six questions that were used to interrogate the data (three for evidence and three for actions) were not designed to reveal all the characteristics of actions or evidence. Additionally, MPHWPs exhibited variation in both the amount of evidence used and the number of actions tabled. Some of was due to variations in the way that health planning was reported, such as whether a LG tabled a single plan which detailed all actions, or one main MPHWP and a number of action plans. This made it difficult to definitively compare municipalities for the total effort they each invested into different policy areas. These limitations could be addressed through more detailed qualitative analyses of MPHWPs, and by obtaining and including internal MPHWP action plans in the analysis. This would be most feasible by studying a small sample of councils, rather than all 79 MPHWPs as this study did.
Evidence and actions were interrogated for particular characteristics. However, alternative and additional analyses that interrogate MPHWPs using different questions would yield results that would be useful for other purposes. For example, actions might be categorised according to the role played by local government. In this vein, Labonte and Laverack have proposed five health system roles: educator/watchdog, resource broker, community developer, partnership developer and advocate/catalyst (Labonte and Laverack, 2008). Questions which could reveal more about actions might include, ‘What is the method of the action?’ (with potential categories including: conducting research, advocacy, skills development, professional development, delivering an event or building a facility)? Recording explicit references to health equity or categorising actions by their target population/s are further options that could be used, to enable judgments on the extent to which councils address health equity via proportionate universalism (Marmot and Bell, 2012). Similarly, the use of additional typologies to categorise the evidence in MPHWPs would yield further information. For example, if evidence were categorised according to the population sub-group that it described, this would make it possible to judge whether LG is gathering sufficient evidence to understand health inequity within its community (Marmot and Bell, 2012).

8.6.2 Limitations due to the broad, rather than deep analysis

Despite the strength of the systematic quantitative content analysis and the richness of the qualitative interviews, as Exworthy (2008, p. 325) states, the ‘opaqueness of policy-making’ remained a barrier to a full exploration of the use of evidence in the development of MPHWPs. This limitation was first identified during a presentation of the results of this research to LG in MPHWP industry network forums (see Section 9.2). During these presentations, LG staff generally concurred with the findings suggesting there was far greater use of descriptive than intervention evidence. However, LG staff and MPHWP managers also occasionally refuted the findings, with a small number of staff sceptical of the finding suggesting a dearth of intervention evidence informing MPHWPs. Great care was taken to clarify that the results presented where only what was documented. This stimulated discussion among participants about decision-making processes, which reinforced the understanding (supported by the interview results) that what appears in MPHWPs is by no means the totality of information that was used by LG during the development of MPHWPs. Indeed, MPHWPs and attendant community profiles are the culmination of years of work, which includes extensive
consultation, the development of diverse decision-making frameworks, numerous process documents and draft plans which, had they been available, might have changed the results. As Exworthy (2008, p. 325) describes, in policy development ‘the ways in which decisions emerge (rather than taking place at a single moment and often unobservable to the researcher) are particularly problematic’ for researchers. In order to gain an understanding of how decisions emerge, it would be beneficial to analyse all MPHWP-related documents, particularly in-house documents such as meeting minutes, feasibility studies and program logic models for how evidence is used therein, and compare the results with this study. Further, despite the challenges noted by Exworthy (2008), participant observation via ‘embedding’ a researcher in LG (Dumay, 2010) would also assist in a more comprehensive evaluation of the way intervention evidence is used. This would be most feasible by working closely with only one or two councils over the policy cycle.

8.7 Summary

In this chapter, the key research question, How does local government in Victoria use evidence to determine its responsibility and capacity in municipal health planning against a social determinants framework? was answered via a synthesis of the results of the document analysis and key informant interviews, and with reference to recent literature. In doing so, three main topics were covered: LG’s use of evidence, and its determination of its responsibility and effort in public health according to a SDH framework. After this, a discussion of some opportunities for developing a stronger culture of evidence use for MPHWPs was presented. The chapter culminated in a number of recommendations targeted to both local and state government departments and agencies. The discussion concluded with an exploration of the limitations of the research and how these might be addressed in future research. The final chapter concludes the thesis, revisiting the aims of this research and summarising its contribution to knowledge. In doing so, it also reflects upon the research translation activities that were undertaken during candidature.
Chapter 9: Conclusion

This chapter concludes the thesis. It summarises the thesis chapter by chapter, before summarising the findings as they fulfill the research aims. It then reflects on the research translation activities that were undertaken during candidature, before concluding with some final comments.

This thesis sought to fill a gap in the literature by examining how LG in Victoria uses evidence to inform strategic planning for health and wellbeing. In doing so, the research assessed LG’s performance against particular sections of the Public Health and Wellbeing Act (2008), requiring MPHWPs to be evidence-based, to adopt a social determinants approach, and to have regard to the State Health Plan.

Chapter 1, ‘Introduction’, set the scene for statutory municipal health and wellbeing planning in Victoria by describing the nature of the burden of disease in Victoria, and the evolution of MPHWPs. It also provided the background to the research, identified the research gap and presented the research questions. Chapter 2, ‘Literature review’ described the development of the social determinants approach to health planning. It then went on to explore the nature of evidence, the ambition of community indicators programs and the importance of intervention evidence. Chapter 3, ‘Methods’, described and provided the rationale for the quantitative and qualitative data collection and analysis methods used in this PhD research. While this research assessed MPHWP actions against state priorities (Victorian Government, 2011b) it was underpinned by the social-ecological model of health (Lowe et al., 2015, Badland et al., 2014). The research questions also required the adoption of conceptual frameworks of evidence typologies (Armstrong et al., 2014a), and of facilitators and barriers to research utilisation (Oliver et al., 2014). Chapter 4 presented the results of the content analysis that focused on the evidence in MPHWPs, using the frameworks to explore the source, topic and type of evidence. Chapter 5 presented the results of the analysis of actions in MPHWPs, specifically the actions’ alignment with state government priorities, the policy areas actions address and how far upstream in a SDH framework they were targeted. Chapter 6 included a published paper that took the analysis of actions a step further. It reported on the use of a novel sunset analysis approach for synthesising a qualitative picture of the quantitative data from the document analysis (Browne et al., 2016). Chapter 7, ‘Interviews with key informants’,
presented the results of the interviews, analysed using Oliver and colleagues’ (2014) framework of facilitators and barriers to research utilisation. Finally, Chapter 8, ‘Discussion’, explored the results with reference to recent and relevant literature, with particular attention paid to the decision-making processes by which LG moves from evidence to a conceptualisation of its responsibility and organisational efficacy (Fearon et al., 2013) to improve public health via MPHWP actions. Some principles for improved use of evidence were proposed, which led into a series of recommendations intended to enact these principles in Victoria. Finally, the limitations of the research were made explicit and suggestions for future research were made.

9.1 Answering the research question

The question posed by the research was, ‘How does local government in Victoria use evidence to inform strategic planning for health and wellbeing?’ Within this were three key aims:

1) to understand the evidence that is used to develop MPHWPs, and the barriers and facilitators to the use of intervention evidence,
2) to understand LG’s goals and efforts to address public health via MPHWPs, including with respect to social determinants, and
3) to develop a set of recommendations, based on the findings of the research, that improve the use of evidence in MPHWPs and assist LG to refine its role as an efficient and effective agent of public health and wellbeing.

The first aim was achieved through the systematic analysis of evidence in MPHWPs and through the interviews. The document analysis showed that LG uses evidence from a wide range of sources. In turn, this is considered to be illustrative of LG’s understanding that there is a broad range of issues that it needs to understand if it is to be successful as an agent of public health. CIV, a Victorian community indicators program, was found to be the sixth most used source of evidence. Although CIV was highly regarded as a source of evidence, the extent of its influential role remains less certain.

The evidence in MPHWPs was found to cover five broad topics. These were ‘Demographics’ or (‘who people are’), ‘Health outcomes’ (‘what people have’), ‘Health behaviours’ (‘What people
do’), ‘Domains of Public Policy’ and ‘General and non-specific evidence’. A major finding was that of these, domains of public policy constituted the greatest proportion of evidence, indicating that LG has identified that it is at least as important to understand social determinants as it is to understand the prevalence of disease and of health-affecting behaviours.

A major finding of the research was that far more descriptive than intervention evidence was documented in MPHWPs, and that a large proportion of the intervention evidence was sourced from the community. This result was consistent with other research describing the challenges that LG experiences in accessing and using intervention evidence, and the resulting predilection for health plans to be developed with sub-optimal reference to scientifically-derived intervention evidence (Armstrong, 2011, Armstrong et al., 2013). This result is concerning, especially given recent knowledge-to-action programs intended to overcome barriers limiting the use of evidence in LG health planning (Waters et al., 2011, Pettman et al., 2016). The barriers to evidence use appeared to be consistent across the range of SDH issues, and included an inability to access relevant examples of interventions, the tendency for colloquial forms of evidence to dominate in decision-making processes and, often, a low level of evidence literacy among those who develop MPHWPs. Other likely reasons for the paucity of documented intervention evidence include the predominance of organisationally-pragmatic criteria – such as program continuity, sustainability and funding – over scientifically-derived intervention evidence. The results raise uncertainty as to the effectiveness of many of the actions tabled in MPHWPs, which is compounded by a generally inadequate evaluation of MPHWPs. Despite the acknowledged barriers to the use of intervention evidence and evaluation, the results suggested that, consistent with the enlightenment model of research utilisation (Weiss, 1979, Pettman et al., 2016), evidence does occasionally diffuse into decision-making processes by way of peer-to-peer communication, informal networking, and advice from population health experts in state agencies (Lawless et al., 2016). In such cases intervention evidence informs actions, but takes the form of tacit knowledge or professional ‘common sense’ (Kislov et al., 2011), and so is not documented in MPHWPs.

The second aim of the research was achieved through both the systematic analysis of actions in MPHWPs and the key informant interviews. The document analysis revealed that MPHWPs strongly adopted a social determinants approach. The actions in MPHWPs went beyond
environmental health and lifestyle-related risk factors (the first and fourth wave in public health (Hanlon et al., 2011)), which were major focuses of the 2011-2015 State Health Plan, to address a wide range of policy areas and upstream determinants. The approach taken by LG was particularly well illustrated through the novel sunset analysis (Browne et al., 2016), which is capable of synthesising and mapping the entirety of a region’s effort in population health and wellbeing against a SDH framework in two dimensions. The interviews revealed that the approach adopted by Victorian LGs in MPHWPs is strongly influenced by literature that emphasises the importance of a systemic approach for addressing health by tackling social determinants, particularly Environments for Health (Department of Human Services, 2001). Key informants re-iterated this approach with statements indicating that many of them believed that virtually everything LG does plays some role in determining health and wellbeing.

Despite Victorian LG’s understanding that by addressing social determinants, its capacity to address health is extensive, key informants often felt that LG’s capacity was nevertheless inadequate when compared with what should be done. LG attempted to address the gap between its capacity (what it can do) and its determination of responsibility (what should be done) through two broad approaches. The first of these was advocacy, exhorting up to state and federal governments to enhance the socio-economic and environmental conditions that enable better health. This was a response to the recognition that addressing the determinants of health often requires policy changes that are outside LG’s jurisdiction. The second approach was the active development of partnerships. Though LG itself plays an important role in influencing health, it is through community involvement, collaboration and partnerships that health and wellbeing outcomes can be maximised. To that end, the research revealed that partnerships – particularly with the Primary Care Partnerships and Community Health Centres, but also with state government agencies like VicHealth – were vital in extending the reach and therefore the capacity of local government to address health and wellbeing.

In fulfilling the final aim, recommendations were made that can improve the use of evidence in MPHWPs and assist LG to refine its role as an efficient and effective agent of public health and wellbeing (Section 8.5). Some of the recommendations are intended to build LG’s capacity as an agent of public health within a broadening remit implicated by a SDH approach. However, many recommendations were designed to increase the use and documentation in MPHWPs of intervention evidence. In particular, evaluation was an underutilised process in the 2013-2017
MPHWP cycle, yet has significant capacity to contribute to the evidence base about what works. Community-derived actions are important for ensuring that the community is engaged with health planning, and this in itself can have a health benefit (Barten et al., 2010). However, without effective evaluation, neither the effectiveness of such actions nor how they might be modified to improve their effectiveness can be known. To that end, several recommendations centred around enhancing evidence literacy, particularly improving the extent to which actions are evaluated, were proposed.

9.2 Research translation during candidature

Given that the translation of research is a major process underpinning effective health planning, it is valuable to reflect upon such processes undertaken as part of this research thesis. In addition to analysis of the data that was collected, during candidature, the results of the research were published in two academic papers (included as Chapters 6 and Appendix E respectively (Browne et al., 2016, 2017)) and presented at six conferences. In conjunction with the empirical components of the research, these activities translated the research for state and local government audiences, garnered interest among the community of municipal health planners, and were valuable for achieving the research aims. As a result of the interest raised in this research through these events, a further seven invited presentations about the findings of the research were given to LG networking groups and other organisations involved in assisting LG to deliver MPHWPs. These are shown in Tables 9.1 and 9.2.

Table 9.1: Presentations at conferences during PhD candidature.

<table>
<thead>
<tr>
<th>Date</th>
<th>Conferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>22/10/2013</td>
<td>Go8/C9: Sustainable Health Futures, Shanghai, China</td>
</tr>
<tr>
<td>16/9/2014</td>
<td>Public Health Association of Australia, Perth, Australia</td>
</tr>
<tr>
<td>8/12/2015</td>
<td>Health Services Research Association of ANZ, Melbourne, Australia</td>
</tr>
<tr>
<td>27/10/2015</td>
<td>NHMRC Research Translation Symposium, Sydney, Australia</td>
</tr>
<tr>
<td>23/11/2016</td>
<td>NHMRC Research Translation Symposium, Melbourne, Australia</td>
</tr>
<tr>
<td>28/11/2016</td>
<td>Inner East PCP Population Health Symposium, Melbourne, Australia</td>
</tr>
</tbody>
</table>
Table 9.2. Presentations to industry partners during PhD candidature.

<table>
<thead>
<tr>
<th>Date</th>
<th>Industry presentations</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/5/2014</td>
<td>N&amp;W Metro Region DHHS</td>
</tr>
<tr>
<td>8/10/2014</td>
<td>Ministerial Advisory Council to Senior Victorians</td>
</tr>
<tr>
<td>19/02/2015</td>
<td>Regional Public Health Manager’s Network Meeting</td>
</tr>
<tr>
<td>14/05/2015</td>
<td>MAV Local Government Alcohol and Other Drugs Issues Forum</td>
</tr>
<tr>
<td>19/11/2015</td>
<td>Southern Metro Region Local Government Health Planning Forum</td>
</tr>
<tr>
<td>24/3/2016</td>
<td>Evidenced Informed MPHWP and IHP – Southern Metropolitan Forum</td>
</tr>
<tr>
<td>12/7/2016</td>
<td>N&amp;W Metropolitan Health Planners Network Meeting</td>
</tr>
</tbody>
</table>

The findings of this research also contributed to the MAV’s submission to the Royal Commission into Family Violence (Municipal Association of Victoria, 2015b) and to the Place Health and Liveability (PHL) research group’s submission to the development of the 2015-2019 Victorian Public Health and Wellbeing Plan (Victorian Government, 2015c). As discussed in Section 8.3.1, this second submission was significant for ensuring that the new State Health Plan was more responsive to local governments’ attempts to address the health and wellbeing issues that were beyond the priority areas of the previous State Health Plan.

In June 2016, the findings were used to advise VicHealth in its preparation of documentation supporting local governments in MPHWP planning, specifically the *VicHealth Indicators Action Guides* (VicHealth, 2012). This provided a limited but useful opportunity to test and apply some of the findings of the research through suggested changes to the Action Guides. Feedback from VicHealth was that this input was very useful for emphasizing the importance of evaluating interventions so that evidence about what works in public health can be created and shared across Victorian LGs. The process was also useful for re-iterating the importance of translating intervention evidence into a form that is easily accessible and understandable to LG health planners.

In addition to these contributions, the research also gave rise to a contribution to the field of sustainability, specifically environmental management. Sustainability is often described as
consisting of three pillars; a healthy natural environment, economic prosperity and social equity. A response to the need to increase health equity, a major aspect of the social pillar of sustainability, has been Health in All Policies (HiAP). As shown in Section 2.2 of the literature review, this approach has strong foundations in the idea that health is significantly socially determined and that all policy areas have a role to play in improving health (Lawless et al., 2012, Delany et al., 2016, Kickbusch et al., 2014, World Health Organization, 2014). With reference to parallels between public health and the health of the natural environment, and inspired by Ichiro Kawachi’s conception of scientific arbitrage (Kawachi et al., 2013), a paper was developed that proposes a new method, Environment in All Polices (EiAP), for creating an integrated environmental management approach (Browne and Rutherford, 2017). It was published in Environment Health Perspectives (impact factor of 8.4 in 2016) and is included as Appendix F.

9.3 Final comments

As the level of government closest to the people, LG has unique, first-hand knowledge about its communities. This research has shown that LG in Victoria understands that as a provider of important social services and infrastructure, it has significant potential to influence the health of its community. LG’s adoption of a significant level of responsibility for health has been formed by legislation, by documentation provided by the State health department, its agencies, health NGOs and the MAV, by the extensive SDH rhetoric, and by a relative abundance of descriptive evidence. However, LG’s determination of its responsibility to address health via the SDH is not equally matched by its capacity, a challenge that LG itself is aware of. Within an environment in which there are significant and powerful forces determining health (Chan, 2013, Gleeson and Friel, 2013, Moodie et al., 2013), LG is a relatively small player. This research has shown that, within this context, LG is nevertheless punching above its weight to improve public health, not just by attempting to address social determinants as they manifest locally, but also through the use of partnerships and advocacy up to the state and federal governments. Significantly however, this research has also shown that given the broad remit implicated by a social determinants approach, there is still work to do to increase the evidence literacy of those who develop MPHWP, to improve the evaluation of MPHWPs, and to provide more relevant and accessible evidence to LG. Doing so will help ensure that LG is a more efficient and effective agent of public health.
Chapter 10: References


ANGUS, K., CAIRNS, G., PURVES, R., BRYCE, S., MACDONALD, L. & GORDON, R. 2013. Systematic literature review to examine the evidence for effectiveness of interventions that use theories and models of behaviour change: Towards the prevention and control of communicable diseases, Stockholm, Sweden, European Center of Disease Control.


BAUMAN, A. E., KING, L. & NUTBEAM, D. 2014. Rethinking the evaluation and measurement of health in all policies. *Health Promotion International*, 29, i143-i151.

BEER, A. & PRANCE, F. 2012. The role of local government in addressing homelessness; Literature review, Canberra, Department of Families, Housing, Community Services and Indigenous Affairs, Australian Government.


G21 2013. *Health and wellbeing plan*, Geelong, Victoria, Geelong Regional Alliance (G21).


GLASGOW, R. E. 2013. What does it mean to be pragmatic? Pragmatic methods, measures, and models to facilitate research translation. *Health Education & Behavior*, 40, 257-265.


HEART FOUNDATION OF AUSTRALIA 2004. Healthy by Design: A planners’ guide to environments for active living, National Heart Foundation of Australia (Victorian Division).


HOLDEN 2013. Sustainability indicator systems within urban governance: Usability analysis of sustainability indicator systems as boundary objects. Ecological Indicators, 32, 89-96.

HOLSTI, O. R. 1969. Content analysis for the social sciences and humanities, Reading, Massachusetts, Addison-Wesley Publishing.


NATIONAL HEALTH & MEDICAL RESEARCH COUNCIL 2009. NHMRC additional levels of evidence and grades for recommendations for developers of guidelines, Canberra, National Health & Medical Research Council.


PARSONS, W. 2002. From muddling through to muddling up: Evidence based policy making and the modernisation of British Government. Public Policy and Administration, 17, 43-60.


POPE, J. 2011. Top fifteen data sources for describing community wellbeing in Victoria, Melbourne, Victorian Government, Department of Planning and Community Development.


VICTORIAN GOVERNMENT 2012b. *A practical guide to conducting annual reviews of municipal public health and wellbeing plans*, Melbourne, Department of Health - Southern Metropolitan Region.


VICTORIAN GOVERNMENT 2013b. *Including public health and wellbeing matters in the council plan or strategic plan*, Melbourne, Department of Health, Victorian Government.


WESTERN AUSTRALIA 2016b. Western Australian Health Promotion Foundation Act. Australia.


WHITZMAN, C. Liveability Indicators: which will be most useful for integrated planning in the NWMR? North and West Metropolitan Regional Management Forum Integrated Planning Conference, 30-31 October, 2012, October 31 2012.
WORLD HEALTH ORGANIZATION. Shanghai Declaration on promoting health in the 2030 Agenda for Sustainable Development. Ninth Global Conference on Health Promotion, 2016 Shanghai, China. World Health Organization.


## Appendix A – List of codes generated for content analysis Question 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Source</th>
<th>Cited source &amp; sub-code where applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1 Unable to determine</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2 Council evidence</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>0 Community input</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>0 Council data</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td><strong>Academia</strong></td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>ACER; Australian Australian Council for Educational Research</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>ARC; Accident Research Centre (Monash)</td>
</tr>
<tr>
<td>8</td>
<td>7</td>
<td>Center for Gambling Research (ANU)</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>Center for Public Health Nutrition (Sydney Uni)</td>
</tr>
<tr>
<td>10</td>
<td>9</td>
<td>Community Indicators Victoria (UniMelb)</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>1 CIV General</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>Access to areas of public open space</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>Access to government schools</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>Access to public transport</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>Access to services</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>Adequate physical activity</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>Adequate work life balance</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>Appearance of public space</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>Breastfeeding</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>Child health assessments</td>
</tr>
<tr>
<td>21</td>
<td></td>
<td>Community acceptance of diverse cultures</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td>Crime</td>
</tr>
<tr>
<td>23</td>
<td></td>
<td>Destination of school leavers</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td>Educational qualifications</td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>Employment rate</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td>Family violence</td>
</tr>
<tr>
<td>27</td>
<td></td>
<td>Feeling part of the community</td>
</tr>
<tr>
<td>28</td>
<td></td>
<td>Female local councillors</td>
</tr>
<tr>
<td>29</td>
<td></td>
<td>Financial stress</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>Food security</td>
</tr>
<tr>
<td>31</td>
<td></td>
<td>Fruit consumption</td>
</tr>
<tr>
<td>32</td>
<td></td>
<td>Gambling</td>
</tr>
<tr>
<td>33</td>
<td></td>
<td>GHG emissions</td>
</tr>
<tr>
<td>34</td>
<td></td>
<td>Greenhouse gas emissions</td>
</tr>
<tr>
<td>35</td>
<td></td>
<td>Highly skilled workforce</td>
</tr>
<tr>
<td>36</td>
<td></td>
<td>Home internet access</td>
</tr>
<tr>
<td>37</td>
<td></td>
<td>Household electricity use</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Household gas use</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Household waste generation</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Household waste recycling</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Housing affordability</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Immunisation</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Life expectancy</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Membership of local community organisations and decision-making bodies</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Obesity</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Opportunity to have a say on important issues</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Opportunity to vote for a trustworthy political candidate</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Parental participation in schools</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Participation in arts and cultural activities</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>Participation in citizen engagement</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Perceptions of safety</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>Psychological distress</td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>Risky alcohol consumption</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Road safety</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>School retention</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Self-reported health</td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>Smoking status</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>Social support</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>Subjective wellbeing</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>Transport limitations</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>Unemployment</td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>Vegetable consumption</td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>Volunteering</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>Waste water recycling</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>z unknown</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10 GGSWReportCard.org - Ballarat Uni
11 Griffith University
12 Monash Uni
13 MUARC; Monash Alfred Cycle Crash Study (Monash)
14 NDR; National Drug Research Institute
15 PHIDU; Public Health Development Unit (Adelaide Uni)
16 Public Health Info Dev Unit
17 Medicare local social health atlas
18 Victorian Injury Surveillance Unit (Monash)
19 Wilkinson & Pickett

Commonwealth Department
20 ABS; Australian Bureau of Statistics
21 ACMA; Australian Communications & Media Authority
<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>84</td>
<td>AEDI (AEDC); Australian Early Development Index or Census</td>
</tr>
<tr>
<td>85</td>
<td>AIF; Australian Institute of Family Studies</td>
</tr>
<tr>
<td>86</td>
<td>AIHW; Australian Institute of Health &amp; Welfare</td>
</tr>
<tr>
<td>87</td>
<td>National Drug Strategy Household Survey</td>
</tr>
<tr>
<td>88</td>
<td>ANPHA; Australian National Preventative Health Agency</td>
</tr>
<tr>
<td>89</td>
<td>ASC; Australian Sports Commission</td>
</tr>
<tr>
<td>90</td>
<td>ATO; Australian Tax Office</td>
</tr>
<tr>
<td>91</td>
<td>Australian Human Rights Commission</td>
</tr>
<tr>
<td>92</td>
<td>Australian Public Service Commission</td>
</tr>
<tr>
<td>93</td>
<td>BOM; Bureau of Meteorology</td>
</tr>
<tr>
<td>94</td>
<td>Climate Commission</td>
</tr>
<tr>
<td>95</td>
<td>CSIRO</td>
</tr>
<tr>
<td>96</td>
<td>DAFF; Dept of Ag, Fish and Forestry</td>
</tr>
<tr>
<td>97</td>
<td>DEEWR; Department of Education, Employment &amp; Workplace Relations</td>
</tr>
<tr>
<td>98</td>
<td>Department of Health and Ageing</td>
</tr>
<tr>
<td>99</td>
<td>DFHCSIA; Department of Families, Housing Community Service &amp; Indigenous</td>
</tr>
<tr>
<td>100</td>
<td>Closing the Gap</td>
</tr>
<tr>
<td>101</td>
<td>DHA</td>
</tr>
<tr>
<td>102</td>
<td>Medicare Local</td>
</tr>
<tr>
<td>103</td>
<td>DHS; Department of Human Services</td>
</tr>
<tr>
<td>104</td>
<td>ACIR; Aust Childhood Immunisation Register</td>
</tr>
<tr>
<td>105</td>
<td>Centrelink</td>
</tr>
<tr>
<td>106</td>
<td>DI&amp;C; Department of Immigration &amp; Citizenship</td>
</tr>
<tr>
<td>107</td>
<td>DIRD; Department of Infrastructure and Regional Development</td>
</tr>
<tr>
<td>108</td>
<td>RDA; Regional Development Australia</td>
</tr>
<tr>
<td>109</td>
<td>DPMC (prime minister &amp; cabinet)</td>
</tr>
<tr>
<td>110</td>
<td>DPRWG</td>
</tr>
<tr>
<td>111</td>
<td>DSR; Department of Sport and Recreation</td>
</tr>
<tr>
<td>112</td>
<td>DSS; Department of social services</td>
</tr>
<tr>
<td>113</td>
<td>NHMRC; National Health &amp; Medical Research Council</td>
</tr>
<tr>
<td>114</td>
<td>NHPA; National Health Performance Authority</td>
</tr>
<tr>
<td>115</td>
<td>MyHospitals.gov.au</td>
</tr>
<tr>
<td>116</td>
<td>NPHP or AHPC; Australian Health Protection Committee</td>
</tr>
<tr>
<td>117</td>
<td>Prime Minister &amp; Cabinet</td>
</tr>
<tr>
<td>118</td>
<td>Productivity Commission</td>
</tr>
<tr>
<td>119</td>
<td>TRA; Tourism Research Australia</td>
</tr>
<tr>
<td>120</td>
<td>International</td>
</tr>
<tr>
<td>121</td>
<td>Alliance for Healthy Cities</td>
</tr>
<tr>
<td>122</td>
<td>American Cancer Society</td>
</tr>
<tr>
<td>123</td>
<td>Dual diagnosis .org</td>
</tr>
<tr>
<td>124</td>
<td>ICLEI</td>
</tr>
<tr>
<td>125</td>
<td>International Society for Physical Activity and Health</td>
</tr>
<tr>
<td>126</td>
<td>PHA Canada</td>
</tr>
<tr>
<td>127</td>
<td>United nations</td>
</tr>
<tr>
<td>128</td>
<td>FAO - World Food Summit</td>
</tr>
<tr>
<td>129</td>
<td>US Surgeon general</td>
</tr>
<tr>
<td>Page</td>
<td>Reference</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
</tr>
<tr>
<td>130</td>
<td>68</td>
</tr>
<tr>
<td>131</td>
<td>69</td>
</tr>
<tr>
<td>132</td>
<td></td>
</tr>
<tr>
<td>133</td>
<td>71</td>
</tr>
<tr>
<td>134</td>
<td>72</td>
</tr>
<tr>
<td>135</td>
<td>73</td>
</tr>
<tr>
<td>136</td>
<td>74</td>
</tr>
<tr>
<td>137</td>
<td>75</td>
</tr>
<tr>
<td>138</td>
<td></td>
</tr>
<tr>
<td>139</td>
<td>77</td>
</tr>
<tr>
<td>140</td>
<td>78</td>
</tr>
<tr>
<td>141</td>
<td>79</td>
</tr>
<tr>
<td>142</td>
<td>80</td>
</tr>
<tr>
<td>143</td>
<td>81</td>
</tr>
<tr>
<td>144</td>
<td>82</td>
</tr>
<tr>
<td>145</td>
<td>83</td>
</tr>
<tr>
<td>146</td>
<td>84</td>
</tr>
<tr>
<td>147</td>
<td>85</td>
</tr>
<tr>
<td>148</td>
<td>86</td>
</tr>
<tr>
<td>149</td>
<td>87</td>
</tr>
<tr>
<td>150</td>
<td>88</td>
</tr>
<tr>
<td>151</td>
<td>89</td>
</tr>
<tr>
<td>152</td>
<td>90</td>
</tr>
<tr>
<td>153</td>
<td>91</td>
</tr>
<tr>
<td>154</td>
<td>92</td>
</tr>
<tr>
<td>155</td>
<td>93</td>
</tr>
<tr>
<td>156</td>
<td>94</td>
</tr>
<tr>
<td>157</td>
<td>95</td>
</tr>
<tr>
<td>158</td>
<td>96</td>
</tr>
<tr>
<td>159</td>
<td>97</td>
</tr>
<tr>
<td>160</td>
<td>98</td>
</tr>
<tr>
<td>161</td>
<td>99</td>
</tr>
<tr>
<td>162</td>
<td>100</td>
</tr>
<tr>
<td>163</td>
<td>101</td>
</tr>
<tr>
<td>164</td>
<td>102</td>
</tr>
<tr>
<td>165</td>
<td>103</td>
</tr>
<tr>
<td>166</td>
<td>104</td>
</tr>
<tr>
<td>167</td>
<td>105</td>
</tr>
<tr>
<td>168</td>
<td>106</td>
</tr>
<tr>
<td>169</td>
<td>107</td>
</tr>
<tr>
<td>170</td>
<td>108</td>
</tr>
<tr>
<td>171</td>
<td>109</td>
</tr>
<tr>
<td>172</td>
<td>110</td>
</tr>
<tr>
<td>173</td>
<td>111</td>
</tr>
<tr>
<td>174</td>
<td>112</td>
</tr>
<tr>
<td>175</td>
<td>113</td>
</tr>
<tr>
<td>176</td>
<td>114</td>
</tr>
<tr>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>177</td>
<td>115</td>
</tr>
<tr>
<td>178</td>
<td>116</td>
</tr>
<tr>
<td>179</td>
<td>117</td>
</tr>
<tr>
<td>180</td>
<td>118</td>
</tr>
<tr>
<td>181</td>
<td>119</td>
</tr>
<tr>
<td>182</td>
<td>120</td>
</tr>
<tr>
<td>183</td>
<td></td>
</tr>
<tr>
<td>184</td>
<td>121</td>
</tr>
<tr>
<td>185</td>
<td>122</td>
</tr>
<tr>
<td>186</td>
<td>123</td>
</tr>
<tr>
<td>187</td>
<td>124</td>
</tr>
<tr>
<td>188</td>
<td></td>
</tr>
<tr>
<td>189</td>
<td>125</td>
</tr>
<tr>
<td>190</td>
<td>126</td>
</tr>
<tr>
<td>191</td>
<td>127</td>
</tr>
<tr>
<td>192</td>
<td>128</td>
</tr>
<tr>
<td>193</td>
<td>129</td>
</tr>
<tr>
<td>194</td>
<td>130</td>
</tr>
<tr>
<td>195</td>
<td>131</td>
</tr>
<tr>
<td>196</td>
<td>132</td>
</tr>
<tr>
<td>197</td>
<td>133</td>
</tr>
<tr>
<td>198</td>
<td>134</td>
</tr>
<tr>
<td>199</td>
<td>135</td>
</tr>
<tr>
<td>200</td>
<td>136</td>
</tr>
<tr>
<td>201</td>
<td>137</td>
</tr>
<tr>
<td>202</td>
<td>138</td>
</tr>
<tr>
<td>203</td>
<td>139</td>
</tr>
<tr>
<td>204</td>
<td>140</td>
</tr>
<tr>
<td>205</td>
<td>141</td>
</tr>
<tr>
<td>206</td>
<td>142</td>
</tr>
<tr>
<td>207</td>
<td>143</td>
</tr>
<tr>
<td>208</td>
<td>144</td>
</tr>
<tr>
<td>209</td>
<td>145</td>
</tr>
<tr>
<td>210</td>
<td>146</td>
</tr>
<tr>
<td>211</td>
<td>147</td>
</tr>
<tr>
<td>212</td>
<td>148</td>
</tr>
<tr>
<td>213</td>
<td>149</td>
</tr>
<tr>
<td>214</td>
<td>150</td>
</tr>
<tr>
<td>215</td>
<td>151</td>
</tr>
<tr>
<td>216</td>
<td>152</td>
</tr>
<tr>
<td>217</td>
<td>153</td>
</tr>
<tr>
<td>218</td>
<td>154</td>
</tr>
<tr>
<td>219</td>
<td>155</td>
</tr>
<tr>
<td>220</td>
<td>156</td>
</tr>
<tr>
<td>221</td>
<td></td>
</tr>
<tr>
<td>Page</td>
<td>Number</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>222</td>
<td>157</td>
</tr>
<tr>
<td>223</td>
<td>158</td>
</tr>
<tr>
<td>224</td>
<td>159</td>
</tr>
<tr>
<td>225</td>
<td>160</td>
</tr>
<tr>
<td>226</td>
<td>161</td>
</tr>
<tr>
<td>227</td>
<td></td>
</tr>
<tr>
<td>228</td>
<td>161</td>
</tr>
<tr>
<td>229</td>
<td>162</td>
</tr>
<tr>
<td>230</td>
<td>163</td>
</tr>
<tr>
<td>231</td>
<td>164</td>
</tr>
<tr>
<td>232</td>
<td>165</td>
</tr>
<tr>
<td>233</td>
<td>166</td>
</tr>
<tr>
<td>234</td>
<td>167</td>
</tr>
<tr>
<td>235</td>
<td>168</td>
</tr>
<tr>
<td>236</td>
<td>169</td>
</tr>
<tr>
<td>237</td>
<td>170</td>
</tr>
<tr>
<td>238</td>
<td>171</td>
</tr>
<tr>
<td>239</td>
<td>172</td>
</tr>
<tr>
<td>240</td>
<td>173</td>
</tr>
<tr>
<td>241</td>
<td>174</td>
</tr>
<tr>
<td>242</td>
<td>175</td>
</tr>
<tr>
<td>243</td>
<td>176</td>
</tr>
<tr>
<td>244</td>
<td>177</td>
</tr>
<tr>
<td>245</td>
<td>178</td>
</tr>
<tr>
<td>246</td>
<td>179</td>
</tr>
<tr>
<td>247</td>
<td>180</td>
</tr>
<tr>
<td>248</td>
<td>181</td>
</tr>
<tr>
<td>249</td>
<td>182</td>
</tr>
<tr>
<td>250</td>
<td>183</td>
</tr>
<tr>
<td>251</td>
<td>184</td>
</tr>
<tr>
<td>252</td>
<td>185</td>
</tr>
<tr>
<td>253</td>
<td>186</td>
</tr>
<tr>
<td>254</td>
<td>187</td>
</tr>
<tr>
<td>255</td>
<td>188</td>
</tr>
<tr>
<td>256</td>
<td>189</td>
</tr>
<tr>
<td>257</td>
<td>190</td>
</tr>
<tr>
<td>258</td>
<td>191</td>
</tr>
<tr>
<td>259</td>
<td>192</td>
</tr>
<tr>
<td>260</td>
<td>193</td>
</tr>
<tr>
<td>261</td>
<td>194</td>
</tr>
<tr>
<td>262</td>
<td>195</td>
</tr>
<tr>
<td>263</td>
<td>196</td>
</tr>
<tr>
<td>264</td>
<td></td>
</tr>
<tr>
<td>265</td>
<td></td>
</tr>
<tr>
<td>266</td>
<td></td>
</tr>
<tr>
<td>267</td>
<td>197</td>
</tr>
<tr>
<td>Page</td>
<td>Refs to</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>268</td>
<td>198</td>
</tr>
<tr>
<td>269</td>
<td>199</td>
</tr>
<tr>
<td>270</td>
<td>200</td>
</tr>
<tr>
<td>271</td>
<td>201</td>
</tr>
<tr>
<td>272</td>
<td>202</td>
</tr>
<tr>
<td>273</td>
<td>203</td>
</tr>
<tr>
<td>274</td>
<td>204</td>
</tr>
<tr>
<td>275</td>
<td>205</td>
</tr>
<tr>
<td>276</td>
<td>206</td>
</tr>
<tr>
<td>277</td>
<td>207</td>
</tr>
<tr>
<td>278</td>
<td>208</td>
</tr>
<tr>
<td>279</td>
<td>209</td>
</tr>
<tr>
<td>280</td>
<td>210</td>
</tr>
<tr>
<td>281</td>
<td>211</td>
</tr>
<tr>
<td>282</td>
<td>212</td>
</tr>
<tr>
<td>283</td>
<td>213</td>
</tr>
<tr>
<td>284</td>
<td></td>
</tr>
<tr>
<td>285</td>
<td></td>
</tr>
<tr>
<td>286</td>
<td></td>
</tr>
<tr>
<td>287</td>
<td>214</td>
</tr>
<tr>
<td>288</td>
<td>215</td>
</tr>
<tr>
<td>289</td>
<td>216</td>
</tr>
</tbody>
</table>
Appendix B - Coding special cases and avoiding possible errors

**CASE 1:** When coding, ensure separate occurrences (bits of information) are selected and coded separately. This ensures that the count of references is correct. Selecting two or more occurrences of citations or actions because they fit within the same category and coding them together records them as a single reference, thus creating an invalid record of the number of references for that code.

**CASE 2:** Be aware that the names of categories within the two parent codebooks 2 (EVIDENCE) - DOMAIN of civic society and 6 (ACTIONS) - DOMAIN of civic society are largely the same. When using NVivo’s drop-down menu of codes, ensure that the correct parent Codebook is used. Incorrectly categorizing an occurrence of evidence as an action or vice versa will create unreliable data.

**CASE 3:** Where, due to the way the pdf is constructed, it is not possible to select the entire section of relevant text, because for example the full text of the action goes onto the next page, select only the first part of it for coding. This ensures that the relevant section has only one occurrence of text coded against it.
Appendix C – Interview facesheet

How does local governments' use of evidence inform their strategic planning for health and wellbeing, and what is Community Indicators Victoria’s role in this?

Interview Guide (‘facesheet’) - Interviews with Victorian local government policymakers

Date: __________________________ Time: __________________________

Name: __________________________ Council: __________________________

Position: ___________________________________________________________________

Interview location: ___________________________________________________________________

“Thank you for agreeing to be interviewed today. The purpose of this interview is to hear about your perspectives on health and wellbeing planning; the types of information that is used and the way that actions are developed. There are no right and wrong answers. We are just interested in your experiences and perspectives. The interview should take approximately 60 minutes.

“Before we begin, do you have any questions about the research or the consent form?”

Topic areas are guided by the literature on:

- The purpose of MPHWPs and the role of evidence in their development,
- The history of community indicators, particularly, their raison d'être which is to democratically involve the community in influencing policy,
- Theories of how research translates into decision-making for policy development.

Questions

Your role and experience
• What is your experience and training?
• What is your role in the development of the plan?
• How long have you been in this role?

**Council investment in the MPHWP**

• Where does responsibility for the development of the plan sit in terms of council’s organisational structure?
• How many staff work on the plan?
• How well is it integrated with other plans and reports?

**The role of evidence in development of the plan.**

• What evidence resources did you access during development of the recent MPHWP?
• How do you decide what evidence sources to use to develop the plan?
• Have you sought out any evidence sources with the purpose of influencing the form of the plan?
• What role does politics and the community play in determining the actions that council will take?
• What is the purpose(s) of the evidence that you use; is it to describe the problem? To work out how to address it? Or some other purpose?
• What kind of evidence is lacking?

**The actions in the MPHWP.**

• How are actions decided upon?
• What role (if any) does an understanding of *the social determinants of health* play in this?
• What role (if any) does politics play in this?
• What role (if any) does the community play in this?
• In regard to how actions are decided upon; what could / should be done differently?

**Community Indicators Victoria**
• (Establish level of familiarity with CIV)
• What role does CIV play in MPHWP?
• If none, does it play any other role in council decision-making?
• What do you like about CIV?
• How could CIV be improved for your purposes, inc. MPHWP?

Council’s role in health and wellbeing planning.

• Putting aside what council actually does, how, in your opinion, would you describe your council’s responsibly in community health and wellbeing?
• What in your opinion is your council’s capacity to act in community health and wellbeing? Where (e.g. in what areas of civic life, at-risk groups or priority areas) are you most effective and why?

Other issues.

• Are there any other issues you would like to raise about development of the council’s MPHWP?

Observations: Including a critical examination of the subject’s assumptions & ideologies.

Post-interview comment sheet - For interpretations and other comments
Appendix D – Ethics approval

29 January 2015

Dear Professor Billie Giles-Corti, Dr Melanie Davern, Geoffrey Browne

I am pleased to advise that the Population and Global Health Human Ethics Advisory Group (HEAG) has approved the following Minimal Risk Project.

Project title: 1443272.1 – How does local government’ use of evidence inform their strategic planning for health and wellbeing, and what is the Community Indicators Victoria’s role in this?
Researchers: Billie Giles-Corti, Dr Melanie Davern, Geoffrey Browne
Ethics ID: 1443272.1

The Project has been approved for the period: 29-Jan-2015 to 31-Dec-2015

It is your responsibility to ensure that all people associated with the Project are made aware of what has actually been approved.

Research projects are normally approved to 31 December of the year of approval. Projects may be renewed yearly for up to a total of five years upon receipt of a satisfactory annual report. If a project is to continue beyond five years a new application will normally need to be submitted.

Please note that the following conditions apply to your approval. Failure to abide by these conditions may result in suspension or discontinuation of approval and/or disciplinary action.

(a) Limit of Approval: Approval is limited strictly to the research as submitted in your Project application.
(b) Amendments to Project: Any subsequent variations or modifications you might wish to make to the Project must be notified formally to the Human Ethics Advisory Group for further consideration and approval before the revised Project can commence. If the Human Ethics Advisory Group considers that the proposed amendments are significant, you may be required to submit a new application for approval of the revised Project.
(c) Incidents or adverse affects: Researchers must report immediately to the Advisory Group and the relevant Sub-Committee anything which might affect the ethical acceptance of the protocol including adverse effects on participants or unforeseen events that might affect continued ethical acceptability of the Project. Failure to do so may result in suspension or cancellation of approval.
(d) Monitoring: All projects are subject to monitoring at any time by the Human Research Ethics Committee.
(e) Annual Report: Please be aware that the Human Research Ethics Committee requires that researchers submit an annual report on each of their projects at the end of the year, or at the conclusion of a project if it continues for less than this time. Failure to submit an annual report will mean that ethics approval will lapse.
(f) Auditing: All projects may be subject to audit by members of the Sub-Committee.

Please quote the ethics registration number and the name of the Project in any future correspondence.

On behalf of the Ethics Committee I wish you well in your research.

Yours sincerely
A/Prof Lyle Gurrin
Chair, MSPGH Human Ethics Advisory Group

Centre for Epidemiology and Biostatistics
School of Population and Global Health
The University of Melbourne
Victoria 3010
Ph: (03) 8344 0731
Appendix E – Published paper

The following is a published paper of the descriptive statistical results of the components of the document analysis that explored evidence in MPHWP. The title is, *What evidence is being used to inform municipal strategic planning for health and wellbeing? Victoria, Australia, a case study* (Browne, Davern & Giles-Corti, 2016). At time of writing, the paper was accepted by *Evidence and Policy* and published as a fast track article to appear in a forthcoming volume.

There are some minor discrepancies between Chapter 4 and the paper. None of these alters the outcome.

Firstly, the terminology that is used for Question 3 about type of evidence was updated between publication of the article and finalisation of the chapter. In the article, the term ‘specificity’ is used when describing distinctions between descriptive and intervention evidence. Upon reflection the term ‘type’ was felt to better represent this characteristic of evidence. Secondly, for Question 2 about the topic of evidence, while the term ‘Health Outcomes’ was used to describe evidence about the extent of poor health, in the article the term epidemiology is used. Upon reflection ‘Health Outcomes’ was felt to more appropriate as a description ‘of what people have’.

Thirdly, the total amount of evidence that was identified (11,112 versus 11,164 occurrences) and the number of sources that were identified varies between the chapter and the paper. These were due respectively to an error in the way that NVivo codes data which was corrected in the thesis, and the collapsing of source codes into categories. Finally, after the paper was published, a revised method of establishing intra-rater reliability was conducted.
Evidence & Policy

What evidence is being used to inform municipal strategic planning for health and wellbeing? Victoria, Australia, a case study.

--Manuscript Draft--

<table>
<thead>
<tr>
<th>Manuscript Number:</th>
<th>EVIDPOL-D-15-00072R2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Title:</td>
<td>What evidence is being used to inform municipal strategic planning for health and wellbeing? Victoria, Australia, a case study.</td>
</tr>
<tr>
<td>Article Type:</td>
<td>Research Article</td>
</tr>
<tr>
<td>Keywords:</td>
<td>health policy; Local government; Evidence-informed decision making; Social determinants of health</td>
</tr>
</tbody>
</table>
| Corresponding Author: | Geoffrey Russell Browne  
                      | University of Melbourne  
                      | The University of Melbourne, Victoria AUSTRALIA |
| First Author:      | Geoffrey Russell Browne |
| Order of Authors:  | Geoffrey Russell Browne  
                      | Melanie Davern  
                      | Billie Giles-Corti |
| Abstract:          | Victorian local governments (LGs) are required to develop evidence-based Municipal Public Health and Wellbeing Plans (MPHWPs) that improve health and wellbeing. This study evaluated the implementation of this requirement across 79 LGs. Evidence in 116 documents was categorised by source, issue, and policy specificity. Over 11,000 evidence-occurrences from 200 sources were recorded. More evidence on social determinants was identified than on epidemiology or health behaviours. Most (96%) evidence was descriptive and only 4% supported MPHWP actions. The results suggest the community is an important source of novel interventions, and proposes three related reasons for the dearth of intervention level evidence. |
| Funding Information: | National Health and Medical Research Council (1004900)  
                      | Australian Postgraduate Award  
                      | North & West Metro Region of the Victorian Department of Health |
|                    | Billie Giles-Corti  
                      | Mr Geoffrey Russell Browne  
                      | Mr Geoffrey Russell Browne |
1 Background

1.1 Local government’s role in health planning

Within Australia, local government’s (LG) role in health planning has evolved significantly over the past hundred years; from the health protective role of environmental health officers, through to education and promotion that is based on individual or issue-specific behaviour change approaches from the 1980s and 90s (DiClemente et al., 2009). Since the Ottawa Charter (WHO, 1986), there has been a growing understanding that governments at all levels have a role to play in addressing the very structures of the societies in which we are born, grow, work, live and age because they are where the upstream ‘causes of the causes’ of health occur (Rose, 1992, Wilkinson and Marmot, 2003, Marmot, 2005, CSDH, 2008). The ubiquitous nature of the social determinants of health (SDH) has been demonstrated by Dahlgren and Whitehead (1991), while more recently, Lowe et al. (2015) showed how they manifest through different aspects of civic life or policy domains. The contribution of fundamental social structures to personal experiences of health can seem remote, but the literature shows they are in fact pervasive.

The 2008 Commission on Social Determinants of Health (CSDH, 2008) made clear statements acknowledging LG unique potential to address health via social determinants. This includes through the equitable provision of social infrastructure; the facilities, structures and services that make a community more than just a collection of people (Harris and Wills, 1997, Casey, 2005, Thomas et al., 2009, Marmot and Bell, 2012). The CSDH’s statement has contributed to increased expectations for local government to go beyond their popularly conceived remit of ‘roads rates and rubbish’ and to address underlying determinants of health (Dollery et al., 2006).

In Victoria, Australia, there are 79 LGs operating at an equal third tier, i.e. below state and federal levels. In contrast to many other jurisdictions, Victorian LGs’ role to address the SDH is legislated through the State’s Public Health and Wellbeing Act 2008 (Vic), the development of which was informed by Environments for Health, the State government’s framework for municipal public health planning (DHS, 2001, de Leeuw et al., 2006). The Act requires each of Victoria’s 79 LGs to prepare a Municipal Public Health and Wellbeing Plan (MPHWP) every four years, in consultation with their community. Plans must be evidence-based; “include an examination of data about health status and health determinants”, and must “identify goals and strategies based on available evidence for creating a local community in which people can achieve maximum health and wellbeing” (S.26(2)(a)&(b)).

1.2 Evidence typology

Evidence is not consistently defined in the literature (Oliver et al., 2014), but is generally regarded as knowledge that describes a true state. Because research practices create varying degrees of certainty
as to what ‘the truth’ might be, the quality of health evidence is often judged against the hierarchy of evidence (Greenhalgh, 1997, NHMRC, 1999) which gives high regard to systematic reviews and RCTs, and less to cross sectional surveys and reports of individual cases. In public health however, and particularly due to the contested or indirect role of social determinants on health, other types of knowledge are also often used to guide interventions. Therefore, consistent with the NCCMT (2012), ‘evidence’ in this field is often broadened to include case studies, community consultation and even political advice, with the caveat that whatever the form, it should be appropriate for the task (Petticrew and Roberts, 2003). In this context therefore, and based on Oxman et al. (2009), evidence-informed public health policymaking is defined as that which systematically and transparently accesses and appraises evidence, from a broad range of sources, as an input into the policymaking process.

Consistent with the idea that evidence can take a range of forms, it can be characterised using typologies; that is, a system of classification according to its characteristics. The choice of typology depends on the characteristics of the evidence that need to be communicated. For example, if plans need to be assessed for how well they fulfil the requirement to be evidence-based, then categorising the quality (e.g. according to evidence hierarchies) or trustworthiness of the evidence therein might be valuable. In preparing for new public health legislation in Western Australia (WA), Stoneham and Dodds (2014) surveyed LG officers from five local government areas to determine the sources of evidence accessed during the development of public health plans. The most frequently used sources were ‘soft’ (grey literature, professional reflections and community input) as opposed to ‘hard’, raising concerns about the effectiveness of actions subsequently implemented.

Alternatively, characterising evidence by the issue it describes can help LG to understand how well the plan covers issues of significance as well as any potential research gaps. It also sheds light on the issues that LG has ‘on its radar’ as important for health and wellbeing, and can reveal the extent to which LG is adopting a social determinants approach to health. For example, a recent analysis of the actions included in MPHWP showed that councils are working beyond the traditional protection and promotion areas of public health and are making strong forays into policy domains known to determine health (Browne et al., 2015). Ideally such actions are supported by evidence from the relevant policy areas, including transport, urban planning, community safety and employment.

Finally, and in addition to the classifications described above, evidence can be characterised by the role it plays to inform the plan (Petticrew and Roberts, 2003). Using this classification, evidence might ‘set the scene’ by describing regional or local epidemiology, or be action-specific, that is, evidence that directly support actions intended to intervene or ‘break the links’ between factors in the aetiology of poor health and wellbeing. Finally, evidence might provide an evaluation of such interventions (Armstrong et al., 2014a).
In Victoria there are numerous guides and briefings on the development of MPWHPs (VicHealth, 2002, DOH, 2009, Haby and Bowen, 2010, DOH, 2012, DOH, 2013b, DOH, 2013a, MAV, undated) and many of these provide links to evidence sources. A review of these documents shows that there is some guidance on how to use evidence. However, consistent with the literature, there is limited typological information that might assist LG to consider the characteristics of evidence, and its suitability for different tasks within the development of the plan (Brownson et al., 2009). Only Haby and Bowen (2010) explicitly distinguish the importance of “intervention-level research evidence” (p.7).

For LG, the challenge of identifying the best evidence to guide the development of MPWHPs is compounded by additional, day-to-day challenges. For example, while the internet has vastly increased access to information, determining the relevance and reliability of evidence can be challenging for LG health practitioners who might have expertise in only one or two areas of public health, while a social determinants of health perspective requires a multi-sector approach (Marmot, 2005, Kickbusch, 2010b).

1.3 Aims and objectives

This research was guided by the question: What types and sources of evidence are used to inform Victorian LG MPWHPs? Given the increasingly important role played by municipal-level planning to address public health and wellbeing across Australia and the legislated requirement of Victorian local government to consult and to use evidence to prepare their MPWHPs, it is timely to assess the types and sources of evidence used by local government, and the role it plays in policy.

2 Method

MPWPS for all Victorian (Australia) local councils (n=79) were obtained from council websites or council contacts. Publicly available supporting documents (Health and Wellbeing profiles, Community Profiles etc.) were also obtained (n=116 in total). Content analysis that focused at a micro level, provided frequency counts and allowed for quantitative analyses of qualitative data (Ryan and Bernard, 2000) was used to systematically analyse the documents and extract every occurrence of evidence.

The definition of evidence adopted was based on that used by NCCMT (2012); information from another source ‘which claims an assertion or describes a true state’. This definition includes information that is not referenced. Next, an evidence typology was used to categorise each occurrence of evidence according to 3 questions: What is the source of the evidence? What does the evidence describe? and How specific is the evidence? The following sections describe the rationale and the categories used within each question.
2.1 Q1: SOURCE: What is the source of the evidence?

Every occurrence of evidence in the documents was categorized by its source (where possible) to determine which sources councils find useful for describing the health of its community, health determinants and/or interventions. When no source was cited, the occurrence was categorised as Unable to determine.

2.2 Q2: ISSUE: What issue does the evidence describe?

Each occurrence of evidence was also categorized by the issue it described. This provided an overview of the issues that councils deemed important for health and wellbeing in their local area. Semi-inductive categorisation (i.e. categories derived from the data themselves) was used, with the following five parent categories; A) General / nonspecific; B) Demographics (“who people are”); C) Epidemiology (“what people have”); D) Health behaviours (“what people do”); and E) Domains of Public Policy.

Two of these categories - Epidemiology and Health behaviours - were coded using further inductive categorisation (see Table 4). The fifth category, Domains of Public Policy, was used to capture occurrences of evidence that described civic society’s role in health. It was further categorised into 11 domains established by Lowe and colleagues to be determinants of health and well-being (see Table 4 (Lowe et al., 2013, Lowe et al., 2015). The categories Land use and urban design and Resource Efficiency were added because evidence on these issues did not fit into those developed by Lowe and colleagues. This resulted in the ‘taxonomy’ of categories shown in Tables 2 & 4 (Appendix 1). If an occurrence of evidence described more than one issue, it was coded across multiple issues, which resulted in different totals for the three questions.

2.3 Q3: SPECIFICITY: How specific is the evidence?

The evidence in MPHWP can range from very general (e.g. describing broad health trends) to very action-specific (e.g. providing evidence to support a particular action). Determining the specificity of evidence is useful for judging the merit of MPHWPs’ content, assertions and particularly, rationales actions. To do this, an adapted version of Armstrong, Pettman and Water’s (2014a) typology of increasing specificity was used; with the following categories: Type 1 - evidence of a general, regional or global situation, Type 2 - evidence of the municipal situation, Type 3 - evidence for possible solutions, Type 4 - evidence for local solutions with Types 3 & 4 falling into Haby and Bowen’s (2010) definition of “intervention-level research evidence”.

Two examples of how the codes were applied are shown below:

Example 1: “19.6% of residents consume soft drink on a daily basis” (Ararat MPHWP, p.44)
Q1 Source: LG Profiles / VicHealth / Victorian Government
Q2 Issue: Nutrition (‘Health behaviour’ parent category)
Q3 Specificity: Type 2: Local situation

Example 2 “Promoting safety and safe practices within the community can contribute to increasing the confidence of residents about safety” (Glen Eira MPHWP, p.29)

Q1 Source: Victoria Police / Victorian Government
Q2 Issue: Crime & Safety (‘Domain of Public Policy’ parent category)
Q3 Specificity: Type 3: Possible solution

For all three questions, coding subjectivity was reduced with a comprehensive coding guide and flow chart. Coding reliability was increased by reviewing the way that one MPHWP was coded, subsequently revising the guide, and then recoding that MPHWP. Nvivo 10 was used to apply the method to all documents. Once coding was complete, intra-reliability was assessed by the same coder (GB) randomly selecting one of the documents and coding it a second time five months later. Given the high number of categories, a joint-probability of agreement method was used (Dunn, 1989). No variation in the way Q1 was coded was found. For the other two questions, the variation in coding ranged from 0% to 6%, with a mean of 0.6%; a level that was deemed within tolerance. Finally, descriptive analyses were performed on the results using excel.

3 Findings

3.1 Sources of evidence

Overall, 11,112 occurrences of evidence were recorded in 116 documents. The source of 26% of these occurrences was unable to be determined. The remaining (~8000) occurrences were drawn from 256 evidence sources that were then sorted into a taxonomy based on type of institution with 11 main categories. Figure 1 shows the 10 most frequently used evidence source categories and Table 1 shows the 10 most frequently cited organisations.

Figure 1: Evidence sources by category.

Table 1: The 10 most frequently cited sources.
Figure 1 shows that while the ABS, a Commonwealth government agency was the most frequently cited source, State government departments and agencies are highly cited. Indeed Table 1 shows that the 3\textsuperscript{rd}, 4\textsuperscript{th}, 5\textsuperscript{th}, 8\textsuperscript{th} and 10\textsuperscript{th} most frequently cited sources fall into this group. Of interest is the large proportion of internally (i.e. council) sourced evidence and community consultation. Other notable sources are \textit{Community Indicators Victoria} (CIV) (419 occurrences), the most frequently cited academic source, and \textit{id The Population Experts} (303 occurrences), the most frequently cited private source. Both these sources are specifically geared to providing descriptive (rather than intervention-based) evidence to local government. However while the evidence provided by \textit{id} is positive, CIV, as a community indicator program, is more normative: it defines what is considered important for health and wellbeing according to its framework, which aligns with a social determinants approach (Levett, 1998, Dluhy and Swartz, 2006, Rydin, 2007).

3.2 What does the evidence describe?

The greatest proportion (46\%) of evidence cited in MPHWP\hspace{0.05in} s described an aspect of the \textit{Domains of public policy} that determine health (Appendix, Table 2). Within this category, the highest frequency (17\%) of occurrences was the sub-category \textit{social connectivity, cohesion and democracy} (E.g. ‘The Australian Social Inclusion Board found that although strong social networks, such as family and friends, are an important form of support and assistance, external support services also play an important part’ Yarra City Council, citing ASIB, a former federal agency). The lowest was \textit{Land use and urban design} (1\%). Within the \textit{Epidemiology} and \textit{Health behaviours} categories, the highest frequencies of evidence cited were \textit{Mental health} (18.0\%) (E.g. ‘Families reported 'high’/’very high’ stress levels over past month’ (Bayside City Council citing DEECD evidence)) and \textit{Nutrition} (21\%) respectively. A significant proportion (21\%) of epidemiological evidence cited was not disease-specific, but described issues such as life expectancy, rate of hospital presentations and disability-adjusted life year data (Appendix 1, table 4).

3.3 How specific is the evidence?

Notably, most of the evidence in MPHWP\hspace{0.05in} s and their supporting documents described the situation, rather than what might be done to improve health and wellbeing (see Table 3). Further analysis of evidence on interventions (i.e., categories 3 and 4) showed that most evidence on proposed local solutions was council-generated (sourced internally - 38 occurrences), or from the community via consultation (221 occurrences). Examples are “All new developments and/or projects consider access for people with a disability” and “Need more reduce smoking campaigns” respectively. In contrast,
state government sources of evidence on possible solutions were cited only 71 times and academic sources only 17 times. Notably, there was only 1 occurrence of evidence for an intervention sourced from a health promotion non-government organisation (NGO); “A recent workshop held at Council on Food Sensitive Planning and Urban Design (FSPUD), highlighted benefits that a local food coalition could generate.” (Mildura City Council, citing the Heart Foundation).

4 Discussion

4.1 Evidence sources and evidenced issues

The results show that while MPHWPs are evidence-rich, a high percentage (26%) of the evidence is not cited, a finding that is not atypical for grey literature which is often developed in a dynamic policy space and by organisations whose primary activity is not publication. As such, it is not controlled by commercial publishing interests and is often not subject to academic-like standards (Aina, 2000). While grey literature itself is generally regarded as a valuable component of the evidence base, the absence of referencing can call into question the credibility of assessments of health status and actions based on them (Lawrence et al., 2014).

The remaining occurrences of evidence were sourced from a large number of different organisations (n=256), reflecting the breadth of health issues and their determinant policy areas relevant to local government’s health planning role. These sources ranged from academic journals, to Victorian government departments and agencies, professional associations and industry groups, and included privately-owned data brokers. Community consultation was also an important source of evidence (483 occurrences). This is not surprising in Victoria, where the Act requires that MPHWPs be developed in consultation with the community. A significant proportion of this community evidence was suggestions for interventions (Type 3 - ‘evidence for possible solutions’, under Question 3). There is debate about the validity of such suggestions (Minkler and Wallerstein, 2011). Although they are often unsubstantiated, they can provide a starting point for LG to undertake further research. In any case, a community that ‘knows itself’ and is actively involved in health planning, including via action research (Minkler, 2000) can also drive an LG to experiment with innovative, ‘bottom-up’ interventions. Even if such interventions are limited in effectiveness, they can nevertheless empower a community, thus indirectly improving health and wellbeing (Barten et al., 2010).

Notably, evidence that describes health behaviours or the incidence of disease did not constitute the greatest proportion of evidence. Rather, the greatest proportion (46%) of evidence used in MPHWPs describes areas of civic life that are domains of public policy that play a role in determining health and wellbeing. This demonstrates that Victorian LGs are going beyond traditional demographic,
epidemiological and health behaviour data to describe health via its determinants, with an emphasis on the upstream areas of civic life where the causes of health originate. Such an approach is reflected in the new State Health and Wellbeing Plan (Victorian Government, 2015), where a focus on environments and on place-based approaches is taking on greater importance.

4.2 Evidence for describing or solving problems

Evidence to describe the demographic profile of communities and the health issues they experience was widely used by Victorian LGs. In contrast, evidence describing effective interventions was notably deficient (4% of over 11,000 occurrences of evidence). This confirms Armstrong and colleagues’ (2014b) findings that the majority of evidence used in health planning describes situations or problems. While descriptive evidence is useful for assessing the health and wellbeing status of citizens, it has been called ‘the tip of an iceberg’ in the policy development process (Talbot and Verrinder, 2009, Davern et al., in-press). In isolation it provides no indication of how to reverse negative health trends. In contrast, evidence that supports planned interventions is valuable, if not essential, for ensuring effectiveness of actions, particularly given councils’ economic constraints and community expectations. For example, the evidence, ‘14.4% of adolescents had an eating disorder … which is significantly higher than the Victorian average …’ (Darebin City Council, citing the Attitudes to School Survey) describes a situation, and implies that increasing efforts at promoting health and nutrition literacy would be beneficial. However, this evidence provides no indication of how to achieve this. The same council has 9 actions related to the issue that are intended to encourage healthy eating, including ‘Consider social enterprise models for healthy food provision for people who experience food insecurity’ and ‘Ensure and increase healthy food alternatives into all community events’. While quite possibly developed from officers’ experience of successful programs, the effectiveness of these proposed actions is not supported by documented evidence.

The reasons for the dearth of intervention evidence documented in LG plans warrant further research. There are a number of possibilities: First; this evidence, particularly locally relevant evidence, might not exist. Second; it exists but is inaccessible to LG. Third; it might be available and used, but not documented. Each of these possibilities is explored.

A principle challenge in identifying effective interventions is that social determinants do not affect health linearly, but are the result of complex interactions between factors (Butland et al., 2007, Kickbusch, 2010a). Ideally, to effectively understand and address poor health, each stage of the aetiology of a health issue would be illustrated with evidence. This would include describing the magnitude of the problem, who is affected, what the causes are and most importantly, what (if anything) has been shown to be effective (Villanueva et al., 2015). In reality however, the relative influences of social determinants on health are inherently difficult to demonstrate, and thus, it is
inherently difficult to create conclusive evidence for effective interventions (Petticrew et al., 2004, Haby and Bowen, 2010).

Even when such evidence exists it may be inaccessible to, or inappropriate for LG. In the health sciences, knowledge on effective interventions comes from a range of sources including ‘natural experiments’ (Petticrew et al., 2005), randomised controlled trials or from multiple studies that demonstrate consistent findings and consider magnitude and direction of associations (Victora et al., 2004). Such methods are often too reductionist for interrogating the social determinants of health issues, and so in isolation their findings are not appropriate as evidence for LGs’ actions. When it is relevant, this sort of evidence is often only available via journal subscriptions not held by LG (Moodie, 2009, Hurley and Taylor, 2014, Stoneham and Dodds, 2014). Moreover, even if accessible, systematically reviewing all such evidence related to the myriad of health issues that LG is charged with addressing, is beyond the capacity of even well-resourced councils. In view of the challenges, councils themselves should not be underestimated for their importance in creating relevant evidence. Many councils’ health programs have the characteristics of natural experiments, or at least case studies, and so reliable program evaluation methods, that enable a record of ‘what works’ to be developed, should be a priority (Sanderson, 2002).

In terms of making evidence more accessible, leading Australian health promotion NGOs (E.g. National Heart Foundation Australia, Cancer Council Australia & Diabetes Australia) are taking on a greater role in translating evidence for use in policy development, via submissions to State and federal Policy and via development of resources about ‘what works’ in health promotion (Clark, 1992). Many such resources, such as Healthy by Design (2004) adopt a social determinants approach and are targeted to LG. It was therefore surprising that only nine occurrences of intervention evidence were sourced from NGOs. If difficulty accessing these resources is the reason, then NGOs may consider the development of alternative resources, that more explicitly summarise and evaluate the effectiveness of interventions, similar to that which Beyond Blue has prepared for anxiety disorders (Reavley et al., 2010).

4.3 In-house evidence, in non-traditional forms

Thirdly, in addition to the likely dearth of available and accessible evidence directly supporting actions, that which is available may simply not be documented in the MPHWP. The interactive model of research utilisation (Weiss, 1979) suggests that research permeates into policy through indirect means (Rütten et al., 2003, Estabrooks et al., 2006). As observed by Stoneham and Dodds (2014) in Western Australia, policy is based not just on assessments of the issues and of scientific evidence, but also on a combination of community and political input, bureaucratic momentum (‘doing what we did last time’), and undocumented exchanges between colleagues within Councils. In regard to Victorian MPHWP, it is plausible that a combination of peer-to-peer communication, informal networking and
advice from population health experts in State agencies plays an important role. In particular, it is possible that program logic and in-house feasibility analyses of proposed interventions are where any evidence that supports them might be found, rather than in the publicly available MPHWP. Further research is needed to explore whether and where evidence regarding effective interventions is derived and used.

4.4 Limitations

This study categorised evidence by the cited source, and identified over 200 sources accessed by LG. However it is acknowledged that in turn, much of the evidence provided by these organisations is obtained from a small number of primary sources such as the Australian Bureau of Statistics, the Victorian Population Health Survey and VicHealth (Victorian Health Promotion Foundation), which has been either re-branded or further analysed for specific purposes. Additional analyses would be needed to determine which primary sources are the most frequently used. It is acknowledged that LGs are likely to have additional health and wellbeing documents that were not accessible for this study. Such documents might contain additional evidence, which would have changed the results had they been available for analysis. Given the large sample of documents (n=116) and that all 79 MPHWPs (i.e. the core document) were included, it is argued that the sample is adequately representative of all evidence used by councils during preparation of their Plans. Nevertheless, it would be beneficial to analyse all MPHWP-related documents, particularly ‘in-house’ documents such as meeting minutes, feasibility studies and program logic models for how any evidence therein is used, and compare the results with this study. This would be most feasible by working closely with only one or two councils over the policy cycle.

In addition to the lack of adequate referencing in MPHWPs that is noted above, the non-academic way in which government documents are prepared may be producing bias that results in threats to the validity of MPHWPs. Issues such as staff inexperience with public health issues, topics that are ‘flavour of the month’, undue pressure from councillors or ‘squeaky wheel’ members of community may all skew the way in which evidence about issues is sought and represented (Cuthill, 2001). However, with reference to epidemiological research, this analysis can be used as a starting point to assess the extent of, and to make recommendations for addressing such bias. This method was developed for a particular use, and the questions that were used were not designed to reveal all characteristics of the evidence. Alternative typologies that categorise evidence by different criteria would provide results that are useful for other purposes. For example, categorising evidence by population sub-group would enable judgements on how adequately LG assesses health equity between populations (Marmot and Bell, 2012). In particular, this study did not identify why evidence from particular sources, on certain issues, and of certain types of specificity was used. Although several reasons for this - particularly in regard to specificity - are hypothesised, further studies that are...
designed to establish exactly why this is the case would be valuable. They could contribute to understanding how better evidence could be created and used to inform MPHWPs, which would in turn contribute to MPHWPs making a greater contribution to public health.

5 Conclusion

This study demonstrated that content analysis can be used to identify and categorise evidence used by LG against three criteria; source, issue and specificity to the policy development process. Results suggest that the development of MPHWPs is based on evidence from a wide range of sources and on a wide range of issues. Ideally, in order to qualify as evidence-based, each decision point leading to the development of an action should be documented and supported with evidence. However, in reality as shown in this study, evidence that describes problems was most commonly used. Although the community was an important source of suggested interventions, the study identified a deficiency of documented evidence being used to support effective interventions, a fact which may be contributing to LG being limited in making progress in health promotion. The next step will be comparative analyses of evidence used and actions taken (c.f. Browne et al. (2015)). This will reveal more about the influence that evidence, both cited and uncited, has on the ‘active’ part of LG policies.

Results support previous research that identifies a need for research translation that makes relevant intervention research evidence available to LG. It also raises the idea that LG may benefit from using evidence typologies that assist in characterising and critically assessing evidence for suitability to the range of tasks undertaken during development of an effective MPHWP. In addition, LGs could benefit from being resourced with a suite of evidence-based options and case studies shown to be effective in community settings that can be used depending upon local circumstances. Leadership and guidance of this type would be a valuable contribution from the State health department and other organisations that support local government.

6 Acknowledgements

The authors thank Helen Jordan from the Centre for Health Policy, University of Melbourne as well as the two anonymous peer reviewers who provided helpful comments on earlier versions of this manuscript. GB is supported by an Australian Postgraduate Award and scholarship support from the North and West Metro Region of the Department of Health; and BGC by an NHMRC Principal Research Fellowship (#1004900).
7 References


8 Appendix

Insert table 2 here

Insert table 3 here

Insert Table 4 here
Figure 1 below

<table>
<thead>
<tr>
<th>Evidence source category</th>
<th>Number of occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unable to determine</td>
<td>3199</td>
</tr>
<tr>
<td>Victorian Government</td>
<td>3559</td>
</tr>
<tr>
<td>Commonwealth Department</td>
<td>1651</td>
</tr>
<tr>
<td>Academia</td>
<td>692</td>
</tr>
<tr>
<td>Council: community input</td>
<td>483</td>
</tr>
<tr>
<td>Council: internal data</td>
<td>441</td>
</tr>
<tr>
<td>Private evidence sources</td>
<td>455</td>
</tr>
<tr>
<td>Non-government orgs</td>
<td>444</td>
</tr>
<tr>
<td>International</td>
<td>149</td>
</tr>
<tr>
<td>Local Government Org</td>
<td>61</td>
</tr>
<tr>
<td>Professional assoc</td>
<td>16</td>
</tr>
<tr>
<td>Other Australian Gov</td>
<td>11</td>
</tr>
</tbody>
</table>

Data for figure generation only - do not include in final paper

Figure 1
<table>
<thead>
<tr>
<th>Rank</th>
<th>Data source</th>
<th>Occurrences</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Australian Bureau of Statistics (ABS)</td>
<td>1,307</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Local council (including community consultations)</td>
<td>1,033</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Victorian Health Promotion Foundation (VicHealth)</td>
<td>653</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Victorian Population Health Survey (VPHS)</td>
<td>555</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Victorian Department of Education &amp; Early Childhood Development (DEECD)</td>
<td>461</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Community Indicators Victoria (CIV)</td>
<td>419</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>.id ‘The Population Experts’ - private data broker</td>
<td>303</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Victorian Department of Planning &amp; Community Development (DPCD)</td>
<td>234</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>Primary Care Partnerships (PCPs)</td>
<td>161</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Victoria Police</td>
<td>159</td>
<td>1</td>
</tr>
<tr>
<td>11 - 256</td>
<td>246 other sources (inc unknown)</td>
<td>5,827</td>
<td>52</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>11,112</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 2: Occurrences of evidence by issue.

<table>
<thead>
<tr>
<th>Q2 What issue does the evidence describe?</th>
<th>Occurrences</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) General / nonspecific</td>
<td>547</td>
<td>5</td>
</tr>
<tr>
<td>B) Demographics</td>
<td>1267</td>
<td>11</td>
</tr>
<tr>
<td>C) Epidemiology (expanded below)</td>
<td>2408</td>
<td>22</td>
</tr>
<tr>
<td>D) Health behaviours (expanded below)</td>
<td>1840</td>
<td>16</td>
</tr>
<tr>
<td>E) Domains of Public Policy (expanded below)</td>
<td>5285</td>
<td>46</td>
</tr>
<tr>
<td>Totals</td>
<td>11347</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3: Occurrences of evidence by issue (row) and specificity (columns).

<table>
<thead>
<tr>
<th>Q3 How specific is the evidence?</th>
<th>1 - Regional situation</th>
<th>2 - Municipal situation</th>
<th>3 - Possible solution</th>
<th>4 - Local solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>It describes a …</td>
<td>285</td>
<td>225</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>A) General / nonspecific</td>
<td>285</td>
<td>225</td>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>B) Demographics</td>
<td>3</td>
<td>1264</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>C) Epidemiology (expanded below)</td>
<td>429</td>
<td>1941</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>D) Health behaviours (expanded below)</td>
<td>329</td>
<td>1450</td>
<td>25</td>
<td>36</td>
</tr>
<tr>
<td>E) Domains of Public Policy (expanded below)</td>
<td>409</td>
<td>4534</td>
<td>138</td>
<td>204</td>
</tr>
<tr>
<td>Totals</td>
<td>1455</td>
<td>9414</td>
<td>222</td>
<td>256</td>
</tr>
</tbody>
</table>

Table 4: Occurrences of evidence by sub-issue; 3 categories.

<table>
<thead>
<tr>
<th>C) Epidemiology</th>
<th>2408</th>
<th>D) Health behaviours</th>
<th>1840</th>
<th>E) Domains of Public Policy</th>
<th>5285</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental health</td>
<td>17.87%</td>
<td>Nutrition</td>
<td>21.30%</td>
<td>Social connectivity, cohesion &amp; democracy</td>
<td>17.20%</td>
</tr>
<tr>
<td>Special needs</td>
<td>10.12%</td>
<td>Alcohol &amp; drug use</td>
<td>15.87%</td>
<td>Crime &amp; Safety</td>
<td>15.14%</td>
</tr>
<tr>
<td>Overweight &amp; obesity</td>
<td>8.52%</td>
<td>Physical activity</td>
<td>14.66%</td>
<td>Employment &amp; Income</td>
<td>14.35%</td>
</tr>
<tr>
<td>Drug-related</td>
<td>7.23%</td>
<td>Smoking</td>
<td>12.12%</td>
<td>Health &amp; social services</td>
<td>9.05%</td>
</tr>
<tr>
<td>Self-reported health</td>
<td>5.60%</td>
<td>Health advice</td>
<td>7.10%</td>
<td>Housing</td>
<td>8.85%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>4.30%</td>
<td>Gambling</td>
<td>6.44%</td>
<td>Education</td>
<td>8.74%</td>
</tr>
<tr>
<td>Development</td>
<td>4.15%</td>
<td>Sedentary behaviour</td>
<td>5.22%</td>
<td>Transport</td>
<td>7.40%</td>
</tr>
<tr>
<td>Cancer</td>
<td>3.97%</td>
<td>Immunisation</td>
<td>5.22%</td>
<td>Local goods (inc. food &amp; food security)</td>
<td>5.67%</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>3.93%</td>
<td>Sexual &amp; reproductive health</td>
<td>1.98%</td>
<td>Natural environment</td>
<td>4.19%</td>
</tr>
<tr>
<td>Oral health</td>
<td>3.22%</td>
<td>Visit to green space</td>
<td>1.62%</td>
<td>Leisure, culture &amp; recreation</td>
<td>3.96%</td>
</tr>
<tr>
<td>Respiratory disease (inc. asthma)</td>
<td>2.48%</td>
<td>Sun protection</td>
<td>0.76%</td>
<td>Public open space</td>
<td>2.35%</td>
</tr>
<tr>
<td>Infectious disease</td>
<td>2.30%</td>
<td>Health insurance</td>
<td>0.61%</td>
<td>Resource efficiency</td>
<td>1.93%</td>
</tr>
<tr>
<td>Injury</td>
<td>2.22%</td>
<td>Oral hygiene</td>
<td>0.30%</td>
<td>Land use &amp; urban design</td>
<td>1.17%</td>
</tr>
<tr>
<td>Sexual health</td>
<td>1.93%</td>
<td>undefined</td>
<td>6.80%</td>
<td>Other</td>
<td>0%</td>
</tr>
<tr>
<td>Dementia</td>
<td>0.74%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td>0.41%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kidney disease</td>
<td>0.30%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>undefined</td>
<td>21.00%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Totals           | 100%  | 100%                  | 100%  | 100%                      |      |
Appendix F – Published paper

The Case for “Environment in All Policies”: Lessons from the “Health in All Policies” Approach in Public Health

Geoffrey R. Browne1 and Ian D. Rutherfurd2

1McCaughery VicHealth Community Wellbeing Unit, Centre for Health Equity, School of Population and Global Health, and 2School of Geography, University of Melbourne, Parkville, Victoria, Australia

BACKGROUND: Both public health, and the health of the natural environment, are affected by policy decisions made across portfolios as diverse as finance, planning, transport, housing, education, and agriculture. A response to the interdependent character of public health has been the “health in all policies” (HiAP) approach.

OBJECTIVES: With reference to parallels between health and environment, this paper argues that lessons from HiAP are useful for creating a new integrated environmental management approach termed “environment in all policies” (EiAP).

DISCUSSION: This paper covers the theoretical foundations of HiAP, which is based on an understanding that health is strongly socially determined. The paper then highlights how lessons learned from HiAP’s implementation in Finland, California, and South Australia might be applied to EiAP. It is too early to learn from evaluations of HiAP, but it is apparent that there is no single tool kit for its application. The properties that are likely to be necessary for an effective EiAP approach include a jurisdiction-specific approach, ongoing and strong leadership from a central agency, independent analysis, and a champion. We then apply these properties to Victoria (Australia) to demonstrate how EiAP might work.

CONCLUSIONS: We encourage further exploration of the feasibility of EiAP as an approach that could make explicit the sometimes surprising environmental implications of a whole range of strategic policies.

CITATION: Browne GR, Rutherfurd ID. 2017. The case for “environment in all policies”: lessons from the “health in all policies” approach in public health. Environ Health Perspect 125:149–154; http://dx.doi.org/10.1289/EHP294

Introduction

Some of the most important ‘environmental’ legislation does not lie within the administration of the Minister for Environment and Climate Change. It is in the hands of the central agencies such as Premier & Cabinet, Treasury, Planning, Public Transport and Roads & Ports, as well as others. Due to the interdependence of their portfolios with the natural environment, each of these ministers responsible should consider him or herself an ‘environment minister’ and their decisions should be made with due regard for natural systems. (Commissioner for Environmental Sustainability 2008)

Background

Since the 1970s, the most common way to ascertain the impacts of policy decisions on the environment has been through formal environmental impact assessments coordinated through the environment department of governments (Jay et al. 2007). However, the scale of environmental challenges and their impact on human wellbeing means that environmental impacts can no longer be viewed as only the domain of environment departments. Even policy proposals that do not have an immediate or obvious environmental element will often have long-term, unknown, or unintended environmental consequences (Grossman and Krueger 1991; Johnson 2001; Steinfeld et al. 2006). There is growing recognition that an approach is required that a) considers the environmental consequences of higher-level strategic policy (not just projects), and b) integrates consideration of environmental issues into the agendas of policy makers who do not typically consider the environment as their responsibility (Head et al. 2014).

Two approaches have been proposed in response: “integrated environmental management” (IEM) and “environmental policy integration” (EPI). IEM describes a holistic, intersectoral, and strategic approach to environmental management (Margurium 1997, 1999), whereas EPI is an approach intended to incorporate environmental objectives into each stage of policy development in non-environmental sectors such that the long-term environmental consequences of decisions are predicted and minimized (Eckerberg and Nilsson 2013; Lafferty and Hovden 2003; Nilsson and Persson 2003). Both IEM and EPI aim to reconcile the aims of development with the protection of ecosystem services by ensuring that all policy sectors are involved and accountable (Margurium 1999; Nilsson and Persson 2003). These approaches demonstrate recognition of the need, and some appetite, for comprehensive integration of environmental criteria into decision making at the highest levels. However, for IEM, there appears to be no definitive guidance on how integration should occur (Margurium 1999). Similarly, EPI is coherent as a concept but can be impractical to apply owing to political difficulties and the complexity of situations, and it has experienced challenges in effectively changing the way that policy decisions are made (Lafferty and Hovden 2003; Nilsson and Persson 2003). As a result, both approaches have had limited success in institutionalizing integrated environmental management such that essential ecosystem services are maintained (Rockström et al. 2009).

Objectives

With reference to the parallels between health and environment, this paper argues that lessons from the current public health approach, “health in all policies” (HiAP), could be useful for creating a new integrated environmental management approach, “environment in all policies” (EiAP). HiAP explicitly asks policy makers in all areas to consider the health impacts of decisions. The approach is based on strong evidence that health is socially determined and that decision making in diverse policy areas, apparently unrelated to health, nevertheless affects health (Commission on Social Determinants of Health (CSDH) 2008; Marmot 2005; Rose 1992; Wilkinson and Marmot 2003). The idea that social structures determine
outcomes is mirrored in the understanding of environmental sustainability. Applied to health, social determinism stands in contrast to the individualistic approach of patient-centered medicine and the focus on health education and behavior change as a means of preventing illness (Bacigalupo et al. 2010). Applied to environmental sustainability, social determinism suggests that social infrastructure and policies from diverse sectors determine behavior (Grossman and Krueger 1991; Johnson 2001; Steinfeld et al. 2006), which creates impacts on the environment (Shove 2010). Advocates who hold this view acknowledge the limits of behavior change programs and state that both environment and public health practitioners should be policy—and indeed politically—active to improve respective determinants (Birn 2009; Nelson and Vucetic 2009).

There are several areas where environmental management has benefited from advances in public health [c.f. methods of systematic review (Roberts et al. 2006), the use of etiological approaches to describe environmental issues (Browne and McPhail 2011; Niemeijer and de Groot 2008), and advocates’ responses to the influential role of multinational companies (Chan 2013; Gleeson and Friel 2013; Meckling 2011; Moodie et al. 2013)]. With reference to the socially determined nature of health and the environment, we explore whether lessons from the implementation of HiAP can be used to develop an EiAP approach. Recently, Varis et al. (2014) recognized the value that the HiAP approach can lend to natural resource management to suggest improvements to integrated water resources management. Here, we suggest that an EiAP approach would fulfill the ambitions of EPI and IEM to effectively place a “lens” over decision making at the policy development level to ask, “What will the environmental impacts of this policy be? Will there be unintended consequences? How can these be avoided, minimized, or at least made explicit?”

Discussion

The Foundations of HiAP: The Social Determinants of Health

HiAP is founded in current models of population health that in turn borrow from ecology to suggest that health is the result of the way the structures of society interact with individuals (Lindström and Eriksson 2005). To develop effective interventions, ecological models of health explicitly consider how the multiple levels of society, the “causes of the causes” that lead to health, can be addressed (Rose 1992). Extensive research supports this ecological model and the proposition that the conditions under which we live, formed by policy (and politics), affect how healthy

From SDH to Health in All Policies

The need for public policy that benefits health was first recognized in the 1986 Ottawa Charter for Health Promotion in the phrase “healthy public policy” [World Health Organization (WHO) 1986]. It was born out of an understanding of the SDH, recognition of the necessity of intersectoral action on health, plus approaches to assessment of the impact of major projects (i.e., Health Impact Assessment; HIA) (Collins and Koplan 2009; Stähli et al. 2006). However, it is likely that the catchphrases in use at the time (c.f. “healthy public policy”) did not “speak” to policy makers in the intended manner. It was during the second Finnish presidency of the European Union 20 years later, that the hortatory phrase, “terveys kaikissa politiikissa” (literally “health in all policies”) arose. It had linguistic strength compared with previous phrases and encapsulated the Finnish contribution to the advancement of intersectoral action for health. In line with attempts to rebuild confidence in the ability of governments to improve health in the EU, the HiAP approach was intended to address social determinants and to “move health higher up the European agenda” (Stähli et al. 2006).

The concept was further endorsed in 2007, in Article 152 of the European Union Treaty, which stated that a “…high level of human health protection shall be ensured in the definition and implementation of all community policies and activities…” (European Community 2007). Following the Rome Declaration on HiAP in 2007 (Health Ministerial Delegations of EU Member States 2007) and the Adelaide Statement on HiAP in 2010 (McQueen et al. 2012), a consensus definition of HiAP was adopted in 2013 at the conclusion of the 8th Global Conference on Health Promotion in Helsinki:

Health in All Policies is an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity. It improves accountability of policymakers for health impacts at all levels of policy-making. It includes an emphasis on the consequences of public policies on health systems, determinants of health and well-being. (WHO 2013)

There has been considerable international activity under the catchphrase of HiAP, with adoption of a version of the approach in ≥ 16 countries at the national or state-equivalent level (Baum et al. 2014; Greaves and Bialystok 2011; Health in All Policies Task Force 2010; St-Pierre 2008), and it has gained traction in strategic health planning, even at the local government level (Department of Human Services, State Government of Victoria 2001; Rudolph et al. 2013a; Public Health and Wellbeing Act 2008). Finland, (Kickbusch
The implementation of HiAP also indicates that for EiAP, the challenges of incorporating environmental criteria into areas not traditionally accustomed to their consideration should not be underestimated (Nilsson and Persson 2003), particularly in the current political climate (Bacigalupo et al. 2010; Konisky et al. 2008). As Greaves and Bialystok (2011) found of HiAP, implementation of EiAP will require public service leaders across multiple, diverse portfolios “to rise above their own interests, consider shared goals and commit to steps for reaching them.” These authors state that the short election cycle, the compartmentalized character of bureaucracy, and the lack of effective tools for identifying the health impact of nonhealth policies are also challenges. In SA, these challenges are dealt with via bipartisan mandate from State government and a dedicated centrally governed HiAP unit that is tasked with supporting independent analysis of policies’ effects on health (Delany et al. 2015; SA Health 2012a). Another challenge of HiAP is that health is not unique in its need for a mechanism that cuts across government silos (Flinders University 2013). Many sectors believe their own policy area to be unique and would benefit from integration, and the use of HiAP has been criticized for attempting to legitimize the securing of scarce resources (Pinto et al. 2015). Although any attempt at EiAP must avoid accusations of “environmental imperialism” (Kemm 2001), the natural environment is the ultimate provider of services essential to life (Costanza et al. 1997; Watts et al. 2015; Millennium Ecosystem Assessment 2005), and arguably warrants special attention. Further, placing EiAP processes with central agencies with authority (e.g., the Department of Premier and Cabinet—see example below), as has been done elsewhere, should avoid such accusations. Nevertheless, any attempt at EiAP should be approached sensitively lest it alienate colleagues from other policy areas.

To address the abovementioned challenges, successful implementation of EiAP is likely to require the alignment of a number of conditions, actions, and structures (McQueen et al. 2012). Kickbusch et al. (2014) argue that HiAP gained traction in SA because of a serendipitous alignment of conducive governance structure, leadership from a central agency, policy heritage, and the timing of the State’s Strategic Plan. Similarly, Greaves and Bialystok (2011) claim that a major crisis or initiative “ActNow,” which had steady and high-level leadership and momentum, even when all the elements or the ideal conditions were not in place (Geneau et al. 2009).

**Positioning EiAP**

The HiAP rhetoric has arguably enhanced the understanding that health is socially determined. It has created a discourse that has sensitized decision makers in diverse policy areas to the need to account for, or at least make explicit, the impacts on health of their policy decisions. The practice of HiAP therefore provides support for the idea of EiAP that would fulfill the ambitions of EPI and IEM. It would also complement existing environmental management tools at other levels, as HiAP does for health (cf. HiAP, HIA, EIA, occupational health and safety (OHS), and environmental management systems (EMS) (Beckmerhagen et al. 2003; International Association for Impact Assessment 1999; WHO 2014)) (Figure 2). An effective EiAP approach would not only encourage governments and bureaucracies to consider the environment at all stages of decision making but also force them to (a) make explicit the magnitude of known consequences of strategic-level policy options and (b) identify unintended environmental consequences of those options. As shown for HiAP, with the aid of a “champion” (Rudolph et al. 2013a), as well as a defined, jurisdictionally appropriate process, EiAP will enhance the way that policy development considers and minimizes environmental impacts. Exactly how EiAP would operate would vary across jurisdictions, but we propose the following principles:

- EiAP should sit at a higher level than environmental impact assessments, that is to say, at the level of major policy.
- EiAP is most critically applied at the scale of provincial or state governments rather than local or national levels.
- EiAP should operate at the level of cabinet decisions, providing reviews of the environmental consequences of policy options being considered.
- EiAP reviews must be subject to independent analysis and, if possible, be made public (although this can be difficult at the level of confidential cabinet discussions).
- An EiAP champion with significant existing influence should be appointed and tasked with “socializing” the approach across government and facilitating the process at the operational level.

**Possible Model of EiAP: An Environmental Bill of Rights**

Currently, no examples of such an EiAP approach exist. A close example is the Ontario (Canada) Environmental Bill of Rights (EBR) (1993). Under the EBR legislation, 15 government ministries have to produce a Statement
of Environmental Values (SEV) document. Each Minister must ensure that the SEV is considered whenever decisions that might significantly affect the environment are made. The EBR is administered by an independent Environment Commissioner. Environmentally significant acts, regulations and policies must be posted to an environmental registry. The public is also empowered by the EBR to review and challenge the posted proposals.

This legislation is now > 20 years old, and components of this legislation support an EiAP approach. Importantly, the system is founded on (a) an articulation, across all parts of government, of environmental values and how decisions likely to affect the environment will be made; (b) communication of major pending decisions via a registry; (c) clear powers and ways for the community to challenge decisions; and (d) an independent entity to regulate the process (Environmental Bill of Rights 1993). In contrast to the principles we described above, the EBR relates to departmental actions rather than to higher-level cabinet decisions: Most of the examples in the environmental registry are specific projects or planning proposals that then attract comment from the public.

Example Model of EiAP: A Cabinet Approach

Building on this example, we propose a two-stage process to lead to EiAP, using the government of the state of Victoria (Australia) as an example:

Stage 1
1. Review of policy should take place at the level of cabinet proposals. Because major departmental initiatives (such as legislative reviews or major policy shifts) always go through the cabinet, this is the appropriate point of review.
2. The proposal would be scrutinized for environmental consequences before it is considered by the cabinet (i.e., all major policy would have an “environmental consequence” addendum). This process would be called a “preliminary review.” The purpose of the preliminary review is to explicitly identify obvious environmental issues early, before commitments are made to proceed.

Stage 2
3. Next, a more comprehensive environmental assessment, such as an environmental lens analysis (ELA; analogous to the health lens analysis in SA), should be coordinated through the government leader’s office rather than through any particular portfolio. In Victoria, the appropriate organization in state government would be the Office of Premier and Cabinet. Ideally, the review would be made public to build confidence in the process and its recommendations, but this would depend on the cabinet process.
4. A review of the lens analysis for its findings, as well as for its adequacy, should be performed by an independent entity, such as an Environment Commissioner. There is a Commissioner for Environmental Sustainability in Victoria, but the role of this commissioner is to review the state of the environment, rather than to review programs, so this role would need to be extended.
5. As proposals progress through the cabinet, the results of the lens analysis would be used to make explicit and to minimize the environmental impacts of the process (whether intended or unintended). As a result, legislation could be developed or altered, or a “White Paper” leading to new policy could be prepared.

An analogue to this process is the Regulatory Impact Statement (RIS), which is required to accompany any new (or sunsetting) policy or legislation in Victoria under the Subordinate Legislation Act 1994 (1994) (s.7). An RIS, prepared by the relevant Minister, must assess the impacts of the policy change in terms of the “triple bottom line.” The quality of the RIS is then reviewed by the independent Victorian Competition and Efficiency Commission with the intention that outcomes of the RIS improve the policy or legislation.

Conclusion

Discourse on the integration of environmental policy has recognized that there is a need to elevate consideration of the environmental effects of decision making if essential ecosystem services are to be sustained, but to date, there has been limited success when applying these approaches. There are many similarities between the environment and public health, where a major initiative has been HiAP. We believe that, informed by lessons learned from the implementation of HiAP, there is an opportunity to develop an EiAP approach in government to meet this need. The benefit of integrated policy making as exemplified by HiAP and the proposed EiAP is that it has the potential to act upon the social determinants of population health and environmental health, respectively, to make critical (and potentially unavoidable) trade-offs between environment, public health, and economic priorities transparent; to improve decision making; and can help to create a more sustainable society. Reviews of the implementation of HiAP show that although there have been challenges and no single method of implementation, it has proved promising in its aim of integration across portfolios for the benefit of public health. We propose that there is scope for an EiAP approach to operate at a similar level to that of HiAP, such as that of the cabinet, at the scale of state- or provincial-level decisions, and we welcome further discussion and refinement of the proposal.

References


Figure 2. An “environment in all policies” (EiAP) approach complements existing environmental management tools at other levels, as “health in all policies” (HiAP) does for health. Solid lines show how existing approaches are informed by each other, and dashed lines show how EiAP would be informed by existing approaches.
The case for “environment in all policies”: lessons from public health


