Manningham City Council Food Security Plan 2016-2021

Executive Summary

The *Manningham Food Security Plan 2016-2021* describes existing actions from relevant plans and strategies across the organisation, with local and catchment-wide research. It brings together the food security needs identified by the community, community organisations, businesses as well as models of best practice; strategically aligning these with Council activities.

The *Plan* is written for a wide audience across all levels of Council, community organisations, businesses and members of the public alike. It aims to be both educational and directive, to put the issues of food security into perspective as well as to give these issues a local context.

The methods employed involved a large community consultation including community organisations and businesses. It involved conducting surveys, focus groups and workshops, benchmarking with Victorian data, collaboration with other Eastern Councils, as well as mapping of food outlets and recording municipality-wide supermarket food prices for ongoing monitoring. The latter utilised a tool developed through Monash University's Department of Nutrition and Dietetics, the Victorian Healthy Food Basket (VHFB), which highlights the variability of the costs of food across and within local government areas.

Results showed that Manningham is affected by food insecurity in a similar way to many other local government areas throughout the state, albeit at lower levels. Irrespective of this, the common risk factors relating to economic access and physical access to food remained constant. Community members, community organisations and businesses alike expressed a desire for improved access to fresh fruit and vegetables that is both affordable and locally produced.

Recommendations discussed included actions under five strategic themes, namely:

1. Food education
2. Building the local food system
3. Community food and access
4. Partnership and engagement
5. Promotion, marketing and advocacy

The report also covers some limitations that are inherent to work involving as broad a topic as food security. These relate to the factors that impact a local food system which cannot be controlled for such as the often complex relationships involved in distribution and contractual arrangements with the large supermarket chains.

Purpose and vision

The vision that this *Plan* has for Manningham's food system, is one that allows economic and physical access to locally sourced food for individuals and businesses, whilst also providing the capacity for readily obtaining information for decision making that leads to healthy food choices. In so doing, it is also envisioned that this will lead to an economic and environmental position that is sustainable.

By addressing the broad concepts that can influence food security in the local context (social, environmental and economic aspects), this will have the secondary benefit of identifying a position and a direction for Manningham in which it is able to work collaboratively with other Councils and organisations that are active in this space. It also puts Manningham in a more advantageous position to leverage funding for related projects having an endorsed commitment in this area.

Whilst not its direct purpose, the *Plan,* through its focus on fresh and local produce, is complementary to healthy eating habits, behaviours, attitudes and perceptions. This secondary purpose is especially important in the current context of the obesity and diabetes pandemic where the "everything in moderation" message is no longer effective, or appropriate. The range of benefits that work in this area can have, is an indication of the wide reaching influence of food security as a public health issue, and demonstrates the importance and scope of impact that action and achievement will have.

Successful implementation will produce a local government area that has a distinctive focus on equitable access to fresh local produce through a variety of means. Indicators will be utilised from local sources such as follow up community consultation as well as data collected by the State such as the Victorian Population Health Survey (VPHS). These can demonstrate that following the fifth year of implementation, whether there is, for example, an increase in home grown food, locally sourced food, affordable food, or a decrease in the rate of Manningham residents experiencing food insecurity. As development advances this may also involve regional monitoring as the Inner Eastern Metropolitan Partnership is embedded and joint projects take shape producing impact on a wider scale.

Taking into consideration the complexities and vastness of the food system, this document recognises the context in which Manningham's local food system sits and the scale of the impact achievable. Through the multi-faceted components that make up the food system in which the municipality is but one part of, the action plan is sustainable to counter environmental shocks and changing economic conditions. Yet it is also sensitive to the need to be part of the wider food system to ensure any short term disruptions do not destabilise the existing food system.

1. Background and context

1.1 Local and Council strategy and policy drivers

Utilising the Department of Health's *Environments of Health Framework (2001)*, Council's strategic documents, as part of its integrated planning process, can be categorised within the *Framework's* four sections that represent the environments that will have the greatest impact on the wellbeing of the population, encompassing food security. By doing so, it can be seen where the greatest potential for impact can be derived.
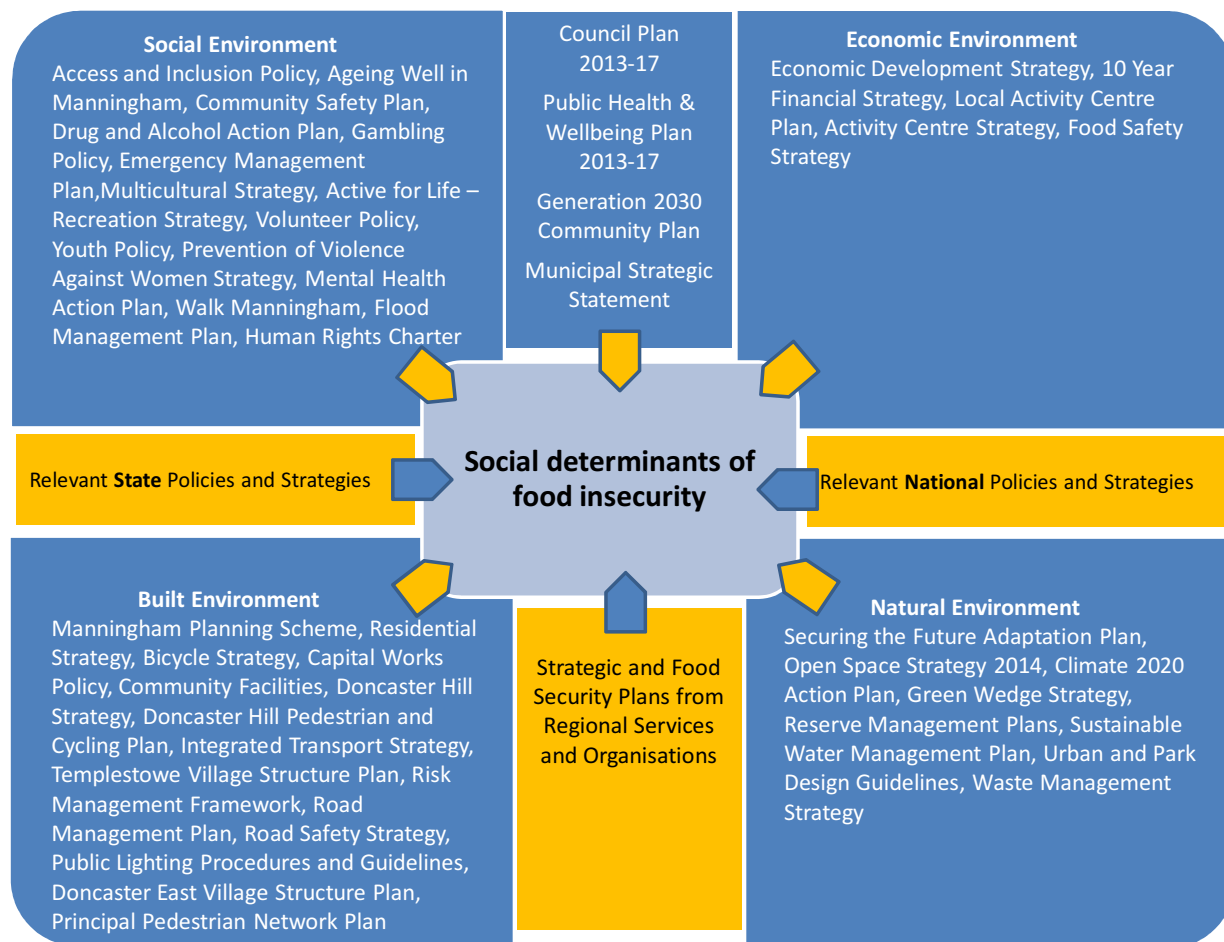
Social Environment
Access and Inclusion Policy, Ageing Well in Manningham, Community Safety Plan, Drug and Alcohol Action Plan, Gambling Policy, Emergency Management Plan,Multicultural Strategy, Active for Life – Recreation Strategy, Volunteer Policy, Youth Policy, Prevention of Violence Against Women Strategy, Mental Health Action Plan, Walk Manningham, Flood Management Plan, Human Rights Charter

Council Plan 2013-17
Public Health & Wellbeing Plan 2013-17
Generation 2030 Community Plan
Municipal Strategic Statement

Economic Environment
Economic Development Strategy, 10 Year Financial Strategy, Local Activity Centre Plan, Activity Centre Strategy, Food Safety Strategy

Relevant **State** Policies and Strategies

Social determinants of food insecurity

Relevant **National** Policies and Strategies

Built Environment
Manningham Planning Scheme, Residential Strategy, Bicycle Strategy, Capital Works Policy, Community Facilities, Doncaster Hill Strategy, Doncaster Hill Pedestrian and Cycling Plan, Integrated Transport Strategy, Templestowe Village Structure Plan, Risk Management Framework, Road Management Plan, Road Safety Strategy, Public Lighting Procedures and Guidelines, Doncaster East Village Structure Plan, Principal Pedestrian Network Plan

Strategic and Food Security Plans from Regional Services and Organisations

Natural Environment
Securing the Future Adaptation Plan, Open Space Strategy 2014, Climate 2020 Action Plan, Green Wedge Strategy, Reserve Management Plans, Sustainable Water Management Plan, Urban and Park Design Guidelines, Waste Management Strategy

Figure 1: Strategic documents with scope to positively impact food security as part of the integrated planning process across Council and community

Food insecurity and other negative impacts of an inadequate food system are addressed within the *Municipal Pubic Health and Wellbeing Plan* and the *Securing the Future Adaptation Plan*. In these *Plans*, food security is one element of a holistic approach to both health and the environment when it comes to how residents live, work and spend their free time. Figure 1 above also lists other strategic documents that address topics which have the potential to impact food security levels and where future and more wide reaching action could take place. Several of these have been identified in the action plan as currently being able to be utilised for such, with the key documents discussed below.

The *Securing the Future Adaptation Plan* broadly addresses continuity planning in the event of environmental emergency situations resulting from climate change, e.g. drought, fire or flooding, as well as emergency situations that may result from oil dependency, e.g.

price spikes or shortages. Food insecurity as a result of these emergency situations is also discussed with section *7.5 Food security – plentiful nutritious food available locally* calling for the development of "strategies to ensure that residents at all times have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life". This Plan fulfils Action 5.1 *"Investigate the development of a Manningham Food Security Plan"*.

The *Municipal Pubic Health and Wellbeing Plan* focuses on five priority areas for increasing the local population's health and wellbeing including, Mental Wellbeing, Healthy Living, Safety, Healthy City and Leading Change. Within the Healthy Living priority area is a focus area on food security which, amongst other actions, states to "investigate the development of a Manningham Food Security Plan to ensure the community has access to a reliable, affordable and nutritious food supply".

The *Green Wedge Action Plan 2020* also addresses food security through the environmental context and places focus on the protection of agricultural land and promotion of the sustainability of agricultural businesses within the Green Wedge. By taking an approach to sustainability of the Green Wedge that draws upon the productive value of the land, this enhances opportunities for developing capacity for local food production and reducing the carbon footprint of associated distribution.

In a similar environmental context, the *Open Space Strategy 2014* addresses food insecurity through its focus on ensuring that strategic land management delivers both environmental and social benefits. It does this specifically via action items that aim to develop appropriate areas of open space into community gardens. This has the dual benefit of addressing land management concerns whilst also being a key component of improving food security for those with both physical and economic access issues.

From the perspective of the local economy, the *Manningham City Council Economic Development Strategy* is focused not only on building the existing local economy and creating opportunities for new business but also to ensure that it supports an accessible and sustainable community that is healthy and thereby capable of attracting further investment from a personal and professional standpoint.

The *Manningham Food Security Plan 2016-2021* brings the elements of these strategic plans together with a focus on food and the system that supports its supply, demand, production and consumption. It has been informed by wide consultation (Appendix 1), and as a result, embodies the key local food security issues relevant to the City of Manningham.

1.2 International, national, state and local action

The determinants of food security that affect the developed world differ from those that affect the developing world. The differences largely revolve around food scarcity in which countries such as Australia are comparatively unaffected albeit from short term shortages due to environmental shocks, e.g. flooding or drought. Any short term food scarcity issues can largely be overcome due to the diversity of supply in Australia's food system, leaving

food access and food utilisation as the main risks for food insecurity in Australia, which are discussed in Section 3.

Following the most recent international food security conference (the Food and Agriculture Organization of the United Nations 2009 World Food Summit), the Commonwealth Government published the *National Food Plan: Our food future.* However, as a result of the change of government following the Federal Election 2013, ongoing consultation and implementation stalled. The Public Health Association of Australia (PHAA) continues to advocate to the Federal Government and all stakeholders to address this by overhauling Australia's approach to food policy with a "call to action" and petition to demonstrate commitment across all sectors.

In Victoria, efforts have related primarily to the domestic agricultural industry and the contribution that Victoria can make to expand the agricultural industry's capacity for international trade through the government's *Food to Asia Action Plan.* The *Action Plan* aimed to capitalise on the projected six-fold consumer discretionary expenditure growth within Asia to 2030 and the recent signings of Free Trade Agreements (FTAs) with Korea, Japan and more recently, China. By focusing on industry, the government believed that this would help build more innovative production practices through increased research and development programs that would have a dual impact on domestic and international food security and food safety (Department of Environment and Primary Industries). Again however, this *Action Plan* stalled following the 2014 Victorian State Government election; although it appears to have received some stability aided by the Federal Government's initiatives around FTAs.

Victoria's health promotion foundation, VicHealth, has implemented a number of food related programs since its inception in 1987, including, most recently, its Citizens' Jury on Obesity (2015), The Seed Challenge (2013/14) and the Food For All program (2005-2010). Through its high profile involvement and partnerships with all levels of government, across political parties and sectors, VicHealth has been able to raise the profile of a number of health promotion areas and has helped create funding leverage for many organisations working in those areas.

Locally, Manningham has a number of organisations providing programs around food education, home production, emergency food relief and general health promotion that operate in the community services sector (see Appendix 2). Manningham City Council also runs a sustainability program which includes Home Harvest Manningham. This involves monthly home gardening seminars that aim to teach residents how to grow fresh food at home. The seminars cover all aspects of edible gardening, and include food, seed and plant swaps. In an effort to link up this program with food relief initiatives, Council, in 2014, purchased 12 raised garden beds to grow 'shelf-life friendly' crops such as carrots, beets, onions and potatoes; and with the help of a group of volunteers, donates the harvest each week to the Doncare foodbank. In 2015, the number of raised garden beds increased to 24.

As will be discussed in subsequent sections, food security is an issue that needs to be addressed from an integrated and holistic perspective with intersectoral action that changes the food system, including the cultural view of food. This *Manningham City*

Council Food Security Plan attempts to tackle these issues with realistic and achievable actions that work across all sections of the community, Council, and neighbouring Councils, through the future development of an *Inner Eastern Regional Food Security Strategy.*

2. Factors that determine a food system

A food system comprises all processes that take place through food production to consumption, encompassing processing, distribution and waste management (Agricultural Sustainability Institute). There are a number of broader issues that will affect each of these factors and local government will have varying impact on each of these. Appendix 3 provides a more thorough discussion on each of these factors, but they are listed here as:

1. Health
2. Social inclusion
3. Agriculture
4. Education
5. Environment - natural and built (incorporating access)
6. Sustainability
7. Financial support
8. Innovation
9. Market/economy

For Manningham and this *Plan*, the most important factors listed above for driving change are education and the market. The reason for this is that through education and arming people with knowledge about the food system as well as nutrition, they are then able to make choices that can influence all other factors. The market, being driven largely by the choices people make, is also at the nucleus of change given the flow-on effect it can have. And whilst it encompasses more than individual local government areas, the impact at a local level should not be underestimated with the growing movement and interest in consumer ethics and support for community initiatives (Victorian Eco Innovation Lab).

The strategic areas for the *Action Plan* identified through an extensive community consultation; whilst also addressing key risk factors and other determinants of the food system, clearly point to the need for education and the involvement of businesses. Primary aims will be to provide clear and simple information that is relevant locally as well as making astute choices in advocating State and Federal initiatives. To effect change in the market Council will need to be clearly visible and active in the food security space and have options and alternatives to offer businesses. This has been identified in the *Action Plan* (refer to section 5) and it will be vital for success that these actions are delivered.

3. Food Security in Manningham

3.1 Health and well being

The City of Manningham is traditionally thought of as an affluent municipality and National Census data certainly indicates that from an economic perspective, Manningham on the

whole, is in a position of advantage compared to many other municipalities (Australian Bureau of Statistics). However, other survey information, such as the Victorian Population Health Survey (VPHS) conducted by the Department of Health, also demonstrates that Manningham falls short on a number of lifestyle related risk factors that contribute significantly to the burden of disease. These include the high proportions of residents not meeting the dietary guidelines for daily fruit and vegetable consumption (only 3.3% meet both guidelines) or the recommendations for physical activity levels (22.5% do not achieve sufficient time or sessions), as well as a large proportion of residents that are overweight or obese (43.9%) (Department of Health). Whilst these levels are at or below the Victorian state average, it could be argued that this average is not the bench mark that LGAs should be using as a comparator. Rather, the focus could be placed on achieving a previous period's rate where this level was more satisfactory, e.g. by 2020, returning childhood obesity to year 2000 levels (Department of Health and Ageing, 2009).

With regard to food insecurity, the VPHS analyses data on this indicator at the LGA level every three years. It is measured by whether an individual responds affirmatively to experiencing circumstances during the previous 12 months where they had run out of food and could not afford to buy more. The most recent figure for Manningham on this measure is 2.9%. Whilst this is lower than the Victorian state average of 4.6%, in real terms it equates to approximately 3,400 individuals.

In order to build on what the VPHS has revealed about the health of the Manningham community, including indices of social inequality in health such as food insecurity, a consultation was conducted throughout April and May 2015 with over 600 community members, 31 community organisations, several food businesses and across nine Council business units (refer to Appendix 1 for full details). This revealed that 18.2% of respondents indicated that nothing stops them from choosing healthy food options when they shop, and that almost 84% responded that health is either a large part of their food choices or it drives all of their food choices.

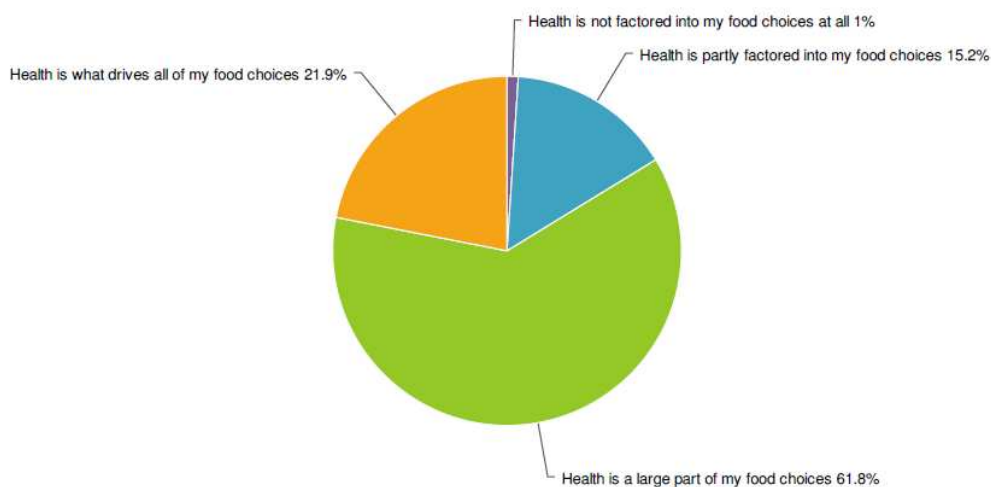How important is eating healthy food to you and/or your family?

Figure 2: Community survey responses to "How important is eating healthy food to you and/or your family?"
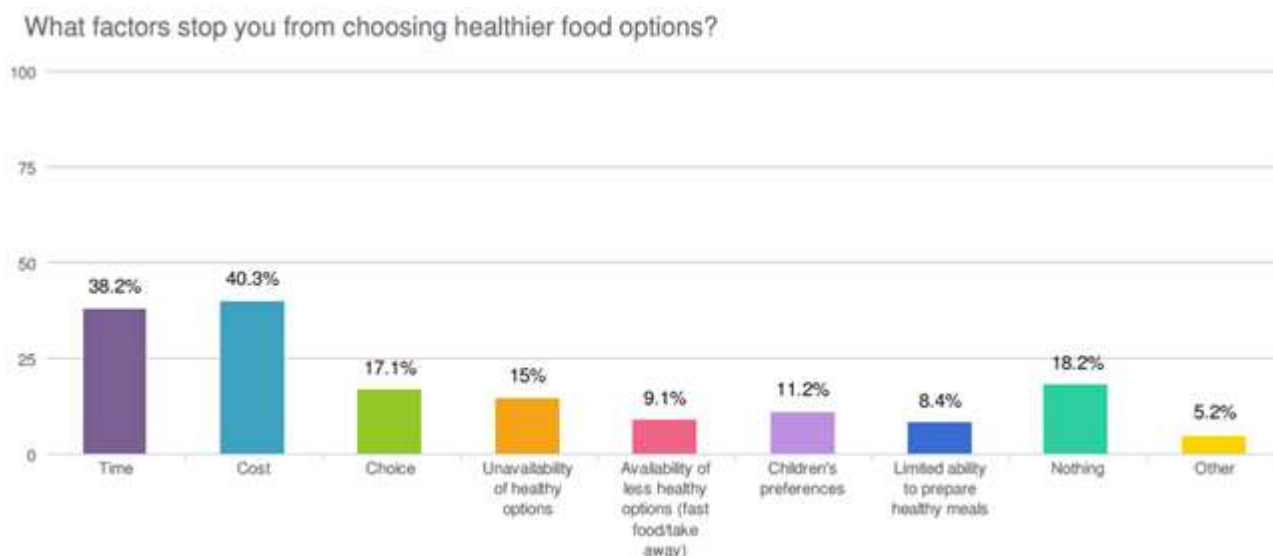
What factors stop you from choosing healthier food options?

Figure 3: Community survey responses to "What factors stop you from choosing healthier food options?"

As can also be seen from Figure 3 above, 38% and 40% of participants also responded that time and cost, respectively, prevented them making healthier choices. Featuring slightly down the list were availability related issues, such as choice (17%) and the unavailability of healthy options (15%). The latter was substantiated by a 9% response rate that there was greater availability of less healthy options.

Whilst one of the lower rated factors, Figure 3 above also shows that over 11% of respondents stated that their children's preferences stop them from choosing healthier options. In further exploring this theme, in May 2015, 111 primary school children in grades 3-6 at Anderson's Creek Primary School completed an in-class activity in which they were asked to draw two pictures, one of their "favourite food" and another of "a food that is good for you". Unsurprisingly, 52% of the pictures of "favourite foods" featured unhealthy food options, including 20% that were of branded fast food chains. However, for the pictures of "food that is good for you", approximately 95% of all children drew either fruit or vegetables. From this we can potentially infer, albeit not more widely than the school surveyed, that whilst the impact of external and other social influences may be affecting children's wants with regard to food and specifically treats, fundamentally the message of healthy food options is being heard and reinforced. Figure 4 below illustrates two typical responses from the children surveyed.
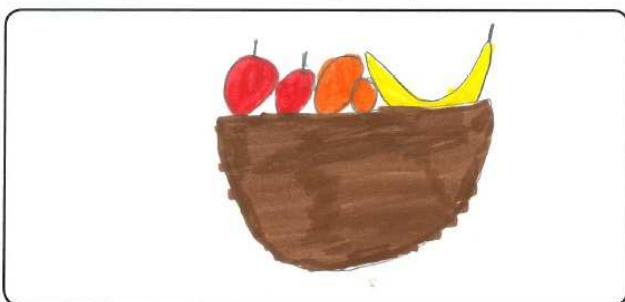
Please draw a picture of your favourite food below.

Please draw a picture of your favourite food below.
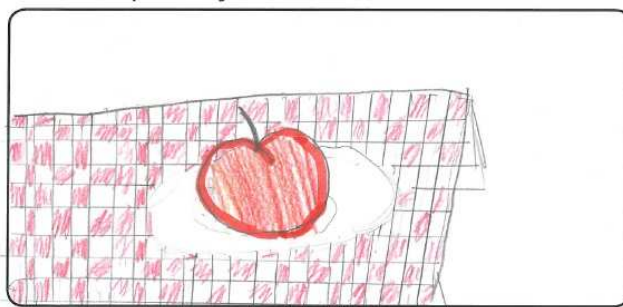
Please draw a picture of a food that is good for you.

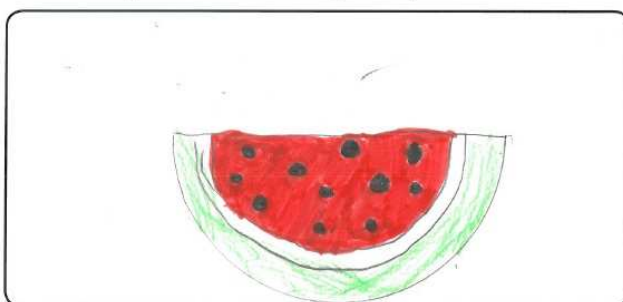Please draw a picture of a food that is good for you.

Figure 4: Two typical responses received from school children surveyed as part of the consultation

The figures above provide a very small snapshot of the community's perception of healthy food, as well as how these perceptions can filter down to children's perceptions of healthy food. From the contrast of pictures submitted, together with the conflicts of food choices evident in the community survey, support exists for the theory that there is a cluster of factors embedded in the food system that override the intention to consume a healthy diet. These factors are examined in greater detail in the following sections.

3.2 Local food and economic access

In the developed world, true food unavailability is rarely a factor that contributes to food insecurity, with the exception of severe environmental events and conditions. In the VPHS of 2011, of those respondents experiencing food insecurity, it was economic access that was consistently reported across the sample as the main reason, with 21.3% as the Victorian average (Manningham, 19.6%).

This is supported by the results of the Manningham community survey, with those that had indicated cost as being a deterrent from healthier food selection recording a 10% greater preponderance to shop at their chosen location because it was cheaper. As can be seen in Figure 5 below, the response categories, aside from cost, were very similar across the data sets. Whilst the community survey is by no means as detailed and comprehensive as the VPHS, it does provide some form of corroboration that concerns about the cost of food in general will influence people's shopping behaviour.

Why do you choose to shop from this/these outlet/s? Please select all relevant options.
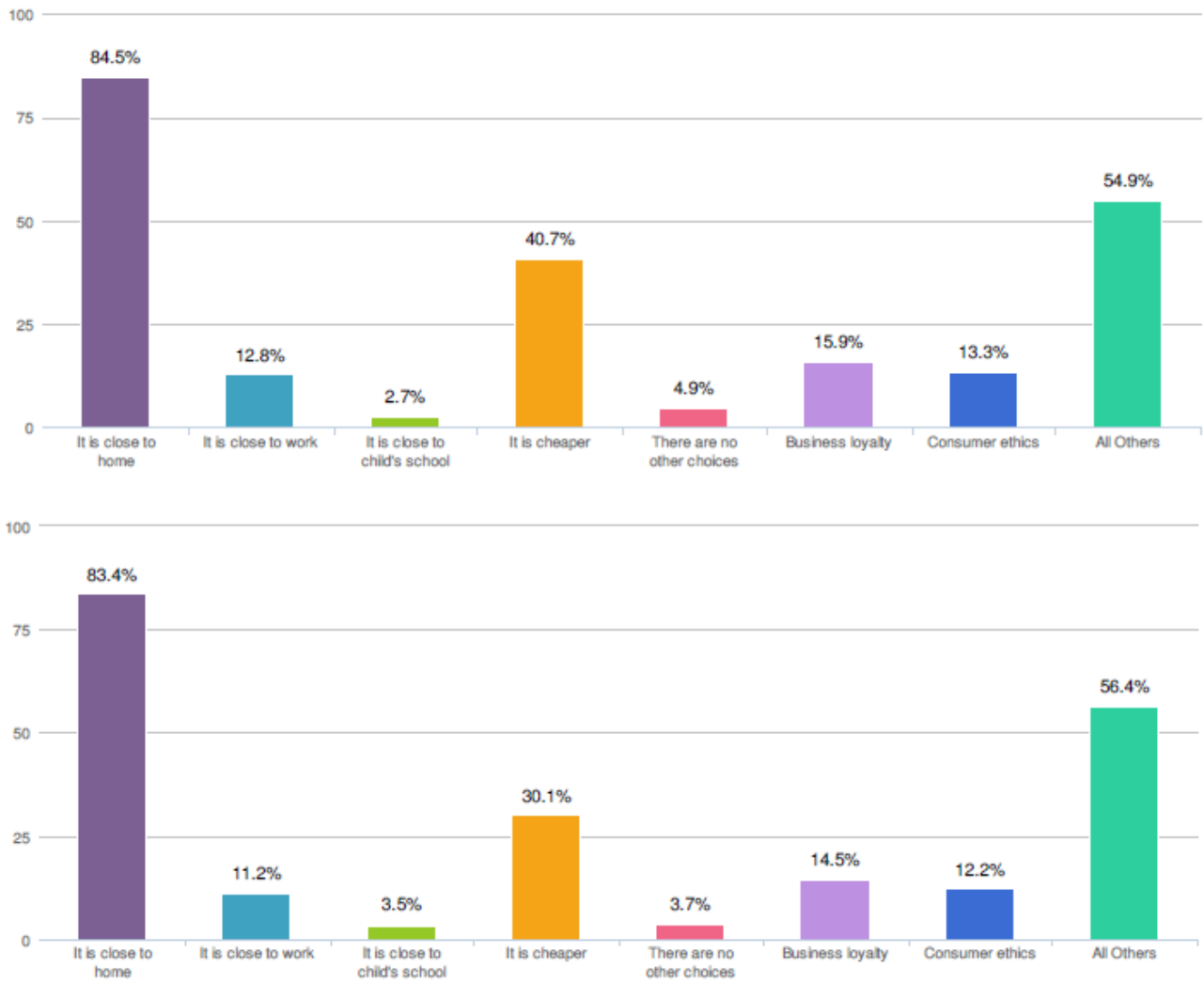

Figure 5: Respondents who selected cost as a deterrent to choosing healthier food options (top) compared with all responses (bottom)

Research suggests that the cost of a healthier diet based on the costs of whole foods can be cheaper than a diet based on food purchased at fast-food outlets (Stephens, 2010). This message may need to be communicated more widely, especially amongst those that are experiencing food insecurity, as it would appear from the feedback received in the community survey that there is a perception that accessing healthier food options will be a more costly process. Figure 6 below also illustrates that those who accessed a food bank to obtain their groceries demonstrated a far higher prevalence (double) of cost being listed as a deterrent to choosing healthier food options.
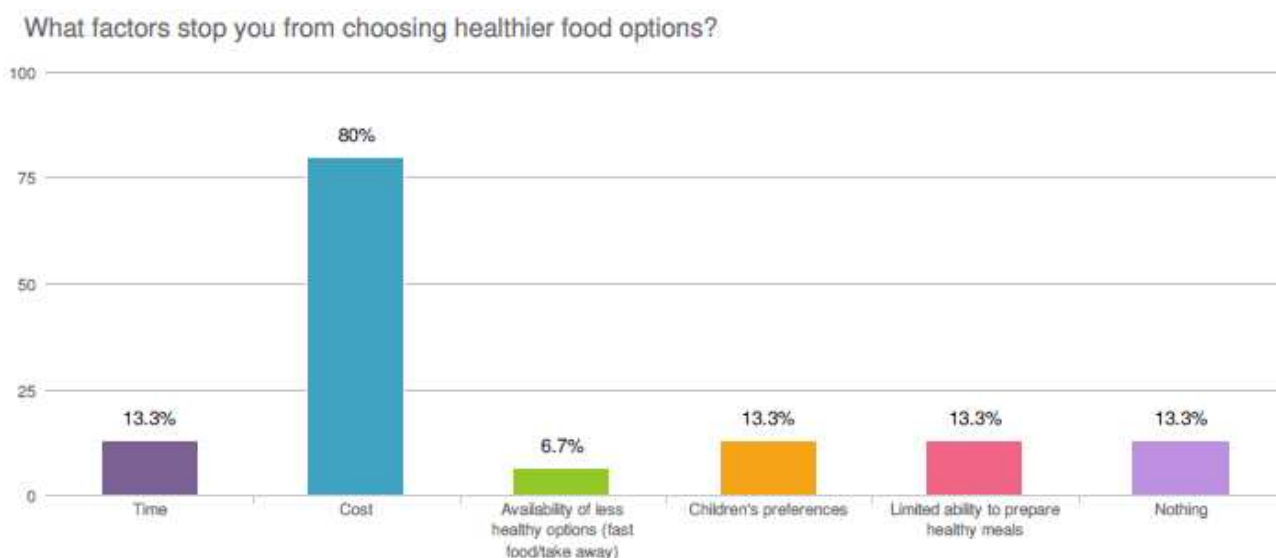
Figure 6: Respondents who indicated they utilised a food bank

The Victorian Healthy Food Basket (VHFB) is a tool established by researchers at Monash University that consists of 44 items that are needed weekly to achieve the caloric and nutritional requirements of a healthy diet and captures fluctuations in the price and availability of these items in a given area. The quantities of the 44 items also vary across four different family types to capture different requirements. By measuring the fluctuations in cost of these items over time and across geographical areas, it provides a gauge of how affordable it may be for each family type to meet the nutritional guidelines in a given area (Palmero, 2007). This in turn gives an indication of the affordability for maintaining a healthy diet for different family types, allowing for benchmarking against the current economic climate at that point in time. More information is provided on the VHFB analysis in Appendix 4.

In collaboration with three other inner Eastern Councils (Boroondara, Monash and Whitehorse), during May and June 2015, surveys were conducted across Manningham and the inner East at all major supermarkets, some speciality supermarkets, some individual grocers and also a selection of convenience stores. Table 1 below shows the costs of the baskets for each family type across the respective local government areas:

	Family of four	**Single parent family**	**Elderly pensioner**	**Single adult**
Manningham	426.22	289.61	133.82	101.85
Boroondara	461.28	315.68	145.77	111.25
Monash	454.97	311.35	143.62	109.04
Whitehorse	450.46	308.38	142.40	108.88
Inner East average	450.45	308.31	142.35	108.51
Victorian average	451.19	310.27	141.10	109.18

Table 1: VHFB costs across four inner East Melbourne Council areas as at May 2015

As can be seen, the cost for each basket type is considerably lower for Manningham than the other three neighbouring local government areas and the Victorian average. Whilst this is a positive and very promising result; as can be seen in Figure 7 below, there are clear differences between suburbs in Manningham. Whilst this is a common finding across supermarket chains and individual businesses in the marketplace, it will be important to

examine these differences over time to ensure reliability and validity to assess trends that may affect economic access for certain groups of people.
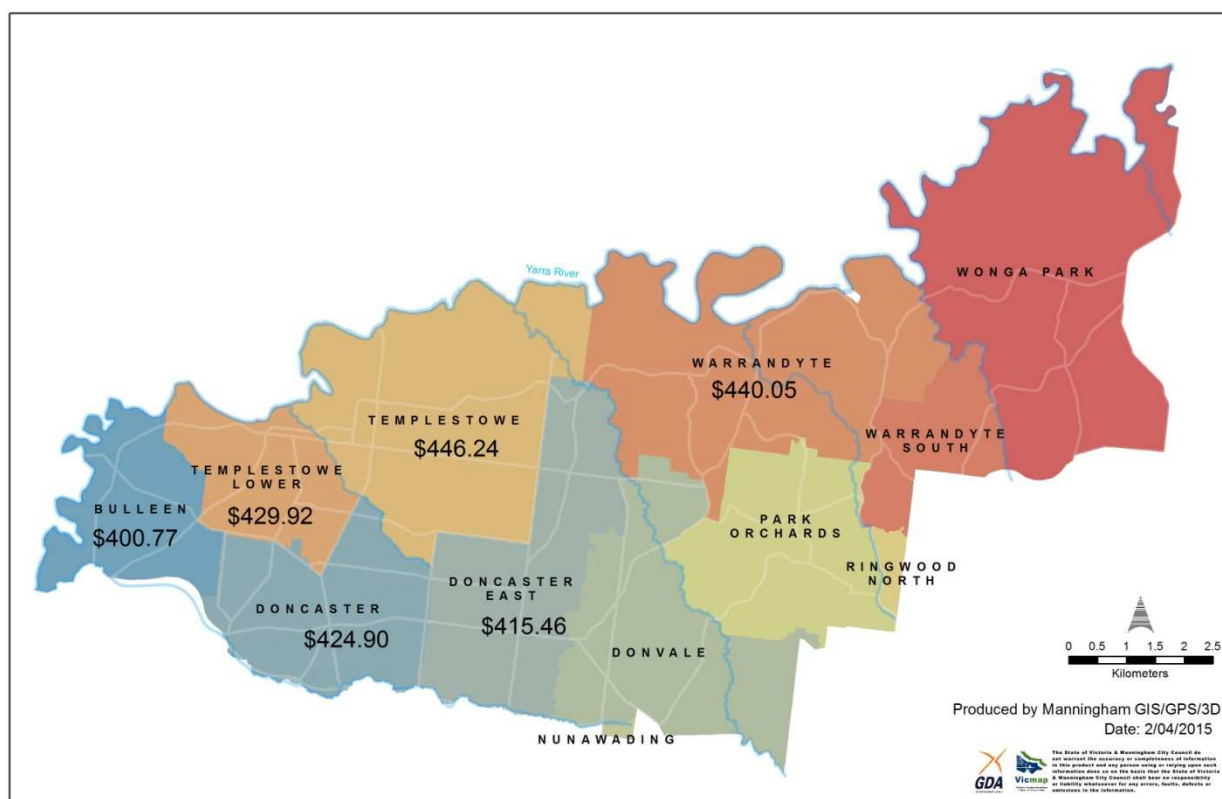

Figure 7: The average cost of a VHFB for a family of four across Manningham

3.3 Food utilisation and food security

The ability of individuals to consume a healthy and nutritious diet is also influenced by the inability to prepare such meals. Fast-food and ready-made meals are able to remove time-related barriers and are often viewed as convenient; however, this is generally at the expense of nutritional value. Within one generation it has been observed that there has been a significant decline in the number of individuals who are capable of preparing adequately nutritious meals (Wise, 2014).

The reasons for this relate to the modernisation of the human diet to accommodate the changes in our social and working lives which are more demanding of our time. This in turn has created a disconnect between how people associate with the food they consume and where it came from (Wise, 2014). However, this is a trend that appears to have bottomed out and there is a groundswell of interest in local produce and a return to home-grown consumption (Popkin, 2013) that is gradually being capitalised on by interest groups and local governments to build the momentum.

Evidence of the role of food utilisation as an issue for the community through the consultation process and survey is very slight with just 8.4% of respondents indicating that limited ability to prepare healthy meals prevented them from choosing healthier food options. Conversely, 32.5% of respondents indicated that they would like to see more food education programs. This somewhat inverse response may indicate that there is support

within the community for health education programs for those in need of such programs, which was not necessarily the majority of those completing the survey. This may therefore point to the collection of respondents who access fresh produce from a food bank (2.8%), do not factor health into their food choices at all (1.0%) or purchase fast food 3-4 and 5+ times per week (3.5%). Please refer to Appendix 6 for the full results of the community consultation.

3.4 Physical access and mapping

Manningham's geography is unique. On the border of inner and outer Melbourne, it is characterised by areas of high density such as Doncaster and Doncaster East (21.08 and 24.32 persons per hectare respectively) and large low density areas such as Wonga Park and Warrandyte (1.45 and 2.81 persons per hectare respectively) (Australian Bureau of Statistics). Typically, the areas of high and low population density are also areas of corresponding access to shopping precincts and activity centres; however, the greater access of higher density areas does not necessarily translate to greater capacity to eat healthily with the modern domination of fast food operators in the majority of shopping precincts and activity centres (Kavanagh, 2013).

A mapping exercise was undertaken plotting all the registered food businesses and their categories to determine the proximity of the types of food businesses that operate in Manningham to its residents. Figure 8 below represents the ratio of fast food/take away outlets, in red, to fresh produce outlets, in green (grocers and also supermarkets with fresh produce sections).

As can be seen below, there are far more outlets where residents and the wider community can purchase fast food or take away foods. This is typical across the country and indeed other developed nations. Maps that identify the proportions of all food business categories across the municipality as well as items that comprise a healthy food basket as per the VHFB tool can be seen in Appendix 5. These maps are not intended to advocate for the proliferation of fresh produce outlets throughout the municipality, but rather to highlight this ratio and lend further evidence of the impact this type of environment on the health of the community (Li, 2009).

Food Premises in Manningham (Fast Food/Take Away vs Fresh Produce)

Legend:
- Fast Food/Take Away Outlets
- Fresh Produce Outlets
- Mix of both Fast Food/TakeAway & Fresh Produce %

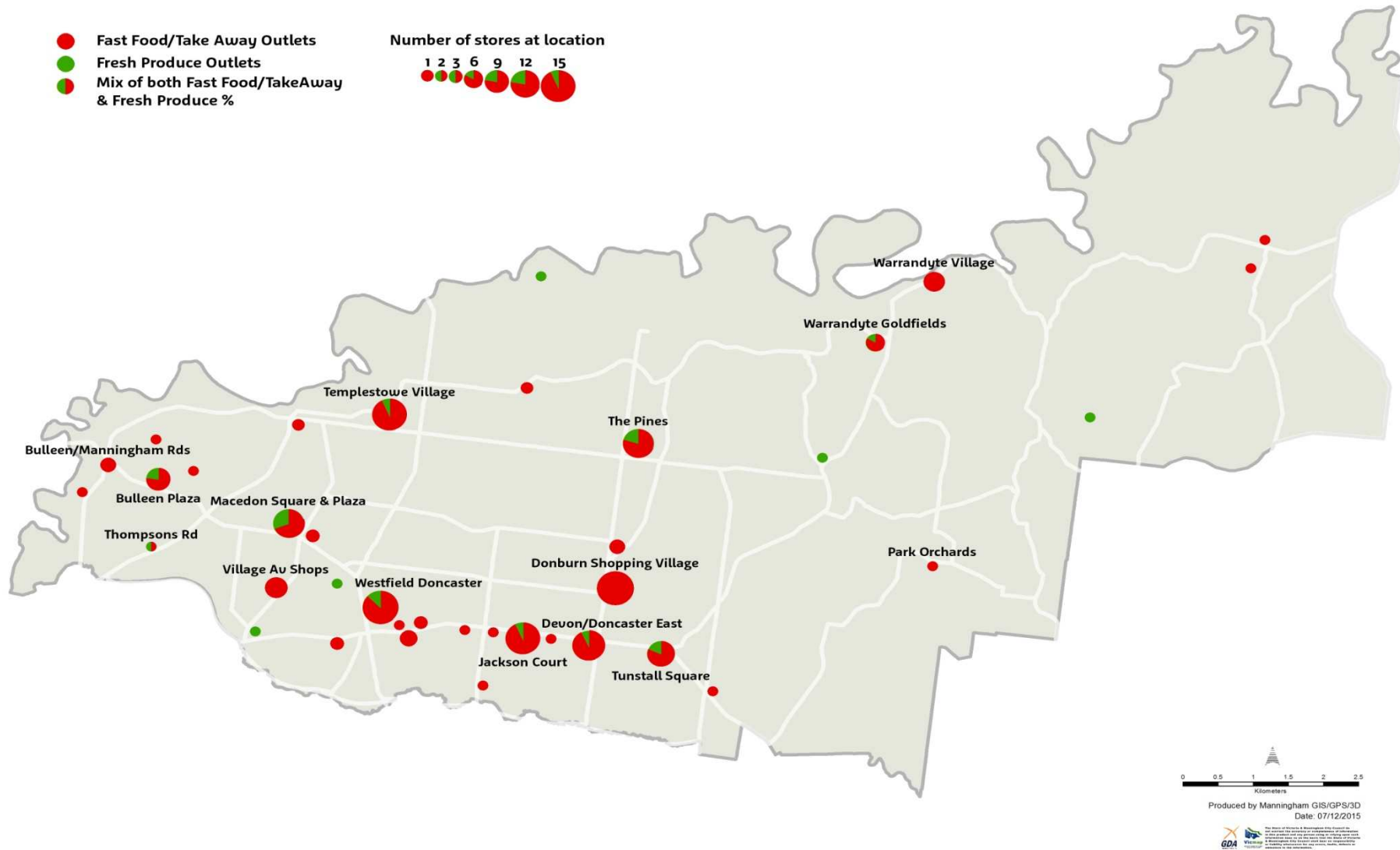Number of stores at location
1 2 3 6 9 12 15

Figure 8: Ratio of fast food/take away outlets to fresh produce outlets across Manningham

Access issues are likely to be compounded by Manningham's limited public transport options, although with the upgrades made to the bus network through the municipality, this has been improved. Despite this, these upgrades predominantly relate to servicing of high density areas with a key focus on city-bound transit, leaving the lower density areas of Manningham relatively car dependent. It should be noted, however, that data from the 2011 Census show that on average only 1% of households in these areas do not own a car (Australian Bureau of Statistics), so this may not affect their access to a large degree. The data of the most recent VPHS at LGA level also demonstrates that less than 10% of Manningham residents that indicated they had experienced food insecurity in the previous 12 months identified inadequate and unreliable public transport as the reason they experienced these circumstances (Department of Health). Of that 10%, only 2.6% stated that it is "hard" to access the shops using their usual mode of transport. As this demonstrates, physical access is not the most pressing concern for those experiencing food insecure conditions.

When it comes to physical access other than by car, Manningham City Council has made significant investment in improving pedestrian and cycle access around the municipality. This includes upgrades to the Principal Pedestrian Network (PPN), extension of key trails and the development of strategic documents aimed at increasing active transport to activity centres and other destinations such as the *Manningham Mode Shift Plan, Manningham Bicycle Strategy* and the *Doncaster Hill Strategy*. Over the life of the *Manningham Food Security Plan 2016-2021*, close to $5M has been allocated in Council's 10 year Capital Works Plan to improving and developing footpaths and cycleways to ensure that they continue to meet the needs of the community when it comes to accessing as much of the municipality as possible by foot or bicycle.

4. A plan of action

The community survey provided the opportunity for respondents to list the areas related to the food system that they would like addressed.
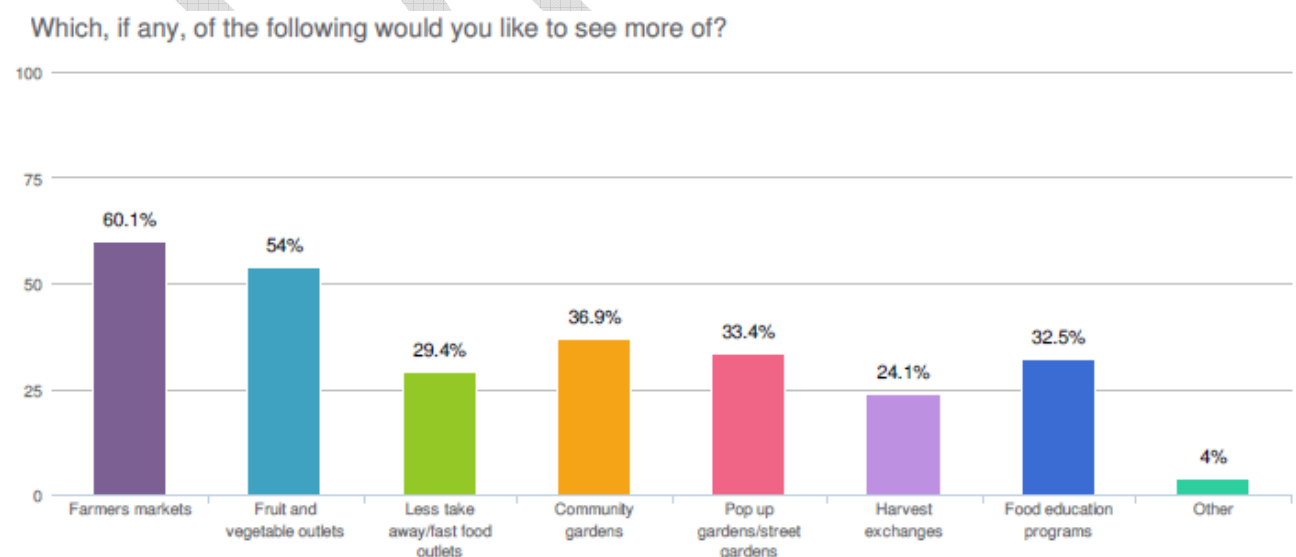

Figure 9: Community survey responses to "Which, if any, of the following would you like to see more of?"

This question provided key insights to inform the planning process and to give direction to the discussions with businesses and community organisations. As can be seen above in Figure 9, 60% and 54% of respondents respectively, wanted to see more farmers markets and fruit and vegetable outlets, with a significant level of support, albeit slightly less, for community gardens, pop up gardens and education programs.

This and all the community survey information, together with benchmarking data and the literature review of food security and its components provided a thorough contextual picture of the situation in Manningham. This information was then presented to businesses and community organisations to obtain further feedback on the real world needs of their customers and clients. Summarising the responses and conducting a thematic analysis revealed five key themes that represented the strategic areas in which projects and initiatives could be grouped. These were:

Themes	Measures of success
1. Food education	- Numbers meeting fruit and vegetable guidelines - Numbers classified as overweight/obese - Participation rates in food education programs
2. Building the local food system	- Numbers buying local produce (business and community) - Farmers markets offering fresh local produce - Numbers focused on consumer ethics
3. Community food and access	- Numbers experiencing food insecurity - Numbers growing food at home - Number of community gardens - Number of harvest exchanges
4. Partnership and engagement	- Donations to local food banks (business and community) - Number of new food security related partnerships - Greater community engagement with Council food security related programs
5. Promotion, marketing and advocacy	- Greater food security related Council output - Greater food security related media coverage

It is important to note that whilst the previously mentioned consultations contributed to the action plan, it was critical to ensure it would be both realistic and achievable. The following section details the *Manningham City Council Food Security Plan 2016-2021: Action Plan*, which incorporates the five strategic areas that were generated from the external consultation process as well as the deliverables agreed across nine Council business units as part of the internal consultation process.

5. Manningham City Council Food Security Plan 2016-2021: Action Plan

Strategic Area	Action	Description	Lead Unit	Support Unit/s	Timeframe	Strategy/Policy
1. Food education						
1. Food education	1.1	Continue to deliver the Home Harvest program incorporating: - education sessions to facilitate home access of fruit and vegetables for all participants - harvest and seed swaps open to all community members - a regular food security session with relevant community organisations and community members to build capacity, systemic interest and to encourage community projects that Council can support through existing programs	EEP		2015/16-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012
1. Food education	1.2	VicHealth Community Activation project to investigate incorporating food security issues, e.g. food education topics such as interpreting labelling	CS		2015/16-2016/17	• Healthy City Plan 2013-17 • Active for Life 2010-2025 • Cultural Strategy 2013-17
1. Food education	1.3	Expand the nutritional health information supplied to food services clients to better inform their actions around healthy eating	A&DSS		2016/17	Ageing Well in Manningham 2012-18
1. Food education	1.4	Provide older residents with information promoting healthy eating through the Your Brain Matters program	A&DSS		2015/16-2016/17	Ageing Well in Manningham 2012-18
1. Food education	1.5	Incorporate components of food education into recreation programming	EEP		2015/16-2020/21	Active for Life 2010-2025
1. Food education	1.6	Promote health programs that encourage healthy food choices, e.g. Biggest Winner, diabetes education	S&CS		2015/16-2020/21	Healthy City Plan 2013-17
1. Food education	1.7	Manningham Arts Studio school holiday program to investigate incorporating food security issues	CS	EEP	2015/16-2020/21	Cultural Strategy 2013-17
1. Food education	1.8	Encourage schools and preschools to promote the Health Achievement Program to support healthy food choices	S&CS		2017/18-2020/21	Healthy City Plan 2013-17

Strategic Area	Action	Description	Lead Unit	Support Unit/s	Timeframe	Strategy/Policy
1. Food education	1.9	Promote early education healthy eating promotions programs in early years services	S&CS	CR&M	2017/18	Healthy City Plan 2013-17
1. Food education	1.10	Utilise where applicable, existing communication channels and forums, including those listed below, to provide exposure to food education topics, e.g. healthy lunch ideas for families, food waste recycling options for businesses: - early years newsletters (x4 per year) - new parent information packs - kindergarten network teachers meetings (x4 per year) - Eastern Alliance for Sustainable Learning (EASL) newsletters for food education opportunities - Environmental Health newsletters (x2 per year) - Invigorate newsletters (x4 per year)	S&CS	EO, H&LL	2015/16-2020/21	• Early Years Plan 2012-18 • Interim Waste Management Strategy 2012-17
1. Food education	1.11	Utilise regular Councillor briefing sessions to facilitate the communication of education messages to the community	SG		2015/16-2020/21	Strategic Resource Plan 2016-2021
2. Building the local food system						
2. Building the local food system	2.1	Encourage existing Council licenced markets to promote local produce and affordable food	EEP	CS	2019/20-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012 • Cultural Strategy 2013-17
2. Building the local food system	2.2	Continue regional approach with inner Eastern Councils to support food supply improvement opportunities	EEP	S&CS	2016/17-2020/21	Healthy City Plan 2013-17
2. Building the local food system	2.3	Support and encourage local food businesses to source local fresh produce through existing and emerging food hub networks that link to information about their role in the food system	EEP		2016/17-2020/21	Economic Development Strategy 2011-30
2. Building the local food system	2.4	Explore the use of local producers to supply and promote at Council events	CS	CR&M	2019/20-2020/21	Cultural Strategy 2013-17

Strategic Area	Action	Description	Lead Unit	Support Unit/s	Timeframe	Strategy/Policy
2. Building the local food system	2.5	Promote local food producers to the community through Council communication channels	EEP	CR&M	2015/16-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012
2. Building the local food system	2.6	Promotion of local food producers at the point of sale	EEP		2019/20-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012
2. Building the local food system	2.7	Ongoing "buy local" awareness campaigns to staff, residents and businesses including exposure of businesses that source local produce	EEP	CR&M	2015/16-2020/21	• Economic Development Strategy 2011-30 • Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012
2. Building the local food system	2.8	Explore opportunities for food waste recycling in high density areas including activity centres and apartment buildings as well as promoting subsidised composting products available through Council	EO	EEP, SP	2019/20-2020/21	Interim Waste Management Strategy 2012-17
3. Community food and access						
3. Community food and access	3.1	Encourage schools to apply for funding to deliver sustainable garden programs	S&CS		2015/16-2016/17	Healthy City Plan 2013-17
3. Community food and access	3.2	Support the development of sustainable gardens in schools	EEP	EO	2016/17-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012

Strategic Area	Action	Description	Lead Unit	Support Unit/s	Timeframe	Strategy/Policy
3. Community food and access	3.3	Create a pop up garden as part of VicHealth's Community Activation Program funding at MC^2 (e.g. vertical garden and mobile apple trees) including exploration of a permanent community garden on the Civic Plaza	CS	EEP	2015/16-2016/17	Cultural Strategy 2013-17
3. Community food and access	3.4	Explore new, and expanding existing, community gardens	EEP		2017/18-2018/19	• Open Space Strategy 2014 • Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012
3. Community food and access	3.5	Explore feasibility of a Council-administrated social media food sharing group to promote reduction of food wastage	EEP	CR&M	2016/17	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012
3. Community food and access	3.6	Explore expanding the use of, and support for, the Manningham shared garden for a regular community harvest	EEP		2015/16-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012
3. Community food and access	3.7	Encourage existing community gardens (allotments) to share/donate produce to food banks	EEP		2015/16-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012

Strategic Area	Action	Description	Lead Unit	Support Unit/s	Timeframe	Strategy/Policy
3. Community food and access	3.8	Facilitate and promote home harvest swaps in Bulleen as part of Live Well in Bulleen project	EEP	S&CS	2015/16-2016/17	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012 • Healthy City Plan 2013-17
3. Community food and access	3.9	Investigate avenues for reducing food wastage in food delivery services utilising existing programs	A&DSS		2015/16-2016/17	Ageing Well in Manningham 2012-18
3. Community food and access	3.10	Promotion to home based food businesses how they can influence food security	EEP	CR&M	2018/19	Economic Development Strategy 2011-30
3. Community food and access	3.11	Encourage businesses active in community food activities through existing programs	EEP		2017/18	Economic Development Strategy 2011-30
3. Community food and access	3.12	Encourage developers to incorporate shared gardens in their apartment buildings	EEP	SP	2017/18	• Doncaster Hill Strategy 2002 • Residential Strategy 2012
3. Community food and access	3.13	Provide information to the community regarding healthy food choices, seasonal eating and emergency relief through existing Council communication channels, e.g. Manningham Matters, Corporate website	S&CS	CR&M	2017/18	Healthy City Plan 2013-17
3. Community food and access	3.14	Run a data capturing exercise to encourage all community food organisations to be listed on the Manningham Business Directory	EEP		2017/18	Economic Development Strategy 2011-30
3. Community food and access	3.15	Provide annual updates to the municipal maps of registered food businesses and the Victorian Healthy Food Basket surveys as a means to monitor the distribution of food businesses categories and affordability respectively	EEP		2015/16-2020/21	Economic Development Strategy 2011-30

Strategic Area	Action	Description	Lead Unit	Support Unit/s	Timeframe	Strategy/Policy
4. Partnership and engagement						
4. Partnership and engagement	4.1	As part of the Community Development Grants Program review, consider food security as a funding priority area	S&CS		2015/16-2016/17	Healthy City Plan 2013-17
4. Partnership and engagement	4.2	Increase exposure of businesses involved with emergency food relief programs	EEP		2015/16-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012
4. Partnership and engagement	4.3	Encourage partnerships between businesses and emergency food relief organisations	EEP		2015/16-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012
4. Partnership and engagement	4.4	Donate fresh produce from the Manningham shared garden to the Doncare food bank to support residents experiencing food insecurity	EEP		2015/16-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012
5. Promotion, marketing and advocacy						
5. Promotion, marketing and advocacy	5.1	Promote food security issues, activities and projects through Council communication channels and in line with communication policy	As developed	CR&M	2015/16-2020/21	Manningham City Council Communication Guide 2009
5. Promotion, marketing and advocacy	5.2	Explore media opportunities through media releases and briefings to increase community exposure to food security issues and projects and to encourage greater community involvement	EEP	CR&M	2015/16-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012 • Manningham City Council Communication Guide 2009

Strategic Area	Action	Description	Lead Unit	Support Unit/s	Timeframe	Strategy/Policy
5. Promotion, marketing and advocacy	5.3	Utilise the Manningham Business website and Manningham Business eBulletins to raise awareness of the commercial benefits of food security initiatives	EEP		2015/16-2020/21	Economic Development Strategy 2011-30
5. Promotion, marketing and advocacy	5.4	Provide support for advocacy on issues that impact food security	EEP	S&CS	2015/16-2020/21	• Green Wedge Action Plan 2020 • Securing the Future Adaptation Plan 2012 Healthy City Plan 2013-17
5. Promotion, marketing and advocacy	5.5	Issues affecting food security are raised: - through regional advocacy discussions - via Municipal Association of Victoria (MAV) motions (March/October) - via Australian Local Government Association (ALGA) motions	SG		2015/16-2020/21	Strategic Resource Plan 2016-2021

- **A&DSS:** Aged and Disability Support Services
- **CR&M:** Community Relations & Marketing
- **CS:** Cultural Services
- **EEP:** Economic & Environmental Planning
- **EO:** Engineering Operations
- **H&LL:** Health & Local Laws
- **S&CS:** Social & Community Services
- **SG:** Strategic Governance
- **SP:** Strategic Projects

Appendix 1 – Consultation process – March – May 2015

Manningham Community Survey	
Warrandyte festival	Salvation Army
Warrandyte Housing Support Service	Manningham Christian Centre
Vantage Point Church	Finns Nature Play activity
City Life Church	The LinC Manningham
Doncare Community Services	Smart Living project
The Pines Learning Centre	Living & Learning @ Ajani
Manningham Community Health Service	Onemda
Aged and Disability Services	Manningham City Council front desk
Gold Memorial Shopping Centre	Donburn Shopping Centre
Preparing for the National Disability Insurance Scheme	Anderson's Creek PS kids activity
Friends of Warrandyte State Park	Mullum Mullum Indigenous Gathering Place
Italian Senior Citizens Club	Chinese Senior Citizens Club
Macedonian Senior Citizens Club	Bulleen library
Doncaster library	The Pines library
Warrandyte library	

Table 2: List of organisations, groups and events where community members were contacted to complete a community survey. There were 605 surveys completed in total

Manningham Community Services workshops	
MIND Australia	ORS Employment Services
Doncare Community Services	Principals Australia Institute
EACH Social and Community Health	Inner Eastern Melbourne Medicare Local
Kevin Heinze Garden Centre	St Vincent de Paul Society
YMCA	Baptcare
Pines Learning	Benevolence Australia
Neami	Onemda
Neighbourhood Watch	U3A (University of the 3rd Age)
Eastern Community Legal Centre	Whitehorse Manningham Library Corporation
Hakka Association of Melbourne	Law Institute of Victoria
Food for Thought Network	Women's Friendship Group
REAL (Rights, Employment, Accommodation, Leisure)	ERLS (Eastern Recreation and Leisure Services)
Disability Sports Victoria	Manningham Interfaith Network
Living & Learning @ Ajani	Victoria Police
Women's Health East	Extended Families Australia
Manningham Community Health Service	

Table 3: List of organisations whose staff provided professional input into strategic development workshops

Manningham Business focus group	
Altair Restaurant	Aumann Family Orchard
Petty's Orchard	Health Tuned

Table 4: Manningham businesses that participated in the open and unstructured focus group

Manningham City Council business units	
Economic & Environmental Planning	Social & Community Services
Adult & Disability Support Services	Health & Local Laws
Cultural Services	Engineering Operations
Strategic Governance	Community Relations & Marketing

Table 5: Manningham City Council business units that had input into the development of the Food Security Action Plan

Appendix 2 – Emergency food relief organisations in Manningham

1. Doncare Community Services, 687 Doncaster Rd, Doncaster 3108
2. City Life Church 13-33 Greenaway St, Bulleen 3105 (operated by City Life Church)
3. Salvation Army, 37 Taunton Street, Doncaster East, 3109
4. Warrandyte Housing Support Service, 5 Yarra St, Warrandyte 3113
5. Manningham Christian Centre, 143/145 Parker St, Templestowe 3106
6. Vantage Point Church, 320 Reynolds Rd, Donvale 3111
7. The LinC Manningham, 41 Marcus Rd, Bulleen 3107 (Operating out of the Bulleen Baptist Church)
8. Freedom Revolution Church, 3 Mitchell St, Doncaster East 3109

Appendix 3 – What factors make up a food system

Health

A person's health can be determined by a number of factors that are a product of their social environment and circumstances as distinct from factors that they cannot control, such as genetics. These factors are often referred to as the social determinants of health and have the capacity to be altered, thereby altering health, either positively or negatively. However, there are often a myriad of barriers that prevent individuals altering these factors for the better and public health practitioners, together with governments, strive toward developing interventions and ways of changing standards and behaviours that can alter such factors for improved population health.

When considering the social determinants of food insecurity, these are very much tied to a person's ability to afford food, their proximity to appropriate food outlets and their level of knowledge and ability to prepare a nutritious meal. These in turn are linked to, amongst others, an individual's socio-economic status, education, employment status, support network and their location. These are common risk factors for food insecurity, reduced life expectancy and poor health generally, and unfortunately, there is often a negative gradient associated with health status and social status (Macdowell, 2011).

Implementing action that affects food security, such as the *Manningham Food Security Plan 2016-2021*, will naturally assist with improving health and well being due to the synergies that exist between food and health.

Social inclusion

Social capital is the terminology used to encapsulate the shared value that is generated by the social networks that people are engaged with. Social inclusion is one facet that contributes to social capital and there is extensive evidence linking social isolation to poor health outcomes (Macdowell, 2011).

In the context of food, a person who experiences a high degree of social exclusion will be considered at a higher risk of experiencing food insecurity (Wright, 2015). This is due to their inability to fall back on support networks that may otherwise be able to provide, for example, financial aid or a home cooked meal, and may be compounded by other risk factors for social exclusion, such as disability, long term unemployment and old age.

Whilst social isolation will apply at the individual level, social capital can vary culturally and between areas, including local government areas, in which community programs and attitudes can collectively contribute to a community environment that may negate the effects of certain risk factors for social isolation and therefore food insecurity (Macdowell, 2011). With this in mind, it was even more important to foster a community development approach to all actions within the *Manningham Food Security Plan 2016-2021*.

Agriculture

The potential for the agricultural industry to affect food security levels is perhaps the most significant. The Food and Agricultural Organisation of the United Nations has estimated that approximately 2400 million hectares, or 18 per cent, of land globally is suitable for crop production (Food and Agricultural Organization of the United Nations/International Institute for Applied Systems Analysis, 2000). However, the demand for food production is always increasing. Australia produces enough food to feed 60 million people through domestic production and imports (Department of Agriculture and Water Resources, 2015), yet around two-thirds of Australia's agricultural products are exported, which is managed and audited through the Department of Agriculture.

In terms of risk to farmers in Australia, price risk is higher than in other countries due to world market exposure and the variability in exchange rates, and this has clear implications for food security levels in terms of economic access. However, the potential exists for management policy to be implemented to help protect Australian farmers from these factors and having to pass on the costs (Kimura, 2011). These include: adopting water conservation farming techniques, water rights trading, bio-security measures, training programs, crop/livestock diversification, emergency response to animal/plant outbreak, relief payments, National Disaster Relief and Recovery Arrangement and tax policies which support farms (Kimura, 2011).

This is one distinctive area that all local governments and regions can exert significant influence over by concentrating efforts to build their local food system, in turn supporting farmers in their region, and therefore partially negating the external market forces that often put pressure on farmers and subsequently the end consumer.

Education

Education is a key influence on the food security status of households. The importance of making families aware of nutritional and safety aspects of food, rather than just knowledge of calorific quantity are also vital. This should include local and traditional knowledge of food preparation as well as consumer knowledge, school food programs and making people aware of appropriate storage conditions (Qureshi, 2015).

Through various components of the school curriculum, many schools have taken up the opportunity to develop a gardening program where students are provided with practical learning experiences of growing fresh produce. Some schools that have the facilities also combine this with a food preparation element in a "paddock to plate" program. This early interaction with the practices involved with growing fresh produce can develop a greater understanding of, and relationship with, where food comes from, rather than the current disconnected, and at times, indifferent attitude.

An aspiration of all stakeholders working toward wide spread food security should be to create future generations who will carry greater awareness of food production into

everyday life. This also goes hand in hand with open communication and transparency about food origins, processing and nutritional content from food companies.

Environment (natural and built)

In terms of water, irrigation currently provides for 40 per cent of the world's food supplies and will need to meet 60 per cent of the increase in demand from population growth (Langridge, 2012). In the context of climate change however, low soil moisture areas are predicted to increase in frequency in the next decades, only compounding these irrigation issues (Kimura, 2011). In Australia, about 6 percent, or 46 million hectares of the total land area, is suitable for agriculture however, generally, the soil lacks the necessary nutrients and has poor structure, therefore requiring cultivation (Kimura, 2011). This in itself is a risk to food security for all, as it compromises the nutritional value and health benefits of the food we consume and makes it all the more important to support producers that operate using sustainable farming practices to avoid soil degradation (International Atomic Energy Agency, 2011).

Built environments that facilitate obesity and unhealthy lifestyles in general are sometimes referred to as obesogenic environments and typically have high proportions of fast food outlets (Li, 2009). Education of the community to recognise for themselves the presence and dangers of an obesogenic environment is an important first step. Providing opportunities for residents to exert control over such environments through health-minded decision making regarding food choices will then follow. This also takes the form of better urban design that not only caters for improved ratios of food outlets, but accounts for improving pedestrian and cycling access that can foster more active lifestyles.

Sustainability

A major challenge faced globally is to produce 40 per cent more food, with less energy, fertiliser and pesticide, with limited water and land, whilst also decreasing the level of greenhouse gas emissions and coping with climate change (Beddington, 2010). At the federal level, the Department of Agriculture's plan for sustainable food is aimed at helping Australians adopt innovative practises to improve productive and environmental outcomes and to reduce per capita food waste (Department of Agriculture and Water Resources, 2015). At the local level, sustainability of the food system may not need to have a sole reliance on farm produce. An Australian Bureau of Statistics survey indicated that more than 25% of households were producing fruit and vegetables in home gardens (Larder, 2014). This figure is supported by the Manningham community survey in which almost 24 per cent of respondents reported obtaining their fresh produce from home grown sources.

The alternative view however, is that the "buy local" food movement and "food miles" slogans are a marketing fad that overestimates the environmental impact of a global food system (Mercatus Center: George Mason University, 2008). This view's overarching judgment is that a robust food system is one that incorporates input from local, regional, national and international sources which act as protection to counter any type of

environmental or economic shock that would otherwise completely destabilise any one singular source (Mercatus Center: George Mason University, 2008).

Whilst a completely unilateral food system is far from a reality in the developed world, it is paramount that the lessons that have been learned from historical food shocks act as a reminder to ensure sustainability is embedded in any food security initiative, be it around land use, irrigation or food sources.

Financial support

Government policies which enable smaller producers to contribute to agri-business chains by enabling them access to local, national or international markets is very important in food security by creating greater comparative advantages. This requires well functioning global food markets, which are dependent on government policies. Market friendly policies can help increase how much producers receive to increase the health of the agricultural sector in a country (Qureshi, 2015).

The farming system in Australia is strongly export orientated, with 60 per cent of total production sold to international buyers (Lawrence, 2013). Australia's farming operations are shaped by competitive production, with little government financial support and direction. Along with the National Farmers' Federation, businesses have supported the federal government initiatives that do exist to increase their global competition and reduce tariffs such as import restrictions and farm subsidies (Dibden, 2011) (Gray, 2001). Furthermore, the Department of Agriculture's *National Food Plan* mentioned previously, if carried through, would see over $600 million invested over the next 5 years into the *Caring for our Country Sustainability Agriculture Stream* to maintain the sustainability, productivity and resilience of Australia's natural resources. A $15 billion investment would also take place into the *Water for the Future* initiative to improve water infrastructure for farms, and $429 million into the *Carbon Farming Futures* program to help reduce greenhouse gas emissions. There would also be a $1.5 million injection into community group initiatives which support the development of food aid and rescue organisations and $44 million through the *Carbon Energy Future Plan* to support Australian regional natural resource management organisations for climate change implications (Department of Agriculture and Water Resources, 2015).

Innovation

The long-term challenge of providing food security through issues such as climate change, population growth and maintaining sustainability requires science and technology to provide practical solutions. Horizon scanning across industry identifies some broad areas for focus including: sustainable waste management practices, novel pesticides management which is incapable of developing resistance, crop yield improvements (leading to lower prices), better water and fertiliser use, non-chemical crop protection measures, more sustainable livestock and marine protection (Beddington, 2010). Advances in biotechnology, nanotechnology and engineering have been made towards these goals.

Online ordering and automated distribution processes have also seen the emergence of digital age food hubs where existing partnerships with farmers are connected to online ordering platforms where fresh local produce can be collected from centralised locations, or in some cases, delivered to a residence or business. With economies of scale, the prices of these arrangements can rival existing wholesale markets. When factoring in convenience, there may be an important role for online food hubs to play in changing the future of local food systems.

Significant advancements have also been seen in the area of waste management, with a sub-sector now emerging offering food waste composting solutions that are collected and converted into fertiliser that is traded back into the food system. This type of solution offers benefits to the food system, the environmental as well as the economy.

Market/economy

The other key factor that plays a large part in a food system, from an economic perspective, is the market. Ideally, resources would be used in a manner that is both technically and productively efficient (for the bottom line) whilst simultaneously maximising the benefits to the community. With reference to the food system, this must take into account a wide range of inputs that relate to agriculture, processing, logistics and transport as well as distribution arrangements and contracts.

The food industry has a number of conditions that are important for creating a perfectly competitive market. In many instances, producers are selling the same product and there are many sellers and buyers. The barriers to entering the market can be relatively low from a productive point of view, e.g. complying with regulations of the *Food Act 1984* to sell home grown vegetables at the local farmers' market. However, the barriers become substantially greater to be competitive on a larger scale in terms of agricultural and processing machinery as well as transport. And because of an asymmetry of information regarding pricing structures for their competition (Department of Political Economy, 2006), not all buyers and sellers are well informed.

Any one of the necessary components of a free market mentioned above not being met can lead to market failure (Guinness, 2011). In the Australian circumstance of a duopoly of the two major supermarkets, this creates the common situation where smaller level producers supply their goods to wholesale markets only for them to return to independent retailers in their own community (Monash University, 2015). Whilst this contributes to unnecessary additional food miles in an environmental sense, from the perspective of the economics of a market, it creates an imbalance in the local food system.

The duopoly has also created the opportunity for continued expansion of the "home brand" of products native to the supermarket chains, and whilst this can create a reduction in price for consumers, it is at the expense of other suppliers in the market, and a step toward market failure (Department of Political Economy, 2006). The potential impact on local producers and a greater media focus raising the profile of this issue has caught the public's attention, and a greater sense of consumer ethics has developed. This has also

translated into more social enterprise start ups focusing on local food with a return to the food cooperative arrangements from the 19th century.

Tackling market forces to balance the food system is a daunting prospect. However, by each municipality and region focusing on the systemic shortfalls of its immediate area, a more coordinated approach over time, together with public support, will be able to avert potential market failure

Appendix 4 – Victorian Healthy Food Basket (VHFB) analysis

Victorian Healthy Food Basket		Typical family	Single parent family	Elderly pensioner family	Single adult family
Basket Item	Product size				
Breads and cereals					
White bread	680 g	1.4 loaves	0.7 loaves	0.2 loaves	0.8 loaves
Wholemeal bread	680 g	5.8 loaves	3.6 loaves	1.3 loaves	2.3 loaves
Crumpets (rounds, 6pk)	300 g	3.1 packets	2.2 packets	0.9 packets	0.9 packets
Weet-bix	750 g	1.4 packets	0.9 packets	0.2 packets	0.5 packets
Instant oats	500 g	1.5 packets	1.2 packets	0.4 packets	0.4 packets
Pasta	500 g	1.7 packets	1.1 packets	0.4 packets	0.6 packets
White rice	1 kg	1.4 bags	0.9 bags	0.3 bags	0.6 bags
Instant noodles	85 g	9 packets	0.6 packets	2 packets	3 packets
Premium biscuits	250 g	1.3 packets	0.8 packets	0.2 packets	0.5 packets
Fruit					
Apples	1 kg	5.8 kg	4.3 kg	1.8 kg	1.4 kg
Oranges	1 kg	5.7 kg	4.6 kg	1.4 kg	1.1 kg
Bananas	1 kg	4.1 kg	2.8 kg	0.9 kg	1.3 kg
Tinned fruit salad, natural juice	450 g	9 tins	4.9 tins	1.8 tins	3.7 tins
Sultanas	250 g	0.84 packets	1 packet	0.2 packets	0.4 packets
Orange juice 100%, no added sugar	2 L	2.5 L	1.5 L	0.5 L	0.8 L
Vegetables, legumes					
Tomatoes	1 kg	4.7 kg	2.8 kg	1.1 kg	1.9 kg
Potatoes	1 kg	2.6 kg	1.7 kg	0.7 kg	1 kg
Pumpkin	1 kg	2.7 kg	1.7 kg	0.7 kg	1 kg
Cabbage	Half (500 g)	3.7 kg	2.8 kg	0.9 kg	0.9 kg
Lettuce	Whole	2.8 kg	1.8 kg	0.8 kg	1.1 kg
Carrots	1 kg	3.1 kg	2.2 kg	0.8 kg	0.9 kg
Onions	1 kg	1.2 kg	0.85 kg	0.3 kg	0.4 kg
Frozen peas	1 kg	1 kg	0.7 kg	0.3 kg	0.3 kg
Tinned tomatoes	400 g	8 tins	6 tins	2 tins	2 tins
Tinned beetroot	450 g	0.8 tins	0.4 tins	0.2 tins	0.4 tins
Tinned corn kernels	440 g	2.1 tins	1.6 tins	0.6 tins	0.6 tins
Tinned baked beans	420 g	9.5 tins	5.7 tins	1.9 tins	3.8 tins
Meat and alternatives					
Fresh bacon, shortcut, rindless	1 kg	0.75 kg	0.5 kg	0.2 kg	0.3 kg
Fresh ham	1 kg	0.54 kg	0.3 kg	0.12 kg	0.2 kg
Beef mince, regular	1 kg	1.1 kg	0.7 kg	0.34 kg	0.3 kg
Lamb chops, forequarter	1 kg	0.8 kg	0.4 kg	0.2 kg	0.4 kg
Chicken fillets, skin off	1 kg	1.3 kg	1 kg	0.3 kg	0.3 kg
Sausages	1 kg	0.9 kg	0.5 kg	0.3 kg	0.4 kg
Tinned tuna (unsat. oil)	425 g	2.8 tins	2.1 tins	0.7 tins	0.7 tins
Tinned salmon, pink (water)	210 g	2.9 tins	2.1 tins	0.7 tins	0.7 tins
Large eggs (min. 50 g, caged)	700 g dozen	1.6 boxes	1.2 boxes	0.4 boxes	0.4 boxes
Dairy					
Fresh full cream milk	1 L	2 L	1.5 L	0.5 L	0.5 L
Fresh reduced fat milk	2 L	13.8 L	10.4 L	3 L	3.4 L
Reduced fat flavoured yoghurt	1 kg tub	8.4	6.8 kg	2 kg	1.6 kg
Full fat long life milk	1 L	0.6 L	0.4 L	0.1 L	0.14 L
Cheese, block	500 g	2.1 blocks	1.2 blocks	0.5 blocks	0.9 blocks
Non-core foods					
Polyunsaturated margarine	500 g	1.4 tubs	0.8 tubs	0.3 tubs	0.5 tubs
White sugar	1 kg	0.1 kg	0.07 kg	0.03 kg	0.03 kg
Canola oil	500 ml	0.6 bottles	0.5 bottles	0.2 bottles	0.2 bottles

Figure 10: Weekly food items per family type used in the Victorian Healthy Food Basket tool (Palmero, 2007)
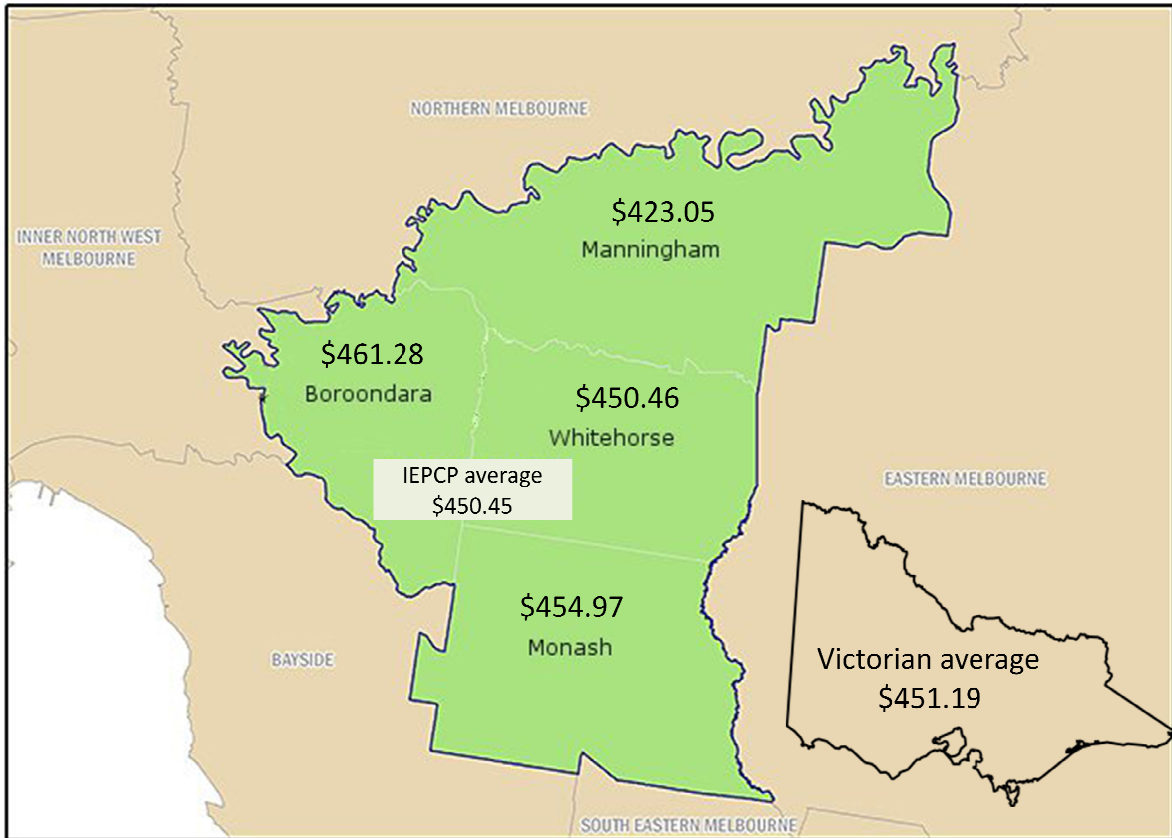
Figure 11: Average weekly VHFB cost for a family of four across the Inner Eastern Metropolitan Area
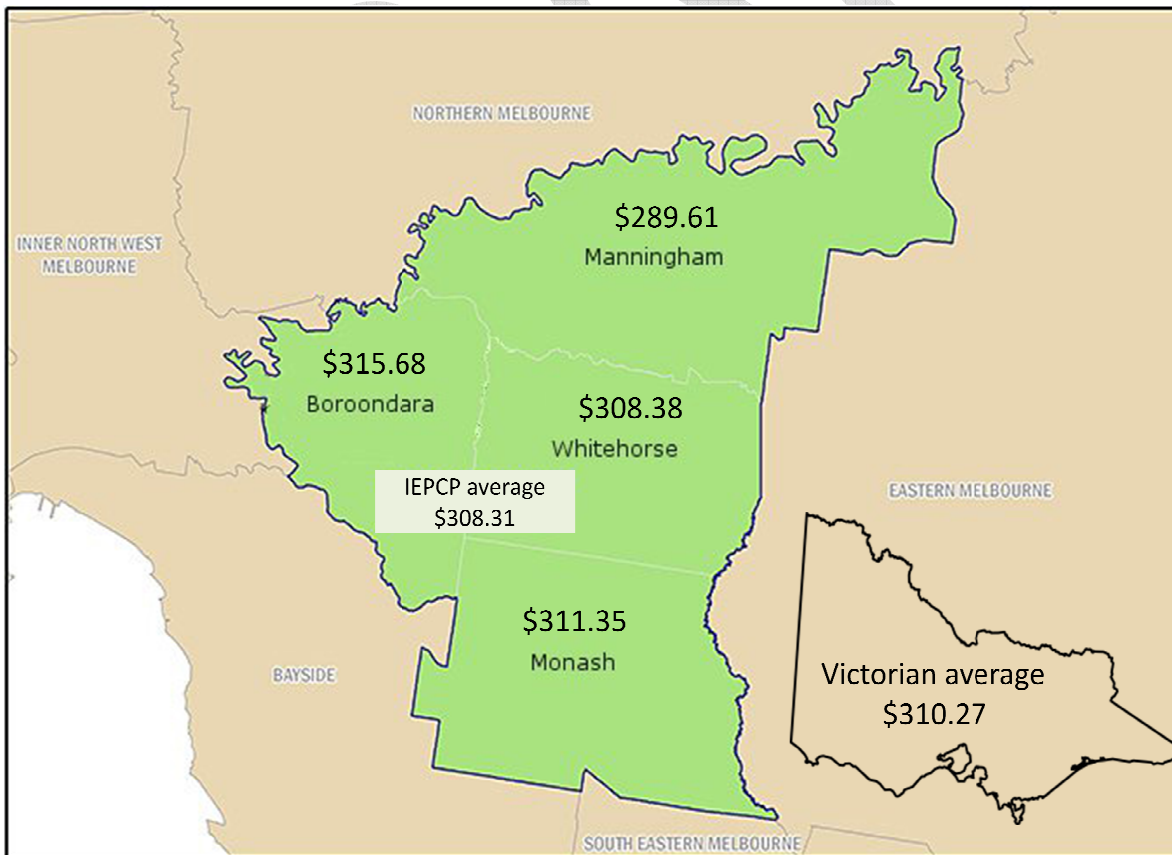

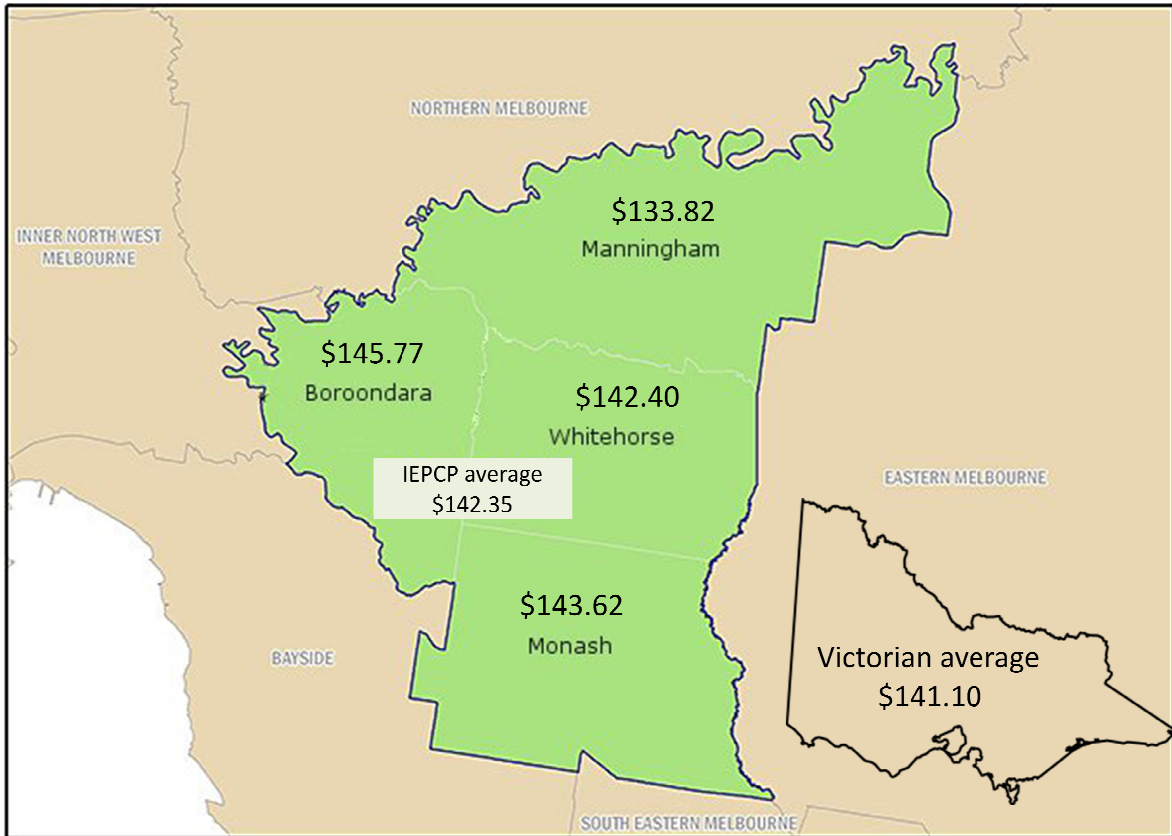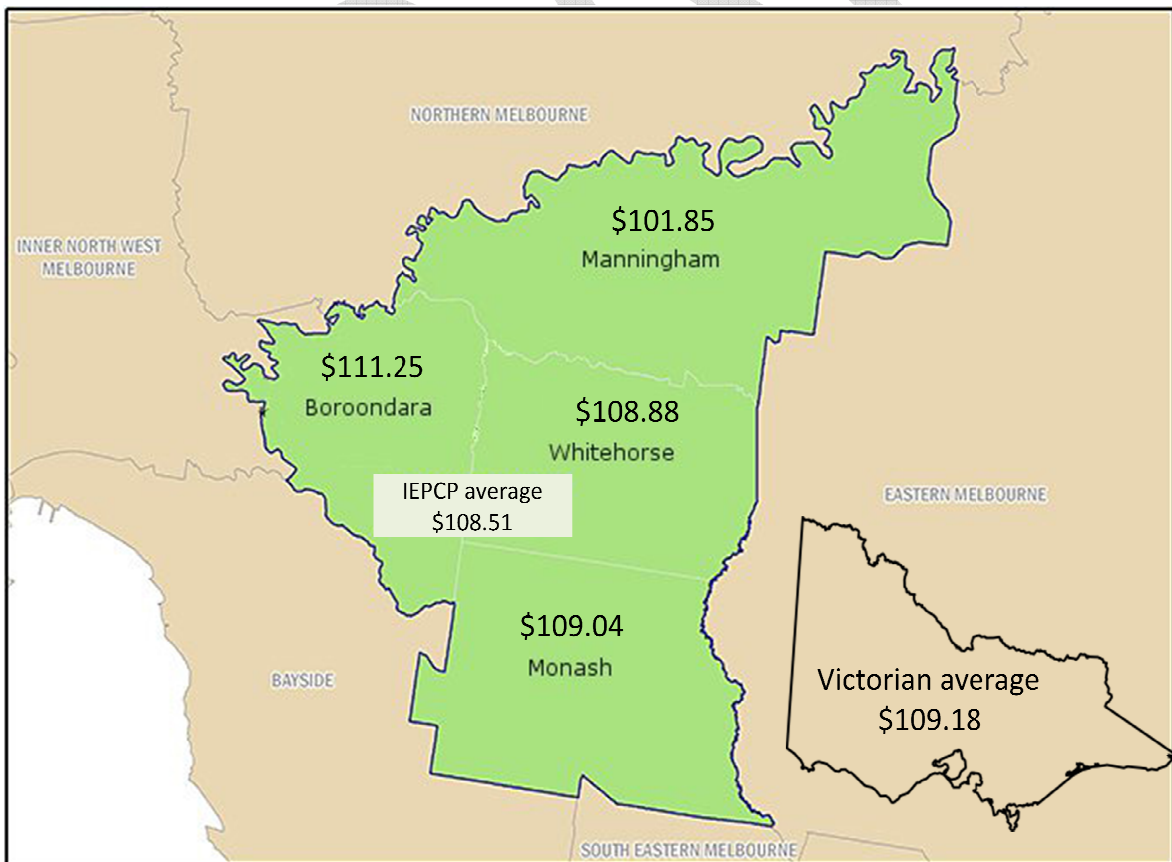**Figure 12: Average weekly VHFB for a single parent family across the Inner Eastern Metropolitan Area**

NORTHERN MELBOURNE

INNER NORTH WEST
MELBOURNE

$133.82
Manningham

$145.77
Boroondara

$142.40
Whitehorse

IEPCP average
$142.35

EASTERN MELBOURNE

$143.62
Monash

BAYSIDE

Victorian average
$141.10

SOUTH EASTERN MELBOURNE

Figure 13: Average weekly VHFB cost for a single male across the Inner Eastern Metropolitan Area

NORTHERN MELBOURNE

INNER NORTH WEST
MELBOURNE

$101.85
Manningham

$111.25
Boroondara

$108.88
Whitehorse

IEPCP average
$108.51

EASTERN MELBOURNE

$109.04
Monash

BAYSIDE

Victorian average
$109.18

SOUTH EASTERN MELBOURNE

Figure 14: Average weekly VHFB cost for an elderly female across the Inner Eastern Metropolitan Area
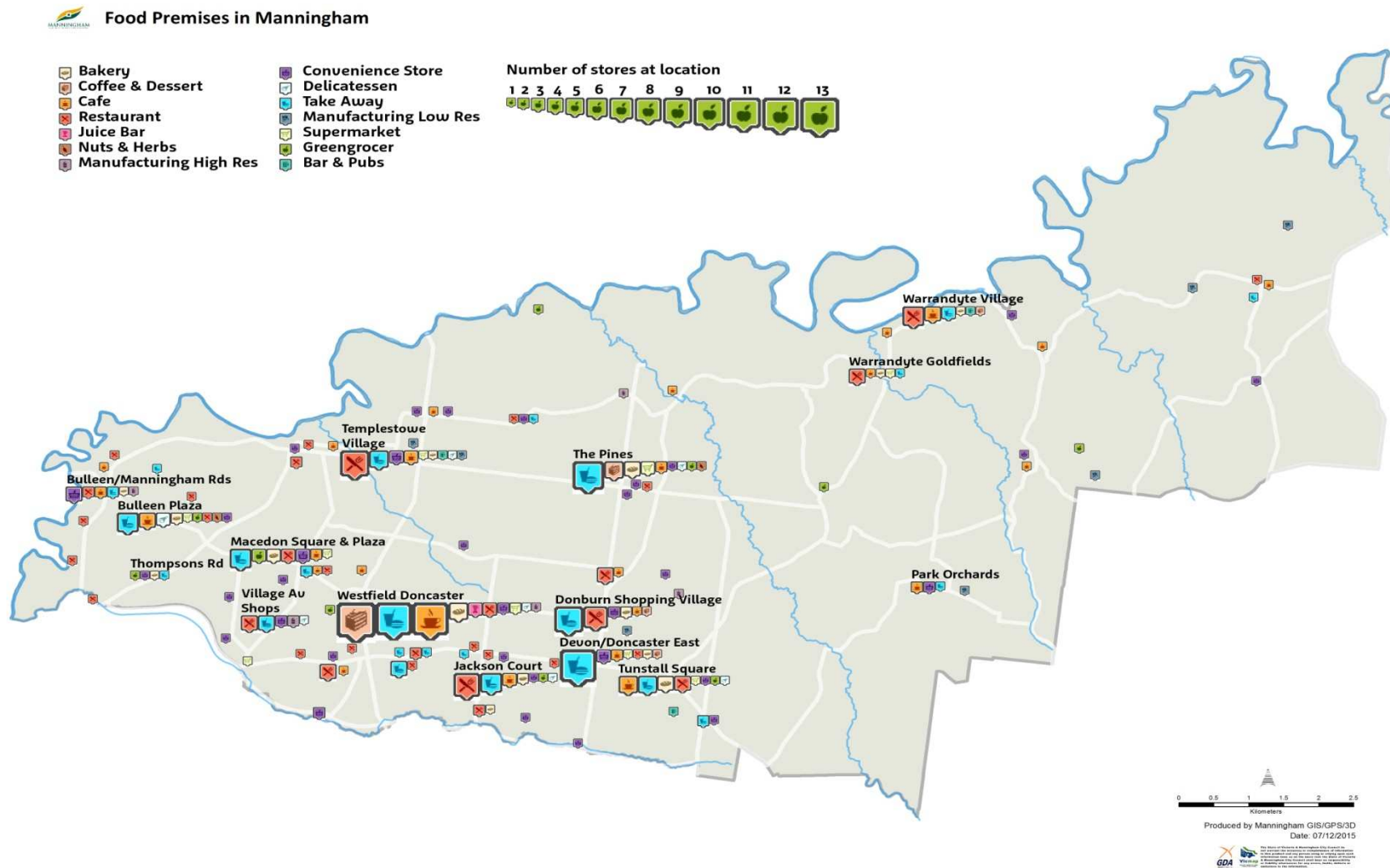
Appendix 5 – Manningham food maps

Figure 15: Categories of food outlets and their locations within Manningham's activity centres
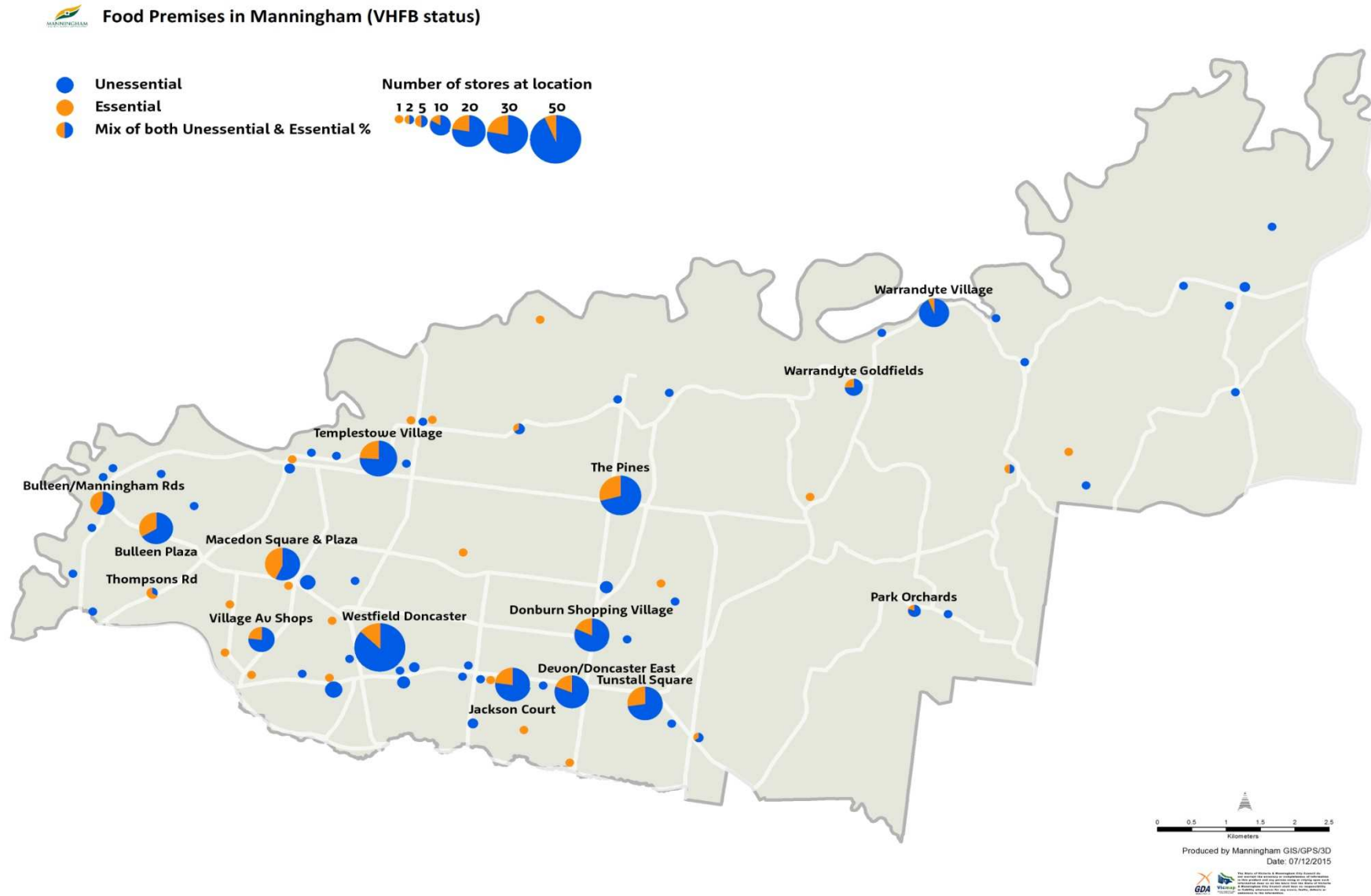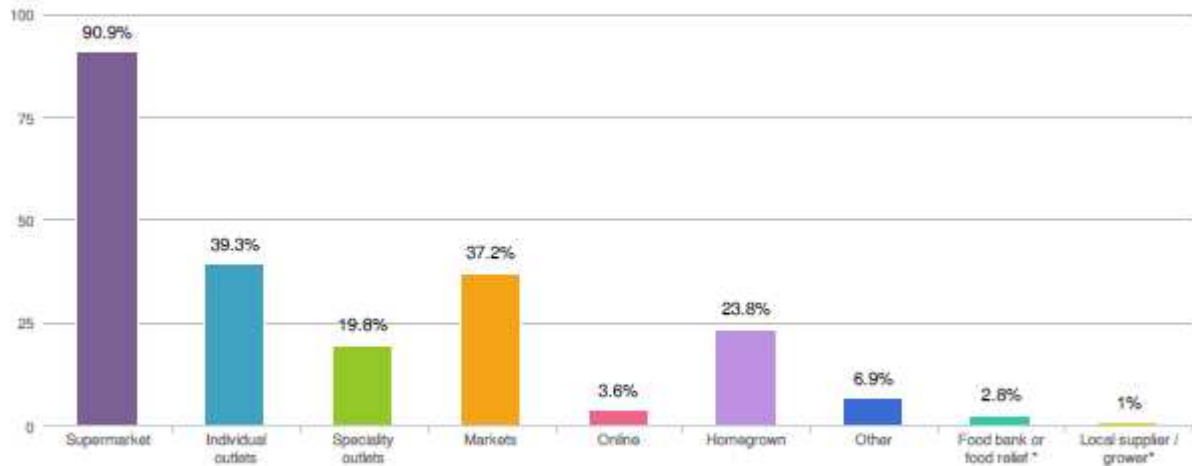
Figure 16: Proportion of food outlets offering items listed within the Victorian Healthy Food Basket table

Appendix 6 – Consultation survey data

Summary Report - All data

1. Where do you normally buy your household groceries and fresh produce from? Please select all relevant options.


Supermarket	90.9%		550
Individual outlets	39.3%		238
Speciality outlets	19.8%		120
Markets	37.2%		225
Online	3.6%		22
Homegrown	23.8%		144
Other	6.9%		42
Food bank or food relief *	2.8%		17
Local supplier / grower*	1.0%		6
		Total	605

Responses "Other"	Count
Left Blank	568
ALDI or Costco	1
Auman's orchard	1
Aussie Farmers	1
Aussie Farmers direct	1
Aussie farmers	1

Responses "Other"	Count
Ceres - delivered fresh food box via food host.	1
Chinese grocery shop.	1
Co-op organic	1
Coles on line	1
Community Meals	1
Costco	1
Don't purchase	1
Food Bank	1
Food bank	2
Food bank.	10
Food relief - vantage point	1
Food relief programs.	1
Fruit n Veg from Warrandyte Green Wedge Co-op	1
Health food; Food Party	1
IGA	1
Local orchards	1
Mullum Mullum Food Bank	1
Orchard	1
Shop around	1
Small suppliers sell 30-60% cheaper than supermarkets	1
farms	1
fruit shops	1
local shopping strip	1
urban harvest & Veggie Swaps	1
vegie swap	1
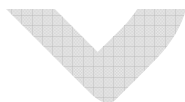
2. Why do you choose to shop from this/these outlet/s? Please select all relevant options.
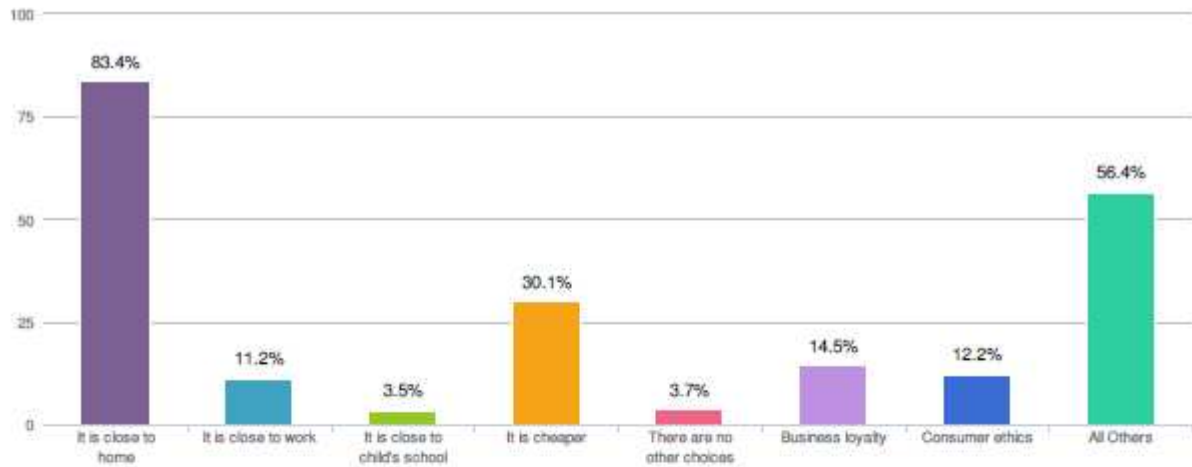
	Percent		Count
It is close to home	83.4%		501
It is close to work	11.2%		67
It is close to child's school	3.5%		21
It is cheaper	30.1%		181
There are no other choices	3.7%		22
Business loyalty	14.5%		87
Consumer ethics	12.2%		73
To support local business	35.8%		215
Staff speak my language	4.2%		25
Food sold is culturally and/or religiously appropriate	3.3%		20
Other	13.1%		79
		Total	601

Responses "Other"	Count
Left Blank	530
?	1
All under one roof	1
Australian produced.	1
Better quality of fruit/veg - green grocer.	1
Better quality produce	1
Close to sims house	1

Responses "Other"	Count
Community Meals	1
Considered health choices of home grown.	1
Convenience	1
Convenience and laziness.	1
Convenience at the time.	1
Convenient - all in one place, enroute to school drop off.	1
Convenient to get everything at once.	1
Easy carparking. Short distance to ...trolley.	1
Easy to get all I want in one place.	1
Farmers markets have better choices but very pricey.	1
Faster/convenient	1
Food intolerances/allergies	1
Fresh	1
Freshness	1
Freshness of food	1
Freshness, nutrition.	1
GROW OWN FOOD	1
Good quality	2
Healthy options	1
I buy Where the fresh food is freshest	1
I kn ow the products & ingredients.	1
Is organic & deliver	1
It's convenient to have most things in the one place	1
It's quick	1
Lack of time to go to several places.	1
Lots of choices and I can get what I need normally.	1
More costly than other ption (speciality outlet.	1
More selection.	1
Na	1
No packaging, fresher fruit & veg, more choice.	1
Non competition locally.	1

Responses "Other"	Count
Nothing to buy in supermarket (no religious need)	1
One stop I can get all I need	1
Organic - less food miles	1
Organics and range of gluten free products	1
Organics, local.	1
Quality	8
Quality & organic.	1
Quality free	1
Quality of fresh produce.	1
Quality, freshness, availability.	1
Quality/support home businesses.	1
Small group shops, lots of variety in small space	1
Special requirement for Malaysian food.	1
Specialty items	1
Supporting small business/disabled friendly Street Market.	1
The one stop shop - Easy for busy working Mum	1
The product is better.	1
The staff provide a friendly service even if it is a bit more expensive.	1
Wide range in one location	1
Will buy organic from farmers market	1
better produce at the market	1
convenience	2
convenient to shop online at times	1
cost, time, convenience.	1
different choice/good specialty range	1
fresh and I know where they come from	1
fresher produce	1
offer organic options.	1
one shop time - time management	1
opening times	1
organic/low pesticides	1
-	
wider selection.	1

3. Which, if any, of the following would you like to see more of?
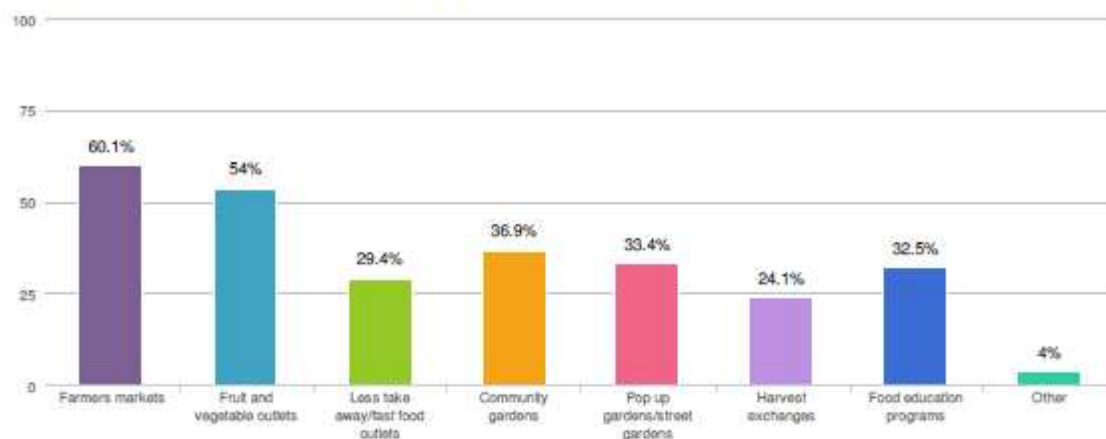
Farmers markets	60.1%		344
Fruit and vegetable outlets	54.0%		309
Less take away/fast food outlets	29.4%		168
Community gardens	36.9%		211
Pop up gardens/street gardens	33.4%		191
Harvest exchanges	24.1%		138
Food education programs	32.5%		186
Other	4.0%		23
		Total	572

Responses "Other"	Count
Left Blank	587
Australian grown only outlets	1
Basic cooking programs.	1
Cheaper prices	1
Community Meals	1
Delicatessens	1
Food delivery (organic)	1

44

Responses "Other"	Count
Good security.	1
Happy as is!	1
Hungry Jacks	1
Labelling	1
Less big supermarkets.	1
Local organics	1
Meat outlets	1
Menu planning	1
Milk Bar	1
More competitive priced outlets	1
Organic	1
Organic bulk buying.	1
Use of term "affordable' - Affordable Markets	1
organic food retailers	1
Cultural diversity foods. Re: food ed: must be by non commercial providers. No mass market food educators. No packaged food educators. No wheat/dairy/sugar industry educators	1

4. How often do you consume take away/fast food?
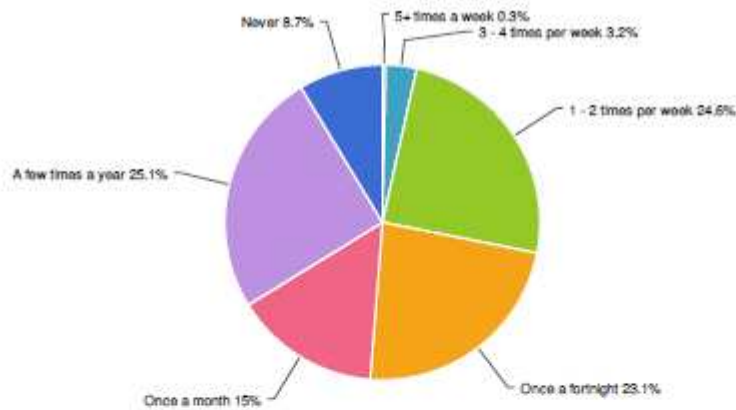
5+ times a week	0.3%		2	Sum	215.0
3 - 4 times per week	3.2%		19	Average	1.3
1 - 2 times per week	24.6%		148	StdDev	0.8
Once a fortnight	23.1%		139	Max	5.0
Once a month	15.0%		90		
A few times a year	25.1%		151		
Never	8.7%		52		
	Total		601		

Statistics

45

5. How important is eating healthy food to you and/or your family?
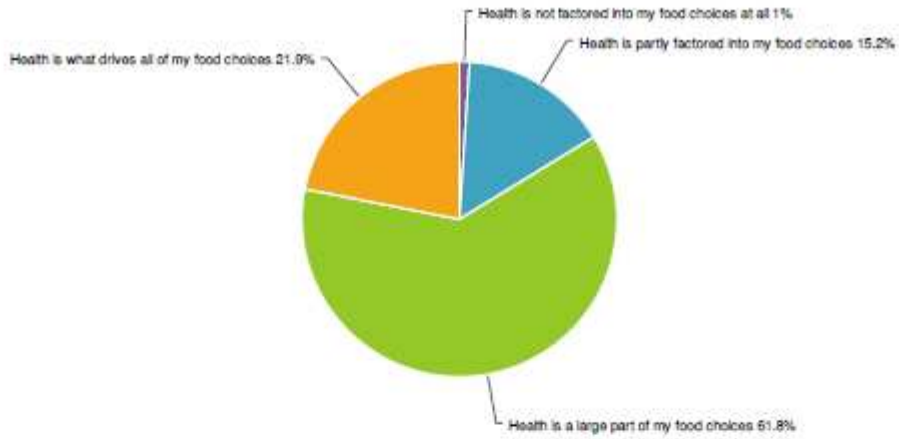
Health is not factored into my food choices at all	1.0%		6
Health is partly factored into my food choices	15.2%		89
Health is a large part of my food choices	61.8%		361
Health is what drives all of my food choices	21.9%		128
		Total	584

6. What factors stop you from choosing healthier food options?

Time	38.2%		214
		Total	561
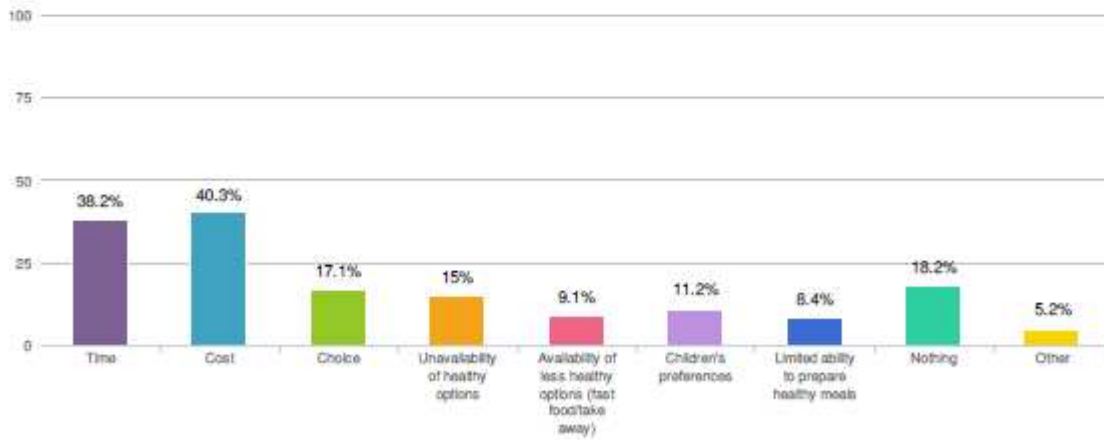
Cost	40.3%		226
Choice	17.1%		96
Unavailability of healthy options	15.0%		84
Availability of less healthy options (fast food/take away)	9.1%		51
Children's preferences	11.2%		63
Limited ability to prepare healthy meals	8.4%		47
Nothing	18.2%		102
Other	5.2%		29
		Total	561
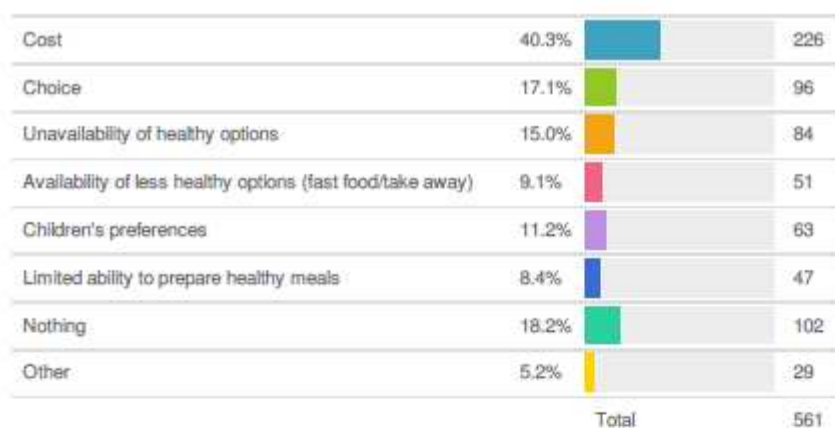
Responses "Other"	Count
Left Blank	579
?	1
Aus grown + manufactured	1
Desire!	1
Energy Levels	1
Health issue	1
I ALWAYS CHOOSE HEALTHY OPTIONS	1
I do choose healthy foods.	1
Knowledge to cook healthier food choices.	1
N/A	1
Need a treat every now & then.	1
Nil	1
No vegan options.	1
Not easily accessible.	1
Organic	1
Other choices are easier.	1
Partner likes take away.	1
Planning	1
Sometimes cost	1
Sometimes life is too full!	1
There is always a healthier option and time.	1

Responses "Other"	Count
Think I considered no excuses health in options	1
We ensure that we eat healthy food	1
We look for what we need.	1
cost	1
cost, cost	1
depression	1
hygenic/poison residues.	1
sometimes i feel like eat less healthy food	1
sweetners.	1

7. Please indicate what type of household you live in:
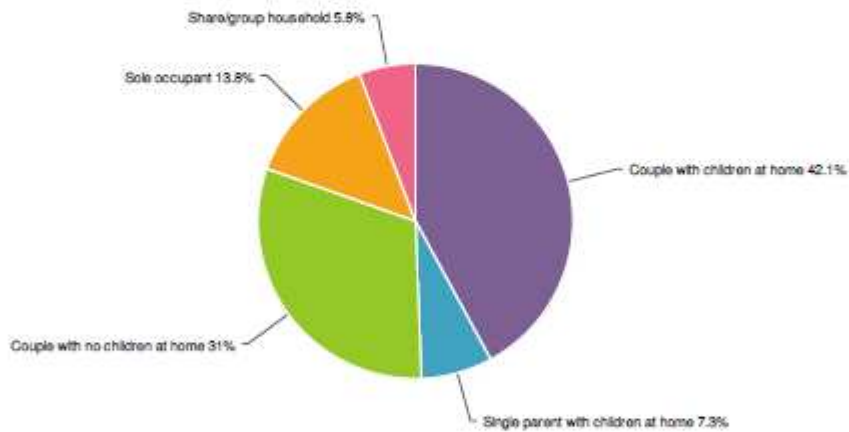
Couple with children at home	42.1%		247
Single parent with children at home	7.3%		43
Couple with no children at home	31.0%		182
Sole occupant	13.8%		81
Share/group household	5.8%		34
		Total	587

48
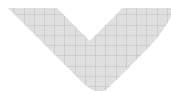
8. What is your gender?
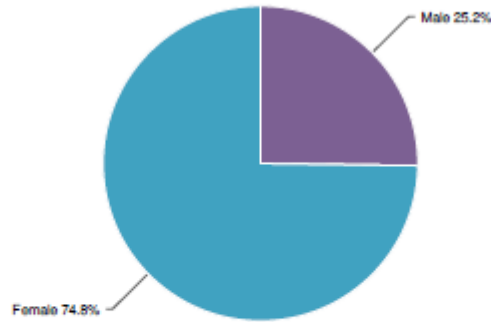
Male	25.2%		145
Female	74.8%		430
		Total	575

9. How old are you?
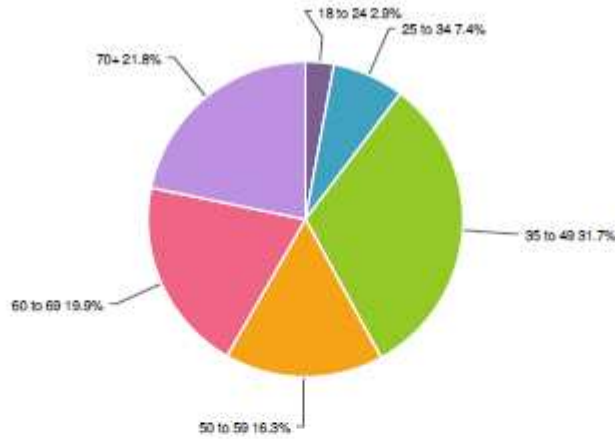
				Statistics	
15 to 17	0.0%		0	Sum	28,456.0
18 to 24	2.9%		17	Average	48.8
25 to 34	7.4%		43	StdDev	15.9
35 to 49	31.7%		185	Max	70.0
50 to 59	16.3%		95		
60 to 69	19.9%		116		
70+	21.8%		127		
		Total	583		

10. Which municipality do you live in?
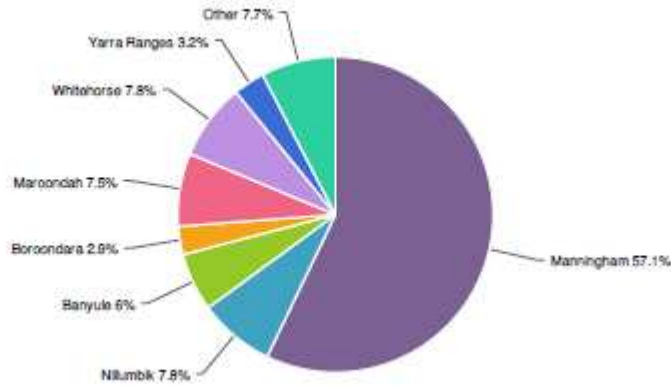
Manningham	57.1%		336
Nillumbik	7.8%		46
Banyule	6.0%		35
Boroondara	2.9%		17
Maroondah	7.5%		44
Whitehorse	7.8%		46
Yarra Ranges	3.2%		19
Other	7.7%		45
		Total	588

Responses "Other"	Count
Left Blank	569
Albury/Wodonga	1
Bayside	1
Carlton	1
Casey	3
City of Yarra	1
Darebin	2
Glen Eira	2
Greater Dandenong	1
Kingston	2

Knox		12
Marbyrnong	1	
Monash		2
Moreland		1
Moving to Frankston City in Mid April 2015.		1
Port Philip		1
Port Phillip		1
Portmelbourne		1
Reservoir		1
Whittlesea		2
Yarra		1
I would like to see more advantage taken of 'waste' food. Making jam/wine from excess fruit in our region.		1

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