



# Young people and walking in Victoria

## Full report

Supported by



This report was prepared by Dr Jan Garrard, Active Transport Consultant, for Victoria Walks and Youth Affairs Council Victoria (YACVic), October 2017. This is the full project report – a summary report is available at [www.victoriawalks.org.au/young\\_people/](http://www.victoriawalks.org.au/young_people/).

Victoria Walks Inc is a walking health promotion charity working to get more Victorians walking more every day. Our vision is people walk whenever and wherever possible, within strong and vibrant communities, with resulting health benefits. Victoria Walks is supported by VicHealth.

Youth Affairs Council Victoria (YACVic) is the peak body and leading policy advocate on young people's issues in Victoria. Our vision is that young Victorians have their rights upheld and are valued as active participants in their communities. We are an independent, for-purpose organisation, driven by our members.

[www.yacvic.org.au](http://www.yacvic.org.au)

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## 1 INTRODUCTION

A great deal of research has been conducted into factors that support and constrain walking for recreation and transport. However, most of this research has focussed on adults and children, with less research involving young people aged 15 to 20 years.

Young people aged 15-20 years are transitioning from relatively active children to less active adolescents (especially females), and from non-motorists to potential car drivers. In addition, there is emerging evidence of a generational shift in Australia and similar countries away from young people obtaining a driver's license and purchasing a motor vehicle. It is therefore important to obtain a better understanding of young people's perspectives on what comprises a walkable community that supports young people's physical activity and non-motorised mobility.

While the study includes both physically active and inactive young people, the focus is on inactive young people. Young people who are currently inactive may not seek out deliberative forms of physical activity such as sport, exercise, fitness training and active recreation, but may be more likely to engage in incidental physical activity such as walking for transport through the establishment of more supportive walking environments.

Comprehensive information and data on young people's perceptions of walkable communities will give voice to a relatively neglected population segment in walking research.

### 1.1 PROJECT AIM

The overall aim of the project is to gain an understanding of young people's (15-20 years) perceptions of walkable communities, independent mobility, and supports and barriers to young people walking for recreation and transport.

### 1.2 PROJECT COMPONENTS

The three components of the project are summarised in the following table.

Component	Aim	Format
1. Desktop literature review.	Review research evidence related to young people's perceptions of walkable communities, independent mobility, and supports and barriers to young people walking for recreation and transport.	Desktop literature review of international, Australian and Victorian research, including peer-reviewed research and relevant non-peer-reviewed research and data.

2. Focus group discussions with young people in Victoria.	Explore young people’s perceptions of walkable communities, independent mobility, and supports and barriers to walking for recreation and transport.	Five focus group discussions, with participants recruited through YACVic.  Participants included males and females; and inner, middle and outer suburban and regional locations.
3. Online survey of Victorian young people.	Assess young people’s perceptions of walkable communities, independent mobility, and supports and barriers to walking for recreation and transport.	Online survey of young people in Victoria (aged 15 – 20 years).  Sample (N = 1089) included a range of young people recruited through YACVic and Facebook advertisements. Survey questions based on findings from previous components, particularly focus group discussion findings.

## 2 LITERATURE REVIEW

The first phase of the study comprised a desktop literature review of research evidence related to young people’s perceptions of walkable communities, independent mobility, and supports and barriers to young people walking for recreation and transport. A desktop literature review was conducted of international, Australian and Victorian research, including peer-reviewed research and relevant non-peer-reviewed research and data.

The literature review covers:

- young people’s levels of physical activity;
- the role that walking can play in increasing the proportion of young Australians who are adequately active;
- young people’s perceptions of walking, walkable communities and independent mobility; and
- supports and barriers to young people walking for recreation and transport.

### 2.1 WHY PROMOTE WALKING FOR YOUNG PEOPLE?

This section covers (a) young people’s levels of physical activity; (b) young people’s participation in walking for recreation and transport; and (c) the role that walking can play in increasing the proportion of young people who are adequately active.

#### 2.1.1 Young people (aged 15-20 years) and physical activity

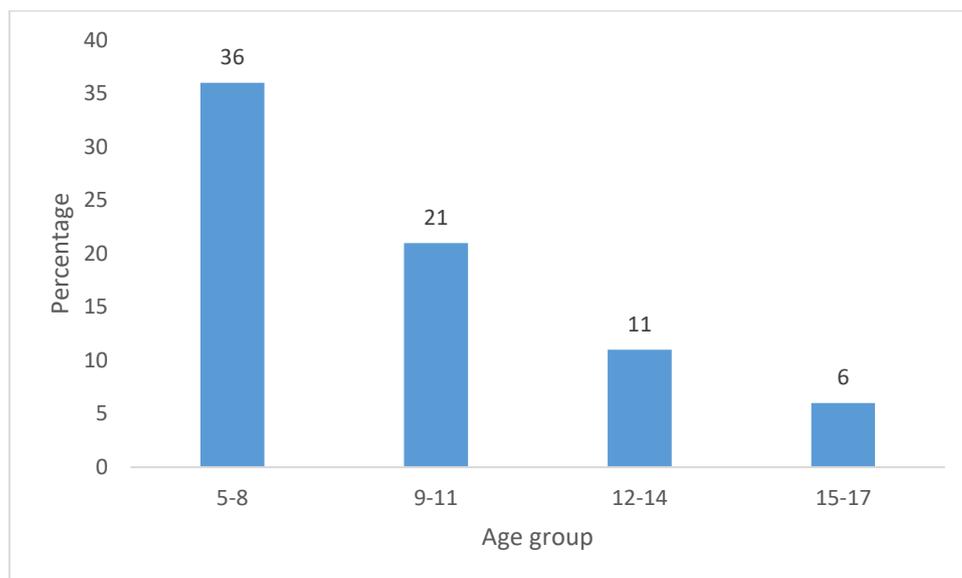
Physical activity is important for the health, growth and development of children and young people (Okely, 2012), but in Australia many children and young people fail to meet recommended levels of physical activity.

The Commonwealth Department of Health provides the following recommendations for physical activity levels for children and adults. To achieve health benefits it is recommended that:

- Children and young people aged 5–17 years should accumulate at least 60 minutes of moderate to vigorous intensity physical activity every day.
- Adults aged 18-64 should be active on most, preferably all, days every week, and accumulate 150 to 300 minutes (2 ½ to 5 hours) of moderate intensity physical activity or 75 to 150 minutes (1 ¼ to 2 ½ hours) of vigorous intensity physical activity, or an equivalent combination of both moderate and vigorous activities, each week.

(Commonwealth Department of Health, 2014)

However, only 19% of Australian children aged 5-17 years achieve the recommended 60 minutes or more of physical activity each day (Australian Bureau of Statistics, 2013), with levels of physical activity declining markedly with age. As shown in Figure 1, while more than a third of 5-8 year-olds are adequately active, only six percent of 15-17 year-olds achieve the recommended level of physical activity each day. Further, sizeable proportions of males (32%) and females (44%) aged 15-17 years reported not exercising for 60 minutes or more on any day in the past week (Australian Bureau of Statistics, 2015).



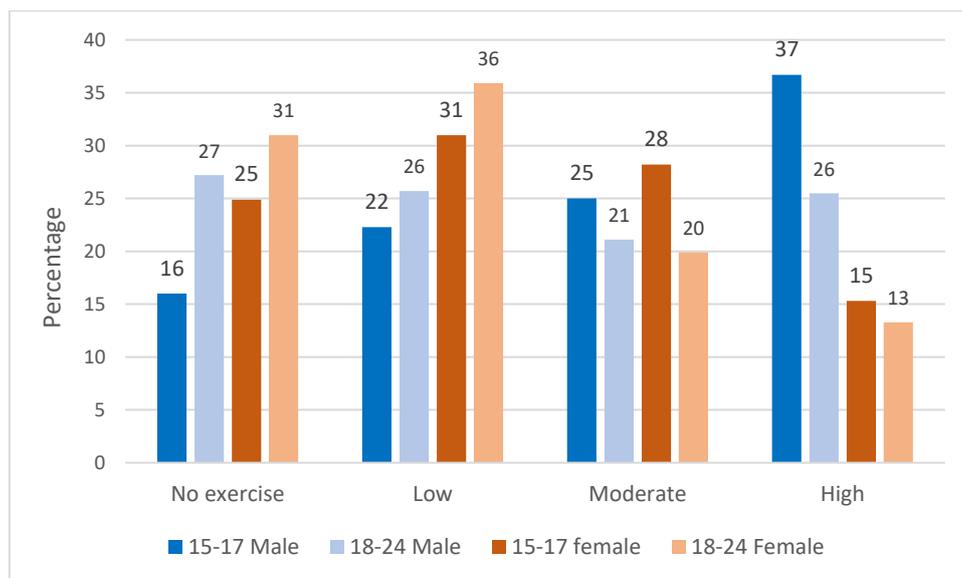
**Figure 1: Proportion of Australian young people meeting recommended levels of physical activity on all seven days (Source: ABS, 2013)**

For young adults, about half of Australian 18-24 year-olds (52%) achieve the recommended level of physical activity for adults (see above), with males (55%) more likely to be adequately active than females (49%) (Australian Bureau of Statistics, 2015).

The ABS National Health Survey also provides data on ‘Level of exercise’ which is based on intensity, duration and frequency of individuals' physical activity (see Figure 2). These data indicate (a) marked increases with age (from 15-17 years to 18-24 years) in the proportion of young people who reported no or low levels of physical activity in the last week

(previously classified as 'sedentary' in the 2011-12 National Health Survey); and (b) higher levels of no and low physical activity for females than males for both age groups. Gender differences are particularly marked for high levels of physical activity, with females in both age groups (15% of 15-17 year-olds, and 13% of 18-24 year-olds) having about half the rates of high levels of physical activity as males (37% of 15-17 year-olds, and 26% of 18-24 year-olds).

These National Health Survey data indicate a substantial decline in levels of physical activity as young people transition from late adolescence (15-17 years) to early adulthood (18-24 years), further extending the decline that occurs during childhood (see Figure 1).



**Figure 2: Level of exercise (for fitness, sport or recreation)**  
(Source: ABS, 2015)

### 2.1.2 Types of physical activity (sport, recreation, active transport)

Several different types of physical activity can contribute to young people’s overall level of physical activity. Commonly, a distinction is made between planned physical activity and incidental physical activity. Planned physical activity (also termed leisure-time physical activity) includes exercising for fitness, sport or recreation – activities that are often undertaken with the intention of improving health and wellbeing. On the other hand, incidental physical activity occurs when people are ‘doing other things’. Incidental physical activity includes active transport and physical activity associated with paid work, housework and gardening.

Walking can be a form of both planned and incidental physical activity, with walking for transport in particular offering considerable potential for people to achieve adequate levels of physical activity (in terms of time and intensity) whilst also providing for personal mobility. Based on the 2011 Compendium of Physical Activities, walking at 3.5 mph (5.6 km/h) on a level firm surface has a MET value of 4.3 (ie 4.3 times resting metabolic rate), and walking to work or education has a MET value of 4.0 (Ainsworth et al., 2011). These

MET values fall within the moderate-intensity physical activity range of 3-6 METs ([http://www.who.int/dietphysicalactivity/physical\\_activity\\_intensity/en/](http://www.who.int/dietphysicalactivity/physical_activity_intensity/en/)).

While, in the past, questions have been raised about whether the intensity of walking is sufficient to benefit the cardio-vascular health of fit young adults (Shephard, 2008), recent studies have reported that active commuting to and from school is associated with improved metabolic risk factors for both children and adolescents. A cross-sectional study of 229 male and female students aged 10-12 years in Portugal reported that walkers (students who reported that they usually travel to or from school by walking) were more likely to have a better waist circumference and better high density lipoprotein cholesterol profiles than non-active commuters, independent of moderate-to-vigorous physical activity (Pizarro et al., 2013).

Other recent studies have reported similar findings of improved health indicators (eg anthropometric measures, cardiorespiratory fitness and muscular fitness) for adolescents who travel actively to school (Ostergaard et al., 2013). While some studies report that cycling is associated with more and/or greater health benefits than walking, there are health benefits associated with both walking and cycling relative to passive modes of travel to school (Larouche et al., 2014; Ostergaard et al., 2013).

### **2.1.3 Contribution of different types of physical activity to young people's overall levels of physical activity**

Patterns of physical activity among young people vary with type of physical activity, age, gender and other sociodemographic factors. A cross-sectional study of 3051 males and females aged 12.5-17.5 years conducted in 10 European cities described self-reported physical activity (PA) patterns in the various domains of school, home, transport, and leisure time; and for the intensity categories of walking, moderate PA and vigorous PA (de Cocker et al., 2011).

Key findings were that adolescents spent the most PA time during leisure time (485 min/week) and least PA time at home (140 min/week). Boys spent an average of 330 minutes per week on transport-related PA, with girls spending 277 minutes per week. Boys reported more total physical activity time, school-based PA, leisure-time PA and vigorous PA than girls; while girls reported more home-based PA. Walking levels were similar for girls (453 min/week) and boys (450 min/week). PA at school, moderate PA, vigorous PA and total PA were significantly higher in younger age groups than in older groups, consistent with the declining rates of PA with age for young people in Australia (see Figure 1). However, both transport-related PA and walking PA did not decline with age. The study found SES differences in all PA domains and intensities except transport-related PA and total PA, indicating that transport-related PA may help to address inequalities in physical activity participation among young people. The lack of SES differences for walking for transport is consistent with Australian adult data (see Figure 5).

An additional analysis found that adolescents (both boys and girls) who spend more time in active commuting across the week have higher levels of daily physical activity than those

who report less active commuting, indicating that active transport does not displace other forms of physical activity (Chillon et al., 2011).

Studies have reported that times of transition within the life course (ie movement from school to higher education or into the workforce) are associated with declining rates of physical activity (Allender et al., 2006). Declining rates of school-based physical activity (ie physical activity during school hours) with age have also been reported in Australia. Data from several state and regional surveys of 6024 young people aged 10–18 years conducted in South Australia and Victoria between 2001 and 2006 were analysed for a range of active and sedentary behaviors grouped under: inactivity, transport, sport and play, school, self-care, chores, and other (Olds et al., 2009). The authors reported that all activity-related variables decreased with age, except active transport, which peaked at 14–15 years.

Another Australian study investigated the correlates of leisure time physical activity (LTPA) and transport-related physical activity (TRPA) among women aged 18 years and over living in socioeconomically disadvantaged neighbourhoods in Victoria (Cleland et al., 2010). Based on the social-ecological model of physical activity participation, the authors reported that individual and social factors were most important for LTPA, while individual and social factors as well as the neighbourhood walking environment were associated with TRPA (nearly all of which was walking). These findings suggest that improving the walking environment in socioeconomically disadvantaged neighbourhoods in Victoria is likely to lead to increased physical activity among two population segments that have relatively low levels of physical activity; namely, women and socioeconomically disadvantaged population groups.

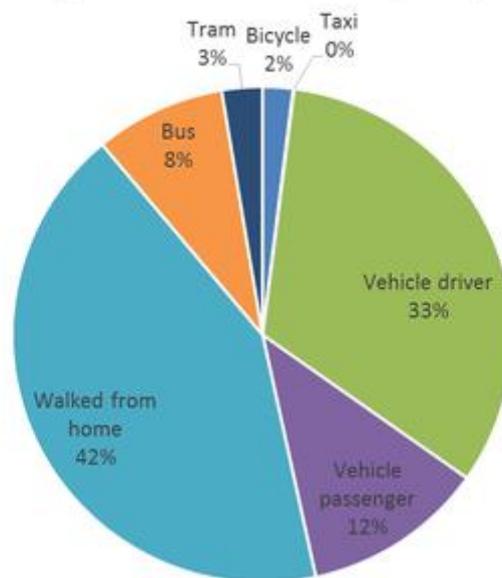
The data described above indicate that walking for transport and recreation has the potential to make a substantial contribution to adequate levels of physical activity for most young adults, including those who currently have low levels of physical activity, and who choose not to participate in leisure-time physical activity. In fact, modelling of physical activity patterns in Australian adults demonstrates the potential for relatively small (and potentially achievable) increases in active travel to impact on the proportion of Australians who are adequately active. If people who are currently classified as inactive walked or cycled for an additional 20 minutes three times per week, the proportion of adequately active Australian adults would increase from 57% to 72% (Garrard et al., 2012).

Equivalent modelling has not been conducted for young people in Australia, but the results are likely to be similar to those for adults. Support for this assertion also comes from studies in the UK which report that adolescent girls (a population segment that has low levels of leisure time physical activity) are 6 to 8 times more likely to meet recommended levels of physical activity if they travel actively to school (Smith et al., 2008; Voss and Sandercocock, 2010). These, and other findings, indicate that active transport does not ‘displace’ other forms of physical activity; neither is it undertaken principally by children who are already active (Davison et al., 2008). Rather, increases in young people’s active travel are likely to result in net gains in young people’s levels of physical activity and in the proportion of young

people achieving recommended levels of physical activity (Davison et al., 2008; Voss and Sandercock, 2010).

Achieving adequate levels of physical activity by incorporating walking into the activities of daily life can include the use of public transport. A recent analysis of the California Household Travel Survey reported that 5-17 year-olds who used public transport on the day of the survey walked for a median time of 21 minutes (Durand et al., 2016), representing about a third of the recommended 60 minutes of moderate intensity physical activity per day. Further, an analysis of VISTA data for train trips in Melbourne found that 42% of people who used a train for transport walked from home to the train station (Figure 3). While a detailed analysis has not been conducted, it is likely that young people (many of whom do not drive a car) will have a higher rate of walking to access public transport than the general population. These data indicate that increased use of public transport is likely to contribute to increased walking and consequently increased health-enhancing physical activity among young people.

Mode used before train (excluding walking transfers), on journeys from home to work, Melbourne  
(source: VISTA 2007-08 & 2009-10, n=1681)



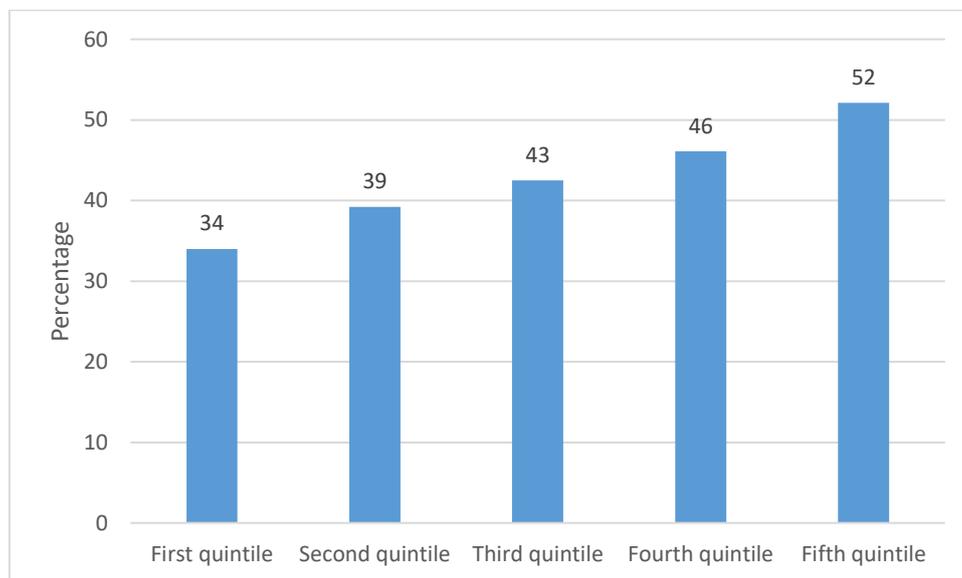
**Figure 3: Modes of travel to train stations, Melbourne**  
(Source: Charting Transport, <https://chartingtransport.com/page/2/>)

#### 2.1.4 Walking as a socially inclusive form of physical activity

As noted above, there is fairly consistent evidence that walking for transport reaches population groups that, for a range of reasons, do not participate in leisure-time physical activity (Berrigan et al., 2006). These include women and disadvantaged population groups (see above). As shown in Figure 4, Australian adults living in the most disadvantaged areas (SEIFA quintile 1) are much less likely to be adequately active than those living in the least disadvantaged areas (SEIFA quintile 5) (34% and 52% respectively) (Australian Bureau of

Statistics, 2013). This difference is mainly due to higher levels of leisure-time physical activity (vigorous and moderate physical activity, and walking for fitness, recreation or sport) among socioeconomically advantaged population groups. Walking for transport, on the other hand, is more socially inclusive; with no significant differences based on socioeconomic position (see Figure 5). These data are consistent with the socioeconomic profile of Victorians who walk to work, based on data from the 'journey to work' item in the Australian population census (Bartley Consulting Pty Ltd, 2008).

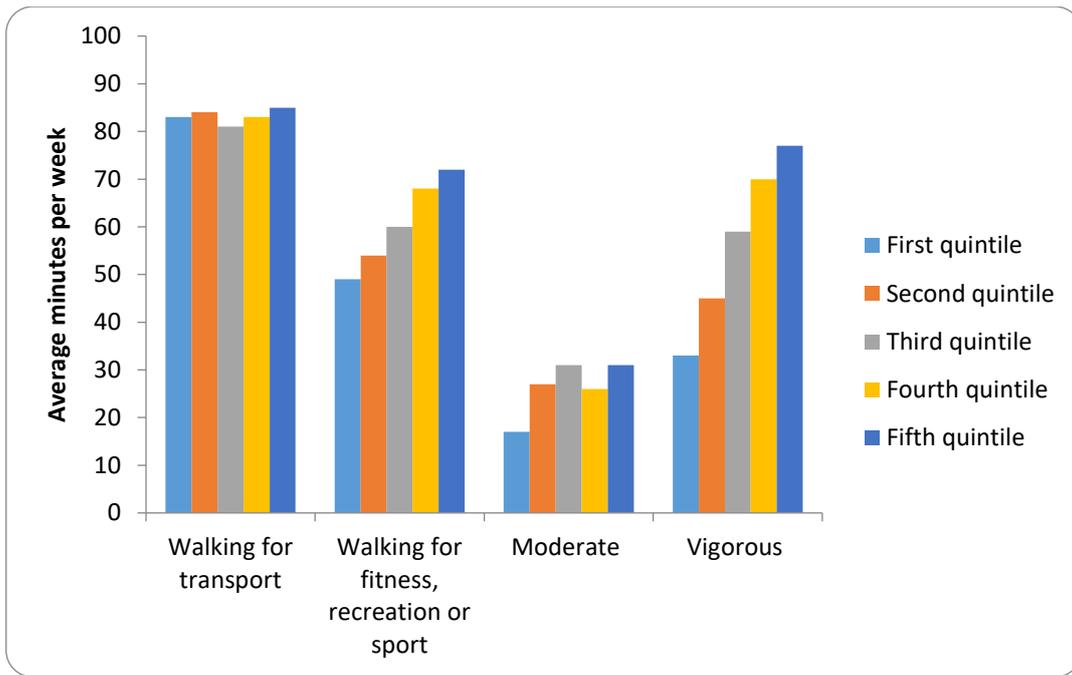
These differing socioeconomic patterns for different forms of physical activity are important because they suggest that walking for transport may contribute to reducing health inequalities in Australia. It is well-established in Australia that socioeconomically disadvantaged groups experience more ill health, are more likely to engage in behaviours that increase their risk of ill health (such as sedentary behaviour), and are less likely to use preventive health care services (Turrell et al., 2006). Thus, creating supportive environments for (more) transport walking may contribute to improving the health of socioeconomically disadvantaged population groups.



**Figure 4: Proportion of Australians aged 18 years and over with sufficient physical activity in last week, SEIFA quintiles<sup>1</sup>**  
(Source: ABS, 2013)

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<sup>1</sup> Socio-Economic Index for Areas (SEIFA): quintile 1 refers to the most disadvantaged socioeconomic areas in Australia, quintile 5 refers to the most advantaged socioeconomic areas, with each quintile representing 20% of the total distribution of SEIFA values.



**Figure 5: Average minutes per week spent on physical activity**  
(Source: ABS 2013)

### 2.1.5 Additional benefits of walking for transport

In addition to the health benefits for individuals, active modes of transport such as walking to school, work, shops and other destinations also contribute to reduced road congestion, improved air quality, reduced greenhouse gas emissions and improved community liveability (Litman, 2013).

Table 1 summarises the co-benefits associated with walking for transport, many of which are not associated with the more planned forms of leisure-time physical activity.

**Table 1: Comparison of benefits of active transport (including walking) and leisure-time physical activity**

	Active transport (AT)	Leisure-time physical activity (LTPA)
Sufficient to achieve a health benefit in terms of: <ul style="list-style-type: none"> <li>• Intensity</li> <li>• Frequency</li> <li>• Duration</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> </ul>
Distribution of participation and hence benefits (social equity): <ul style="list-style-type: none"> <li>• Adolescent girls</li> <li>• Women</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> </ul>	These population groups are less likely to participate

<ul style="list-style-type: none"> <li>• Older adults</li> <li>• Disadvantaged groups</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> </ul>	in LTPA and are priority groups for physical activity promotion in Australia.
<p>Barriers to PA:</p> <ul style="list-style-type: none"> <li>• Lack of time</li> <li>• 'Not sporty'</li> <li>• Cost</li> <li>• Convenience</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul> <hr/> <p>AT addresses these key barriers to LTPA in Australia (eg (Kavanagh et al., 2007)</p> <hr/>	<ul style="list-style-type: none"> <li>–</li> <li>–</li> <li>–</li> <li>–</li> </ul>
<p>Co-benefits:</p> <ul style="list-style-type: none"> <li>• IQ and educational attainment (children and young people)</li> <li>• Traffic congestion</li> <li>• Environment</li> <li>• Community liveability</li> <li>• Young people's independent mobility</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>–</li> <li>–</li> <li>–</li> <li>–</li> </ul>

### 2.1.6 Patterns of walking among young people

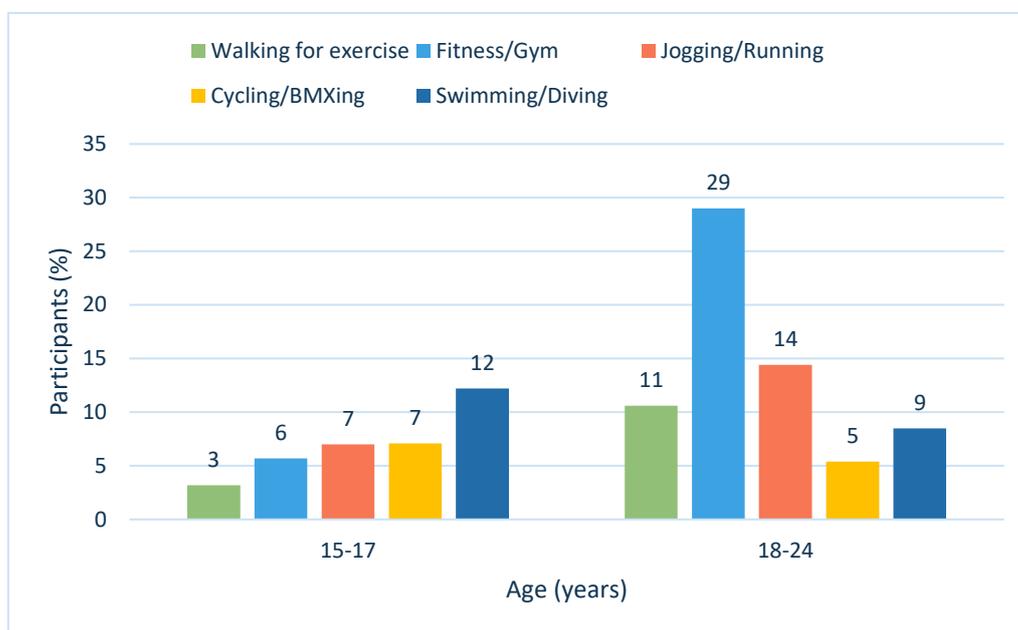
A range of data sources provide information about recreational walking and transport walking for (a) all young people in the age range 15-20 years, and (b) sub-sets of young people in this age range (eg walking to school or work). These data are summarised below.

#### 2.1.6.1 Walking for sport and physical recreation

The ABS '*Participation in Sport and Physical Recreation*' survey provides data on all types of leisure-time physical activities for young people in the age groups 15-17 years and 18-24 years (Australian Bureau of Statistics, 2012).

Data from this survey indicate that while walking is the most popular form of leisure-related physical activity in the Victorian population aged 15 years and over, young Victorians have relatively low rates of participation in recreational walking. However, in a trend that continues into middle and older age, walking participation increases from ages 15-17 to

ages 18-24 (see Figure 6). While recreational walking rates are relatively low for young people, walking is, nevertheless, the fifth (15-17 years) and fourth (18-24 years) most popular form of leisure-related physical activity for Victorians.



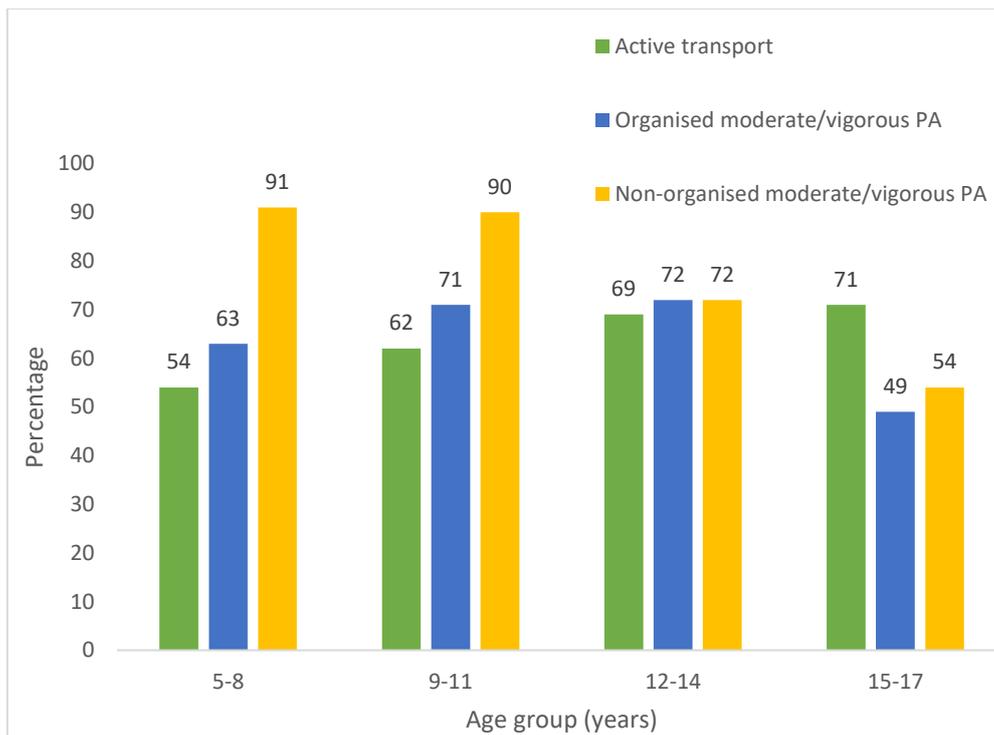
**Figure 6: Participation<sup>2</sup> in the top five forms of sport and physical recreation, Victoria**  
(Source: Australian Bureau of Statistics, 2012)

### 2.1.6.2 Participation in active transport

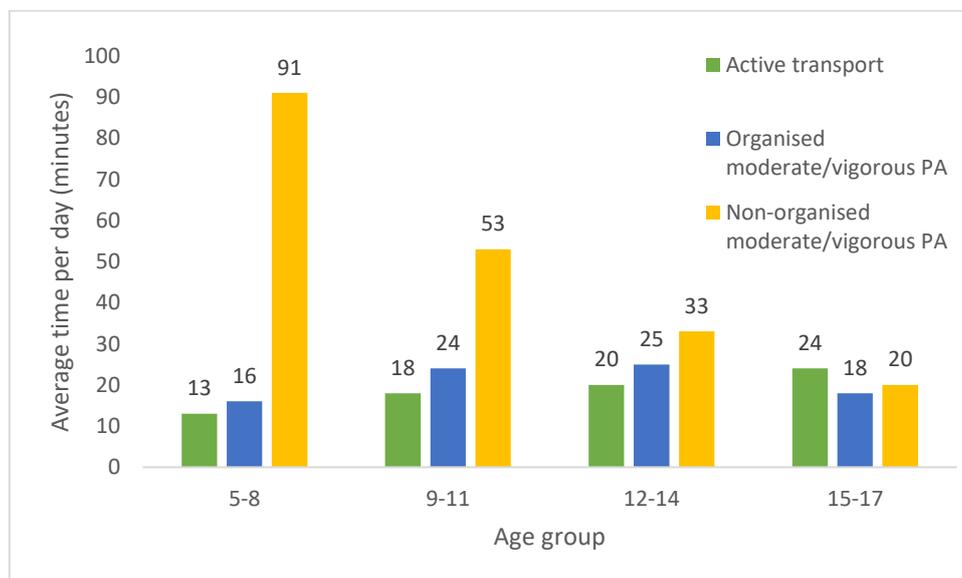
The Australian Bureau of Statistics *'National Health Survey'* includes data on young people's overall levels of active transport (Australian Bureau of Statistics, 2013). The survey does not distinguish between different modes of active transport, but other data sources indicate that walking is the main form of active transport in Australia for both young people and adults (see Section 2.1.6.4).

Figure 7 shows that more than half of Australian children and young people participated in some form of active transport in the seven days prior to the survey. In contrast to other forms of physical activity, participation in active transport increases steadily with age, with 15-17 year-olds more likely to participate in active transport in the past seven days than either organised or non-organised moderate/vigorous physical activity. A similar pattern is evident for the amount of time per day spent on physical activity (see Figure 8).

<sup>2</sup> At least once in the previous 12 months.



**Figure 7: Type of physical activity: participation in last seven days (Source: ABS 2013)**



**Figure 8: Type of physical activity: average time per day (minutes) (Source: ABS, 2013)**

These data indicate that incidental physical activity in the form of active transport provides an opportunity for health-enhancing physical activity among a growing proportion of young people who drop out of organised and non-organised physical activity as they move from childhood into adolescence. The increasing disengagement with leisure-time physical activity among young Australians is reflected in the rapid decline with age of young people

who meet the recommended 60 minutes or more of physical activity each day (Australian Bureau of Statistics, 2013) (see Figure 1).

### **2.1.6.3 Walking trips among young Victorians**

The number and proportion of all walking trips<sup>3</sup> undertaken by young people in Victoria is available from the Victorian Integrated Survey of Travel and Activity (VISTA). VISTA is an ongoing survey of householders' travel and activity conducted for the Department of Transport, Planning and Local Infrastructure. The survey is conducted with approximately 11,000 households across greater Melbourne, and about 6000 additional households in Geelong, Ballarat, Bendigo, Shepparton and Latrobe. A 24-hour travel diary is completed for each person over five years old in the household on the specified day.

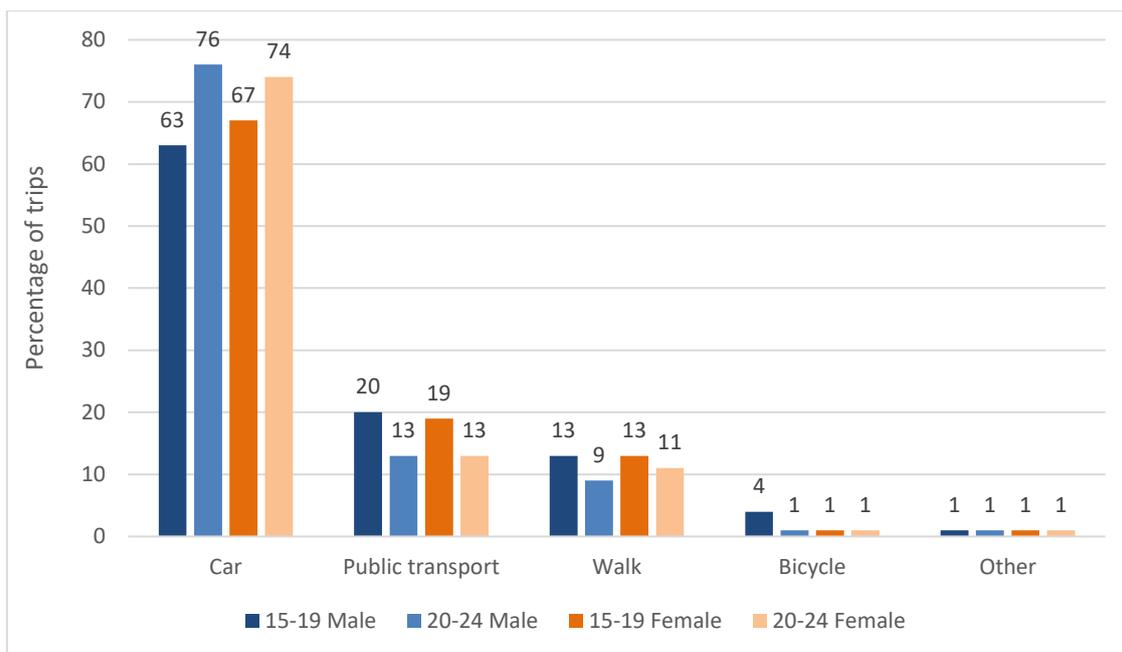
For the survey periods covering 2009-2012, most trips undertaken by young people aged 15-24 years were by car (as driver or passenger), with the proportion of car trips increasing with age for both males and females (Figure 9). Walking trips<sup>4</sup> comprised 13% of trips for males and females aged 15-19, declining to 9% and 11% respectively for 20-24 year-olds. Public transport use also declined with age, with similar rates for males and females.

While these data need to be treated with caution due to relatively high standard errors associated with some data points, the data suggest a shift from active to passive forms of travel as young people reach driving age (16 for a learner driver, and 18 for a licensed driver in Victoria). This travel mode shift is consistent with research findings from most countries, including Australia, which indicate that access to a motor vehicle is associated with fewer active trips (Steinbach et al., 2012), including for short, local trips that are potentially walkable (see Section 2.1.10).

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<sup>3</sup> VISTA data includes recreational and transport-related walking trips.

<sup>4</sup> The data shown in Figure 9 are for walking-only trips (including walking for recreation), and therefore exclude walking associated with travel to and from public transport or motor vehicles. They therefore underestimate total daily walking.



**Figure 9: Mode share of all trips, by age and gender (Source: VISTA 2009-2012)**

The data described above suggest differing patterns of recreational walking and transport-related walking with age. Recreational walking increases from ages 15-19 years to ages 20-24 years (Figure 6), while walking as a proportion of daily trips declines (Figure 9). However, it is important to bear in mind that transport walking trips are likely to outnumber recreational walks for young people in both age groups due to their greater regularity<sup>5</sup> (ie frequency), particularly when walking associated with public transport use is taken into account. This is consistent with data that captures more regular physical activity (see Figures 7 and 8), and additional data from the Australian Health Survey which found that walking for transport comprises nearly half (48%) of the total time per week spent on physical activity for 18-24 year-old Australians, with the remaining 52% spent on vigorous and moderate physical activity, and walking for fitness (Australian Bureau of Statistics, 2013).

There is also considerable potential to increase the number of walking trips undertaken by young people, as young people in Australia currently have low rates of walking for transport relative to many other high-income countries, and walking trips among young Australians have declined substantially in recent decades. These trends are described in the following two sections.

#### **2.1.6.4 Young people’s rates of active travel to school**

Young people who walk or cycle to school are more likely to meet physical activity guidelines than those who are driven to school (Davison et al., 2008), especially among population segments such as adolescent girls who have low levels of leisure-time physical activity. In one large UK study, adolescent girls were 6-8 times more likely to meet

<sup>5</sup> Data in Figure 6 is for any participation in recreational walking in the previous 12 months.

recommended levels of physical activity if they actively commuted to school (Smith et al., 2008)

National representative data on Australian students' rates of active travel to school are not available; however, data are available from a non-probability sample of Australian school students (from the ABS *Censusatschool* project), and from state-based household travel surveys (such as VISTA in Victoria) based on probability samples. These various data sources produce similar patterns of school travel behaviour among Australian school students.

The ABS *Censusatschool* project comprised students (N = 23,745; mainly in grades 4-10) who self-selected to participate in the project, and self-reported their method of travel to school. As shown in Table 2, active travel rates are reportedly low in all states and territories. In Victoria, 25% of students reported travelling actively to school, predominantly by walking (20%).

**Table 2: Method of travel to school (Source: ABS Censusatschool, 2013)**

Method of travel to school	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Aust
Bicycle	6.1	2.0	4.2	2.9	3.2	1.5	3.9	5.9	3.4
Boat/Ferry	1.3	0.6	1.1	0.4	0.3	1.2	0.3	0.5	0.5
Bus	28.3	29.2	31.3	26.6	20.6	38.4	19.0	26.2	25.4
Car	46.1	38.1	44.6	49.7	53.9	42.2	50.5	41.1	46.0
Skateboard/Scooter/Rollerblades	0.8	1.3	1.8	0.8	1.4	0.4	1.3	2.7	1.3
Train/Tram	0.4	10.2	0.0	3.8	0.9	0.1	5.0	2.4	4.8
Walk	16.9	18.3	16.6	15.2	19.0	15.9	19.8	20.5	18.2
Other	0.0	0.3	0.4	0.5	0.7	0.3	0.2	0.6	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

VISTA data for 2007-08 indicate that the majority of trips to and from education (including primary, secondary and TAFE/University) in the Melbourne metropolitan area were car trips (52.1%), with relatively low rates of walking (17.4%) and cycling (2.6%) (Table 3). Walking rates decline as young people transition from primary school (22%) to secondary school (17%) to TAFE/University (4%). However, reductions in walking trips (and car trips) are associated with substantial increases in public transport trips for young people attending both secondary school (44%) and TAFE/University (52%). These differences are likely to reflect differences in travel distances, and in parents' willingness to allow young people to travel to school independently as they transition from primary school to secondary school (Carver et al., 2013).

**Table 3: VISTA 2007-08, Melbourne Metropolitan area, all trips to and from school, % trips per mode (1994 ABS data included for comparison)**

Trips to education	Car driver/passenger	Public transport	Walk	Cycle	Other
Primary	68	6.2	22.2	2.8	0.9
Secondary	36.9	43.8	16.9	2.3	0.1
TAFE/University	41.7	52.2	3.5	2.5	0.1
All education	52.1	27.5	17.4	2.6	0.5
All education (ABS 1994)	55.3	18.6	22.2	3.9	-

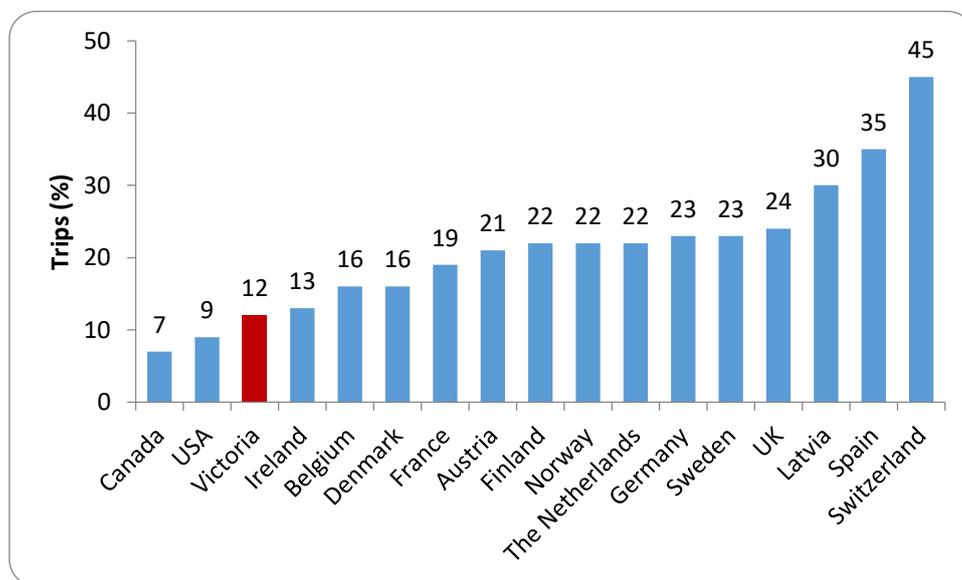
Internationally, these school travel data place Australia at the low end of rates of active school travel (AST) among OECD countries, along with the USA (13% AST), Canada (24% AST) and New Zealand (27% AST) (Active Healthy Kids Global Alliance, 2014 Global Summit Report Cards and Related Documents, <http://www.activehealthykids.org/2014-global-summit/report-cards-and-related-documents/>). UK rates (44% in England) are about midway between the high active travel rates in several European and Asian countries, and the low rates in Australasia and North America.

Low rates of active travel to school among young people in Australia are reflected in the overall mode share of walking and cycling for young people in Melbourne (4.6% of total distance travelled by active modes) compared with several other OECD countries such as the Netherlands (33.5%) (see Table 4). While the data in Table 4 are for 10-14 year-olds, based on data described above, a similar pattern is likely to hold for older adolescents and young adults. Countries with high rates of active transport at the overall population level are also likely to have high rates of active travel among young people (see Figure 10).

**Table 4: Distance walked and cycled per child (10-14 years) per year (km): international comparisons**

(Source: Garrard, 2009)

Country	Distance walked per child per year (km)	Distance cycled per child per year (km)	Proportion of total distance travelled using active modes (%)
USA	123	-	0.8
UK	396	79	6.8
NZ	-	232	-
Norway	550	370	9.7
Sweden	275	424	7.4
Germany	431	518	13.8
Switzerland	773	535	14.4
Netherlands	180	2200	33.5
Melbourne <sup>6</sup>	182	26	4.6



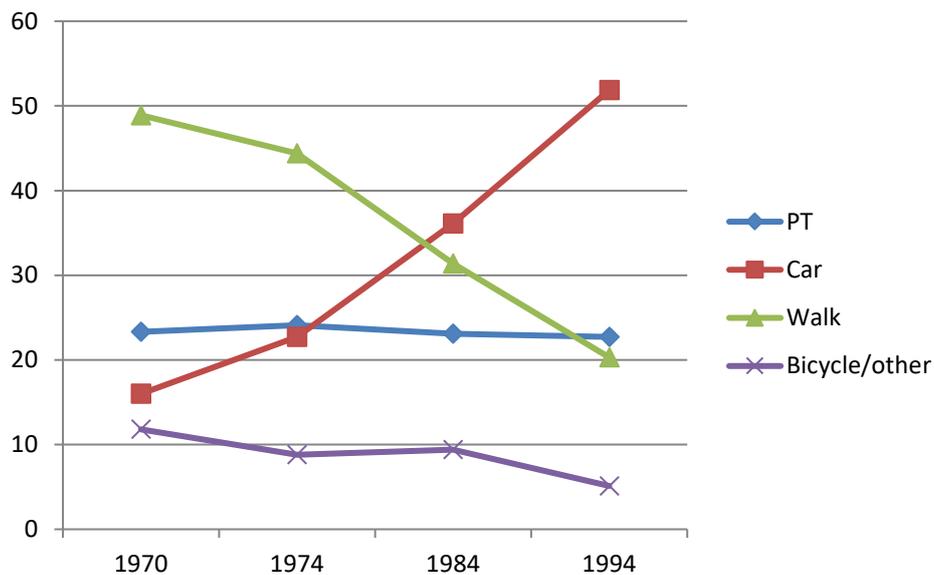
**Figure 10: Walking share of trips by country (and state of Victoria)**

(Source: Bassett et al., 2008)

<sup>6</sup> National data on active travel distance are unavailable. Melbourne data are likely to be indicative of Australian data.

### 2.1.6.5 Young people's rates of active travel to school: changes over time, Australia and internationally

Active travel has the potential to make a substantial contribution to young people's daily physical activity, but during the latter half of the 20<sup>th</sup> century active travel to school and other destinations in Australia declined substantially. In 1970 in Victoria, 16% of young people travelled to education (school, TAFE/University) by car, but by 1994 this had increased more than three-fold to 52% (see Figure 11). In the same time period walking and cycling to education more than halved, with 48.9% of students walking to education in 1970, decreasing to 20.3% in 1994 (Australian Bureau of Statistics, 1975, 1995; Australian Bureau of Statistics Victorian Office, 1985).



**Figure 11: Travel to education, Victoria, students (%)**  
(Source: Garrard 2010, based on ABS data)

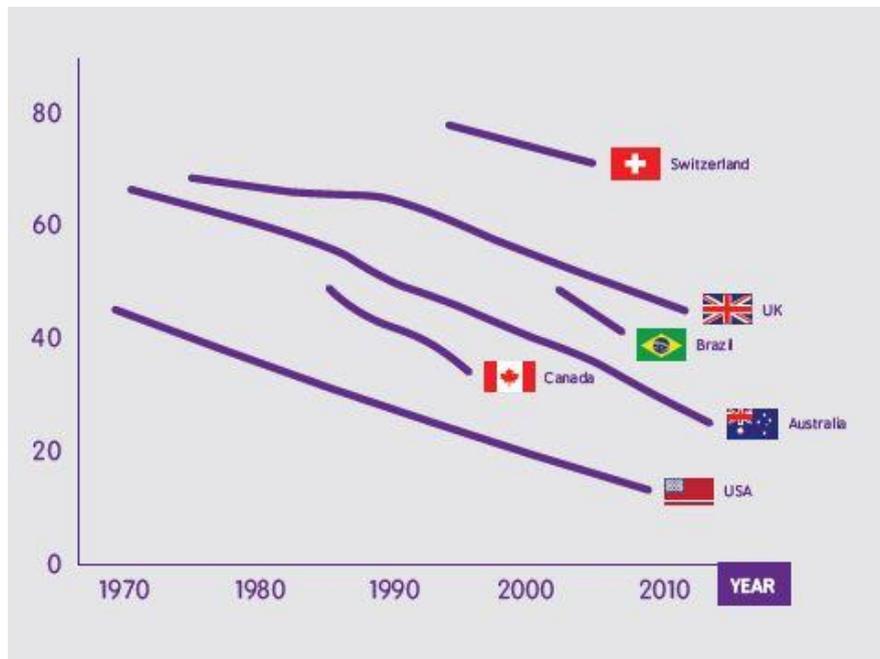
**Note 1:** 1970 (May) and 1974 (August) are for travel to education (school, university, TAFE); 1984 and 1994 are for travel to school. Primary and secondary school students comprised about 86% of all students travelling to education.

**Note 2:** Time periods on horizontal axis are not uniform.

More recent data for Victoria (2006 and 2009) indicate few significant changes in young people's rates of walking and cycling to and from school in Victoria since 1994 (Garrard, 2010).

Drawing on available state-based survey data, the 2014 Active Healthy Kids Australia (AHKA) Report Card reported a decrease of about 42 percentage points in young Australian's use of active transport between 1971 and 2013, with the trend line in Figure 12 based on time trend data from New South Wales, South Australia and Victoria.

The 2014 AHKA Report Card also noted some declines in children’s use of active transport internationally, though in some cases (eg Switzerland and the UK) the decline has been from a higher base and at a slower rate than in Australia, resulting in current levels that are substantially higher than in Australia.



**Figure 12: Time trends in the percentage of children and young people who use active transport to and/or from school**

(Source: Active Healthy Kids Australia (2015). *The Road Less Travelled: The 2015 Active Healthy Kids Australia Progress Report Card on Active Transport for Children and Young People*. Adelaide, South Australia: Active Healthy Kids Australia.

[http://www.activehealthykidsaustralia.com.au/siteassets/documents/ahka\\_reportcard\\_2015\\_web.pdf](http://www.activehealthykidsaustralia.com.au/siteassets/documents/ahka_reportcard_2015_web.pdf))

The data described above indicate the potential for increased levels of walking for transport to contribute to Australian young people’s currently low levels of physical activity. Increasing the level of active transport among young people in Australia is not unrealistic, as active transport rates are historically low, and many other developed countries have considerably higher rates than Australia.

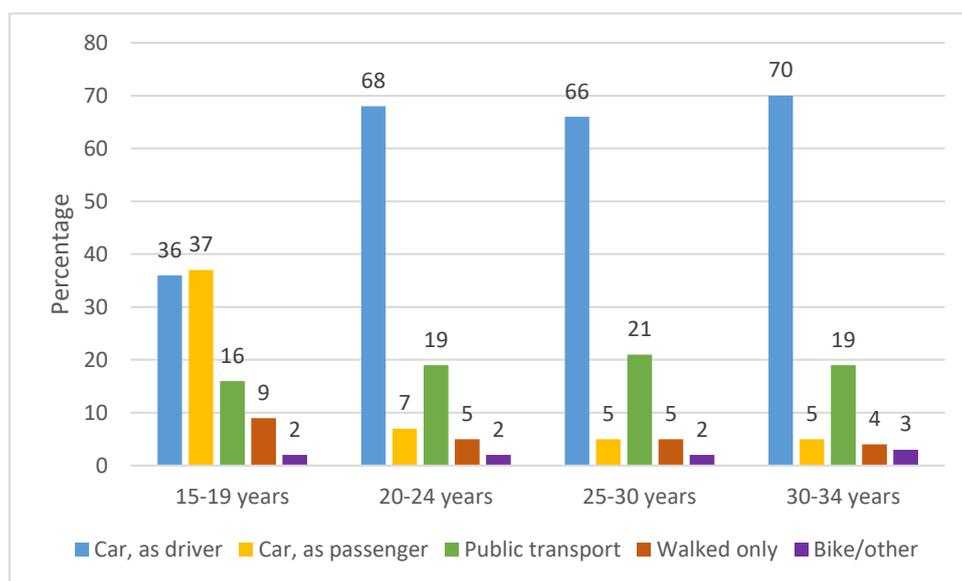
Relatively low levels of active travel to school also reflect low levels of active travel to other destinations, including travel to work. Young people’s rates of active travel to work are described in the following section.

#### 2.1.6.6 Walking to work

The 2011 Australian Census provides data on the method of travel used for the journey to work. Travel to work data for people aged 15-34 years in Victoria illustrates the likely impact

of young people transitioning from pre-driving age to driving age<sup>7</sup> (Figure 13). While all age groups mainly travel to work by car, for young people aged 15-19 years about half of these car trips to work are as a passenger. In contrast, for people aged 20 years and over, most car trips to work are as a car driver. Walking to work<sup>8</sup> nearly halves between ages 15-19 years and 20 years and over.

These data are consistent with the well-established negative association between motor vehicle ownership and active transport (Steinbach et al., 2012). When young people obtain a driver’s license (and possibly a motor vehicle) they are more likely to drive to work, less likely to travel as a car passenger, and less likely to walk. Similar changes are also likely to occur for the many non-work trips (the majority of all trips) undertaken by Victorians, indicating a substantial multiplier effect for the reduction in walking trips that accompanies becoming a licensed driver.



**Figure 13: Method of travel used for journey to work, 2011 Census, Victoria**

While becoming a licensed driver leads to more driving and less walking, a recent trend has emerged that has the potential to counter the increase in sedentary behaviour associated with young people obtaining a driver’s license. The following section describes recent reductions in rates of young people obtaining a driver’s license.

#### 2.1.6.7 Trends in young people’s driving behaviour

The 15-20 years age range covers a period of growing independence for young people, including the additional mobility options associated with obtaining a driver’s licence and driving a motor vehicle. While in previous decades obtaining a driver’s license and owning a

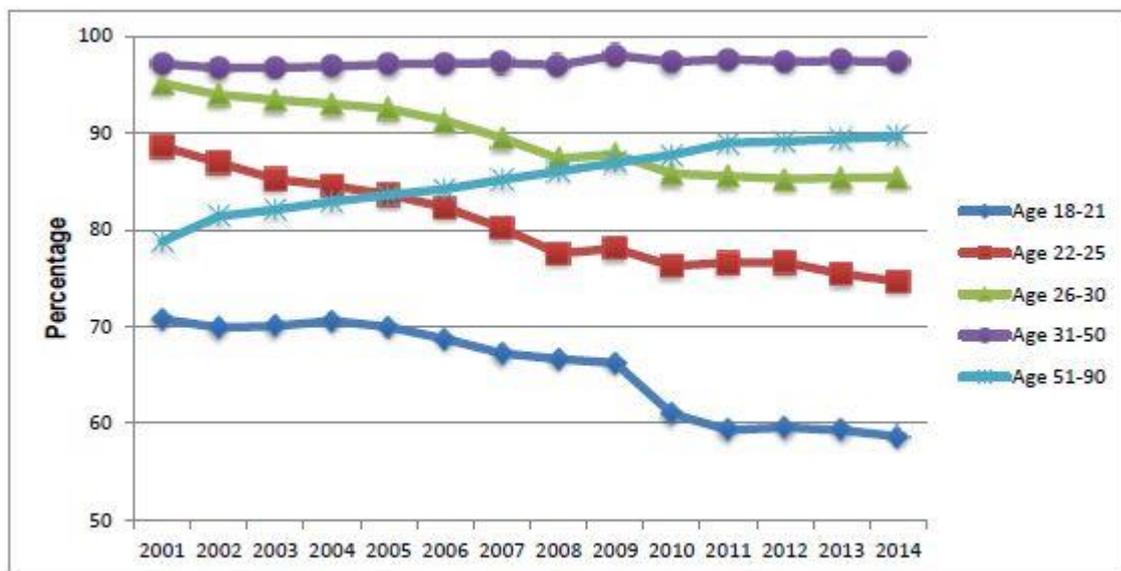
<sup>7</sup> In Victoria, young people can obtain a learner’s permit at age 16, and a probationary driver’s license at age 18.

<sup>8</sup> These data are for “walking only”. As described in Section 1.3, 42% of people walk to train stations in Melbourne, indicating additional walking associated with the use of public transport.

motor vehicle were widely viewed as important elements of the transition from adolescence into adulthood, recent years have seen a decline in the proportion of young people in Australia and many other countries who have a driver's license (Wundersitz et al., 2015).

An analysis of trends in licensing rates in Victoria between 2001 and 2014 found declining rates for young adults aged 18-30 years, but not among older age groups (Figure 14) (Wundersitz et al., 2015). While 71% of 18-21 year-olds held a driver's license in 2001, this had declined to 59% in 2014. Within this age group, the biggest reduction was for 18 year-olds (from 53% in 2001 to 40% in 2014). These licensing trends are evident for young people only, with older age groups maintaining (or in the case of 51-90 year-olds, increasing) their rates of license-holding.

Similar trends in young Victorian's license-holding were reported by Delbosc and Currie (2013).



**Figure 14: Licensing rates in Victoria by age, 2001-2014**  
(Source: Wundersitz et al., 2015)

A similar trend has been documented in NSW based on analysis of data from the Greater Sydney Household Travel Survey (Raimond and Milthorpe, 2010). This analysis found a decrease in car driving in the 15-24 age group since 2001. In 1998, 84% of 25 years-olds held a license, but in 2009 this had fallen to 74%.

The study authors attributed reduced car ownership and driving in inner-suburban areas to access to good public transport services in these locations, but it is also important to note that the inconvenience of car travel in terms of traffic congestion and car parking access and cost are key influences on people's use of public transport (Australian Bureau of Statistics, 2009).

Several possible reasons have been proposed for explaining the declining trend in license-holding and driving among young people (Delbosc and Currie, 2013), including:

- Stricter conditions for obtaining a license and increased driving restrictions for provisional license-holders, although the trend towards lower license-holding for young people appears to pre-date the introduction of the graduated licensing scheme in Victoria in 2007.
- Costs associated with obtaining a licence, and purchasing and running a motor car. Car ownership in 2016 has been estimated by the RACV to range from just under \$100 per week for the cheapest 'micro car', to about \$200 per week for 'medium cars', to over \$200 per week for 'large cars' (Harris, 2016).
- Major social changes in young people's education, housing, transport and lifestyle circumstances; including an increase in school leaving age, increased university attendance (and acquisition of a HECS debt), reduced earnings while studying, and an increase in the number of young people living at home, all of which may be contributing to delaying the transition from adolescent to adult lifestyles.
- Reduced travel requirements of young people who are increasingly working from home, using social media to interact with friends, and using mobile ride-sharing apps.
- Increased unemployment among young people, which reduces both the need for travel (to and from work) and the financial capacity to obtain a driving license and purchase and operate a car.
- Improved access to alternative modes of travel, including getting a lift from parents or friends, using public transport, walking or cycling.
- Increased use of electronic communications, to both access public transport (eg using websites and mobile apps to access real-time information and network updates) and use while travelling on public transport (Davis et al., 2012).
- An increase in inner city living, with shorter distances to travel, good access to alternative travel modes, and where car travel is inconvenient, slow and costly (due to traffic congestion, and car parking availability and costs).
- Declining social status associated with car ownership and driving.
- An increasing trend for young people to share rather than buy (including, music, movies, accommodation, ride-sharing and car-sharing).

A number of these factors were identified in a recent review of the available evidence from studies conducted in several countries experiencing a decline in young people's license-holding (Delbosc and Currie, 2013). The authors concluded that while life stage factors and affordability factors are important, multiple factors are involved, with few stand-out large impacts.

While a number of studies in Australia and internationally have documented the recent trend of lower rates of license-holding among young people, there appears to be limited data on the socio-demographic characteristics (other than age) of young people who have or do not have a driver's license. Patterns of license-holding by gender, location, housing type, SES, ethnic background, and employment and educational status would contribute to an improved understanding of the decline in license-holding among young people.

Australian data on the impact of reduced license-holding on travel distance and travel modes used is also limited, with the exception of the two studies in Victoria (Delbosc and Currie, 2013) and New South Wales (Raimond and Milthorpe, 2010). The Sydney study reported that the decline in license-holding has not been associated with an overall increase in the mode share of walking, cycling or public transport trips (Raimond and Milthorpe, 2010). Instead, there appeared to be an increase in car passenger trips (consistent with the ABS journey to work data in Figure 13), though the authors suggested that this might vary by location, with young people in wealthier areas with good access to a motor vehicle and being chauffeured by other household members reporting more car passenger trips; while in less wealthy areas, young people may walk, cycle or use public transport more frequently.

The Victorian study of license-holding found increased rates of motor-bike licenses among young people, though the increase was from a small base and remained relatively low (Wundersitz et al., 2015).

The ABS Census data for journey to work described above (see Figure 13) indicates that transitioning from pre-driving to driving age is associated with less walking to work, though it is possible that the type of employment changes with age; for example, young people might be more likely to work locally, within a more walkable distance from home.

In summary, while the research is limited, and there are few definitive findings regarding the causes and travel mode implications of reduced license-holding among young people, there is consistent evidence of a declining trend in license-holding among young people in Australia. There is little direct evidence that this is leading to increased active travel, including walking. However, consistent evidence of an inverse association between car ownership and active transport in studies of the general population (Steinbach et al., 2012) suggests that reduced license-holding among young people may provide an opportunity for increased utilitarian walking among young people. An improved understanding of what supports and constrains young people walking will be important for converting this emerging opportunity into increased walking behaviour.

### **2.1.7 Young people's perceptions of walking for recreation and transport**

Few studies have investigated young people's attitudes, beliefs and behaviours related to walking for recreation, with most studies focusing instead on walking for transport. In one of the few studies of its type, 24 young Australians aged 17 -25 years were interviewed about their attitudes to Australia's physical activity recommendations for moderate-intensity physical activity, and walking in particular (Jose et al., 2013).

The authors reported that the majority of participants did not identify walking as physical activity or exercise, as they considered that walking was of insufficient intensity to achieve the fitness benefits associated with physical activity. This finding is consistent with an earlier study of 10 young adults (aged 25-35 years) in the UK, with participants reporting that walking is not "proper exercise", or a goal in itself, but rather undertaken for other reasons including transport, social interaction and psychological benefits (Darker et al., 2007). The authors concluded that:

*“Participants’ perceptions of walking were incongruent with current health promotion campaigns. There is a need to address the misconception that walking is not proper exercise. The traditional focus of walking promotion campaigns concerns beliefs about the benefits of walking on health. People engage in healthy behaviour for reasons other than to be healthy.”*

Similar findings were reported in a Scottish study comprising focus group discussions with 27 adolescent girls. The authors reported that, while acknowledging the value of walking for health and fitness, these benefits were seen to be a consequence of walking, rather than the main reason for walking (Kirby and Inchley, 2013). For these young women, walking was viewed as a means to an end rather an end in itself, and they rarely reported going for a walk purely for exercise. Recreational walking was seen as an opportunity to socialise with friends, listen to music, or take the dog for a walk, and walking for transport was a means of doing things like going shopping.

Similarly, a qualitative study of older adolescents in Belgium reported that while young people valued health, it had little influence on their use of walking (in this study, for transport) (Simons et al., 2013).

These findings are consistent with Australian young people’s relatively low levels of walking for fitness, sport or recreation, while their participation in vigorous physical activity is relatively high, indicating that young people are more likely than older adults to prefer more vigorous forms of deliberative physical activity (see Figure 2). These beliefs, attitudes and behaviours are very different from those of older adults, who are both more likely to walk, and more likely to walk *for* health reasons (Garrard, 2013).

The consistent finding that young people engage in the healthy behaviour of walking for reasons other than to be healthy indicates that health-focussed walking promotion messages targeted at adults in general may not be effective for young people. As noted by Darker et al. (2007) *“Interventions to promote walking should consider targeting the psychological meaning and value of walking, in addition to beliefs about health.”*

For recreational walking, key motivations appear to be social interaction (eg walking with friends), psychological wellbeing, and ‘time-out’ for listening to music, etc. For transportation walking, the ability to get to places independently, conveniently and at low cost are key motivations. Nevertheless, the health (and environmental) benefits of walking should not be ignored, as they provide underlying support to achieve these non-health goals through healthy rather than unhealthy means. It will also be important to address the misperception that everyday walking is not ‘real exercise’ by emphasising the documented health benefits of incorporating regular, though often brief sessions of physical activity into daily life. Building physical activity into the activities of daily life also addresses key constraints on deliberative physical activity in the form of lack of time and the costs associated with many forms of sport, exercise and fitness training. Further benefits of the ‘active living’ approach include reaching population groups that are less likely to participate in deliberative forms of sport and exercise, including disadvantaged population groups, adolescent girls, and ‘non-sporty’ young people.

### 2.1.8 Young people’s perceptions of independent mobility in the form of walking, public transport use, and driving

The young people that are the focus of this study (15 – 20 year-olds) are transitioning from adult-accompanied mobility as children to independent mobility (during early adolescence), and from independent active travel to the option of independent car travel as a driver (during later adolescence). These transition years provide expanding mobility options for young people.

Studies in Victoria and South Australia have found that most parents allow their children increased independent mobility at around 10 to 12 years of age (Crawford, 2015), so the restrictions on children’s independent mobility during the primary school years are generally lifted by the time young people attend secondary school (Carver et al., 2013). Indeed, the increase in rates of active travel to school across ages 5 -17 years, when other forms of physical activity decline (see Figure 7), is likely due to young people taking advantage of their newly-gained freedom to travel to places by foot, bicycle or public transport without adult supervision. However, a new constraint on active travel emerges later in adolescence when young people have the option of independent motorised mobility in the form of driving a car or riding a motorbike or motor scooter.

These changes in accompanied/independent and active/passive travel options occur across an age range that also includes a number of life course transitions that impact on travel behaviour. These include transitions from primary school to secondary school; secondary school to higher education; participation in paid employment; and, possibly, a transition from the family home to independent living. The behaviour change literature identifies life course transitions such as these as opportunities to promote healthy behavioural choices (De Meester et al., 2014). Understanding the individual, environmental, social/cultural and policy/regulatory factors that influence young people’s use of active/passive travel provides opportunities for developing interventions that link in with these transitions.

The multiple influences on active/passive transport are complex and mutually interactive, as described in the social-ecological model of travel behaviours (see Figure 15).

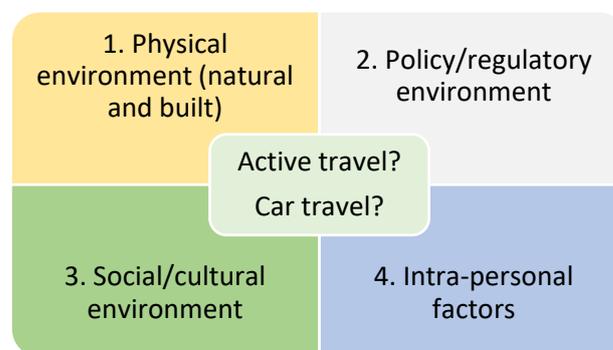


Figure 15: Social-ecological model of active/inactive travel behaviour

Intra-individual factors include socio-demographic factors such as age, gender, education, employment and location; together with individual circumstances, beliefs, attitudes and preferences. A systematic review of studies of attitudes to walking and cycling among children, young people and parents identified “five overarching explanations of transport choice” (Lorenc et al., 2008):

- **Culture of car use:** includes perceptions that cars are more convenient than walking or cycling; cars as a high status acquisition; car travel as ‘normal’; and car ownership as an integral component of a normal adult lifestyle.
- **Fear and dislike of local environments:** includes social safety and traffic safety concerns, as well as negative features of the natural environment (eg weather, hilly terrain). Concerns include specific issues (such as poor walking or cycling infrastructure) as well as “a diffuse perception of walking and cycling as involving exposure to hostile surroundings”.
- **Children as responsible transport users:** includes children’s preferences for walking and cycling due to their perceptions of the health and fitness, environmental, and sociability benefits of active transport. These views were substantially more positive than those of adults.
- **Parental responsibility and behaviour:** includes perceived social expectations that “good parents” ensure the safety of their children by driving them to places, with children’s safety taking precedence over children’s independence.
- **Contextual factors:** highlight variability in the views of young people based on socio-demographic factors and individual characteristics and circumstances.

Many of these factors have also been identified in recent studies. A qualitative study of factors that influence travel mode choice among 32 young people aged 17-18 years in Antwerp, Belgium, found high levels of preferences for active transport due to young people valuing independent mobility (ie not having to depend on others to take them to places), and being able to choose their travel time and use direct routes (in contrast to public transport use). Walking was preferred over cycling for short distance trips because it was a convenient ‘no-fuss’ method that did not require the use of cycling equipment (Simons et al., 2013).

The perceived disadvantages of public transport included long waiting times, delays, traffic congestion, limited availability in the evening, access to a limited number of destinations, and cost. Some adolescents believed that a car would provide them with even more freedom and independence than walking and cycling, especially for long distances. However, for shorter trips in urban areas, driving was considered less convenient than walking or cycling due to traffic congestion, one way streets and limited car parking. Speed of travel was also considered important, contributing to a preference for walking for short distances (particularly in city areas), cycling for intermediate distances, and using public transport or driving for longer distances or in poor weather.

Health benefits were seen as less important than these more pragmatic factors in choosing travel mode, consistent with other studies that have found that young people perceive health more as a consequence of walking or cycling than a reason for using active transport (see Section 2.1.7).

Young people also reported social influences via family and friends impacting on mode choice. Bad weather was a constraint on active transport; though more so for cycling than walking. Safety considerations had little impact on mode choice as young people perceived a sense of control over potential threats to safety by taking more care in potentially hazardous situations. The authors concluded that:

*“For older adolescents, the interplay between short travel time, high autonomy, social factors, low costs, good access to transport modes and facilities, and good weather were the most important factors in favor for choosing active transport over other transport forms. Other well-known factors such as safety, ecology and health do not seem to have a big influence. These factors may not be as important focus points when making policy to promote active transport in older adolescents.”*

The authors also reported that most adolescents in the study were looking forward to driving a car, as driving offers even greater levels of autonomy than independent active transport, reduces travel time (in non-congested areas) and provides protection from the weather. A UK study comprising a series of focus group discussions with young people aged 11 – 18 years produced similar findings, reporting that young people often have a strong preference for the car due to the speed, freedom and positive image they believe it would provide them (Line et al., 2012).

In summary, the transition from childhood to adolescence and adulthood appears to be associated with positive attitudes towards, and increased opportunities for independent mobility in the form of active transport during early adolescence. However, later adolescence and early adulthood bring new challenges to active transport in the form of the convenience, freedom, speed, comfort and status of car use. Nevertheless, walking, cycling, driving and using public transport all have perceived advantages and disadvantages; an understanding of which can assist in increasing active transport among young people.

A key support for active transport among children and young adolescents is their perception of the health, fitness, environmental and sociability benefits of active travel. It is unlikely that children’s perceptions of these benefits of active travel dissipate as they move through adolescence and into adulthood, but, rather, that travel behaviour is increasingly shaped by a range of additional influences that currently, in Australia, preference car travel over walking or cycling. In terms of efforts to increase active travel rates, there may be value in messages that reinforce the health, fitness, environmental and sociability benefits of active transport, but these messages appear to be less influential for young people and adults than for children.

In terms of the additional factors that shape active/passive travel behaviour among young people, most of these can be classified as supports and barriers for walking, and are described in the following two sections.

### 2.1.9 Supports for young people walking for recreation and transport

Research into supports and constraints on young people walking for recreation and transport includes qualitative research investigating young people's perceptions of supports and constraints on their walking, and quantitative research into correlates of young people walking. Qualitative 'perceptions' research often involves methods such as individual interviews and focus group discussions. 'Correlates' research is mainly quantitative, and seeks to identify factors that are associated with young people's self-reported walking behaviour. These survey-based studies usually include measuring young people's attitudes, perceptions and behaviours, as well as assessing factors such as walking infrastructure. The correlates investigated usually include factors that both support and constrain walking. This section of the literature review focuses on supports for walking, and includes both qualitative 'perceptions' studies and quantitative 'correlates' studies.

As described above (young people's perceptions of walking - see Sections 2.1.7 and 2.1.8), key supports for walking include young people's perceptions that walking is an enjoyable, relaxing and sociable way to spend time outdoors, and a healthy and environmentally friendly alternative to car travel. Walking provides young people with the freedom to move around independently, at the time and place of their choosing, and at virtually no cost. In contrast to riding a bicycle or driving, no special equipment is required, contributing to the 'just step out and do it' convenience of walking.

It is also likely that young people have different motivations and supports for walking for recreation and walking for transport. While few studies have specifically addressed these differing factors for young people, a large UK study of adult walking reported that recreational walking was influenced by pedestrian infrastructure, land use mix, personal safety and aesthetics (Adams et al., 2013). Walking for transport was influenced by urban density, land use mix, street connectivity and proximity to destinations.

Another large UK study of children's and adolescents' (aged 5-17 years) walking to school and other destinations found that the factors that influence walking to school differ from factors that influence walking to other destinations (Steinbach et al., 2012). The authors reported that the walking environment (eg lower traffic speed and traffic volume) may be more important for discretionary trips (ie walking to non-school destinations during school term times and walking during weekends and school holidays) than for walking to school (Steinbach et al., 2012). The authors also noted that non-school active travel has the potential for considerable public health benefits, but tends to be overlooked by policy makers who focus instead on school travel. Due to differences in factors associated with walking to school and walking to other destinations, achieving the public health benefits of non-school walking may require different strategies from those used to promote walking to school. The authors concluded that:

*"...our study identified differences in the correlates of school and non-school walking. The meaning of choosing walking compared with other candidate modes is likely to vary depending on whether the journey has to be done (e.g. for school) and what the alternatives are. For discretionary non-school journeys, the alternative may be forgoing*

*the journey. Disincentives to active transport are therefore potentially also disincentives for social participation, and more attention must be paid to factors that restrict children's mobility."* (Steinbach et al., 2012)

As described in Section 2.1.7, the limited research findings for young people suggest that both recreational and transport walking are largely functional for young people (ie used as a means to an end), though the 'functions' vary. Walking for recreation is generally not undertaken specifically for health and fitness (though health is considered a by-product of walking), but rather to relax, socialise, listen to music and take personal time out. It is therefore not surprising that recreational walking is supported by having family and friends who encourage walking (often by accompanying young people on walks), good pedestrian infrastructure, and pleasant and safe environments. Walking for transport, on the other hand, provides access to destinations such as school, work, university, entertainment, and friends' houses, so walking is supported by living in close proximity to these destinations, with good street connectivity providing direct routes to destinations.

Recreational walking is also likely to appeal to less active girls as it meets several of the characteristics of physical activity that adolescent girls find appealing. For example, a UK study comprising focus group discussions with 47 adolescent girls aged 14-16 years found that these young women were more likely to take part in physical activity if they consider it to be fun, informal, unstructured in nature, and able to be undertaken with friends rather than alone; with the presence of friends providing support and making the activity more enjoyable (Whitehead and Biddle, 2008).

Enjoyment of the type of physical activity undertaken was found to be a key motivator for physical activity, with the more active young women stating that enjoyment was their main reason for participating in their chosen sport or activity. This finding is consistent with the findings of a systematic review which reported a strong association between enjoyment and adolescent girls' physical activity participation (Biddle et al., 2005).

Research evidence on what actually makes physical activities enjoyable or unenjoyable to young people is not definitive, though a number of hypotheses have been proposed. One proposal is that motivation to participate is maximised when the difficulty of the task is a good match with an individual's abilities and skills. A mismatch can lead to either boredom when ability is high but challenge is low, or anxiety, where challenge is high but ability is low (Csikszentmihalyi, 1975, cited in Whitehead and Biddle, 2008).

Much of the research into the reasons for young women's decline in physical activity levels in the transition from childhood to adolescence has been conducted in relation to sporting activities rather than walking, but it can be noted that walking does not require high order skills, so is unlikely to elicit performance anxiety. While there is the possibility of boredom due to the low level of 'challenge' involved in walking, it appears that walking in pleasant and interesting environments, and with other people (and possibly dog-walking) may provide a sufficient level of enjoyment that counteracts possible boredom.

Another possible support for walking for young women is their preference for physical activities that are perceived to be appropriately 'feminine', based on social and psycho-social influences (Whitehead and Biddle, 2008). Participating in more vigorous forms of sport and exercise might be seen by some young women as undermining their femininity. Some of these more vigorous forms of physical activity might also require 'putting their bodies on show' in ways that might facilitate unfavorable comparisons with social ideals of the 'body beautiful' (Whitehead and Biddle, 2008).

While it is important to challenge these notions of female identity, appearance, and appropriate activities, they may help to explain why the 'ordinariness' of walking could be appealing to less active young women. The finding, from a qualitative study involving 11-13 year-olds in the UK, that walking with parents is one of the few forms of physical activity that young people transitioning from childhood to adolescence are prepared to be seen to be doing with their parents (at a time when being seen playing with parents becomes 'uncool') (Carlin et al., 2015) supports the interpretation that the everyday ordinariness of walking as a part of daily life appears to be a key motivation for physical activity for an important subset of young women who are not 'sporty' and less deliberately active.

In terms of environmental correlates of walking for young people, the limited research literature indicates that factors vary for children, young people and adults. For example, a study conducted in Toronto, Canada, compared correlates of children and adolescents walking to school (Mitra and Buliung, 2015). Analysis of school travel data from a large cross-sectional survey of household travel behaviour found that while mixed land use and dwelling density were associated with children (aged 11 years) walking to school, these built environment factors were not related to school travel mode for adolescents aged 14-15 years. A key contribution to these differences is likely to be the impact of children transitioning from parent-accompanied walking to school to independent walking. Not only do parents have differing perceptions about social safety and traffic safety from those of adolescents (Carver et al., 2013), but key constraints on parent-accompanied active travel to school (eg trip distance, travel time, trip-chaining, etc) do not apply to adolescents travelling independently.

Another study conducted in the city of Izegem in Belgium, which included inner city and suburban neighbourhoods, found that living in a suburban neighbourhood was associated with greater time spent travelling actively to school among 12-19 year-olds, not less, as occurs in Australia and the US (van Dyck et al., 2009). In urban locations in Izegem, young people aged 12-19 years mainly walked (13%) or cycled (66%) to school. In suburban locations, young people were less likely to walk (2%), but more likely to cycle (79%).

These findings are a reminder of the complexity of influences on travel behaviour, including walking. Studies have reported differences for children, adolescents and adults; recreational and transport walking; and for school and non-school trips. These differences point to the importance of gaining a better understanding of these influences as a means of developing strategies for increasing walking that take into account age, walking purpose, and location.

When it comes to walking promotion, the available evidence suggests that one size does not fit all.

In relation to walking for transport, it is also important to bear in mind that factors that delay car driving by young people, or make car driving less appealing than walking for specific trips (eg short trips in congested areas with expensive or unavailable car parking) might also contribute to increased walking for transport. However, currently, the evidence for this is limited and inconsistent, with variations across countries and also by location within countries (Delbosc and Currie, 2013). For example, in Victoria, license-holding among 18-23 year-olds declined from 75% to 65% between 2000/01 and 2010/11. However, travel survey data indicate that while people in this age group tended to be less likely to have driven a car on the day of the survey (in 2009 compared with 1999), they were also less likely to have travelled as a passenger, used public transport, or walked, suggesting reduced transport trips overall. Similar data have been reported in New South Wales, based on Sydney Household Travel Survey data (Raimond and Milthorpe, 2010), though in this study, car passenger trips increased.

These findings are somewhat unexpected, and inconsistent with ABS Census journey to work data, which show a decline in walking to work between the age ranges 15-19 years and 20 years and over (see Section 2.1.6.6); and also numerous 'correlates of walking' studies which generally report an inverse association between household car ownership and walking for transport (Steinbach et al., 2012). In the USA, the decline in license-holding among young people has been accompanied by a decrease in young people's car ownership and annual average distance travelled by car, and increases in walking, cycling and public transport use (Davis et al., 2012; Litman, 2016). It may be that young people in Australia are undertaking fewer transport trips overall (ie by all travel modes), or possibly that substantial variations across demographic segments and household locations are not showing up in population-level travel mode data.

Factors that appear to be contributing to the trend for young people to delay obtaining a driver's license were described in Section 2.1.6. Currently, research in Australia is limited and inconsistent, but if delayed license-holding is found to be associated with increased use of walking and public transport, these factors can be viewed as de facto supports for young people's walking.

Factors that support young people's use of public transport also provide opportunities for more walking (to and from public transport stops), though more so for intermediate or longer distance trips that are less suitable for walking, and might otherwise be undertaken by car rather than by public transport. Good access, speed, reliability, affordability, and safety are key factors that support young people's use of public transport (Simons et al., 2013).

#### **2.1.10 Constraints on young people walking for recreation and transport**

As noted above in relation to supports for young people walking, research into constraints on young people walking for recreation and transport includes qualitative research

investigating young people's perceptions of constraints on their walking, and quantitative research into correlates of young people walking. For many of these factors, particularly environmental factors, the absence of enabling factors (eg pleasant and interesting places to walk, nearby destinations, and good walking infrastructure) effectively act as constraints on walking. These 'constraints' are not repeated in this section. Rather, this section focuses on key constraints in the form of personal safety and traffic safety.

#### **2.1.10.1 Safety**

Safety while walking is a concern for young people, though there is inconsistent evidence for its impact on walking (Carver et al., 2008a). Lack of consistent findings is likely due to the complex nature of the concept of 'safety', and differential impacts based on age, gender and time of day/night. Safety includes traffic safety and personal safety; and both have actual and perceived components.

Parents of adolescents express less concern about traffic safety than do parents of children, possibly due to parents acknowledging that road safety skills increase with age (Carver et al., 2008b). Similarly, parents of adolescents express less concern about personal safety than do parents of children, but these concerns are more prevalent among parents of adolescent girls than parents of adolescent boys, with some studies reporting that parents of adolescent girls are more likely to restrict their child from going out alone due to concerns about their personal safety. Young women themselves also reflect these differing levels of concern, with more young women than young men expressing concerns about personal safety while walking (Carver et al., 2008b). It has also been reported that even before adolescence, boys are more confident about being able to look after themselves, while girls rely more on the company of friends and familiarity with their surroundings to feel safe (Valentine, 1997).

There are also indications that a sense of community belonging and engagement among young women may contribute to increased walking for exercise and transport by increasing perceptions of personal safety (Carver et al., 2005). This Australian study also reported that girls who perceived local roads to be safe spent more time walking for transport and for exercise.

Similarly, in their focus group study of young people and physical activity in the UK, Lake and Townshend (2013) reported that personal safety while exercising (including walking) is a concern for many young people, particularly young women, and especially when moving around after dark and/or alone. For some young people, familiarity with the area and with people they see out and about within the community reduced their concerns about safety.

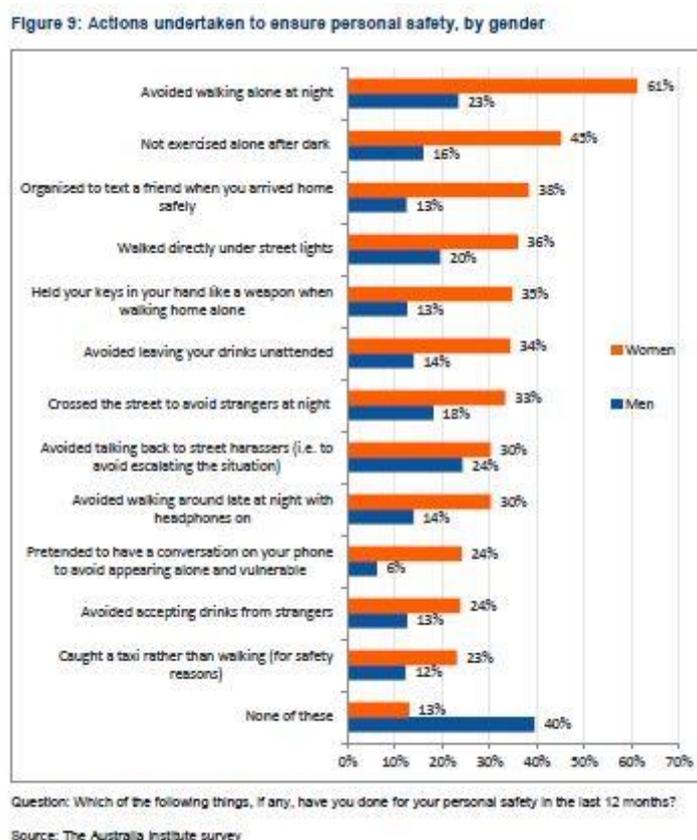
These findings highlight substantial gender differences in safety concerns among young women and young men when moving around in public places. A number of recent Australian studies confirm these findings and assist in understanding some of the reasons for gender differences in young people's ability to be safe and feel safe when moving around in public places.

A 2015 survey of 1426 Australians, commissioned by The Australia Institute, reported that 83% of young women aged 18-24 had experienced street harassment by a stranger or strangers (honking, wolf-whistling, leering/excessive staring, vulgar/lewd gestures, lewd comments, sexist comments, repeated unwelcome sexual advances) in the last 12 months. Fifty-four percent of young women were aged 17 years or younger (ie school age) when they first experienced street harassment (Johnson and Bennett, 2015).

Nearly two-thirds of the women surveyed (65%) had also experienced physical street harassment. Physical street harassment includes actions such as stalking and blocking someone’s path as well as behaviour which could constitute indecent assault, such as kissing or sexual touching without consent.

Forty percent of Australian women did not feel safe when walking alone at night in the area where they currently live, compared to 17% of men; and 87% of Australian women have changed their behaviour in at least one way to ensure their own personal safety in the last 12 months (Johnson and Bennett, 2015).

Actions taken to improve personal safety are illustrated in Figure 16. They include avoiding walking alone at night (61% of women, 23% of men), not exercising alone after dark (43% of women, 16% of men), and catching a taxi rather than walking (for safety reasons) (23% of women, 12% of men) (Johnson and Bennett, 2015). These data indicate that street harassment is a barrier to young people walking, especially for young women.



**Figure 16: Action taken to improve personal safety in the last 12 months**  
 (Source: Johnson and Bennett, 2015)

Similar findings were reported from a 2016 survey of 600 Australian young women aged 15–19 by Plan International Australia and Our Watch which asked about their views on personal safety and gender equality, including their sense of security in public spaces. The authors reported that 30 percent of the young women agreed that “girls should not be out in public places after dark”, indicating that *“many girls and young women are internalising widely-held beliefs that public places are unsafe for them, particularly after dark, and that it is their responsibility to modify their behaviour”* and *“such perceptions are limiting the rights of girls and young women in Australia and around the world to move freely in public places and participate in activities outside the home”* (Plan International Australia, 2016).

The authors also reported that Australian young women think sexual harassment in public places is both a serious issue and never justified. Young women suggested a range of solutions including better education of both the public and in schools about gender equality, respect and girls’ rights to be and feel safe, improved street lighting, CCTV cameras and policing (Plan International Australia, 2016).

The study concluded that Australia has significant work to do to achieve Goal 11 of the 17 United Nations Sustainable Development Goals (SDGs), which is “make cities inclusive, safe, resilient and sustainable”, with a key target of Goal 11 to provide “universal access to safe, inclusive and accessible green and public spaces in particular for women and children” (Plan International, 2016).

#### **2.1.10.2 Access to motor vehicle travel**

Access to travel by motor vehicle as either passenger or driver is likely to reduce young people’s utilitarian walking, including walking associated with using public transport. However, most of the evidence for this association is indirect rather than direct, with few studies addressing this issue specifically for young people.

The limited evidence available indicates that living in a household without a car is associated with young people walking to school and for non-school trips (Steinbach et al., 2012). Studies also report that young people themselves perceive that driving a car makes them less active (Lake and Townshend, 2013). The decline in walking to work in the Australian Census that occurs between ages 15-19 and 20 years and over, indicates that reaching driving age appears to contribute to a decline in walking to work (see Section 2.1.6).

The recent delay in license-holding among young Victorians described in Section 2.1.6 offers the potential for increased walking for transport, but high levels of lift-getting (primarily from parents) may limit the realisation of this opportunity. As noted in Section 2.1.6, the mode shift associated with reductions in young people driving could be in the direction of more lift-getting rather than use of alternative active modes of transport (Raimond and Milthorpe, 2010). Young women’s concerns about safety while walking or using public transport (see Section 2.1.10.1) are also likely to lead to lift-getting rather than walking.

Some studies have described positive attitudes to car ownership and use among young people, though others have reported a growing divide between young people who enjoy driving, and those who find it a stressful activity (Lake and Townshend, 2013). Enjoyment of

driving also appears to be associated with the development of a 'habit' of driving, even when walking is a feasible option. For example, in focus group discussions with young people in England, young men described driving in these terms:

*"Just because I can."*

*"It's easier to walk than it is to drive but I still drive."*

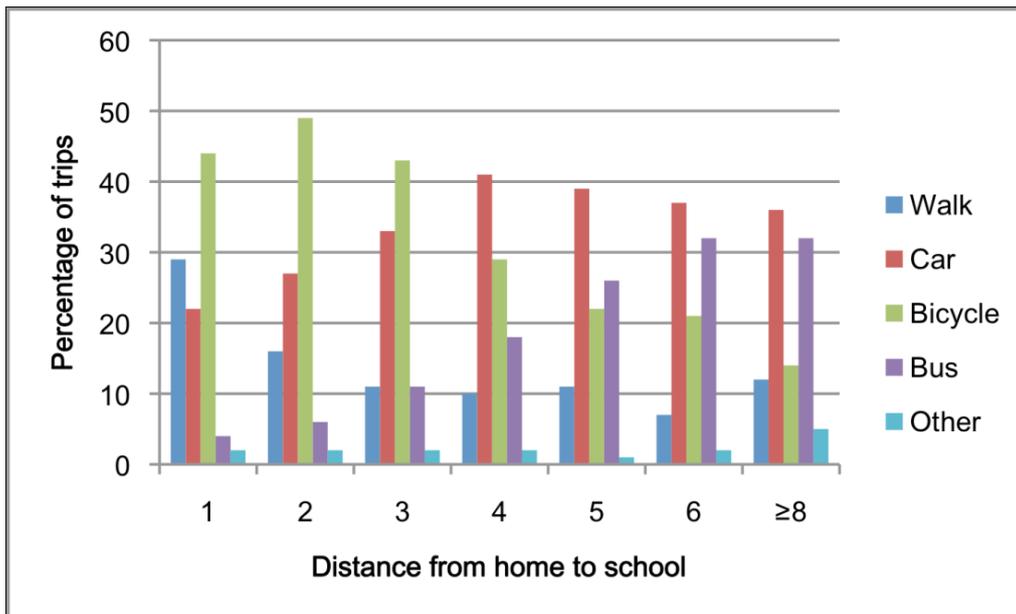
(Lake and Townshend, 2013)

Other researchers have noted that because transport habit is a strong correlate of transport mode choice (de Bruijn et al., 2009; Gardner, 2009; Gardner and Abraham, 2008), it is important to promote active transport before the use of motorised transport modes for travelling short distances becomes a habit (Line et al., 2010). There are some indications that this may be occurring within the context of 'peak car' that has been the focus of recent research in the area of non-motorised, sustainable transportation (Goodwin and Van Dender, 2013). The finding that the older the age at which a person learns to drive, the lower the distance they drive may also be indicative of changing driving habits among young people. For example, for people aged 30–39 when surveyed between 2002 and 2010, if they learnt to drive when 17 they will, on average, drive 10,000 miles (16,093 km) per year, while if they learnt when they were 30 they are likely to drive around 6,500 miles (10,461 km) per year (Stokes, 2013). However, this association may be at least partly due to where people live; that is, in more car-dependent rural or suburban areas (resulting in earlier driving and driving longer distances), or in more walkable urban environments.

### **2.1.10.3 Distance/time**

While distance can be a barrier to walking, there is some evidence that young people are prepared to walk further to get to places than children (Steinbach et al., 2012) and adults (Garrard, 2013). In a large study of 15-17 year-olds in 61 post-primary schools in Ireland, young people walked an average of 0.88 miles (1.4 km) to school, with considerable variation between individuals. Over 80% of walkers lived within 1.5 miles (2.4 km) of school, with seven percent living between 1.5 and 1.9 miles (2.4 – 3.1 km), and a further seven percent living between 2.0 and 2.5 miles (3.2 – 4.0 km) (Nelson et al., 2008).

Distance and time were the main reasons for inactive commuting to school, however, the data described above point to a subjective/perceived component of "too far to walk". This is further supported by international indicating sizeable proportions of walking trips to school among 10-15 year old students in 10 Danish municipalities for distances generally considered "too far to walk" in Australia (walking comprised about 10% of trips for distances ranging from 3 km to 8 km) (Figure 17) (Garrard, 2011; Jensen and Hummer, 2003).



**Figure 17: Mode share of all trips to/from school by distance (km), 10-15 year olds, 10 Danish municipalities, 1998-2000**  
(Source: Jensen and Hummer 2003)

It therefore appears that while “too far to walk” is a reality for some trips for some young people, subjective assessments, including the availability of alternative modes of travel (eg car travel), also play a part in young people (and also possibly their parents) assessing whether or not a destination is within a walkable distance. Steinbach et al. (2012) found that young people’s walking trips to school are longer than non-school walking trips; suggesting that young people walk further for non-discretionary trips (ie to school) than for more discretionary non-school trips. In addition, both school and non-school walking trips were longer for young people who had no vehicle access in the household, indicating that young people walk further when they have limited alternative travel mode options.

#### **2.1.10.4 Other constraints on young people walking for recreation and transport**

In a study involving focus group discussions with young people (16–20 years), Lake and Townsend (2013) reported that constraints on young people’s physical activity include increasing study and work commitments as young people transition from secondary education to further education and/or work. These commitments lead to young people having less discretionary time. In addition, friendship groups change, informal group activities (eg getting together at the local park) decline, and sports teams disband. Young people in the study also suggested that physical activities needed to have flexible timing, and involve minimal cost.

However, in view of the purpose and meaning of walking for recreation and transport for young people (see Section 2.1.7), these constraints on young people’s physical activity may not necessarily apply to walking, and particularly walking for transport. Recreational walking is less dependent on organised physical activities such as participating in sports teams, enables more flexible timing, and involves minimal costs. Walking for transport also has

these benefits for busy young people in addition to the time-saving option of combining exercise time with travel time.

Consistent with gender differences in participation in physical activity that emerge in late childhood, some barriers to physical activity participation are specific to young women. These include negative experiences during physical education, dislike of uniforms or the sports offered, perceptions that being 'sporty' is unfeminine, the negative influence of peers, and body image issues (Carlin et al., 2015). However, once again, as discussed in Section 2.1.7, the extent to which these factors apply to walking for recreation and transport appears not to have been specifically investigated. Nevertheless, higher rates of walking for recreation among women indicate that walking is a more appealing form of physical activity for women than for men (see Section 2.1.3); possibly due to some of these female-specific barriers.

Family, peers and friendship groups can also act to either support or constrain young people's physical activity participation, including walking (Lorenc et al., 2008). In this systematic review of attitudes to walking and cycling among children, young people and parents, Lorenc et al. (2008) also identified bad weather, hilly terrain, lack of walking infrastructure, high-speed traffic, and the convenience of car travel as constraints on walking.

### **2.1.11 Concluding comments**

In conclusion, the findings described above are a reminder of the complexity of influences on walking for young people. Studies have reported differences for children, adolescents and young adults; young women and young men; recreational and transport walking; and for school and non-school trips. These differences point to the importance of gaining a better understanding of these influences as a means of developing strategies for increasing walking that take into account age, gender, walking purpose, and location.

This review of the research literature has identified some definitive findings, some tentative hypotheses, and some gaps in the research literature that require further investigation. Some of these are explored in the second and third phases of this study; namely, focus group discussions with young people, and an online survey of young people.

## **3 FOCUS GROUP DISCUSSIONS**

### **3.1 INTRODUCTION**

The aim of this component of the study was to explore barriers and enablers for walking among young people in Victoria in some depth and detail using the qualitative data collection method of focus group discussions. Qualitative data assist in explaining and understanding quantitative data associated with barriers and enablers for walking, thereby providing insights into young people's walking behaviours that cannot be obtained from numerical data alone. Findings from the focus group discussions were also used in the development of the questionnaire that was used in the survey component of the study.

## 3.2 METHODS

Invitations for Victorian young people aged 15 to 20 years to participate in focus group discussions about walking were distributed through YACVic. A total of 24 young people (13 females, 8 males and 3 other) participated in five focus group discussions at five locations in Victoria: a regional city, an inner Melbourne suburb, two middle Melbourne suburbs and a regional town in a peri-urban area about 60km south east of the Melbourne CBD close to several rapidly developing satellite suburbs of Melbourne.

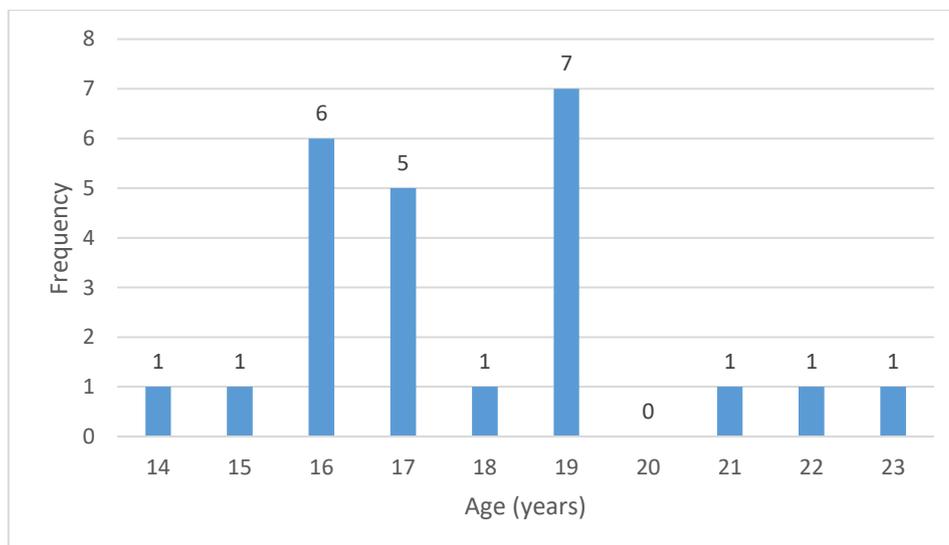
A semi-structured interview format comprising up to 30<sup>9</sup> questions was used to guide the discussions (see Appendix A), which lasted between 40 minutes and one hour. Participants were asked for permission to audio tape-record the discussion, and all gave their consent. The recordings were transcribed verbatim and key themes were developed as a basis for the content analysis of the data. The direct voices of the focus group discussion participants in the form of verbatim quotes are used extensively in the presentation of the findings.

Prior to the discussion commencing, participants completed a consent form and a brief (7 questions) questionnaire containing demographic questions and questions about walking frequency (see Appendix B).

## 3.3 RESULTS

### 3.3.1 Participant characteristics

A total of 24 Victorian young people (13 females, 8 males and 3 other) participated in five focus group discussions. Participants ranged in age from 14 to 23 years, with most aged between 16 and 19 years (Figure 18):

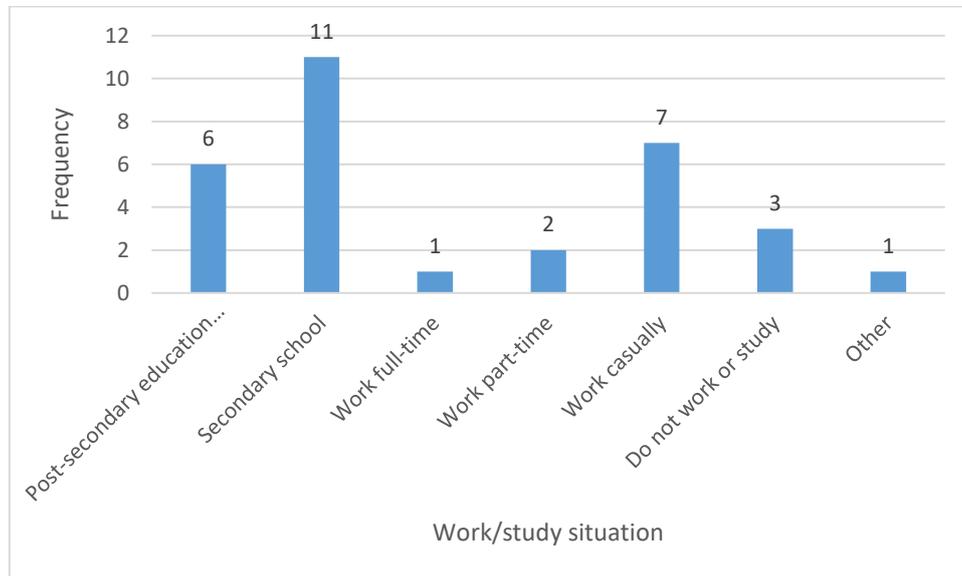


**Figure 18: Participant age (years)**

<sup>9</sup> Not all questions were asked in each focus group discussion due to lack of time. Questions were prioritized to ensure that essential questions were included in each focus group discussion.

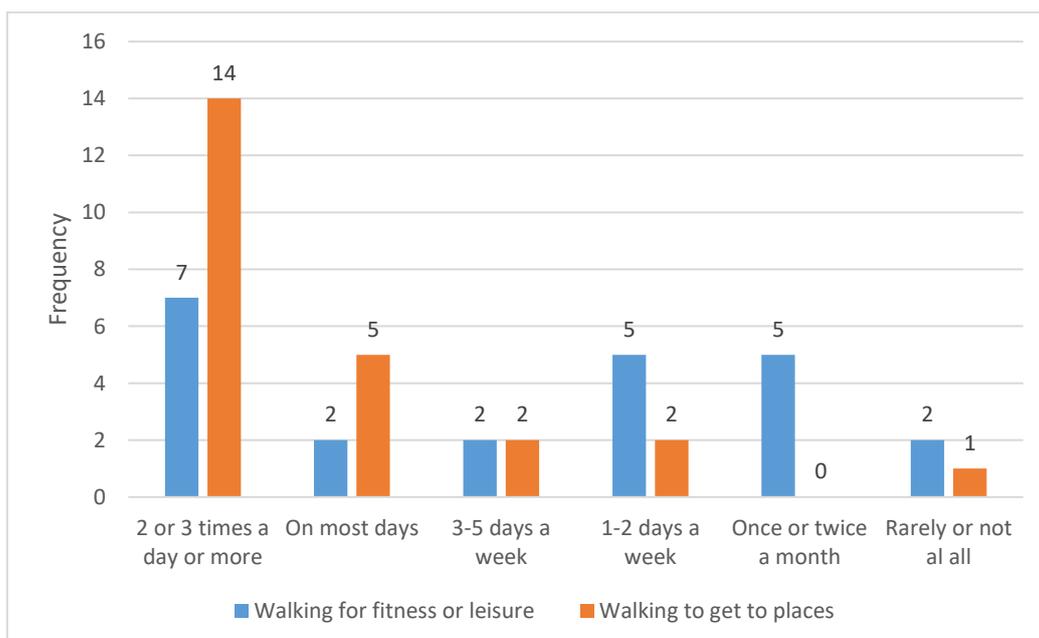
Most participants (n = 19) lived at home with parents; with a small number living alone, in a share house or with a partner.

The majority of participants attended secondary school, and seven young people had casual employment (as well as attending secondary school or post-secondary study) (Figure 19).



**Figure 19: Participants' work/study situation**

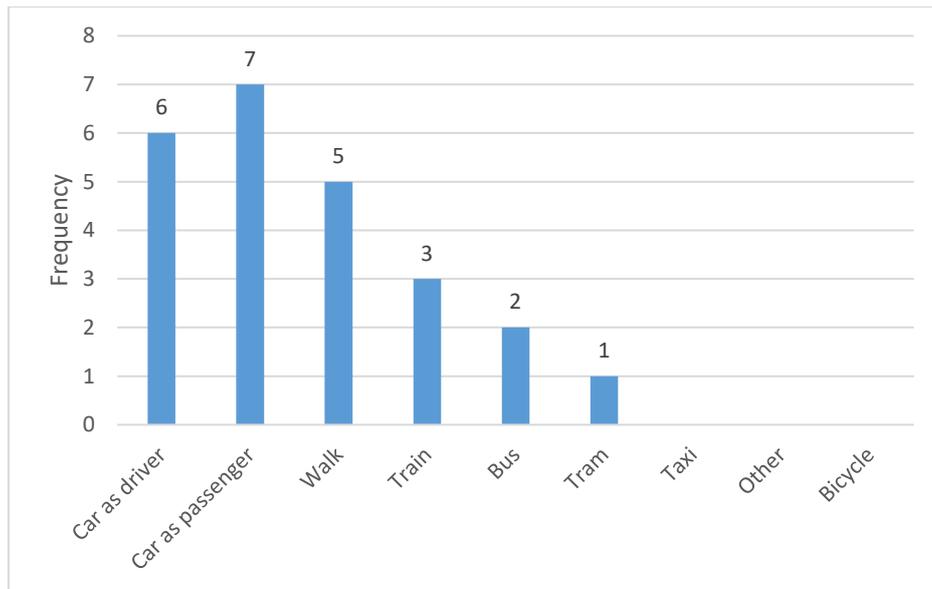
Nearly all participants walked for fitness or leisure and to get to places (walking for transport) at least once or twice a month; but frequency of walking for transport tended to be higher than walking for fitness or leisure (Figure 20). There was a tendency for young people to walk less frequently for transport if they usually travel to places by car as driver or passenger (Figure 21).



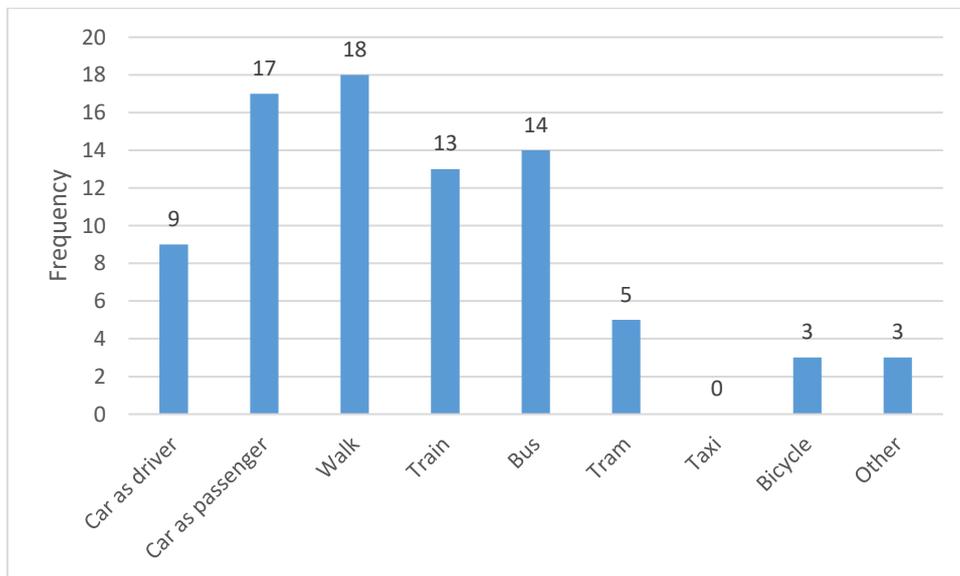
**Figure 20: Frequency of walking for fitness or leisure and to get to places**

Participants were asked to nominate up to four modes of transport they usually use to get to places (starting with 1.). Participants' first-ranked methods of 'usual' method of travel were fairly evenly distributed across car as driver, car as passenger, walking, and public transport (including train, bus and tram) (Figure 21). Overall (combining the top four ranked modes), the three most commonly used travel modes were public transport (including train, bus and tram), walking, and car as passenger (Figure 22).

These data indicate that the young people who participated in the focus group discussions used a wide range of active and passive methods of travel.



**Figure 21: Usual method of travel (first ranked)**



**Figure 22: Usual method of travel (four most commonly used modes combined)**

### 3.3.2 Focus group discussion findings

Seven key themes emerged from participants' responses to the focus group discussion questions. They were:

- The role of walking for young people
- Motivations and supports for walking
- Constraints on walking
- Personal safety
- Traffic safety
- Car use
- Suggestions for increasing walking among young people

'Car use' has been included because for many young people car use effectively competes with walking as a form of transport (see Section 2.1.6). It is also important to note that, while public transport also competes with walking for transport, walking is usually used to access public transport, so young people's use of public transport is often associated with a sizeable walking component (see Section 2.1.3).

These seven themes are described in the following sections, predominantly through the direct voices of the focus group participants in the form of verbatim quotations.

#### 3.3.2.1 The role of walking for young people

Young people talked about a range of different ways in which walking is frequently a part of their daily lives; however, a key finding was of substantial differences in attitudes and behaviours associated with walking for transport and walking for exercise or recreation.

Walking for transport was largely functional (ie to get to places), and sometimes not necessarily viewed as 'walking' or a form of exercise. Indicative of this perspective was that participants sometimes needed to be prompted to talk about any walking they did 'to get to places' because they didn't immediately think of this as a form of walking or exercise. For example, this participant initially said that she "didn't do much walking", but later said:

*"I walk to the school bus stop, like 10 or 15 minutes. I did walk from my school to here. And then walk to work."*

When prompted, participants described many instances of both transport walking and recreational walking, though the majority of their walking (particularly regular walking) was for transport. Purposes and destinations for young people's utilitarian walking included travelling to school, university, work, shops and for social events. Young people also talked about walking *at* these places; for example, around university campuses or large shopping centres.

Examples of young people's descriptions of how they walk to get around include:

*"I walk everywhere, don't really want to catch the bus."*

*“Walk to school. Walk to the bus. Walk to here. Walk to shops – if it’s not too far. Walk to get takeaway food.”*

These comments illustrate the wide variety of walking destinations, and how walking for transport can be a frequent and regular part of daily life for many young people. However, regular utilitarian walking appears to be less likely when young people have access to a car, either as passenger or driver (and more likely when they do not have access to a car), as the following comments illustrate:

*“I walk to school and back – about 4km to school, and it’s uphill on the way back, ‘cos my parents don’t want to drive me,.....so I walk just about anywhere because my parents don’t drive me.”*

*“I walk to and from school, and then probably 3kms around school, ‘cos I do sport, then I usually walk to the train station, about 30 minutes from school, my dad works full-time, from 6am to 6m, so I get nothing [ie lifts].”*

*“During the week I’m usually the only one home, so if I want to go somewhere I either walk or catch the bus.”*

*“Q: Has anything stopped you from walking?”*

*A: Getting my licence!”*

As is the case with other population groups, young people frequently walk to access public transport:

*“I combine the two, like walk from home to the train station, or bus stop, to go places, like go to university, or to go to work, or Fountain gate, or go to gym.”*

*“My school’s pretty far away, so a lot of walking to and from train stations, and the school’s big as well, so there’s a lot of walking around school.”*

*“I just walk to places, usually to the train station.” [2km, 19 year-old, no driving licence].*

A number of young people also walk for recreation, though recreational walking appears to be less frequent and less regular than walking for transport. While most participants were aware of the health benefits of walking, their recreational walking did not appear to be motivated primarily by the desire to improve their health and fitness. Many young people lead very busy lives, combining study, work, and social and other activities; so when choosing to exercise for fitness and health they tend to choose more vigorous forms of physical activity, for example:

*“I don’t walk, I jog – more effort.”*

*“I like swimming, and do lots of swimming. There are a lot of young people who do walk for fun, but when you’re busy and trying to fit exercise in you probably prefer to go to a gym, so they’re less likely to take a long walk out to the park.”*

*“The time it takes is a major constraint.”*

*“Don’t walk just for exercise, but use the cross-trainer at the gym. It’s short and sharp, not like a long time [participant describes high intensity interval training].”*

While young people are less likely than older age groups to walk for physical fitness and the associated health benefits, they do walk recreationally for a range of other reasons that are more closely aligned with social and emotional health. Young people talked about walking to ‘get out of the house’; clear their heads; reduce anger, stress and anxiety; get out in the fresh air and a pleasant, green environment; the challenge of bush-walking or fund-raising walking events; games that involve walking (Pokémon Go); accompany their parents or other relatives who like to walk; spend time walking with friends; and walking the dog.

Examples of comments include:

*“To get out of home – a good escape from home.”*

*“Depends on my mood, depends on the day – good day or shit day, getting away from the same four walls...”*

*“Sometimes when I’m angry I like to walk.”*

*“I go the You Yangs with my Mum.”*

*“I’ve done extended hikes, military back-pack – out there for the scenery and the discipline.”*

*“I do walk around for enjoyment with my family. There are sometimes I do complain – I can’t deny that! I have to study, but they say “Come for a walk, it’s good for you!” I know it’s good for me, but I do complain regardless.”*

*“My grandmother has high cholesterol, so she tends to walk a lot, and that means she tries to drag me along with her. She likes the company.”*

*“Pokémon Go. I spend a lot of time walking for that.”*

*“I walk with my Mum because it helps with her recovery after surgery and stuff – it boosts her mood. And I walk around the estate to take photos, I’ve got some really cool photos of birds and stuff.”*

*“If it’s a nice day I’ll go for an evening walk with my Aunty.”*

*“Sometimes when I’m angry I like to walk.”*

In summary, many (though not all) of the young people in this study enjoyed walking, and were aware of the health benefits of walking, but didn’t necessarily seek it out as a preferred form of either transport or recreation. Young people walk for transport if it is convenient and there is no practical or appealing alternative. As one participant commented *“It’s exercise you can’t get out of”*. For these young people, walking for transport is a clear example of ‘incidental’ physical activity, or what economists call ‘derived demand’; that is, an activity that is used to achieve other purposes (eg to get to school, shops, work, and

other places) rather than done with the purpose of achieving direct benefits (eg improved health) from the activity itself.

Young people tend to walk for recreation if encouraged and accompanied by others (surprisingly often, parents and relatives); participating in walking events, games or 'challenges'; or to 'feel better' emotionally.

Regardless of the reasons, motivations and purposes for walking, many factors influence young people's walking behaviour. The next two sections describe the supports and constraints on young people's walking in all its forms.

### **3.3.2.2 Motivations and supports for walking**

It appears that the underlying motivation for many young people's walking is having a purpose, goal or aim for the walking trip, as captured in this comment:

*"I like it, but I still need the motivation to do it. I like walking but I'd never think to do it, unless I needed to get somewhere. Like when I have to travel to places. When I do it I say, "Yeah, this isn't too bad".*

*"I just need a purpose to walk."*

While the health benefits of walking are widely recognised by young people, health appears not to be their primary motivation for walking; possibly because health benefits in the form of chronic disease prevention tend to be long-term, with few immediate, experienced benefits. For those young people who *do* exercise for fitness and health, more intensive forms of physical activity seem to be preferred, as they are seen to achieve fitness goals through shorter and more intense episodes of physical activity. This saves time for busy young people, and can be done in 'safe' places like gyms and swimming pools in the evening when young people have more time, but may feel unsafe walking at night in public places (especially girls, see Section 3.3.2.3).

As mentioned in the previous section, young people have a range of motivations and reasons for walking for transport and recreation that have immediately experienced benefits in the form of getting to places (transport walking) and social and emotional health and wellbeing (feeling better through recreational walking). Examples of motivations for transport walking include:

*"Who's going to wait for a bus [walk instead]."*

*"I couldn't drive, so I relied mainly on public transport and walking."*

*"It's really annoying to spend a lot of money on public transport."*

*"I walk just about everywhere because my parents don't want to drive me."*

*"I walk a lot because cars, trains, etc, use fossil fuels."*

*"If it's cheaper to drive, we're all going to end up driving. If it keeps going up, like \$800 registration, we're all going to walk."*

Examples of motivations for recreational walking include:

*“Walk for fun, with girlfriend, walk with friends.”*

*“When I was walking with my Mum that was good, we were just chatting and that.”*

*“They [parents] encourage me to walk, every now and then.”* [Indicating that recreational walking may be less regular than walking for transport.]

*“Fresh air, healthy, and improves your mood.”*

*“It’s a nice way to see a place, if you’re riding or running you just zone out, but when you’re walking you can really take in your landscape.”*

Social-ecological models of physical activity propose that physical activity behaviour is influenced by four mutually interactive domains: social/cultural factors; environmental factors; policy/regulatory factors; and intra-personal factors. All of these four domains were evident in young people’s discussions of motivations and supports for walking.

Examples of intra-personal factors that support/encourage walking are:

*“If someone said “I’ll pay you \$20 to walk the whole day”, I’d do it.”*

*“Relay for Life – I found that really good. I walked 14 km in one night – didn’t even think about it, I was walking with my friends, we were having a nice chat, and then you just realise you’ve walked four laps and you didn’t realise it. And good because it’s fund-raising. Reward themselves and reward the community through the fund-raising.”*

*“I prefer to walk by myself and have a bit of a chill time, ‘cos all the other time I’m with people, so going from one place to the next is my time to be alone.”*

Examples of environmental factors that support walking include the following:

*“We live in a nice area – with a park two streets down. Really well-maintained, and with roads and footpaths that are quite easy to walk on.”*

*“I love walking at night, I just love how it is dark and everything and you’ve got the night sky, it’s more quiet. It’s just the peace and quiet, around my street it’s very quiet, it’s nice.”*

*“Back in the good old days when I lived in a suburb, back before it was a big suburb, it was a baby suburb, and I’d walk at night time because there were less people and it was romantically cute, like the stars were just there, the moon was just there...it looked beautiful, it’s just like “ah” I could sit here for days. So that was my main reason for walking.”*

*“Before I lived in the suburbs, I lived in the country, we had this massive property and every night we’d go out for a walk .... and see the possums and the bats, and the stars – it was great.”*

*“I’m from [suburb] which isn’t too bad, it’s a very middle class suburb, okay houses, usually not too dangerous. I don’t feel too bad.”*

*“There are train tracks [no longer used] and it leads down to a river....hang out there for a few hours.”*

*“If it was a nice sunny day.”*

*“We live near a park, so it’s cool to walk around there and there’s some cool reserves.*

*“I like to walk down to the park and play with people’s dogs.”*

*“It gets pretty fummy and stuff on that road so I go another route by the park that’s really peaceful, quiet, and usually no-one there.”*

Note that several of the above comments also include intra-personal and social factors, illustrating the interactive nature of the four domains of the social-ecological model of physical activity behaviour.

As described above (and illustrated in several of the comments), social factors in the form of walking with friends and relatives can also be important, in terms of both other people providing the motivation for them to walk, and social contact enhancing the enjoyment of walking. However, as also illustrated above, some young people enjoy the ‘chilling out’ and stress relief of walking alone.

Further supports for walking are described in Section 3.3.2.5 below, under “Suggestions for increasing walking”.

The following sections describe several barriers to walking.

### **3.3.2.3 Barriers to walking**

As was the case for the supports for walking described above, participants mentioned a range of factors. Personal barriers centred on lack of time, motivation (*“I’m just really lazy”*) and ‘having a reason to walk’. Environmental barriers focussed on personal safety and traffic safety.

#### ***Personal safety***

Personal safety (‘stranger danger’) appeared to be of greater concern to young people than traffic safety, with personal safety comments outnumbering traffic safety comments by a factor of about two to one. However, this varied considerably by location and gender, with girls living in outer suburban Melbourne and the peri-urban location expressing more concerns about personal safety than boys (in all locations) and girls in inner and some middle suburban areas. The greater number of personal safety concerns might also be partly due to the higher number of female participants in the focus group discussions.

Personal safety concerns were mainly for walking after dark; walking in some areas (eg particular suburbs) or specific locations (eg near some parks, railway stations, or streets); and walking alone. The main concerns appeared to be associated with fear of possible

assault, possibly enhanced by witnessing instances of violence, drunkenness or illicit drug use (not involving the young person directly). Evidence of these activities having been conducted in the past (eg syringes, broken bottles, and used condoms) also created a sense of the area being an unsafe place to walk.

Examples of young people's comments included:

*"It's quite scary. A lot of teenagers, usually all the time [referring to day and night]. At the end of my street there's a park, and you usually find beer bottles and stuff, there's quite a lot of drunk people walking through, we've had to install security cameras [at house]. So around the area it's a bit crummy. I don't feel safe."*

*"The area that I'm in is full of drug users – my area seems to be packed with them."*

*"The new area is a lot worse, like a lot worse!"*

*"Not the area where the shops are, but like [named] road. There's a lot of people who like to hang out there, and when I walk down that path to go home I always find things like smashed chairs, beer bottles, alcohol bottles, all sorts, even at some point I found a lot of used condoms everywhere, and that doesn't make me safe! And sometimes I find this weird powder stuff some places. I just don't feel safe. They don't do anything about the drug use."*

*"Q: What about walking at night?"*

*A: That's much worse!"*

*"Day time, pretty safe – night time, pretty unsafe. We have some really weird people around our streets. People on drugs and stuff."*

*"Depends on where you go. There's nothing happened to me to make me feel unsafe, but I've heard stories from other people. Like [named] primary school, and I've always been told not to go there at night because people hang around there."*

*"Q: Does being with the dog make you feel safer?"*

*A: Yes, especially during the day, like when you walk around during the day you get a lot of weird people, like drunk people walking around....and there was one time when I was walking the dog and this drunk person was walking past and she did not like them, she started growling at them. Sometimes I go to a little area and I sit down, and I feel safe because the dog's there with me."*

*"Usually I'm not allowed out on the streets after about 4.30 ....then it's dark."*

*"Q: So your parents are concerned about safety?"*

*A: Yes. Like my brother was walking home from school and it was around 4.30 and he got jumped."*

*"I'm not allowed out after it's dark, but if I'm with my mother, we can be walking around about 6".*

*“My brother saw someone had thrown one of those tubs you put needles in – it was open and there were needles everywhere.”*

*“I take my dog for a walk and there’s so much broken glass, all down my street you get broken glass here and there, and I walk my dog, and she gets glass in her paws.”*

*“I reckon bush walks would be fun, and there are some good fire tracks, but there have been reports of paedophiles and it’s right next to a primary school, so for kids who want to go for a walk....”*

*“Participant A [male]: would you walk in [Suburb] by yourself?*

*Participant B [female]: Not at [Suburb].*

*Participant A: What’s wrong with [Suburb]?*

*Participant B: I drove past the station there and I saw about three drug deals happening.”*

The above comments were predominantly from girls, though the following girl expressed a minority perspective:

*“Q: Do you feel safe walking at night?*

*A [girl]: Oh, yes, it’s very personal though, I’m very tough, I can walk at night by myself, I’ll fight all those people that try to attack me!”*

Another girl living in an inner suburb felt relatively safe walking, though still preferring not be in certain places after dark:

*“Yes. [Neighbourhood feels safe]. Prefer summer evenings when it is still light, rather than dark nights in winter. In winter I’m less likely to walk outside. I feel safer in spring and summer than in winter. I try and be home from uni before 6pm before it gets dark.”*

*“I feel very safe using public transport and walking to and from public transport. Trains and trams I feel slightly safer than buses, with trains and trams, the stops generally have police there, PSOs – I see them at [named] station, at [named] station and the station I get off at, so I feel quite safe. But for buses and trams, stops are less consistent, and lighting is not always good, so I generally avoid taking the bus, so I get off at the station and get my parents to pick me up.”*

The above comment is an example of safety concerns leading to replacing potential walking trips with car trips.

In contrast to the safety concerns expressed in the majority of the comments above (by girls), nearly all boys commented that they feel safe walking, including at night. Examples of comments include:

*“I walk to and from the station (about a km or 2), and occasionally walk the dog,*

*Q: (other participant): would you walk at night by yourself?*

*Oh, yeah, easily.*

*What about trains at night.*

*Yes, fine, if they ran later it would be a lot easier for me.”*

*"I feel safe walking around, including at night."* [With agreement from others].

These comments and contrasts (between genders and across locations) raise the issue of the sources of these concerns, and the extent to which they are based on actual risks and/or perceived risks. It appears that both perceived and actual risks have an impact on young people's feelings of safety and hence walking behaviour.

The experiences described above by young people in the rapidly developing peri-urban location are undoubtedly real, and act as a constraint on walking. However, it is likely that narratives about safety in these locations also play a part in young people's safety perceptions and walking behaviours. In particular, it appears that some suburbs or locations can develop a 'bad reputation' that may be somewhat resistant to change, as incidents are interpreted as 'typical' of the area, rather than anomalous. It also appears that social media is increasingly contributing to these suburban narratives:

*"My Mum is so too too far into media, she has every media possible....so she's always researching what's going on around the place where I live, and we're always finding things like people bashing other people, and people who are not starting fights or anything, they just get jumped for no reason. There is absolutely no safety and the Police in [suburb] are absolute ding-a-lings. I think they are under-resourced."*

*"I think a lot of people in [suburb] are quite on edge when they are out, 'cos I'm on the [suburb] page, and a lot of people post pictures saying there's people [doing certain things] ....everyone's paranoid."*

Based on the personal safety issues and their impacts on walking described above by young people, there appear to be three broad approaches for addressing these concerns: (a) improve neighbourhood safety; (b) address young people's perceptions of neighbourhood safety; and (c) assist young people (particularly girls) to acquire the skills to deal with threats and perceived threats to their personal safety. In terms of (a) and (b), some safety measures both reduce crime and improve perceptions of safety, while others may have more impact on perceptions of safety. For example, it appears that keeping neighbourhoods clean and tidy, and observable and well-publicised actions taken by authorities such as police and local government to reduce crime and improve public order are important for young people. If the focus is only on safety measures that have been demonstrated to be effective in reducing crime, opportunities will be lost to implement measures that have more impact on community perceptions of neighbourhood safety.

The other important issue is getting the balance right between creating awareness of possible threats to personal safety (with the aim of improving safety), but inadvertently creating high levels of fear of being in public places, which has the negative effect of young people forgoing the benefits of being able to move around actively in these places. Giving young people the skills to deal with threatening situations (eg through 'protective behaviours' or self-defence type programs) can also improve personal safety and, possibly more importantly, *perceptions* of safety by reducing young people's sense of vulnerability (ie "I'm very tough, I can walk at night by myself").

## **Traffic safety**

Participants were asked if they feel safe from traffic while walking. Some young people commented that they did “...as long as you obey the rules” (ie their safety is in their own hands), though others cited instances of drivers ‘not obeying the rules’ (ie external threats to safety). Poor walking infrastructure was mentioned by some young people (again, mainly in the outer suburban and peri-urban areas).

Roads with high volumes of traffic (particularly trucks) appeared to be viewed by some young people as unpleasant for walking, rather than necessarily unsafe, for example:

*“It gets pretty fummy and stuff on that road so I go another route by the park that’s really peaceful, quiet.....”*

*“Traffic and trucks are diverted off those roads, so it feels quite safe.”*

Lack of walking infrastructure (usually combined with unsafe driving) was a concern for young people in outer suburban areas and country towns; for example:

*“I live in a small town so I.... walk on the highway, and it’s a gravel road with no footpath, so I don’t walk and people like to drive 130km/h. That puts me off walking – knowing the way that some people drive.”*

*“The way people drive is scary – I don’t want to die from a car, but also because there’s no footpath – there’s no way for a pedestrian to walk.”*

*“I walk to school – 40 minutes each way. When you walk you have to take a different route to cars, ‘cos you can’t walk along the main roads. The footpaths don’t exist in some places. Things like slip-lanes, they’re only for cars. I’ve always been taught to use other routes, yes, it does make it a bit longer.”*

*“At [named] station, there is no footpath and it’s like a mud bank, after it’s rained it’s so slippery, it’s really scary.”*

*“On the way to Eastland [shopping centre] along the highway the footpath just stops and there’s no sign to tell you where it continues.”*

Driving behaviour in middle suburban areas was also a concern for young people walking in these areas, with concerns expressed about ‘hoon’ driving; careless/inattentive driving; drivers visiting from overseas, or who had obtained their driver’s licence overseas (and were considered not to know the Victorian road rules); and inappropriately high speeds in suburban areas.

Examples of comments include:

*“...we do have the occasional hooning, though that mainly happens at night. If you go in the daytime you avoid hooning.”*

*“Not stopping at pedestrian crossings, not giving way. Sometimes they don’t even look – they just go.”*

*"I was walking with my friend, and I walked across this road, I looked both ways twice, and this idiot was turning into the street I was walking across and he hit me at about 20kmh, I still have a sore leg from that. That puts me off walking a bit."*

*"Because people are idiots – they don't know how to drive."*

*"Yes. One of the problems might be for people from foreign countries who transfer their driver's licence when they don't even know the rules."*

*"That's [suburb<sup>10</sup>]! My father said 'Always assume that no-one else can drive'."*

*"That's what my uncle said, 'assume that everyone else is an idiot'."*

*"Q: Do you need to do that when you're walking too?"*

*Yes. In [suburb] last year, we were the top suburb for the most deaths, we killed the most pedestrians in [suburb]. Everyone's on their headphones, there's idiot drivers out there that don't think."*

*"Idiot drivers – people who turn right, and only look a certain way, they don't look both ways, my aunty has been hit so many times from that – like only in the car, but it's so bad, some drivers are idiots. I drove up [named] Street for the first time yesterday, and I hated it."*

Note that the above comment (and others not cited here) illustrates that some young people view the road system as unsafe for pedestrians due to the poor driving behaviours they observe regularly, including when driving themselves or as passengers. That is, their concerns are not based solely on their experiences while walking, but on their general observations of driver behaviour.

Young people expressed mixed views about vehicle speeds and speed limits. The following discussion about speed limits reflects some broader community attitudes to reducing speed limits; namely, that people don't adhere to speed limits anyway, and speed reduction creates other traffic problems:

*"Q: Would lower speed limits round shopping centres, train stations, help?"*

*A: No that would not work, as a driver that would not work.*

*Q: Why not?"*

*A: Because there are already people who drive too slow on the road, they need to get off the road. Driving too slow means traffic jams."*

*"Say the corner of [two named busy roads], if [named] Street turns from 60km/h to 50 or 40, do they know how hectic that is going to get [also as a result of a high-rise residential development being built] .....buses aren't going to be able to get out of here, that's one of*

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<sup>10</sup> A Melbourne suburb about 12 km from the CBD where more than half of the population were born overseas.

*the reasons I'm driving now, 'cos buses aren't going to be able to get out of here, no-one's going to be able to use [named] Rd, my Aunty's going to have to go the long way."*

However the following participant offered a different perspective, more reflective of the 'driver has a high duty of care to avoid harming more vulnerable road users' perspective that is more prevalent in European and Asian countries with high rates of safe walking and cycling (Buehler and Pucher, 2012):

*"They say if you hit someone at 40ks, it's going to give them bruising and maybe a dislocated knee, but if you hit them at more than 40ks that's likely going to break them or kill them. I drive along 60kmh roads at 50 as a learner, I don't care if the person behind me is impatient, they can get stuffed, I'm a learner, on a 40k road I drive between 20 and 40."*

This participant's perspective on pedestrian safety is interesting and relatively unusual (in Australia) in that she felt a responsibility to drive safely, at a speed lower than the speed limit.

Examples of young people's concerns about overseas drivers (in the suburb with more than half of the population born overseas) are as follows:

*"Some people from foreign countries have different rules, and if they just translate their driver's licence over without doing our P test, they're not going to be able to drive as well."*

*"I think there should be a test if you are going to drive here. If you're on a short holiday have a little test, but if you're going to live here have a whole new test, like the one that I just did."*

In summary, young people's concerns about traffic safety when walking are not dissimilar to those of the general population, and include lack of footpaths, and unsafe driving behaviours. Young people try to avoid walking along high-speed, high-volume roads (including those with footpaths) because they may be considered unsafe (participants mentioned slip-lanes, street crossings, and pedestrian crossings where drivers are meant to give way, but frequently don't), but also because they are considered unpleasant places to walk.

While walking along busy roads might be acceptable in terms of the most direct (and therefore quickest) route for utilitarian walking, young people prefer pleasant, green, quiet, natural environments for recreational walking. This is consistent with much of their recreational walking having a 'stress-reduction', mood-enhancing purpose, rather than a stimulating or vigorous exercise purpose.

As described in Section 3.3.2.1, car use as both driver and passenger replaces some utilitarian walking trips. In light of lower rates of young people obtaining a license in Victoria in recent years, young people were asked about obtaining a driver's license, and car use in general. The following section describes young people's views and behaviours related to car use, as both driver and passenger.

### 3.3.2.4 Car use

Young people described mixed attitudes and behaviours about obtaining a driver's license, driving, and being driven by others (usually parents). Obtaining a driver's license appeared to be shaped largely by circumstances such as where they live, travel needs, family support, and the time and costs associated with obtaining a driver's license and owning and operating a car, rather than an inherent desire to drive and/or own their own car.

In terms of understanding possible reasons for the decline in license-holding by young people in Victoria, most of the young people in this study talked more about reasons for *delaying* obtaining a license, rather than not wishing to drive or own a car in the longer term.

Reasons for the 'delay' included:

- Not having the motivation or time (particularly for the 120hrs driving experience required) due to study commitments (especially for young people studying for their VCE), for example:

*"I'm 19 but I still don't have my Ls, I wanted to concentrate on school, I never get round to reading the book (road rules for Ls), I can't be bothered....annoyed at parents pestering me about it, I do want to drive, but I can't be bothered actually taking the steps to do it."*

- Parents or other licensed drivers not available, willing or able to supervise the 120hrs supervised driving, for example:

*"Got a car, but not Ls yet. Mum works 9-5 every day."*

*"Parents.... may not have a full licence or a car."*

*"I'd only be driving to school and to get home." [ie doesn't build up enough hours]*

*And for my brother, it was difficult for him to get up the times as well."*

*"I think because you need to do 120hrs with your parents, so it takes a long time to get those hours, and my family doesn't have a car."*

*"My brother [20 years old] works full-time till about 6 or 7 o'clock and when he gets home, both my parents get home, and are too tired and they don't want to go out, so he has no chance to actually go out and do any driving."*

- Preferring to obtain a license at an older age due to fewer requirements and restrictions, for example:

*"I'm 18 and don't have a licence. I want to get green P straight away, not red P."*

*"I'm 21 and I just got my Ls, and I don't have to do 120hrs, just need to have my Ls for 6 months."*

- The cost of obtaining a license, for example:

*"It takes so long to get your Ps and stuff. You're on your Ls for so long, and always having to drive with someone. Costs too much. \$45-50 for one hour."*

*"Before I turned 18 there was no way for me to learn how to drive, a driving instructor costs \$50 an hour, so I'm still learning how to drive."*

*"What kind of 18 year-old has \$200 to go and get their Ps?"*

- The cost of purchasing and operating a car:

*"Cars cost a lot. If I had a job and could afford petrol I'd be more inclined to get a car. It's expensive to maintain a car – you have to pay for registration, insurance, so I'm not in a rush, I put it off."*

*"...petrol prices are going to go up as there's more demand, if it's cheaper to drive, we're all going to end up driving, if it keeps going up (eg \$800 registration) we're all going to walk."*

Young people also expressed differing attitudes to car use/ownership, though the majority of comments were positive. Examples include:

*"Important to have a car. Car is easier to go shopping, walking would be tiring."*

*"Family widely dispersed around [regional city], so driving easier."*

*"It's a good thing to have, but it's not necessary."*

*"I prefer driving – it just opens up this window for you – you can go wherever you want, like when you've got your Ps you can go wherever you want whenever you want. I don't have any limitations, I don't need a passenger next to me, I could go to the airport and watch the planes take off, go to the hills, go to the beach, do whatever I want. There's no limitations on driving. You can go wherever you want as long as you can afford it."*

*"A lot of people still love cars."*

*"Can manage without one."*

*"It's convenient – pick up a boyfriend/girlfriend, it can be a social activity – pick people up, go together, but then, catching public transport can be quite sociable as well."*

*"Most of my friends have Ps, and most of the P-platers try to go off and buy a car as soon as they get their Ps, they save up for a car. Like buying a car becomes a milestone for a lot of young people."*

*"I like driving on the freeways on the way to [country town], but not in the city."*

*"I was never really in a rush, it was never a priority for me. Some people get them straight away – like in high school. If you go to parties a lot, if you go out at night, they're more likely to buy a car."*

The above comment suggests that the need for travel at night favours car use, possibly linked to young women's reluctance to walk or use public transport after dark for safety reasons (see Section 3.3.2.3).

Constraints on car use included cost, inconvenience, air pollution, congestion, unpleasant driving conditions and the availability of alternative non-car modes of transport, for example:

*"It is better to live somewhere where you don't need a car – you don't have to pay so much for petrol and less pollution. If you want to keep your fitness up you're going to walk and not drive."*

*"I could drive now (have Ls), but for environmental reasons I take public transport."*

*"Walking to shops is easier, you have to start your car, go, find a park, pay for the parking...you just walk, get your stuff, come back home, it's easy. You can get fines for doing something wrong."*

*"Traffic might be bad and public transport's easier."*

*"I feel safe using public transport. You can relax on the train."*

Two participants talked about enjoying driving in the country, but not in built-up areas in Melbourne (due to congestion, other drivers' behaviours, and general stresses associated with driving in built-up areas).

There were also differences in the extent to which family members (usually parents) were willing and able to drive their children to destinations, for example:

*"I just have to ask."*

*"On uni days, probably not [parents willing to accompany] - because of traffic jams – the city is so bad. But on weekends, I prefer to drive because it's considerably less time."*

*"I can get a lift most of the time, and if not I'll leg it."*

*"I've got a really big family, and if one can't take me another can. Usually it's my Mum though."*

One participant summed up her thoughts about trends in young people obtaining a license and driving in terms of the overall trend to some extent masking considerable diversity:

*"When you look at that data, you really need to look at which communities are like that, because in rural communities where things are further away, they're pushing now to lower the driving age to 17 for P-plates, but if you look at the West and the East, there would be significantly different results, because their lifestyles, like students can be disadvantaged and can't get to places so easily, who don't have a connected public transport system, they're more likely to go and get their Ls. But if you have a community where the public transport system is well-connected, where students prefer to go to the*

*city, they're less likely to need an L and P. The needs of well-off and not well-off communities are very different.*

*The needs [and access to public transport] vary even just in little pockets."*

The final category of responses referred to young people's suggestions for increasing walking among young people. These are described in the following section.

### **3.3.2.5 Suggestions for increasing walking among young people**

Young people were asked specifically about "Any things that might encourage you to walk more". The specific responses described in this section need to be considered together with responses described in earlier themes related to motivations and reasons for walking, and supports and constraints on walking, as these sections also provide insights into measures that can be adopted to assist young people to walk more.

Young people's suggestions for how to encourage more walking among young people largely fall under the broad theme of 'giving young people a reason or purpose for walking'. This over-arching motivation for walking was mentioned directly by some young people, for example:

*"A purpose, you need a purpose."*

*"I just need a purpose to walk! Like I want a puppy."*

*"I like it, but I still need the motivation to do it. I like walking but I'd never think to do it, unless I needed to get somewhere."*

*"I only walk when I have to, or when I'm in the mood, which is ratty."*

More specific suggestions included:

- Walking events and activities, which might include a challenge, fund-raising, walking group, social activities, rewards or incentives, for example:

*"Also, if you reward walking, young people like rewards....like readathons."*

*"Relay for life – I found that really good. I walked 14 km in one night – didn't even think about it, I was walking with my friends, we were having a nice chat, and then you just realise you've walked four laps and you didn't realise it. And good because it's fund-raising (another purpose). Reward themselves and reward the community through the fund-raising."*

*"Friends to walk with. Like having a walking group."*

- 'Gamification' of walking (such as Pokémon Go), for example:

*"Pokémon Go – definitely got more young people walking. Families did it together, the [local] pier was crowded, council needed to improve facilities to cope with*

*numbers (eg rubbish bins). Gamification. Shows that people are willing to walk if you make it enjoyable.”*

- ‘Competition’ between friends, such as use of devices such as Fitbits to record and compare activity levels, or achieve personal or team activity goals, possibly involving incentives or rewards, for example:

*“I’ve never had a Fitbit, but my friends do, and I remember them sitting down, and they were competing with each other for the number of steps. Like gamification, people love that sort of stuff, they like that sense of gratification, like when you walk you don’t really see the health benefits straight away after you’ve finished walking, but if you see that you’ve caught more Pokémon or you see that you’ve walked further than your friend...there are people who walk for fun and they find it relaxing and meditative, but if they had that extra reward coming in – if there were also games around walking that were well-designed, ‘cos people lose interest so quickly, have to appeal, have to be fun, be new – that’s what gets people on board and staying on board.”*

- Build walking into activities and events, including providing directions on how to walk or use public transport to get to events and other destinations, for example:

*“To encourage people to walk more, when we advertise events, that we encourage walking there, you’re encouraged to walk, nearest bus stops, station, give them maps, so they’re more likely to walk there.”*

*“My Dad has an app that shows the footpaths and it shows how far you have to walk.” [Following discussion about Google maps not showing pedestrian suitable routes.]*

- Promote the health and environmental benefits of walking, for example:

*“...especially high school kids, like, we don’t really promote walking as a way of relieving stress, that would be appealing because a lot of young people now are stressing out, they’re facing a lot of anxiety and depression, especially in year 12 because it’s so... year 12 has been described as the most hellish year, for a lot of students, and a lot of students just can’t handle it, they’re not really good at managing stress, so if schools promoted exercise, walking as a way to relieve stress, it’s a really good way for them to promote it heavily. Marketing to young people is so important, focussing on their needs, would be really beneficial.”*

*“If we market it as a good thing to do then more people would be inclined to do it.”*

Marketing walking was also seen as a method of countering the convenience of car travel:

*It's convenience. Not a lot of young people see public transport everywhere, walk everywhere. If we market it as a good thing to do then more people would be inclined to do it."*

- Improving walking infrastructure and safety, for example:

*"More public place walking things easier to access. Easier to access walking tracks. Like the really great ones at Phillip Island, I want to drive down there just so I can go for a little walk."*

*"I reckon bush walks would be fun, and there are some good fire tracks."*

*"Being more secure. It's not an easy problem to solve, like the fact that we can't walk around at night. People should be able to walk around at night. That would give me a lot more incentive to walk."*

*"A big dog."*

*"A bigger police presence around town."*

*"Increase safety."*

*"My school bag is so heavy! Like 10 kilos on my back."*

*"Footpaths. More accessible."*

*"Better drivers. I was almost hit by a car walking up that hill, speeding and doing drifts, and came onto the footpath right near me and I was like so freaked out."*

*"Cleaner environment. The danger of stepping on a syringe, or broken glass, 'cos the alleyway that leads to the train line which I go to walk to school."*

Young people also acknowledged that lack of access to a car encouraged more walking 'out of necessity', for example, in response to the question "What might encourage you to walk more?" one participant replied:

*"One day my Mum's car was broken down, so I had to find my own way...bus, then train."*

Previous sections also provided considerable insights into the multiple influences on young people's use of walking, public transport or car travel (as either driver or passenger) as a means of mobility. This information, together with theoretical frameworks such as the social-ecological model of physical activity (Sallis et al., 2006) and the community-based social marketing model for fostering sustainable behaviours (McKenzie-Mohr, 2011) can be used to 'nudge' young people in the direction of more walking and less driving (Thaler and Sunstein, 2008).

### **3.3.2.5 Concluding comments**

A key finding from the focus group discussions is that while many young people enjoy walking, they don't necessarily seek it out deliberately as a preferred form of health-

enhancing physical activity. Walking is perceived by some young people to take too much time and to lack the intensity required to achieve desired levels of fitness. Other forms of exercise can also be undertaken indoors or in more controlled settings during or outside daylight hours, with many young people (particularly girls) very reluctant (or not permitted by parents) to walk outdoors after dark. Consequently, outdoor walking for exercise is restricted to daylight hours, when young people often have other commitments in the form of school work, university studies or paid employment.

However, walking is perceived by young people to be associated with improved social and emotional health and well-being, by providing a means of 'getting out of the house', reducing stress, 'chilling out' and improving mood. Pleasant, interesting, safe, green places to walk support these forms of health-enhancing walking.

Young people are also motivated to walk by having a reason or purpose for walking that is not directly health-related. For recreational walking, reasons/purposes include the challenge of bush-walking or fund-raising walking events; games that involve walking (Pokémon Go); accompanying their parents or other relatives who like to walk; spending time walking with friends; and walking the dog. The number of young people reporting walking with their parents and other relatives was interesting, given research indicating that one of the reasons for reductions in physical activity in the transition from childhood to adolescence is that many adolescents do not wish to be seen playing sports and games with their parents (Slater and Tiggemann, 2010). It appears that walking with parents and relatives is more acceptable than playing sports and games with them.

One of the main reasons/purposes for young people walking (particularly on a regular basis) is 'to get to places', that is, as a form of independent mobility. Creating the conditions under which young people are supported to be independently mobile through walking (and also using public transport, which usually involves some walking) is an important contribution to young people's health, development, education, independence, and economic and social engagement. This is particularly important for young people who do not have access to a car as driver or passenger.

Young people discussed several barriers to walking for transport, with personal safety and traffic safety the stand-out barriers. These varied by gender, location and time of day. In relation to personal safety, three broad approaches appear to be important; namely, improving neighbourhood safety, addressing young people's perceptions of neighbourhood safety, and assisting young people (particularly girls) to acquire the skills and confidence to deal with threats and perceived threats to their personal safety.

Traffic safety concerns included poor walking environments and infrastructure (mainly in outer suburban and peri-urban areas) and driver behaviour. Interestingly, young people's perceptions of the injury risks associated with walking (due to unsafe driver behaviour) appeared to be shaped as much by their observations of unsafe driving in general as by observations and experiences of unsafe driver-pedestrian interactions. This suggests that general improvements in driver behaviour, as well as specific improvements in the ways

that pedestrians and drivers interact will increase young people's safety and perceived safety while walking.

Young people's suggestions for how to encourage more walking among young people largely involve 'giving young people a reason or purpose for walking'. This can take many forms, with young people providing both general and specific suggestions. A combination of these suggested actions together with measures aimed at improving actual and perceived personal safety and traffic safety will contribute to more young people in more diverse locations achieving the multiple benefits of walking for recreation and transport.

## 4 ONLINE SURVEY OF YOUNG PEOPLE (15-20 YEARS OLD) IN VICTORIA

### 4.1 METHODS

Based on findings from Phase 1 (Literature review) and Phase 1 (Focus group discussions with young people), an online survey was developed to assess young people's perceptions of walkable communities, independent mobility, and supports and barriers to walking for recreation and transport.

The survey was developed and administered using SurveyGizmo online3 survey development and administration software (<https://www.surveygizmo.com/>). The survey comprised 29 questions covering:

- Frequency of walking for fitness, sport or recreation
- Frequency of walking to get to places (walking for transport)
- Destinations for transport walking
- Distance (time) young people are prepared to walk to get to destinations
- Frequency of use of travel modes
- Time spent on physical activity for fitness, sport or recreation
- Time spent walking and cycling for transport
- Motivations for walking
- Attitudes to walking
- Perceptions of personal safety while walking
- Experiences and awareness of threats to personal safety while walking
- Attitudes to factors that might contribute to more walking
- Holding a driver's licence, owning a motor vehicle, and access to being driven to destinations
- Perceptions of reasons for declining rates of license-holding among young people in Victoria
- Perceptions of a liveable community
- Demographic questions.

A draft survey was pilot-tested with four young people, and some minor revisions were made. The final questionnaire, which took about 10 - 15 minutes to complete, is in Appendix C. An incentive to complete the survey was provided in the form of the opportunity to win one of five \$100 gift vouchers.

Young people were invited to participate in the online survey through (i) advertisements on Facebook, targeting Victorian young people aged 15 – 20 years (1043 responses); and (ii) notifications via YACVic online communication channels (46 responses).

Note that the survey findings described in this report need to be interpreted in the light of the sample being a non-probability sample of Victorian young people (primarily those who responded to a Facebook advertisement inviting participation in the survey) rather than a representative sample. Young women (76%) and young people aged 15 – 17 years (60%) are

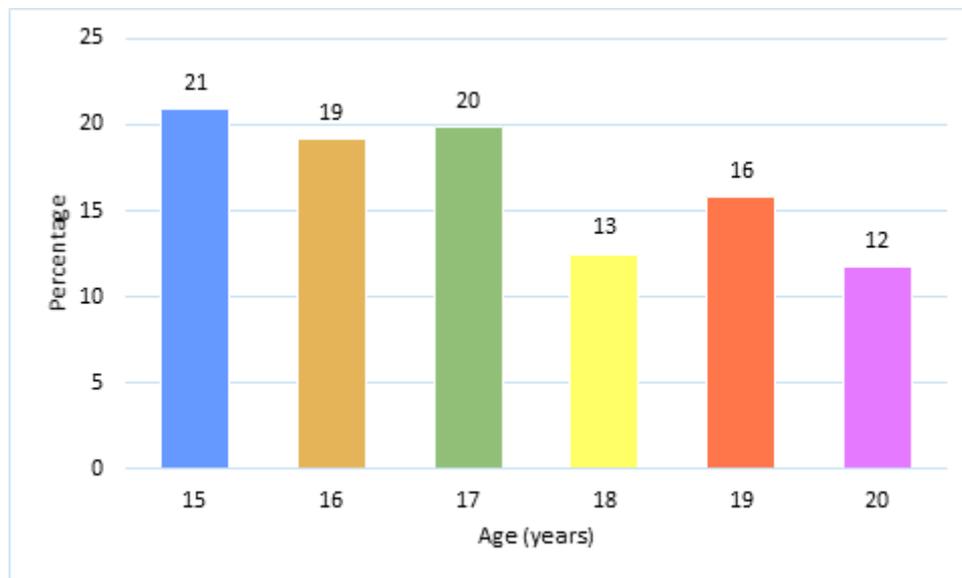
over-represented in the sample. However, the survey participants (n = 1089) are widely dispersed across Victoria and Melbourne metropolitan areas, covering 290 Victorian postcodes.

## 4.2 RESULTS

Survey data were imported into Microsoft Excel 2013 for analysis. Percentages for each question have been calculated based on the number of respondents to the specific question; usually in the range 1050-1089, unless otherwise stated.

### 4.2.1 Demographic data

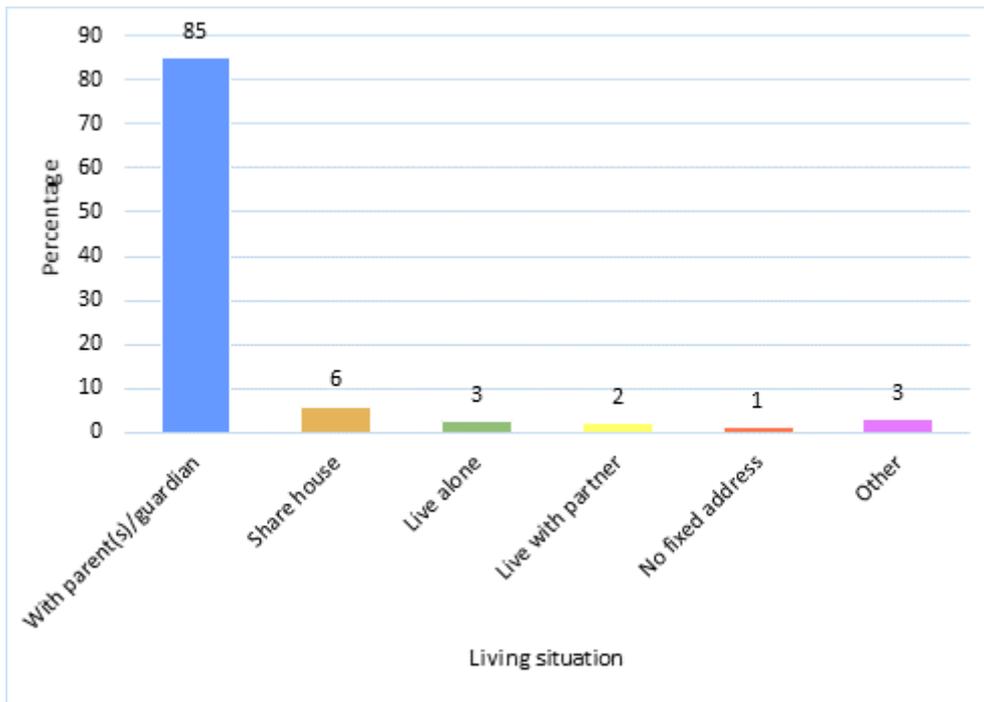
Young people who responded to the survey were distributed across the six year levels of the study population, but with a tendency for higher proportions of younger people aged 15 – 17 years (Figure 23).



**Figure 23: Age of survey respondents (n = 1088)**

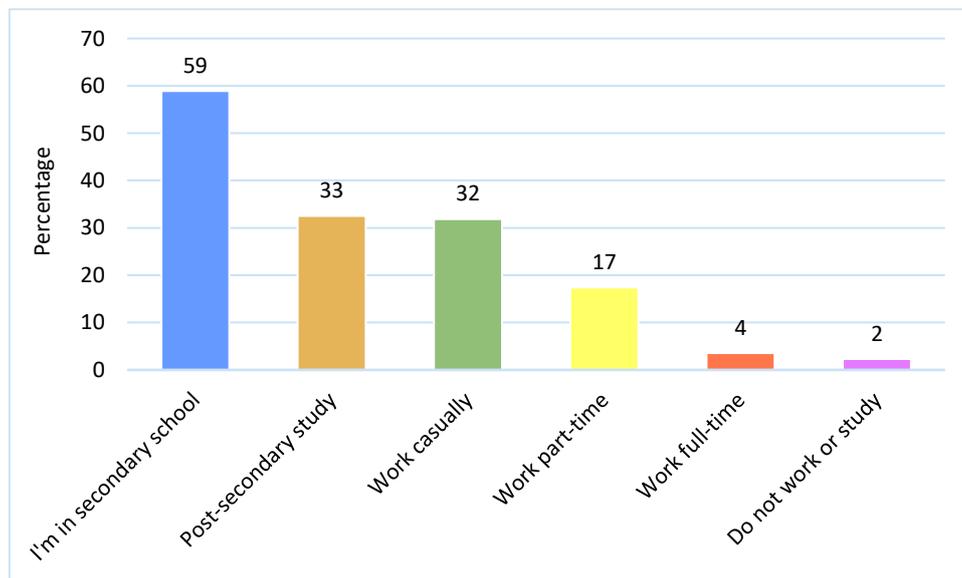
The sample comprised 76% females, 22% males and 2% other.

The majority of young people (85%) lived with parent(s) or guardian (Figure 24).



**Figure 24: Respondents' living situation (n = 1037)**

The majority of young people attended secondary school (59%) or post-secondary education (33%); with nearly half (49%) working casually or part-time, and only 4% working full-time (Figure 25).



**Figure 25: Respondents' work/study situation (n = 1039)**

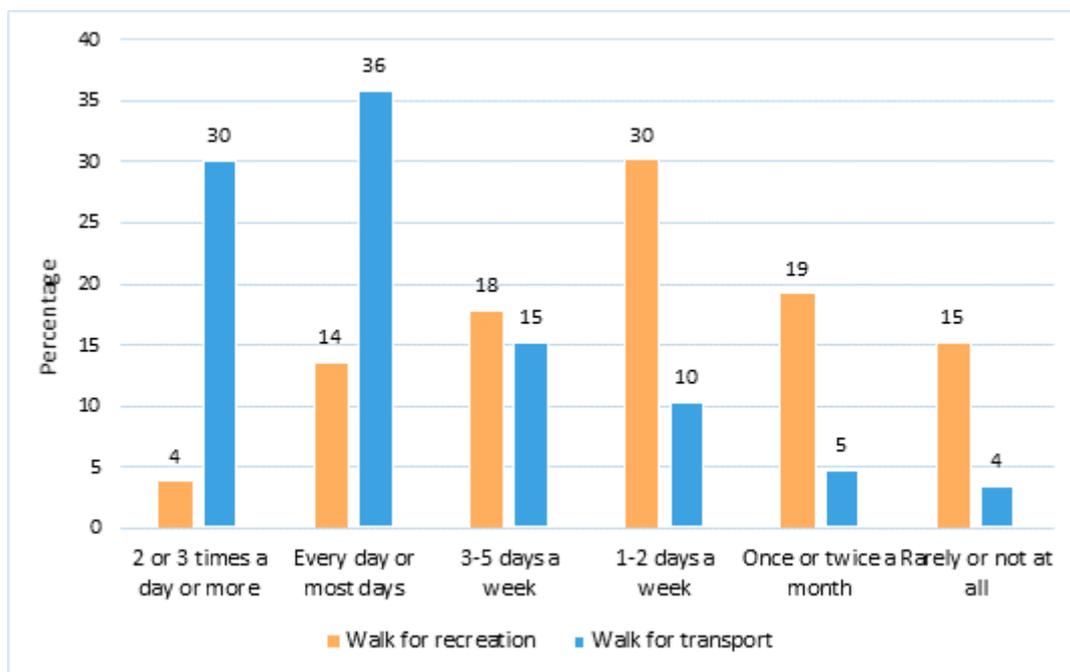
#### 4.2.2 Frequency of walking for recreation and transport

Young people frequently walk for transport, with two-thirds of young people walking for transport every day or most days, and four out of five young people walking for transport at

least three to five days a week (Figure 26). These data indicate very high levels of young people walking as a form of mobility.

Levels of recreational walking were lower, with the majority of young people (64%) walking for recreation one or two days a week or less.

These data indicate that walking to get to places is an important form of independent mobility for young people, who are less likely to choose to participate in walking as a form of fitness, sport or recreation. As discussed in Section 2.1.3, these levels of walking for transport are likely to provide a valuable form of physical activity for young people who might otherwise choose not to participate in other forms of planned physical activity, particularly young women and disadvantaged young people.



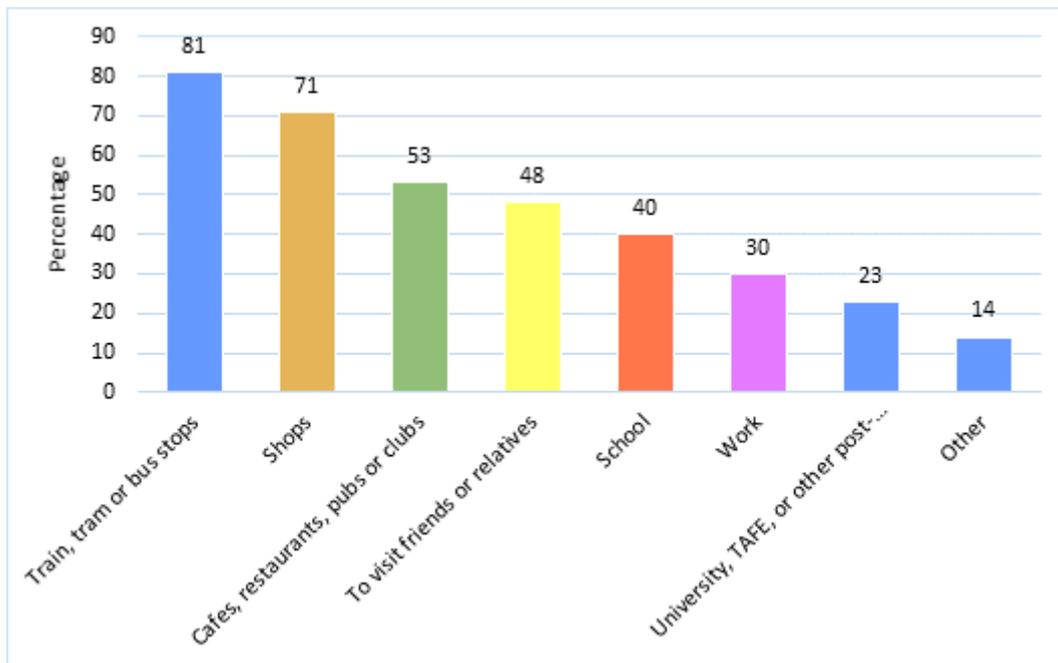
**Figure 26: Frequency of walking for recreation and transport (n = 1035 [recreation], n = 1045 [transport])**

#### 4.2.3 Destinations for transport walking

Common destinations for young people’s utilitarian walking trips were to access public transport (81%), shops (71%), entertainment (43%) or to visit friends or relatives (48%) (Figure 27). Smaller proportions of young people walked to school, work, or higher education; however, not all of the young people in the sample attended school or higher education or worked (see Figure 25), thus lowering the overall percentages. It is also likely that many of the 81% of young people who walk to access public transport are in fact travelling to these more distant destinations.

“Other” walking destinations were mainly sport, gym, training and fitness related, and also parks, dance, parties, movies and appointments.

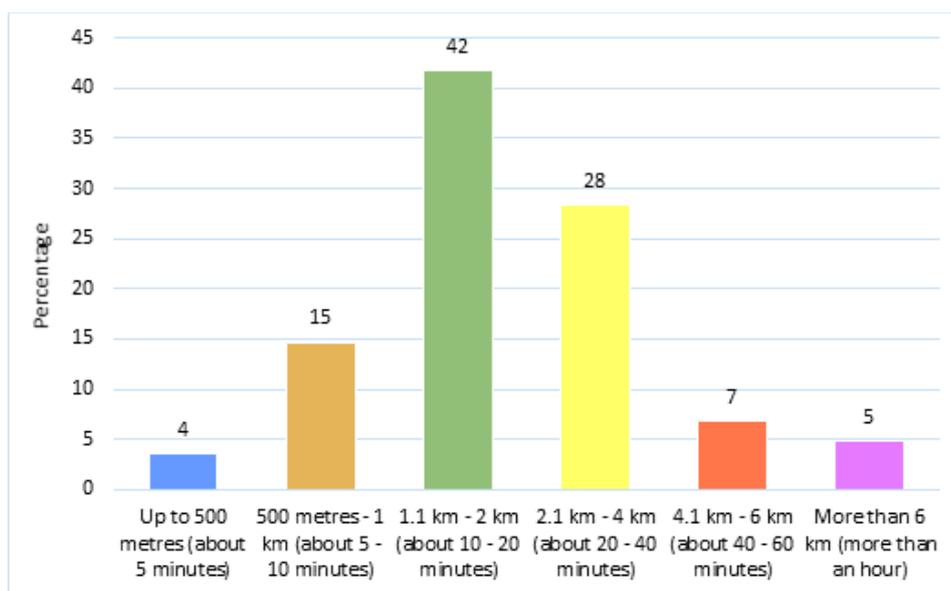
As noted above, these data highlight the importance of walking as a form of independent mobility for a large number of young people.



**Figure 27: Walking destinations, percentage of young people**

#### 4.2.4 Distance (time) young people are prepared to walk to get to destinations

The majority of young people (42%) are prepared to walk about 1.1km – 2km (about 10 – 20 minutes) to get to destinations, with a further 40% prepared to walk longer distances (Figure 28). These distances are greater than the distances that older Victorians are prepared to walk, and do actually walk (Garrard, 2013), possibly reflecting both ability and necessity, as most young people in this study do not drive a car (see Section 4.2.15).



**Figure 28: Distance prepared to walk for transport (n = 1081)**

#### 4.2.5 Frequency of use of travel modes

Walking is one of the main methods young people use to travel to places such as school, university, work, shops, etc<sup>11</sup>; with 64% of young people regularly walking to these destinations (ie every day or most days, or 2 or 3 times a day or more). This is followed by car as passenger (42%), car as driver (19%), bus (29%), train (22%), and tram (14%) (Figures 29 and 30).

When private vehicle travel (car as passenger and car as driver) and all public transport modes (bus, train, tram) are combined, public transport is the most frequently used travel mode (65%), followed by walking (64%) and then private car (61%).

These data indicate that walking is an important form of mobility for young people, possibly the most frequently used method of transport when walking to access public transport is taken into account.

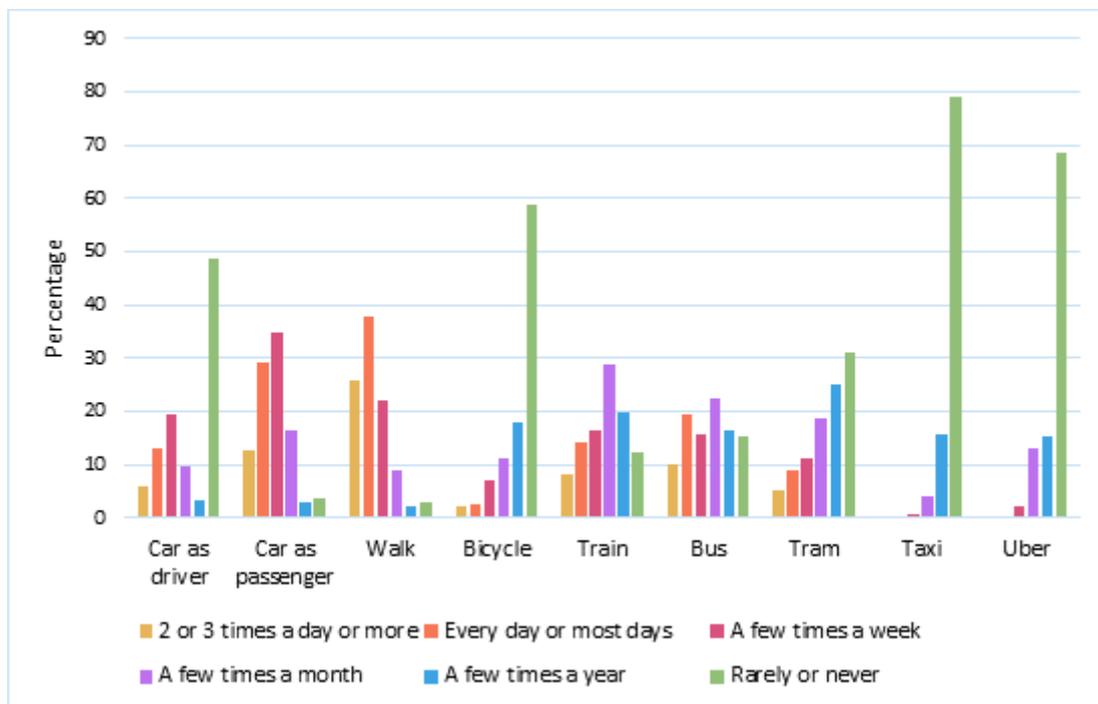
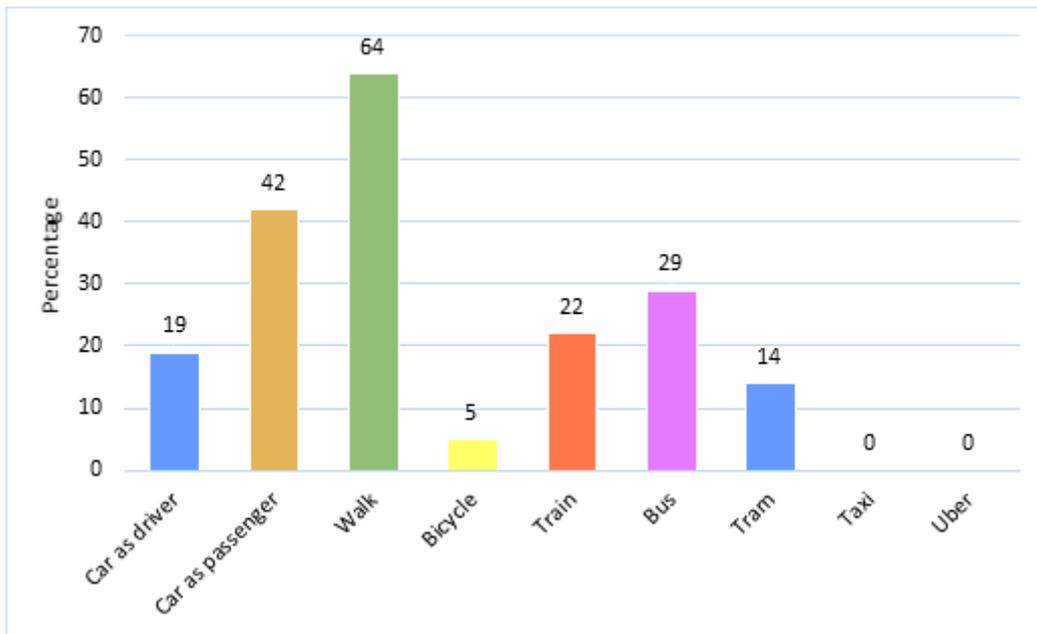


Figure 29: Frequency of use of transport modes (n = 1041 – 1079)

<sup>11</sup> Note that accessing public transport was not mentioned in this question (Q7), though it is possible that some young people included getting to public transport stops in their responses.

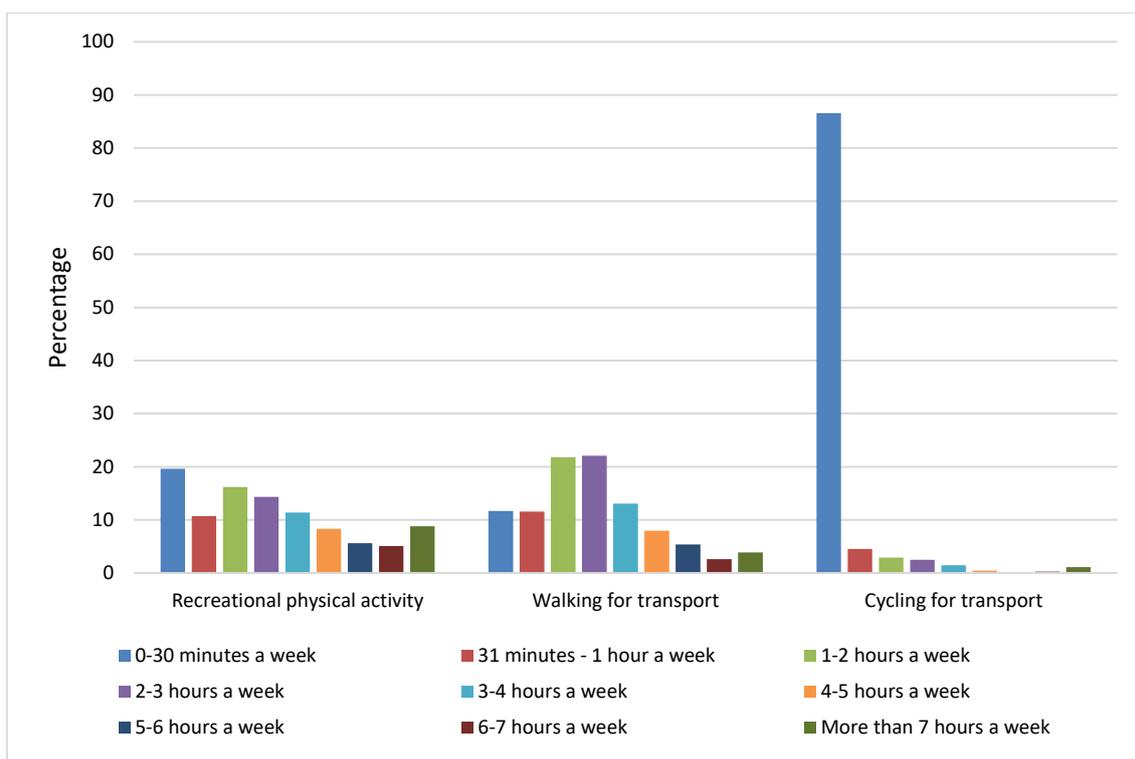


**Figure 30: Frequent use of travel modes (“2 or 3 times a day or more”, plus “Every day or most days”) (% of young people) (n = 1041 – 1079)**

#### 4.2.6 Time spent on recreational physical activity, walking for transport and cycling for transport

Most young people spend at least some time each week participating in recreational physical activity<sup>12</sup> and walking for transport, but little time cycling for transport (Figure 31). Recreational physical activity showed a more dispersed distribution than walking for transport, with higher proportions of young people in both low (0 – 30 minutes per week) and high (5 or more hours per week) time categories for recreational physical activity than for walking for transport.

<sup>12</sup> ‘Recreational physical activity’ referred to physical activity for fitness, sport or recreation. (Excluding walking or cycling to get to places).



**Figure 31: Time spent on recreational PA, walking for transport and cycling for transport (n = 1075 – 1082)**

The contribution of walking for transport to young people’s overall levels of physical activity was calculated based on estimates of time per week spent on recreational physical activity, walking for transport and cycling for transport. Because, for practical reasons, young people were asked to respond to time categories rather than assess physical activity time as a continuous variable (ie in hours/minutes), when combining the three types of physical activity the mid-point of each time range was used as an estimate of actual time spent (eg, 1-2 hours a week was treated as 1.5 hours a week).

For young people aged 15-17 years, the mean estimated total physical activity time was 6 hours and 7 minutes a week, comprising 3 hours and 7 minutes of recreational physical activity, 2 hours and 27 minutes of walking for transport, and 33<sup>13</sup> minutes of cycling for transport. Walking for transport therefore comprised an estimated 40% of these young people’s total physical activity time, with recreational physical activity contributing 51% and cycling 9<sup>12</sup>%.

For young people aged 18-20 years, the mean estimated total physical activity time was 5 hours and 29 minutes a week, comprising 2 hours and 17 minutes of recreational physical activity, 2 hours and 41 minutes of walking for transport, and 30 minutes of cycling<sup>13</sup> for

<sup>13</sup> Note that all cycling data are likely to be overestimates, as based on data in Figure 31, it is likely that the majority of the 87% of young people who stated that they cycled for transport 0-30 minutes a week did not cycle at all (the estimates were based on 15 minutes a week for this time category).

transport. Walking for transport therefore comprised 49% of these young people's total physical activity time, with recreational physical activity contributing 42% and cycling 9%<sup>13</sup>.

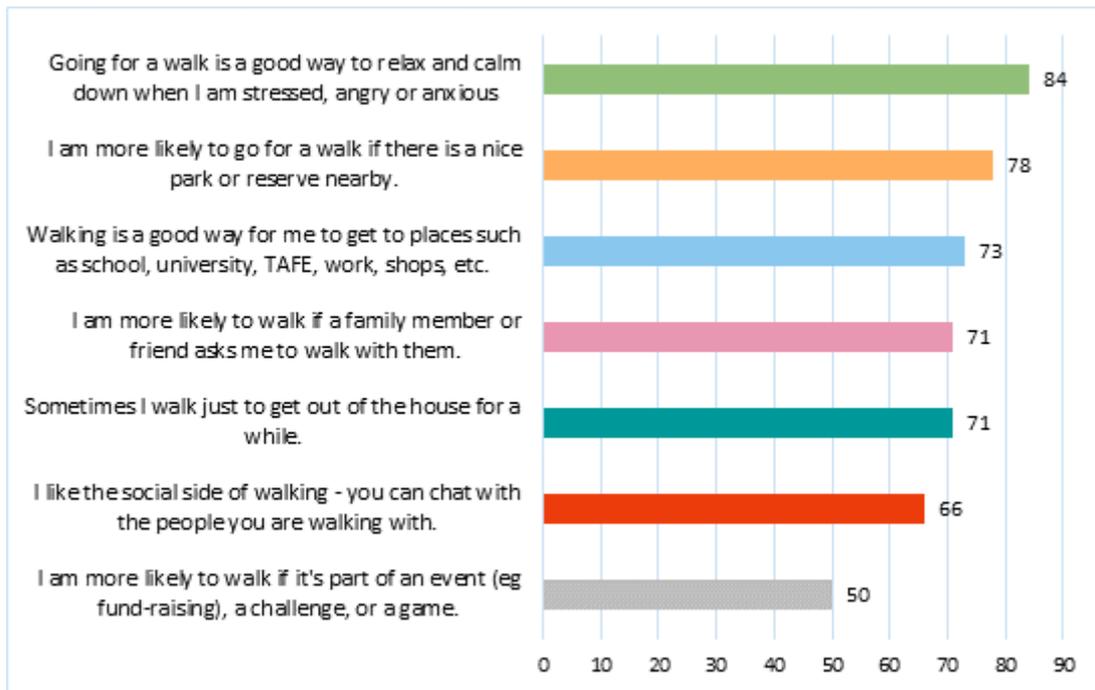
These data indicate that, as young people transition from late adolescence (15-17 years old) to young adulthood (18-20 years old), overall physical activity levels decline (from 6 hours and 7 minutes week to 5 hours and 29 minutes a week), and walking for transport shows a small increase (from 2 hours and 27 minutes a week to 2 hours and 41 minutes a week). The contribution of walking for transport to young people's overall physical activity increased from 40% for 15-17 year-olds to nearly half (49%) for 18-20 year-olds, due mainly to a decrease in recreational physical activity with age. These findings are consistent with data from other studies of Australian young people, which show that recreational physical activity declines with age, while active transport remains relatively steady (see Sections 2.1.2 and 2.1.3).

#### **4.2.7 Motivations for walking**

Young people's motivations for walking were explored by asking for their level of agreement with seven potential reasons for walking (Q11). The proportions of young people who strongly agreed or agreed with these seven items are shown in Figure 32.

Most items had relatively high levels of agreement (apart from walking as part of an event such as fund-raising, a challenge, or a game [50%]), with the most popular motivation being to relax and calm down when stressed, angry or anxious (84% agreement). Having pleasant open spaces such as parks and reserves nearby was also important (78%), as was being able to walk to destinations (73%). The social aspects of walking were also important, comprising walking with family members or friends (71%) and being able to "chat with people while walking" (66%).

These findings indicate that the wellbeing, utilitarian (ie walking to places) and social aspects of walking are all important to young people, consistent with many of the motivations for walking described in the research literature (see Section 2.1.7).



**Figure 32: Motivations for walking (% Strongly Agree or Agree)**

Gender and age differences in young people’s motivations for walking were also explored, with the results summarised in Table 5. The findings indicate no significant gender differences for any of the seven items. The absence of a gender difference for the social aspects of walking is perhaps surprising, as it is sometimes assumed that this is one of the characteristics of walking that contributes to higher walking rates among women. These findings suggest that young men also enjoy the social aspects of walking.

There were, however, some age differences, with older young people (18-20 years old) more likely to agree that “Going for a walk is a good way to relax and calm down when I am stressed, angry or anxious” and “I am more likely to go for a walk if there is a nice park or reserve nearby”, but substantially less likely than the younger age group to walk as part of an event such as fund-raising, a challenge, or a game.

**Table 5: Motivations for walking (Strongly Agree or Agree) (%)<sup>14</sup>**

	Total	Gender		Age	
		Female	Male	15 – 17 Years	18 – 20 years
Going for a walk is a good way to relax and calm down when I am stressed, angry or anxious	84	85	81	83*	87
Sometimes I walk just to get out of the house for a while.	71	72	67	70	73
I am more likely to go for a walk if there is a nice park or reserve nearby.	78	80	77	77*	81
Walking is a good way for me to get to places such as school, university, TAFE, work, shops, etc.	73	73	78	73	74
I like the social side of walking – you can chat with the people you are walking with.	66	66	67	65	66
I am more likely to walk if a family member or friend asks me to walk with them.	71	70	77	73	69
I am more likely to walk if it's part of an event (eg fund-raising), a challenge, or a game.	50	50	48	57****	40

#### 4.2.8 Attitudes to walking

Young people's attitudes to walking were explored by asking about their level of agreement with eleven items (Q12). The proportions of young people who strongly agreed or agreed with the eleven items are shown in Figure 33.

There was close to unanimous agreement that walking is both a healthy (98%) and an environmentally friendly (97%) way to get around. Research findings described in the literature review (see Section 2.1.7) indicate that some young people do not consider walking to be a sufficiently intense form of physical activity to confer a health benefit, but most of these studies were small, qualitative studies. Findings from the current study

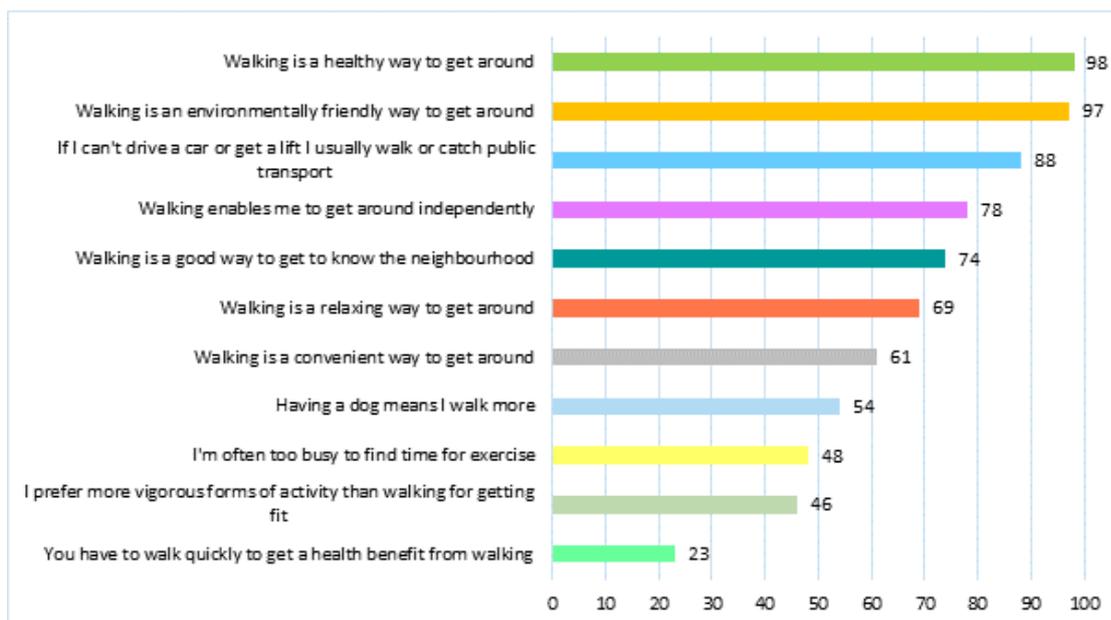
<sup>14</sup> The  $\chi^2$  statistic was used to test whether differences in levels of agreement between groups (ie male/female; older/younger age group) were statistically significant. \*refers to significant at the level  $p \leq 0.05$ ; \*\*refers to significant at the level  $p \leq 0.01$ ; \*\*\* refers to significant at the level  $p \leq 0.001$ ; \*\*\*\*refers to significant at the level  $p \leq 0.0001$ ).

suggest that this might be a minority view among young people, with nearly all young people recognising the health benefits of walking, and less than a quarter (23%) of young people agreeing that you have to walk quickly to get a health benefit from walking.

This is not to say that young people will necessarily choose to walk to achieve a health benefit, as there is evidence that many young people prefer other forms of moderate and vigorous physical activity over walking (Jose et al., 2013) when undertaking *planned* physical activity with the aim of improving fitness. Indeed, in this study, 46% of young people stated that they preferred more vigorous forms of activity than walking for getting fit (Figure 33). However, when walking is undertaken for other reasons (eg to get to places), there are high levels of recognition that walking is a healthy (and environmentally friendly) way to meet mobility needs, with health largely seen as an ancillary benefit of the walking trip rather than the reason for undertaking the walking trip (Kirby and Inchley, 2013; Simons et al., 2013).

The 88% of young people who agree that they usually walk or catch public transport if they can't drive a car or get a lift confirms the well-established inverse relationship between access to a motor vehicle and use of active transport (Steinbach et al., 2012). This finding is also consistent with high levels of agreement that walking enables young people to get around independently (78%). That is, in the absence of access to a motor vehicle, young people are highly dependent on walking and public transport to get to the multiple locations described in Section 4.2.3.

Nearly half of young people (48%) agreed that they are often too busy to find time for exercise; highlighting another benefit of walking for transport in the form of the opportunity to combine exercise time with travel time. This message may be an effective motivating factor for promoting more utilitarian walking among young people, especially in the light of their existing high levels of awareness of the health benefits of walking.



**Figure 33: Attitudes to walking (% Strongly Agree or Agree)**

Gender and age differences in young people’s motivations for walking were also explored, with the results summarised in Table 6. The findings indicate some gender differences in attitudes, with young women less likely than young men to agree that walking enables them to get around independently or is a convenient way to get around or a good way to get to know the neighbourhood. These differences are likely to reflect the heightened concerns about personal safety that young women have about moving around in public places, especially alone or after dark (see Section 4.2.9). That is, concerns about personal safety while walking appear to constrain young women’s ability to get around independently and conveniently by walking.

Young women were also more likely than young men to agree that they are often too busy to find time for exercise. This might reflect young women having more commitments than young men, or young women placing a lower priority on finding time for exercise. This is the age at which females become less physically active than males, with possible reasons for this divergence discussed in Section 2.1.9. Interestingly, contrary to other study findings (Australian Bureau of Statistics, 2013), there was no significant gender difference in young people’s preference for more vigorous forms of physical activity than walking; though there was an age difference, with 15-17 year-olds more likely to prefer more vigorous forms of physical activity than 18-20 year-olds.

The age difference in the perceived value of walking as a means of getting around independently might reflect the older age group’s greater access to driving a motor vehicle; however, there was no age difference in young people’s perceptions of walking as a convenient way to get around.

**Table 6: Attitudes to walking (Strongly Agree or Agree) (%)**  
(p-values: ≤0.05\*; ≤0.01\*\*; ≤0.001\*\*\*; ≤0.0001\*\*\*\*)

	Total	Gender		Age	
		Female	Male	15 – 17 Years	18 – 20 years
If I can’t drive a car or get a lift I usually walk or catch public transport.	88	87	89	87	89
Walking enables me to get around independently.	78	75**	83	80	73**
Walking is a convenient way to get around.	61	59**	68	62	61
Walking is a healthy way to get around.	98	98	98	98	98
Walking is an environmentally friendly way to get around.	97	97	96	97	97
Walking is a good way to get to know the neighbourhood.	74	72**	81	71*	78

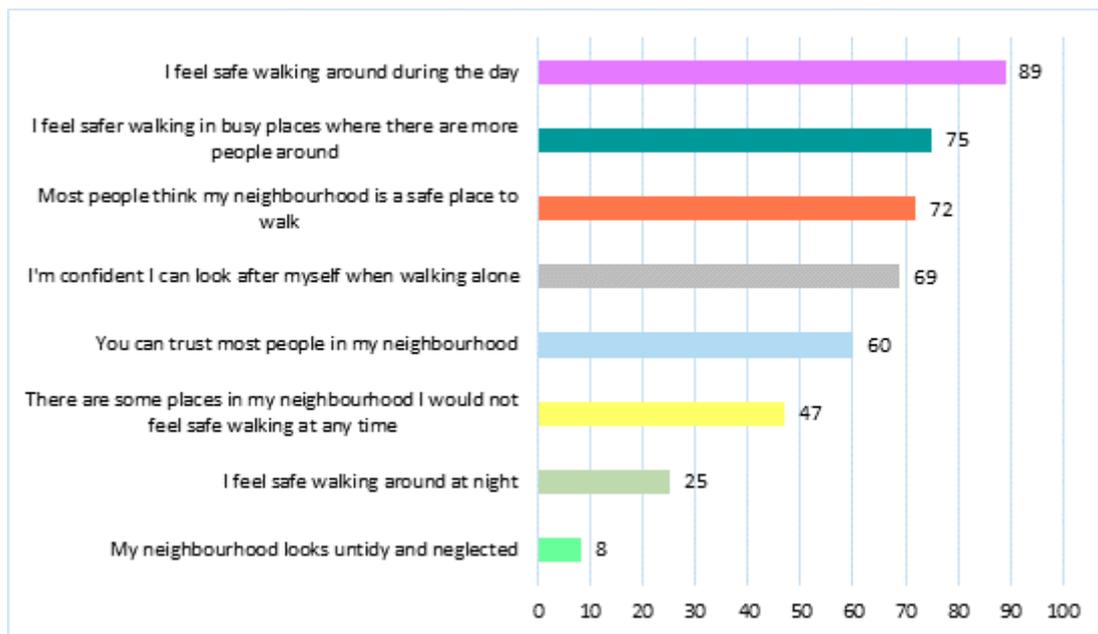
	Total	Gender		Age	
		Female	Male	15 – 17 Years	18 – 20 years
Walking is a relaxing way to get around.	70	69	72	67	73
Having a dog means I walk more.	54	56	52	56*	51
I'm often too busy to find time for exercise.	48	52****	35	47	48
You have to walk quickly to get a health benefit from walking.	23	25	20	24	22
I prefer more vigorous forms of activity than walking for getting fit.	46	45	53	50**	40

#### 4.2.9 Attitudes to personal safety while walking

Young people's attitudes to personal safety while walking were explored by asking about their level of agreement with eight items asking about perceptions of personal safety while walking (Q13); six items asking about experiences and awareness of threats to safety while walking (Q14); and an open-ended question inviting comments about personal safety while walking (Q15).

The proportions of young people who strongly agreed or agreed with the eight items related to perceptions of personal safety while walking are shown in Figure 34. Most young people feel safe walking around during the day (89%), with about three-quarters of young people agreeing that they feel safer walking in busy places where there are more people around (75%), and that most people think their neighbourhood is a safe place to walk (72%). Young people have slightly less confidence that they can look after themselves when walking alone (69%), and fewer agreed that they can trust most people in their neighbourhood (60%).

About half of young people (47%) agreed that some places in their neighbourhood don't feel safe at any time, and only 25% of young people feel safe walking around at night. These findings indicate that while the majority of young people generally feel safe while walking, there are places and times that many young people perceive to be unsafe for walking. Perceptions of safety might also be enhanced by the 69% of young people who are confident they can look after themselves while walking alone, though, once again, this may not apply in all places at all times.



**Figure 34: Attitudes to personal safety while walking (% Strongly Agree or Agree)**

Gender and age differences in young people’s attitudes to personal safety while walking were also explored, with the results summarised in Table 7. While there was no significant gender difference in feeling safe walking during the day, young women were markedly less likely (15%) than young men (54%) to feel safe walking at night. Young women were also much more likely to consider some places in the neighbourhood unsafe for walking at any time (51%). Young women were more likely to feel safe in busy places (79%), but young women (63%) were less likely than young men (89%) to be confident they can look after themselves while walking alone.

These findings demonstrate very large gender differences in perceived safety while walking, particularly at night and in some places. A range of personal, social and environmental factors is likely to contribute to these gender differences (see Section 4.2.10). While providing young women with personal safety skills may contribute to young women’s capabilities for staying safe, safer social and built environments will also be important for reducing gender differences in perceived safety while walking.

Age differences in perceived safety while walking were much less marked than gender differences, though there was a tendency for the younger group (15 – 17 year-olds) to feel less safe than the older group (18 – 20 year-olds) walking during the day, at night and in some neighbourhood places. However, 18-20 year-olds were less likely to trust most people in the neighbourhood. These findings, which appear to be inconsistent, may reflect the older group being more likely to have the option of driving a car in circumstances where they may feel unsafe walking, thereby avoiding the feeling of being unsafe in these circumstances; an option that may be less available for the younger group.

**Table 7: Attitudes to personal safety while walking (Strongly Agree or Agree) (%)**  
(p-values: ≤0.05\*; ≤0.01\*\*; ≤0.001\*\*\*; ≤0.0001\*\*\*\*)

	Total	Gender		Age	
		Female	Male	15 – 17 Years	18 – 20 years
I feel safe walking around during the day	89	88	92	87*	91
I feel safe walking around at night	24	15****	54	22*	29
There are some places in my neighbourhood I would not feel safe walking at any time	47	51****	35	50*	44
I feel safer walking in busy places where there are more people around	75	79****	65	77	73
I'm confident I can look after myself when walking alone	69	63****	89	70	68
Most people think my neighbourhood is a safe place to walk	72	70	74	74	68
My neighbourhood looks untidy and neglected	8	8	8	8	8
You can trust most people in my neighbourhood	60	59	65	63*	55

The second personal safety question (Q14) asked about experiences and awareness of threats to safety while walking. Young people were asked to reply “Yes” or “No” to the six questions listed in Figure 35 and Table 7.

Most young people (91%) have heard about someone being threatened or attacked while walking via the media; slightly less through social media (85%); and less through a friend or relative (61%) (Figure 35). About one in five young people have been attacked or threatened by someone while walking, or have observed someone being attacked or threatened while walking. While it might appear likely that these communications, personal experiences, and personal observations might contribute to young people’s concerns about personal safety while walking, the small amount of available evidence does not point to a strong association. In a similar study conducted in Melbourne, Victoria, of young people and use of public transport, the actual experience of a personal safety incident was found to influence perceptions of personal safety, but the impacts were smaller than for a number of other factors (Currie et al., 2010).



**Figure 35: Young people’s experiences and awareness of threats to safety while walking (% “Yes”) (n = 1015)**

While there was no significant gender difference in young people being attacked or threatened by someone while walking, there were gender differences in all other items covering observing someone being attacked or threatened, feeling threatened, and having heard of someone being threatened or attacked through the media, a friend or relative or social media (Table 8).

These findings suggest that while young women and young men might have a similar risk of being threatened or attacked while walking, young women appear to be more alert to, or concerned about the potential for being subjected to a threat or attack. The risk perception literature identifies a complex array of factors that contribute to heightened risk perceptions, including perceived unpredictability, lack of personal control, vulnerability, and the likelihood of adverse consequences (Fischhoff et al., 2002). It seems likely that some combination of these factors contributes to young women having higher levels of concerns about threat of attack while walking.

There were no significant age differences in young people’s experiences and awareness of threats to safety while walking.

**Table 8: Young people’s experiences and awareness of threats to safety while walking (% “Yes”) (n = 1015)**

(p-values: ≤0.05\*; ≤0.01\*\*; ≤0.001\*\*\*; ≤0.0001\*\*\*\*)

	Total	Gender		Age	
		Female	Male	15 – 17 Years	18 – 20 years
Have you ever been attacked or threatened by someone while walking?	21	20	22	18	22
Have you ever observed someone being attacked or threatened while walking?	21	20*	26	19	24
Have you ever felt threatened by someone while walking?	53	55**	44	53	52
Have you ever heard of someone being threatened or attacked while walking, through the media?	91	93**	85	91	90
Have you ever heard of someone being attacked or threatened, through a friend or relative?	61	63*	55	62	60
Have you ever heard of someone being threatened or attacked while walking, through social media?	85	87**	78	85	84

The third question about personal safety was an open-ended question asking young people if they would like to add any comments about personal safety while walking (Q15). Findings from a thematic analysis of the qualitative data from this question are described below.

#### 4.2.10 Young people’s comments about personal safety while walking

Following the two closed-ended questions asking young people about personal safety while walking (Q13 & Q14), young people were asked the following open-ended question:

*“Would you like to add any comments about personal safety while walking?”*

Young people (n = 256) provided responses of varying length ranging from one word to several sentences. All responses were read to identify emergent themes, resulting in three themes; two of which were broken down into several sub-themes. All responses were then re-read and coded into these themes and sub-themes, resulting in a total of 506 coded responses, with a mean of 2.0 coded responses per survey participant who provided a response to this question.

The three themes and twenty-two sub-themes, a brief description, the number of times each theme was mentioned, and the percentage of coded responses for each theme are summarised in Table 9 and illustrated in Figure 36.

These themes and sub-themes are described below.

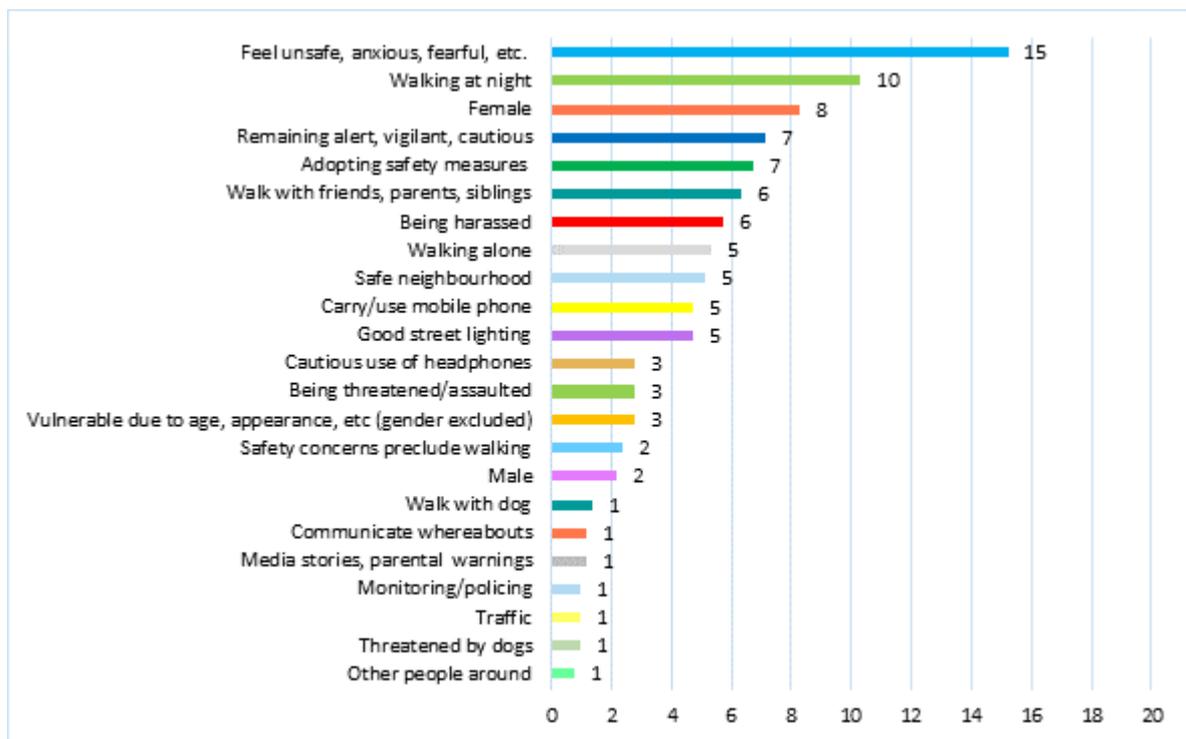
**Table 9: Young people’s comments about personal safety while walking**

	Theme	Count	Percentage
<b>1</b>	<b>What makes young people feel unsafe while walking?</b>	<b>271<sup>15</sup></b>	<b>54</b>
<b>1.1</b>	General comments about feeling unsafe, anxious, fearful, etc.	77	15
<b>1.2</b>	Walking at night	52	10
<b>1.3</b>	Being female	42	8
<b>1.4</b>	Being harassed	29	6
<b>1.5</b>	Walking alone	27	5
<b>1.6</b>	Vulnerable due to age, appearance, circumstances (gender excluded)	14	3
<b>1.7</b>	Being threatened/assaulted	14	3
<b>1.8</b>	Media stories, parental warnings	6	1
<b>1.9</b>	Threatened by dogs	5	1
<b>1.10</b>	Traffic	5	1
<b>2</b>	<b>What makes young people feel safe(er) while walking?</b>	<b>223<sup>16</sup></b>	<b>44</b>
<b>2.1</b>	Remaining alert, vigilant, cautious	36	7
<b>2.2</b>	Adopting safety measures	34	7
<b>2.3</b>	Walking with friends, parents, siblings	32	6
<b>2.4</b>	Safe neighbourhood	26	5
<b>2.5</b>	Good street lighting	24	5
<b>2.6</b>	Carry/use mobile phone	24	5

<sup>15</sup> Total of all Theme 1 comments.

<sup>16</sup> Total of all Theme 2 comments.

2.7	Cautious use of headphones	14	3
2.8	Being male	11	2
2.9	Walking with dog	7	1
2.10	Communicate whereabouts	6	1
2.11	Monitoring/policing	5	1
2.12	Other people around	4	1
3	<b>Safety concerns preclude walking</b>	<b>12</b>	<b>2</b>



**Figure 36: Young people’s comments about personal safety while walking (% of all coded comments)**

#### 4.2.10.1 What makes young people feel unsafe while walking?

The most frequently mentioned theme were comments about feeling unsafe while walking, and reasons for these safety concerns (n = 271, 54%). These comments were broken down into ten sub-themes as described below.

##### **Theme 1.1: General comments about feeling unsafe, anxious, fearful, etc.**

Young people described feeling unsafe, anxious, or fearful while walking (n = 77, 15%), usually in the context of the four sub-themes of walking at night, being female, being harassed and walking alone (see below).

Some young people described feeling unsafe in general terms, for example:

*"I wish I did feel safer walking."*

*"It's wrong how we cannot feel safe."*

*"Personal safety is always a concern, as you never know who is going to be around the next corner."*

Other young people described a wide range of very negative feelings elicited by certain walking conditions (ie walking at night, being female, being harassed and walking alone). The list is long and insightful, and indicative of the depth of feeling experienced by young people (mainly women).

Accordingly, young people described feeling anxious, fearful, uncomfortable, distressed, afraid, violated, sad, terrified, a sitting duck, like shit, vulnerable, nervous, unhappy, threatened, scared, concerned, intimidated, spooked, worried, uneasy, petrified, wary, and on guard. Examples of these comments and feelings are included in sub-themes 1.2-1.7 below.

### **Theme 1.2: Walking at night**

The most frequently mentioned reason for feeling unsafe was walking after dark/at night (n = 52, 10%). Most of these comments appeared to be from young women (sometimes, but not always stated) walking alone. Examples of comments include:

*"As a teenage girl, I feel much safer walking at night with a male companion. I know that this is the same for many young girls. And it's a real shame that this is the case."*

*"I hate walking at night."*

*"At night I feel on guard and that I constantly am looking around (behind me, around corners, etc)."*

*"I feel unsafe walking on my street, despite it being located in a relatively safe area, because there is a lack of street lamps and all I see is a shadow if someone is coming towards me."*

*"I pretty much would never walk by myself at night, and even sometimes would only feel comfortable with my brother or dad with me when it is dark."*

*"Walking at the night times is so unsafe I think Victoria government should work on the safety of the pedestrians."*

*"I think it's important not to walk alone when it's late and getting dark and if you are stuck out after dark on your way home, you should try and take public transport."*

The above comment highlights the way in which young people's mobility choices are constrained by safety concerns. In most comments, this constraint on walking was implied rather than stated explicitly (also see Theme 3 below).

### **Theme 1.3: Being female**

The second most frequently mentioned reason for feeling unsafe was being female (n = 42, 8%) and consequently more vulnerable to both harm and the threat of harm, and to forms of harassment (see sub-theme 1.4) that make young women feel unsafe. A number of young people (both female and male) referred to gender differences in feelings of safety; that is, young men are safe, but young women are not (also see sub-theme 2.8). Examples of comments include:

*“As a girl while walking by myself or in a group of girls particularly at night we get cat called very often and it's disgusting and scares me personally.”*

*“As a girl, I feel unsafe and intimidated when walking alone at night, even in my own neighbourhood.”*

*“I am definitely more wary and cautious walking alone at night as a young female than my male friends.”*

*“I feel as though a lot of my friends who are female have many stories of being verbally abused unlike male friends.”*

*“I feel being a female, there is a higher chance of being sexually harassed whilst walking, even in safe areas like mine; and that's probably the scariest part of walking in public honestly.”*

*“It may be a gendered bias, but I feel as though most women feel more vulnerable whilst walking. There may not be an imminent threat or danger, but there is always a perceived one.”*

*“I think it sucks that women feel the need to be afraid of walking alone.”*

*“One of the reasons I don't feel safe walking at night is because I'm female, and while I live in a nice neighbourhood there is still always that fear.”*

### **Theme 1.4: Being harassed**

The third most frequently mentioned reason for feeling unsafe was (young women) being harassed (by men) (n = 29, 6%) while walking in public places. Harassment took the form of catcalling, sexual harassment (often of minors/school students), verbal abuse, and a form of stalking (including from men in cars). The harms associated with these forms of harassment were not necessarily physical harm, but rather, threat of harm, intimidation, and feelings of personal violation and vulnerability.

Perhaps because these forms of harassment of young women while they are walking do not usually comprise physical harm their impact on young women is often discounted or ignored. However, it is pertinent to note that protection of young women from psychological and social harm is also important, and these forms of harassment of women (especially young women) are no longer tolerated in organisational and institutional settings such as schools, universities and workplaces.

Examples of comments include:

*"I also get cat called sometimes when walking which is even more intimidating. I'm a 15 year old girl. Men should not be catcalling me but they do."*

*"It's [cat-calling] disgusting and makes me feel greatly violated."*

*"If a P player or any other person drives past and beeps or wolf whistled I feel very uneasy and very unsafe."*

*"I often feel unsafe, particularly at night, and quite often I feel unsafe and threatened by people verbally harassing me when I am on my own- this has happened almost every time walking on my own at night and has happened regularly when walking during the day."*

*"I'm a girl, and school uniform or just casual dress, whenever I walk along the highway I am constantly honked at and sometimes disgusting men will yell something to me. It's awful and that makes me feel unsafe and unhappy."*

*"Not only have people been threatening in a violent way, but cat calling women is very common and makes me and my friends feel extremely uncomfortable and unsafe at times."*

*"Very common to have people call out to you from their cars. Makes you feel like shit and vulnerable."*

*"My friends and I have often experienced cat-calling incidents and quite disgusting comments and hand gestures while simply trying to go for a walk, which sometimes, particularly at night or in a quiet neighbourhood, can feel quite threatening."*

*"When people yell out things from the car I feel unsafe. For example I was walking to the bus stop with my friends and someone yelled out "dumb sluts"."*

*"As a young girl it distresses me when I hear truckers honk their horns at me or yell something disgusting out their windows, that's why I go down private roads where truckers wouldn't normally go, but it does ruin walking for me (it also ruins my day if it does happen)."*

*"CAT CALLING SUCKS!! I hate just spending time with my friends walking around in public places and being cat called. It's disgusting and makes me feel greatly violated."*

*"Catcalling is not a compliment."*

*"Catcalling is threatening to me."*

### **Theme 1.5: Walking alone**

The fourth most frequently mentioned reason for feeling unsafe was walking alone in public places (n = 27, 5%). As noted above, this was frequently for young women, and for walking after dark. Examples of comments include:

*"I always feel like I have to always be wary of who's around me when I walk alone, it's really scary. Having a stranger walking close by makes me feel nervous."*

*"I feel that teenagers especially girls should never walk alone, even in their own neighbourhood. You don't know what's gonna happen."*

*"I often feel vulnerable when I am walking alone in the city at night. I prefer to walk with someone else in these situations but sometimes that is not always possible."*

*"...I look to see if anyone is ahead or behind me and cross the road if they are. I hate that I can't feel safe to walk alone at night."*

### **Theme 1.6: Vulnerable due to age, appearance, circumstances (gender excluded – see Theme 1.3)**

As described above, many young women feel vulnerable while walking due to their gender. This sub-theme, on the other hand, refers to vulnerability associated with age, appearance or circumstances (n = 14, 3%). Examples of comments include:

*"I feel uncomfortable sometimes when walking alone as I am young... without a lot of strength."*

*"I have a daughter so I'm always pushing her around in a pram and I've definitely had more troubles since then as I'm an easy target for those who want to snatch my purse and run as I can't leave her to chase them. I shouldn't be a sitting duck waiting for my turn to be attacked with absolutely no form of defence to protect me or my daughter from harm."*

### **Theme 1.7: Being threatened/assaulted**

As described above in sub-theme 1.4, many young people expressed concerns about being harassed or verbally abused. Comments in this sub-theme, on the other hand, refer to being threatened or assaulted, personally, or as experienced by a friend or relative (n = 14, 3%). Examples of comments include:

*"I really feel, as sad as it has become that we need cameras in certain parks, especially the park next to keilor plains station, walking through that section at night is a huge no no. I've been followed and nearly attacked in that spot."*

*"When cars slow down next to me I ball up my fists ready to fight. I am a 5ft 2in young woman and I hate that I have to do that, knowing full well if someone really wanted to hurt me then they could."*

*"I've stayed on the phone with one of them until they were home cause she was a victim of assault and didn't feel comfortable & that's concerning that she & others either there isn't a bus or a lane way isn't lit up enough for her to feel safe and secure."*

*"Witnessed intense racism a couple of times from older people toward people of different ethnicities. Very embarrassing and step in when you can but sometimes you do not feel safe doing so."*

### **Theme 1.8: Media stories, parental warnings**

A small number of young people made a specific reference to feeling unsafe due to media stories and warnings from parents (n = 6, 1%). While the numbers are low, it is likely that these sources contribute to young people's concerns about safety described in previous sub-themes. Examples of comments include:

*"I believe it is quite safe to walk by yourself in most places but the media and social media has made more people afraid to walk alone."*

*"I feel like women are made to feel more afraid when walking around by themselves, for me a lot of it definitely came from my parents, saying that it was unsafe and irresponsible for a woman, though I have never actually had anything happen to me."*

*"I feel there is a stigma around walking alone so it has become less popular as media makes it seem if you take one step out of your house you will be assaulted, raped or killed."*

The 'stigma' referred to in the above comment is likely to be a reference to current social norms in Australia that place most of the responsibility for safety while walking in public places on young people themselves; particularly young women walking alone, and after dark.

### **Theme 1.9: Threatened by dogs or other animals**

A small number of young people referred to threatening, uncontrolled, or dangerous dogs or other animals making them feel unsafe while walking (n = 5, 1%). Examples of comments include:

*"I live in a rural area outside of the main township, so it isn't so people so much that pose a threat, but more so animals such and dogs and snakes."*

*"I have been previously attacked by dogs in my area, as have many others. Hence why I cannot walk much as their owners do not confine them properly."*

*"Mainly when I walk through my neighbourhood I avoid places with aggressive dogs."*

### **Theme 1.10: Traffic**

Although the question referred to personal safety while walking, a small number of young people referred to traffic hazards while walking (n = 5, 1%). Examples of comments include:

*"Try not to have your music too loud because it could be a hazard especially if you're walking near traffic."*

*"Generally safe but occasionally dangerous cars and crossings."*

#### 4.2.10.2 What makes young people feel safe(er) while walking?

Theme 2 (What makes young people feel safe(er) while walking?) is to some extent the flipside of Theme 1 (What makes young people feel unsafe while walking?); that is, reasons why young people feel safe (or safer) walking (n = 223, 44%). Sub-themes included individual and environmental characteristics that make young people feel safe (eg being male, living in a safe neighbourhood with good street lighting) and things young people can do to keep themselves safe (eg remaining alert, vigilant and cautious, walk with other people, and carry a mobile phone).

Theme 2 comments were broken down into 12 sub-themes as described below.

##### **Theme 2.1: Remaining alert, vigilant, cautious**

Young people commented on the importance of remaining alert, vigilant and cautious while walking (n = 36, 7%). Examples of comments include:

*“Always being vigilant.”*

*“Well, people need to be careful with their surroundings obviously. Check if there's any bad guys.”*

*“As long as you stay alert and have a defence alternative, you should feel safe while walking.”*

*“Make sure you are awake and alert to spot danger signs/threats.”*

*“You just have to be vigilant and not act vulnerable.”*

*“Stay alert, even if music is extremely enjoyable and a good way to get into a stress free zone; I recommend walking with one earphone out to ensure you are still alert of your surroundings, especially at dark hours.”*

Many of these comments were fairly general comments about the need for vigilance while walking. The following, related sub-theme includes more specific suggestions for things young people can do to remain safe.

##### **Theme 2.2: Adopting safety measures**

Young people commented on safety measures and strategies that can be used as part of remaining alert, vigilant and cautious while walking (n = 34, 7%). Examples of comments include:

*“I always got taught growing up, if you feel threatened go to the closest house and explain to the person/persons your situation and they will help you.”*

*“Walk where you are comfortable. If you ever feel uncomfortable, walk to the closest set of shops or pretend you are on the phone to your mum.”*

*“I think that learning some form of self-defence or self-protection should be taught in schools or locally in the community. Especially for women who are walking by themselves,*

*whether it be in the daylight or at night. No one should feel unsafe or threatened while walking.”*

*“You should pretend you're on the phone or even call someone if you feel someone is following you so they know there us someone at the other end of the line.”*

*“I want to learn self-defence so I feel safe and confident I can defend myself when walking alone.”*

*“And it's probably a pretty good idea if you have a pepper spray and of course phone in your bag anytime at anywhere.”*

*“ I think that we should have more rights to defend our self, pepper spray for one I have had many incidents where I wish I could have a can in my handbag to help me.”*

*“I often try to use distraction when I do feel unsafe or anxious, which logically may heighten any risk due to unawareness but do this to feel safer, emotionally, when walking.”*

*“I learned tae kwon do off my dad who's a black belt so I'm confident that if it came to it I would be able to protect myself.”*

*“If I'm walking at night I try and walk in the middle of the road (on small, quiet roads).”*

*“A great idea for an app from the government would be one where you could tell the police where you were without having to phone call them so if a girl is being followed and she knows it she doesn't get attacked when calling the police because they see her ringing & she can turn on her location services so they can find said person quicker. Hope that helps, best of luck give me a job in development department if you really like my idea.”*

*“Keep your phone in your less dominant hand, so if someone approaches you can use your dominant hand to defend yourself.”*

*“Myself and some of my friends carry a rape whistle whenever we go out.”*

### **Theme 2.3: Walk with friends, parents, siblings**

Another frequent suggestion for improving safety while walking was to walk with friends, parents, siblings or in a group (n = 32, 6%). Examples of comments include:

*“I feel more comfortable walking with a friend or relative, and because that isn't always possible, I don't walk as much as I would otherwise.”*

*“I feel so much safer walking in groups and if I'm by myself I'll often find myself having 000 dialled on my phone ready to press call because I often feel unsafe and uneasy.”*

*“I feel girls should at least have two friends to walk together with. At least it's safer. Better safer than sorry.”*

*“I choose just not to walk at night because I feel unsafe doing so unless if I am with at least 3 friends.”*

## **Theme 2.4: Safe neighbourhood**

A number of young people commented that living in a safe neighbourhood helps to make them feel safer while walking (n = 26, 5%). Some characteristics of 'safe neighbourhoods' that were mentioned were small, rural, and familiar neighbourhoods that don't have a 'bad reputation'. Examples of comments include:

*"Can't really do it recreationally outside of a few select suburbs as even public parks are crawling with enough junkies to make it unsafe and unenjoyable."*

*"Even though I have been threatened in the past when I've been walking I still feel safe in my neighbourhood as I feel that other people would help me again if I was attacked or threatened and I feel that this incident was a very unlikely event for my area."*

*"I am in the near a town of 300 everyone knows me and I know most people, safety is not a consideration here."*

*"I could easily understand though especially in other suburbs if people did not feel safe walking around."*

*"Safety when walking I feel is dependent on the neighbourhood and how you present yourself."*

*"When walking in a regional area, there is little concern about being attacked, however there is often no footpaths and my biggest concern is cars/visibility at night. However in a nearby suburb I would feel quite unsafe walking at night, due to common occurrence of antisocial activities in the area."*

## **Theme 2.5: Good street lighting**

Consistent with young people's high levels of concern about walking after dark (sub-theme 1.2), good street lighting was mentioned as a factor that helps them feel safer (n = 24, 5%). This 'safety factor' appears to be related to young people's need to stay vigilant and alert (sub-themes 2.1 and 2.2), in that good visibility is a key requirement for staying vigilant and alert. Examples of comments include:

*"At night time, the brighter it is and the more street lamps there are, the safer I feel."*

*"Streets are often not lit well enough to feel safe when walking at night. I feel safe most of the time walking during the day because I can adequately observe my surroundings, however at night it is difficult to assess."*

*"Feeling safe while walking at night increases in well-lit areas. Generally walking by a main road or shopping area makes me feel safer in comparison to walking down smaller streets or parks, etc."*

*"Street lights are very important in order to feel safe while walking."*

*"More streetlights in some dimmer suburban areas would make me feel safer."*

*"Street lights are very important in order to feel safe while walking."*

*“Lighting really helps on streets so that you can see where you are walking and feel safer.”*

### **Theme 2.6: Carry/use mobile phone**

A number of young people recommended carrying and using a mobile phone while walking as a means of both protection from attack and being able to contact help in the event of an attack (n = 24, 5%). Examples of comments include:

*“... always keep your phone on you at all times when walking alone.”*

*“There are apps out there that assist in personal safety while walking, and those really help me stay calm and not freak out if I have to walk at night.”*

*“Always bring my phone so I know I'm safe.”*

*“Always carry a phone.”*

*“Always have a phone with you just in case you don't feel safe and you can call or text someone.”*

*“Always keep a phone on hand in case something were to happen.”*

*“Any time I go out walking at all, even if it's just up the street I have my phone on me.”*

### **Theme 2.7: Cautious use of headphones**

While, as described above, carrying a mobile phone while walking was considered a safety measure, using headphones or earbuds *in both ears* was considered to compromise safety, again, in the context of ‘staying alert and vigilant’ (sub-theme 2.1).

*“Always being vigilant and if listening to music only having one ear bud in and the other ear listening around.”*

*“When walking, keep only one earbud in when listening to music - it alerts yourself so that you can hear if there are any issues arising (people approaching quickly, cars pulling over, loud shouting/fights).”*

*“If listening to music, keep one earbud out to hear ambient noise. You never know when there's a car coming, or someone trying to jump you.”*

*“We are told to always walk with one or no headphone in because young girls are easy targets.”*

### **Theme 2.8: Being male**

This personal characteristic was mentioned by a number of young people (both male and female) as contributing to safety while walking (n = 11, 2%). It is the flipside of the perceived vulnerability to harm associated with being female (sub-theme 1.3), and the safety of being male was often contrasted with the risks associated with being female. Examples of comments include:

*“Also I'm pretty big for my age and male so that helps to make me feel pretty comfortable walking around.”*

*“...but as far as walking I'm okay, I'm a straight white 6 ft male, who weighs around 100kg. I get worried with some of my female friends when they're walking at night.”*

*“As a large, 18 year old, male I find it less daunting to walk alone in unfamiliar places at night. This opinion would undoubtedly be different coming from a younger person or often a person of the opposite sex.”*

*“I am an average sized male who knows self-defence techniques, so I usually feel quite safe even in places where other people may not. My sister for example, might give different answers regarding her safety in our neighbourhood.”*

*“I feel as though a lot of my friends who are female have many stories of being verbally abused unlike male friends.”*

### **Theme 2.9: Walk with a dog**

A small number of young people commented that they feel safer walking with a dog (n = 7, 1%). Examples of comments include:

*“I think that having a dog helps you feel safe whilst walking.”*

*“I walk my dog at night, and I trust his instincts. If he doesn't like the look of someone then I cross the road or walk towards a public place.”*

### **Theme 2.10: Communicate whereabouts**

A small number of young people suggested communicating their whereabouts with others as a safety measure while walking (n = 6, 1%). Examples of comments include:

*“I find it helpful to, if I'm feeling unsafe, text a friend my location just in case anything happens.”*

*“To always tell someone where you're going, bring your phone and estimate when you'll be back.”*

### **Theme 2.11: Monitoring/policing**

A small number of young people commented on the need for increased monitoring or policing of criminal, threatening or anti-social behaviour as a means of preventing these behaviours and helping young people to feel safer when walking in public places (n = 5, 1%). Examples of comments include:

*“I often feel vulnerable when I am walking alone in the city at night. I prefer to walk with someone else in these situations but sometimes that is not always possible. The frequent police officers is a comfort to me.”*

*“You feel safer when you're at a train station with officers there keeping an eye on things.”*

*“It would be good if there were more cameras around to monitor activity or have night watchmen.”*

### **Theme 2.12: Other people around**

A small number of young people commented that being in places where other people are moving around made them feel safer (n = 4, 1%). These small numbers differ from the 75% of young people who agreed that “I feel safer walking in busy places where there are more people around” (see Figure 12), probably reflecting methodological differences between ‘top of the head’ responses to an uncued, open-ended question and responses to specified survey items.

#### **4.2.10.3 Safety concerns preclude walking**

As described above in several themes, young people’s safety concerns have a number of implications, including eliciting a range of negative emotions; requiring young people to be alert and vigilant and to adopt various safety measures; and to modify their behaviour by avoiding walking alone, after dark or in certain places. This final theme (Theme 3) refers to *specific* comments about these factors resulting in them walking less than they would like (n = 12, 2%). Examples of comments include:

*“A lack of personal safety is one of the very few things that would stop me from going for a walk.”*

*“I hope in the future that there would be no hindrances so the person could walk around feeling safe in their neighbourhood.”*

*“I’m a 15 year old girl and I feel terrified walking around by myself and I never do unless I absolutely have to. I always have to have a friend or family member with me but if no one is available I just don’t go out and I love walking.”*

*“I think this [harassment] definitely has an impact on the number of women that choose walking as a form of exercise or transport.”*

*“I pretty much would never walk by myself at night. Also, during winter I don't get to walk nearly as much because it gets dark earlier and this makes me sad.”*

#### **4.2.10.4 Concluding comments**

Thematic analysis of young people’s responses to an open-ended question about personal safety while walking provided insights into (i) what makes young people feel unsafe while walking; (ii) what makes young people feel safe(er) while walking; and (iii) the impacts of these safety concerns on young people walking. Consistent with the nature and purpose of qualitative data, this analysis assists in understanding young people’s responses to several closed-ended survey questions (Qs 13 and 14, Section 4.2.9).

Findings from this analysis present a persuasive, striking picture of many young people (particularly young women) feeling unsafe to move around on foot freely and safely in public places. While actual incidents of threats and attacks that result in physical harm are

not high (see Section 4.2.9), *feelings* and *fears* of threats, assaults and attacks are widespread, psychologically damaging, and are seen to require substantial behaviour modification by young people in order to deal with these threats.

Interestingly, while young people would like other people to behave more respectfully and safely around them, they also appear to accept a high degree of personal responsibility for ensuring their safety while walking in public places (ie, remaining vigilant, avoiding walking alone, after dark, or in 'unsafe' places, and acquiring and using protective measures).

The findings also highlight the importance of establishing safe walking environments, particularly those that enable young people to actually exercise the vigilance, alertness, awareness and caution they see as essential when walking after dark, by providing adequate street lighting, particularly in suburban residential areas. The importance of providing adequate street lighting as a personal safety measure may not be seen as a priority by local government staff who may be older, male, and have the option of driving a car when they need to travel through dark suburban streets at night (ie after about 5.30 pm in Victoria in winter). However, independent mobility is important for young people, including after dark when they may need to travel for study, work and social activities, but the option of driving a car or getting a lift might not be available. Poorly-lit streets cause them to either walk in fear, or prevent them from walking or using public transport (which usually requires some neighbourhood walking), thereby restricting their ability to move around after dark.

Also striking in these findings are the very large gender differences in safety and feeling safe among young women and young men. Behaviours that some men may perceive to be relatively harmless (eg catcalling, verbal harassment) are not perceived as harmless by many young women. On the contrary they are perceived as distressing incidents of sexual harassment, verbal abuse, and threatening behaviour that create fear, anxiety and feelings of vulnerability. These forms of harassment of young women are not permitted in organisational and institutional settings, and neither should they be tolerated when directed at young women moving around in public places.

While many young women adapt to these adverse walking conditions by modifying their behaviours (ie avoiding walking alone, at night, in some locations; employing protective measures; or not walking), there are limitations to behaviour modification in the absence of establishing more supportive physical/built, social/cultural, and policy/regulatory environments. While individual responsibility for personal safety is important, it should not be used to avoid social responsibility for creating safe public places for young people.

It appears that, currently, an optimal balance of individual and social responsibility for establishing walking environments and conditions that are both safe and *feel* safe has not been achieved. Young people moving around by foot in 'liveable communities' should not have to restrict their movements or be constantly vigilant to possible threats in ways that substantially detract from the utility and enjoyment of walking for recreation or transport.

In the words of two young women:

*"It's wrong how we cannot feel safe."*

*“I think personal safety is a current issue while walking as people don't feel safe, we should do something to improve this.”*

#### **4.2.11 Attitudes to measures for increasing walking**

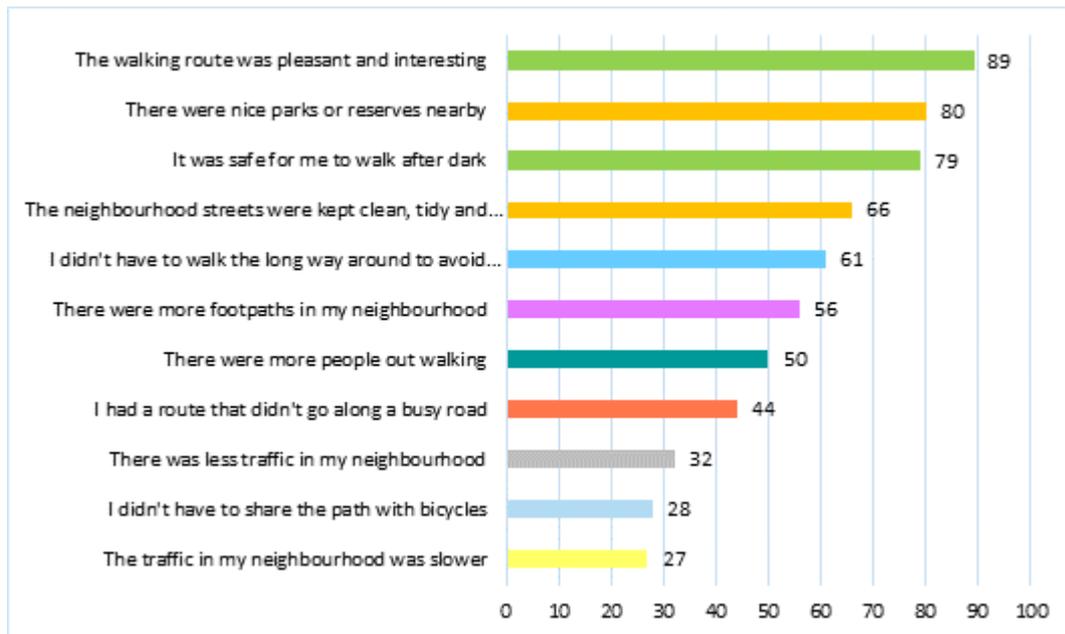
Young people's attitudes to measures to encourage young people to walk more were explored by asking for their level of agreement with eleven items (Q16). The proportions of young people who strongly agreed or agreed with these eleven items are shown in Figure 37.

Items with the highest levels of agreement were aesthetic factors; namely, having pleasant and interesting walking routes (89%) and having nice parks or reserves nearby (80%). These findings are consistent with young people's key motivations for walking being to relax and calm down when stressed, angry or anxious, and to “get out of the house for a while” (see Section 4.2.7). Being able to walk to, and in, pleasant, green, natural open spaces appears to meet these requirements for young people (also see Section 4.2.20 – perceptions of a liveable community). It is also likely that walking is valued because it provides the means of interacting with these desirable environments.

In addition, as discussed in the literature review (see Section 2.1.9), one of the appealing characteristics of walking as a form of physical activity (particularly for women) appears to be that it does not require high order skills, so is unlikely to elicit performance anxiety. On the other hand, there is a possibility of boredom due to the low level of ‘challenge’ involved in walking. These survey findings suggest that walking in pleasant and interesting environments, and also with other people (see Section 4.2.5), may add a level of enjoyment that counters the relatively low level of challenge associated with walking as a form of physical activity.

Consistent with high levels of concern about walking at night (see Section 4.2.10), 78% of young people agreed that making walking safer after dark would encourage them to walk more. The majority of young people also agreed that a clean and tidy neighbourhood (66%), having a direct route (61%), more footpaths (56%), and more people out walking (50%) would encourage more walking.

Traffic issues appeared to be less important for young people, suggesting that many young people are confident they have the capacity and skills to deal safely with traffic; possibly due to the more common occurrence and predictable nature of these risks compared with the less common and unpredictable threats to personal safety.



**Figure 37: Attitudes to measures for increasing walking (% Strongly Agree or Agree)**

Gender and age differences in young people's attitudes to measures to encourage young people to walk more were also explored, with the results summarised in Table 10.

Consistent with previous findings, young women were substantially more likely than young men to agree that a number of improvements in personal safety would encourage them to walk more. Young women were also more likely to agree that more footpaths would encourage them to walk more. Interestingly, there were no gender differences in any other traffic safety measures, indicating, once again, that personal safety is a greater concern for young women than traffic safety.

In contrast to the gender differences in walking promotion measures, the only age differences were traffic related, with the older age group (18-20 year-olds) significantly more likely to agree that they would be more likely to walk if their route did not go along a busy road, there was less traffic in the neighbourhood, and they didn't have to share the path with bicycles. The reasons for these differences are not clear, though there may be differences in where the older and younger age groups live, work, and socialise; and consequently in traffic conditions.

**Table 10: Attitudes to measures for increasing walking (Strongly Agree or Agree) (%)**  
(p-values: ≤0.05\*; ≤0.01\*\*; ≤0.001\*\*\*; ≤0.0001\*\*\*\*)

	Total	Gender		Age	
		Female	Male	15 – 17 Years	18 – 20 years
The walking route was pleasant and interesting.	89	89	88	87	91
There were nice parks or reserves nearby.	80	82	76	79	81
It was safe for me to walk after dark.	79	84****	61	78	81
The neighbourhood streets were kept clean, tidy and well-maintained.	66	67	63	64	67
I didn't have to walk the long way around to avoid unsafe or unpleasant areas.	61	65****	51	61	62
There were more footpaths in my neighbourhood.	56	59**	45	53	59
There were more people out walking.	50	54****	36	51	47
I had a route that didn't go along a busy road.	55	43	50	42**	49
There was less traffic in my neighbourhood.	32	30	38	29*	36
I didn't have to share the path with bicycles.	27	28	25	25*	31
The traffic in my neighbourhood was slower.	27	27	28	26	28

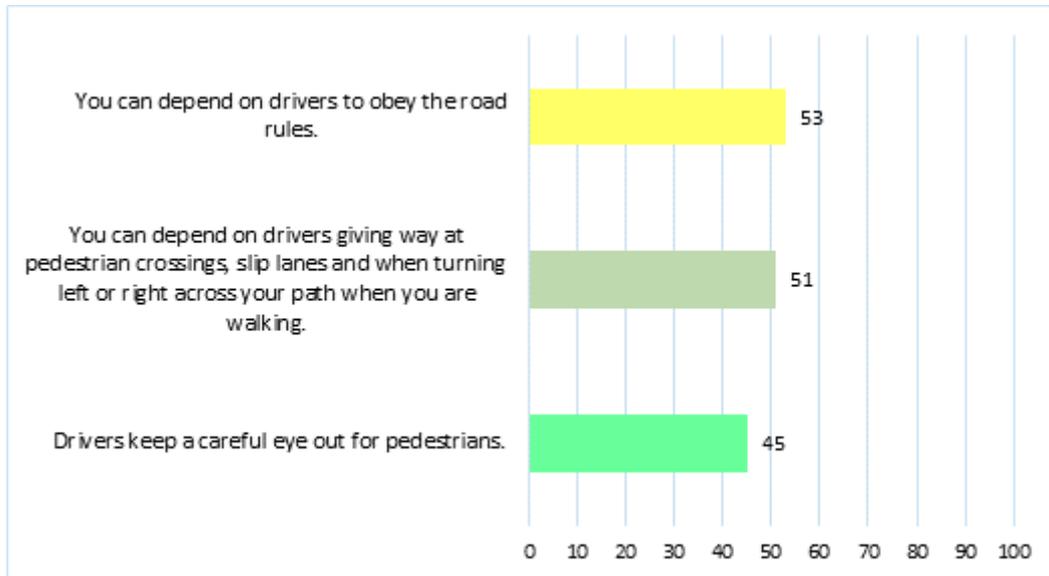
The following section explores another aspect of traffic safety in the form of driver behaviour around pedestrians.

#### 4.2.12 Young people's attitudes to driver-pedestrian interactions

Young people's attitudes to driver-pedestrian interactions were explored by asking for their level of agreement with the three items shown in Figure 38 (Q17). The proportions of young people who strongly agreed or agreed with these three items are shown in Figure 38.

Only about half of the young people agreed that they can depend on drivers to obey the road rules, give way to pedestrians when required, and keep a careful eye out for pedestrians. While these behaviours do not elicit high levels of concern among young people, they nevertheless indicate that many young people cannot rely on people to drive

safely around pedestrians. The issue of personal skills and personal responsibility for safety is also relevant here, as most young people have been taught by parents, in schools and in the wider community that they must walk carefully, safely and defensively; anticipating driver errors (including failing to give way to pedestrians when required); and avoiding making “one false move” (Hillman, 1993).



**Figure 38: Young people’s attitudes to driver-pedestrian interactions  
(% Strongly Agree or Agree)**

Gender and age differences in young people’s attitudes to driver-pedestrian were also explored, with the results summarised in Table 11.

Young women were significantly less likely than young men to agree that “You can depend on drivers giving way at pedestrian crossings, slip lanes and when turning left or right across your path when you are walking”; but there were no significant gender differences for the other two items.

However, there were consistent age differences, with 15 – 17 year-olds having higher levels of agreement that you can depend on drivers to obey the road rules, give way to pedestrians when required, and look out for pedestrians. These findings are consistent with those in Section 4.2.11 above (ie 18 – 20 year-olds appear to be more concerned than the younger age group about traffic safety while walking). Once again, the reasons for these age differences are not clear, though, as noted above, they may be at least partly due to differences in where and when the older and younger age groups walk.

**Table 5: Young people’s attitudes to driver-pedestrian interactions**  
(p-values: ≤0.05\*; ≤0.01\*\*; ≤0.001\*\*\*; ≤0.0001\*\*\*\*)

	Total	Gender		Age	
		Female	Male	15 – 17 Years	18 – 20 years
You can depend on drivers to obey the road rules.	53	52	58	57*	50
You can depend on drivers giving way at pedestrian crossings, slip lanes and when turning left or right across your path when you are walking.	51	48*	58	54**	46
Drivers keep a careful eye out for pedestrians.	45	44	47	50****	38

Following the above two questions about improving walking conditions, young people were asked if they would like to add any comments about what could be done to improve walking conditions (Q18). Findings from a thematic analysis of the qualitative data from this question are described below.

#### 4.2.13 Young people’s comments about improving walking conditions in the community

Young people (n = 273) provided responses of varying length ranging from one word to several sentences. All responses were read to identify emergent themes, resulting in six themes; two of which were broken down into sub-themes. All responses were then re-read and coded into these themes and sub-themes. A total of 351 coded responses resulted, with a mean of 1.3 coded responses per survey participant who provided a response to this question.

The six themes and thirteen sub-themes, a brief description, the number of times each theme was mentioned, and the percentage of coded responses for each theme are summarised in Table 12 and illustrated in Figure 39.

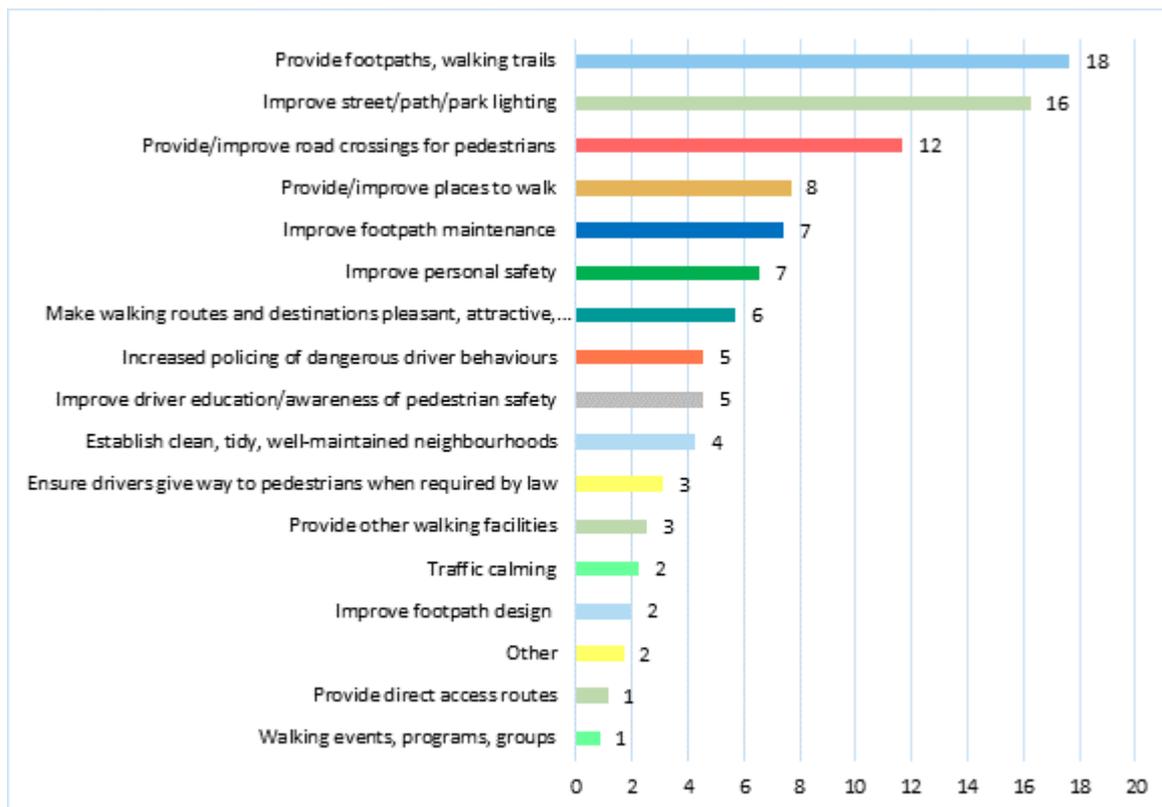
**Table 12: Suggestions for improving walking conditions in the community**

	Theme	Count	Percentage
<b>1</b>	<b>Provide/improve walking infrastructure and facilities</b>	<b>253<sup>17</sup></b>	<b>72</b>
<b>1.1</b>	Provide footpaths and walking trails	62	18
<b>1.2</b>	Improve street/path/park lighting	57	16
<b>1.3</b>	Provide/improve road crossings for pedestrians	41	12
<b>1.4</b>	Provide/improve places to walk	27	8
<b>1.5</b>	Improve footpath maintenance	26	7
<b>1.6</b>	Make walking routes and destinations pleasant, attractive, green, interesting	20	6
<b>1.7</b>	Provide other walking facilities	9	3
<b>1.8</b>	Improve footpath design	7	2
<b>1.9</b>	Provide direct access routes	4	1
<b>2</b>	<b>Improve traffic safety/driver behaviour</b>	<b>51<sup>18</sup></b>	<b>15</b>
<b>2.1</b>	Improve driver education/awareness of pedestrian safety	16	5
<b>2.2</b>	Increased policing of dangerous driver behaviours	16	5
<b>2.3</b>	Ensure drivers give way to pedestrians when required by law	11	3
<b>2.4</b>	Traffic calming	8	2
<b>3</b>	Improve personal safety	23	7
<b>4</b>	Establish clean, tidy, well-maintained neighbourhoods	15	4
<b>5</b>	Other	6	2
<b>6</b>	Walking events, programs, groups	3	1

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<sup>17</sup> Total of all Theme 1 comments.

<sup>18</sup> Total of all Theme 2 comments.



**Figure 39: Suggestions for improving walking conditions in the community (% of all coded comments)**

The following section describes and discusses these themes and sub-themes.

#### 4.2.13.1 Provide/improve walking infrastructure and facilities

The most frequently mentioned theme was to provide or improve walking infrastructure and facilities (n = 253, 72%). These comments were broken down into the following nine sub-themes.

##### Theme 1.1: Provide footpaths and walking trails

These comments referred to providing footpaths and walking trails where they are currently not available (n = 62, 18%). While not usually stated explicitly, most comments appeared to refer to footpaths that enable young people to walk to get to places; with a smaller number referring to recreational walking paths and trails.

Examples of comments include:

*“A footpath would come in handy.”*

*“Although this may be unrealistic in regional areas, it would be good if there was better walking infrastructure to bus stops.”*

### **Theme 1.2: Improve lighting**

These comments referred to improving lighting in streets, along paths and trails, and in parks (n = 57, 16%), to improve safety while walking after dark. There was a mix of references to lighting improving personal safety, feeling safe, and preventing walking injuries such as falls; however most appeared to refer to personal safety, consistent with young people (and particularly young women) indicating high levels of concern about walking after dark (see Sections 4.2.9 and 4.2.10).

Examples of comments include:

*“Add more street lights.”*

*“Often street lights aren't turned on or the light flickers. I come from the U.K. Where the lampposts are closer together too, you have to walk in the dark for quite a bit before you come to another street light. I don't always feel safe in these dark spots so more lights would help. “*

*“More lighting at night.”*

*“More streetlights in darker areas such as parks to improve visibility and safety at night.”*

*“More streetlights in the neighbourhood.”*

*More streetlights, the areas in between lights are very dark and it's almost impossible to see anything ahead.”*

### **Theme 1.3: Provide/improve road crossings**

These comments (n = 41, 12%) referred to zebra crossings, signal-operated pedestrian crossings, and crossings at controlled intersections and roundabouts. Some young people recommended better siting of pedestrian crossings and longer walk phases. In addition a number of concerns about pedestrian crossings were about driver behaviour at pedestrian crossings (see Theme 2), with young people suggesting clearer warnings and indicators to drivers that they were approaching a pedestrian crossing.

Examples of comments include:

*“More pedestrian crossings, newer/wider footpaths.”*

*“More stop signs at roundabouts so that drivers stop to allow pedestrians to cross.”*

*“More zebra crossings with flashing lights to emphasise its existence to oblivious drivers.”*

### **Theme 1.4: Providing or improving places for walking**

Comments in this theme (n = 27, 8%) referred mainly to open, green spaces such as attractive parks, reserves, playgrounds and ovals. These comments are consistent with young people's perceptions that a liveable community is one that provides for pleasant, interesting, open, green spaces (see Section 4.2.19); with a key motivation for walking being

relaxation and stress reduction (see Section 4.2.7); and with suggestions for increasing walking (see Section 4.2.12).

Examples of comments include:

*“More paths in the nice places to walk with the views.”*

*“My town needs to upgrade its parks and recreations, because it is boring. We live in quite a desired town to live in, yet parks lack fun and interesting things. No large ponds, no nice trees and different coloured flowers and plants. Nothing inviting for any other animals besides magpies and crows... It is sad to see such a lack of attention to environmentally friendly sources of entertainment and awe.”*

*“More paths or tracks that make it interesting. Through the bush or hills or something.”*

### **Theme 1.5: Improving footpath maintenance**

Young people’s comments about improving footpath maintenance (n = 26, 7%) included providing a smooth, evenly-graded walking surface free of potholes, debris, rubbish bins, and overgrown vegetation.

Examples of comments include:

*“Fix the foot paths.”*

*“Maintain walking paths at the quality of roads.”*

### **Theme 1.6: Pleasant, interesting, attractive walking routes**

Suggestions for establishing walking routes and destinations that are pleasant, attractive, green and interesting (n = 20, 6%) had some overlap with Theme 1.4, but these comments referred more to the characteristics of the routes used to *access* places young people may wish to walk to.

Examples of comments include:

*“Having a nice path or walking trail with lots of native trees and flowers would be greatly beneficial!”*

*“I think maybe in my community we could plant more flowers and plants so we'd have something beautiful to look at while walking.”*

*“More interesting things like Plants or Sculptures.”*

*“Make the paths interesting, wind them through trees and around rocks and make hidden off-shoots that allow the path itself to become a novelty. I think if the paths had a great level of complexity and fun, more children would enjoy walking and consequently parents are more likely to take them. Walking should not be something that is frowned upon by children but something they embrace as a fun and interesting experience. Thus the paths and facilities should reflect this, not by implementing climbing frames and parks but by allowing them to explore the climbing frame that is the natural environment.”*

### **Theme 1.7: Provision of other walking facilities**

Suggestions for the provision of other walking facilities (n = 9, 3%) included route signage, drinking fountains, public toilets, shelters and seats.

### **Theme 1.8: Improve footpath design**

Suggestions for improving footpath design (n = 7, 2%) included good separation from traffic, good sight-lines, separation from bicycles, and suitable for use by wheelchairs, mobility scooters and people with prams.

### **Theme 1.9: Provide direct walking routes**

Suggestions for providing walking routes that provide direct access to destinations (n = 4, 1%) included pedestrian 'short-cuts' through parks and other public spaces that are not accessible by motor vehicles.

## **4.2.13.2 Improve traffic safety/driver behaviour**

The second most frequently mentioned theme was to improve traffic safety, particularly driver behaviour related to pedestrians (n = 51, 15%). These comments were broken down into the four sub-themes, described below, all of which refer to differing ways in which pedestrian safety is compromised by traffic conditions and driver behaviour.

### **Theme 2.1 Improve driver education/awareness of pedestrian safety**

These comments (n = 16, 5%) reflected young people's perceptions that many drivers put pedestrians at risk due to their lack of awareness of pedestrians as road users, and the failure of driver education to adequately address pedestrian safety.

Examples of comments include:

*"People shouldn't expect cars to give way to them because drivers can be unpredictable. It's important to always be aware of the drivers and other people around you."*

*"TAC style campaigns to raise awareness about pedestrians."*

*"Maybe new road learning test where drivers learn more about pedestrians."*

*"More concentration from drivers as I've been hit numerous times with it being the drivers fault not mine."*

### **Theme 2.2: Increase policing of dangerous driver behaviours**

In these comments (n = 16, 5%) young people were suggesting that drivers would behave more safely around pedestrians if the road rules that governed driver-pedestrian interactions were more frequently policed. These included speeding, 'hoon' driving, and running red lights at pedestrian crossings, with some young people recommending the installation of red light cameras at signalised pedestrian crossings, particularly those on roads where drivers regularly speed and fail to stop.

Examples of comments include:

*"...enforce stricter penalties on drivers who get stuck in an intersection trying to turn right and subsequently endanger my life when they don't give way to me."*

*"Stricter policing of drivers when breaking pedestrian-related road rules."*

*"I'm tired of people breaking road rules and nearly hitting me when I'm walking out and about or speeding up so I have to run out of the way, 80% of the time this happens when I have my pram with me. This definitely needs to be addressed, maybe cameras."*

*"Red light cameras at ped crossings."*

### **Theme 2.3: Ensure drivers give way to pedestrians when required by law**

These comments (n = 11, 3%) mainly referred to drivers failing to give way to pedestrians at pedestrian crossings, intersections (when turning), and slip-lanes. These comments are related to (ii) above, particularly failure to yield to pedestrians, but comments included in this sub-theme did not refer specifically to policing the road rules as a means of behaviour change.

Examples of comments include:

*"Make sure drivers give way to pedestrians when turning into streets."*

*"Slip lanes are very dangerous at my local highway intersection - not many cars slow down very well before a slip lane."*

*"I find that the city is really busy and cars are often more focused on where they are going than the pedestrians who have the right of way. I'm not sure how this could be changed but it makes it scary to cross the street sometimes."*

### **Theme 2.4: Traffic calming**

These comments (n = 8, 2%) referred to lower speed limits and speed humps, for example:

*"Reduce the speed limits on roads and safe crossings. Cars allowed to go through a crossing when it is green for pedestrians is not right and I often have to jump out of the way of cars walking to school."*

#### **4.2.13.3 Improve personal safety**

Theme 3 comments comprised suggestions for improving personal safety while walking (n = 23, 7%). Examples of comments include:

*"A neighbourhood watch kind of organisation to keep the streets safe."*

*"I live in an industrial area wrought with tradie men who like to cat-call me, this is the most major issue I face whilst walking and feels threatening since I am a small 19 year old girl. I'm not sure what could be done to improve this in my specific community but teaching proper ways to engage people in public would be nice."*

*“Sometimes in very crowded public areas where events happen, having police around makes you feel safe, as well as around train stations (I like the fact that those safety officers are around train stations).”*

*“That I could go walking at night without feeling like I could be raped/murdered would be amazing because that's when I most often want to.”*

*“That more people walk so you would feel more safe.”*

*“Less violent crimes in Melbourne.”*

*“Make the suburbs safer and more people would be inclined to walk.”*

#### **4.2.13.4 Establish clean, tidy, well-maintained neighbourhoods**

A number of young people suggested that clean, tidy, well-maintained neighbourhoods would encourage more walking (n = 15, 4%), possibly by increasing perceptions of safety (Theme 3), providing pleasant walking environments (Theme 1), and possibly safe walking infrastructure such as footpaths and walking tracks (Theme 1). Examples of comments include:

*“There's a kind of abandoned building that I think the government owns. It's just... Not very nice. People dump stuff there constantly. Make something of it - a building or anything really - people are going to stop dumping all their crap there. There's a lot of couches though, always time for a rest.”*

*“Clean up the neighbourhood and get more people out walking.”*

*“The main issue is that the bins along both sides of the road are overflowing by the early evening or on some days even by the late afternoon.”*

*“We need to clean up the town.”*

*“Maybe if the environment was clean.”*

#### **4.2.13.5 Other**

Examples of comments categorised as “Other” (n = 6, 2%) include:

*“I would walk more if there weren't snakes along my local walking track.”*

*“...dangerous dogs.”*

#### **4.2.13.6 Walking events, programs, groups**

Examples of these comments (n = 3, 1%) include:

*“Have a local walking event.”*

*“More promotion of walking paths in the local areas.”*

#### 4.2.13.7 Concluding comments

Young people’s suggestions for improving walking conditions in their community centred on the provision of good walking infrastructure that is safe, pleasant and well-maintained. Well-lit footpaths, trails and walking spaces such as parks were particularly important, reflecting young people’s concerns about walking after dark (see Sections 4.2.9 and 4.2.10). Well-lit footpaths, particularly in suburban residential areas may not be a high priority for local councils, who may assume low demand among residents for walking after dark. However, young people appear to have a greater need for well-lit walking environments due to their greater use of public transport and walking to get around their neighbourhoods, possibly more often outside daylight hours, and having high levels of concerns about their safety while walking after dark (see Sections 4.2.9 and 4.2.10).

Improving traffic safety for pedestrians was also important, with many young people expressing frustration at risky driver behaviour, which is often perceived to receive low priority in terms of road infrastructure, driver education and policing of driver behaviour that impacts on young people’s safety and their perceptions of safe and pleasant places to walk.

#### 4.2.14 Young people’s driving license status

Forty-five percent of young people held a learner’s permit; with 21% having P-plates and 1% a full license. Thirty-four percent had no form of driving license (Figure 40). There were no significant differences in license-holding for young women and young men. However, there was the expected difference in license-holding by age (Figure 41), with just over half of young people of driver’s license age (18 – 20 years) having either a probationary (51%) or full license (2%). This is similar to the rate of license-holding among young people in Victoria aged 18-21 years (59%) (Wundersitz et al., 2015).

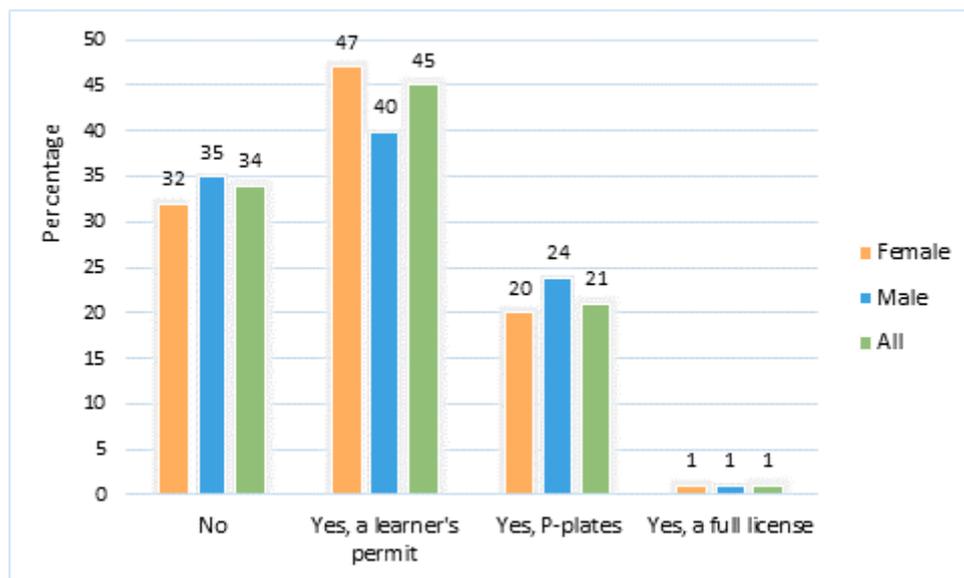
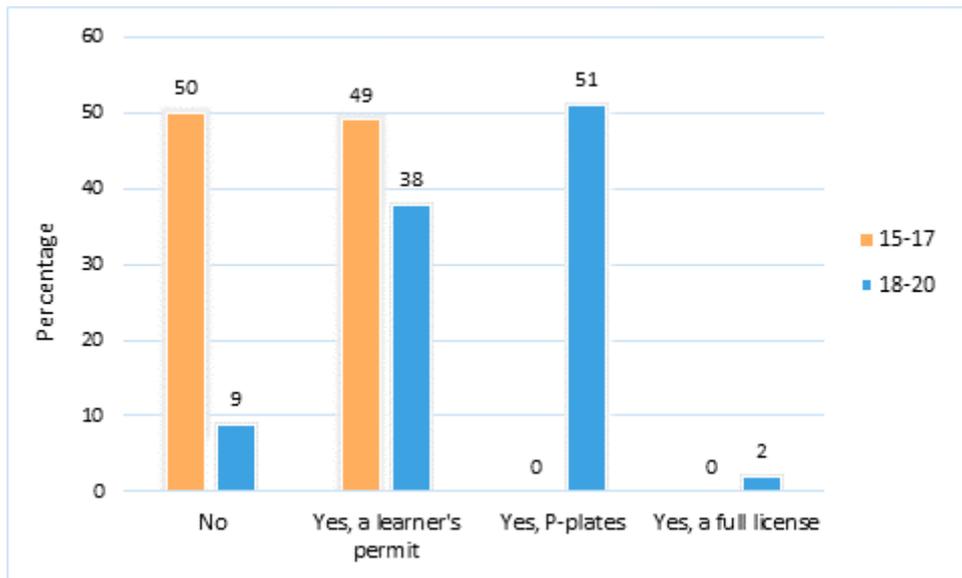


Figure 40: Driver’s license status, by gender (% , n = 1015)



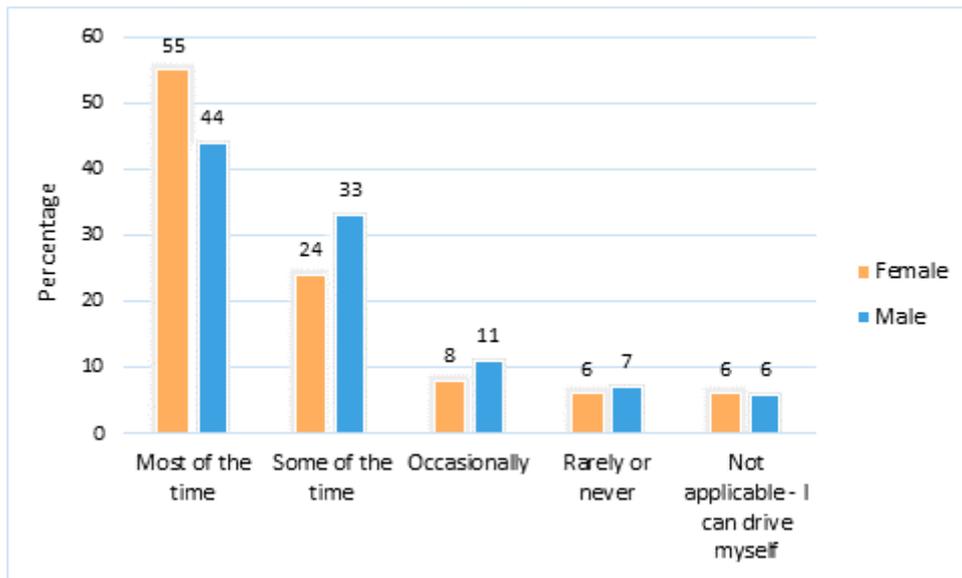
**Figure 41: Driver's license status, by age\*\*\*\* (% , n = 1082)**

#### 4.2.15 Motor vehicle ownership

Twenty-three percent of survey participants owned a motor vehicle, with a non-significant difference between females (22%) and males (28%). Forty-one percent of 18-20 year-olds owned a motor vehicle, compared with 11% of 15-17 year-olds ( $\chi^2 = 130.3, p < 0.0001$ ).

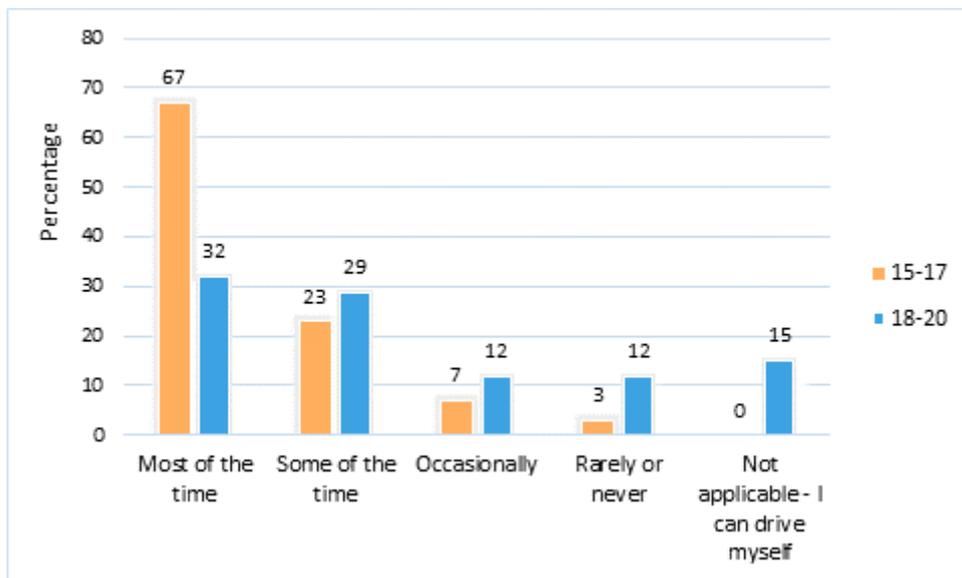
#### 4.2.16 Lift-getting

The majority of young people are able to get a lift in a car from parents or another adult in the household either most of the time or some of the time (Figure 42), with significantly more young women than young men able to get a lift most of the time. This difference appears to reflect greater independent mobility among young men (ie walking or using public transport), possibly due to higher levels of concern among young women about walking at night (and therefore seeking, and obtaining, a lift in a car instead).



**Figure 42: Lift-getting, by gender\* (n = 1017)**

Significantly more 15 – 17 year-olds than 18 – 20 year-olds are able to get a lift most of the time, with the difference partly, but not wholly due to the 15% of 18 – 20 year-olds who are able to drive themselves (Figure 41). As was the case for gender, some of the difference might be due to higher levels of independent mobility in the form of walking and using public transport among 18 – 20 year-olds.



**Figure 43: Lift-getting, by age (n = 1084, p < 0.001)**

**4.2.17 Young people’s attitudes to obtaining a driver’s license**

Based on the well-established relationship between access to car travel and use of alternative travel modes such as walking, public transport and cycling (Steinbach et al., 2012), and in the context of declining rates of license-holding among 18-year-olds in

Victoria, the survey included questions exploring young people's attitudes to obtaining a driver's license and driving a motor vehicle. The question was:

*"The number of 18-year-olds in Victoria who have a driver's license has been declining for several years. Do you think any of the following factors are contributing to this trend?"*

Most young people (92%) agreed that owning and driving a car is expensive; followed by young people having trouble finding the time to get 120 hours driving experience (81%); and parents or other licenced drivers not wishing to, or unable to supervise learner drivers for 120 hours (79%) (Figure 44).

Three-quarters of young people agree that young people are more likely to use public transport these days; with a similar proportion (71%) agreeing that young people can usually get a lift with parents or friends.

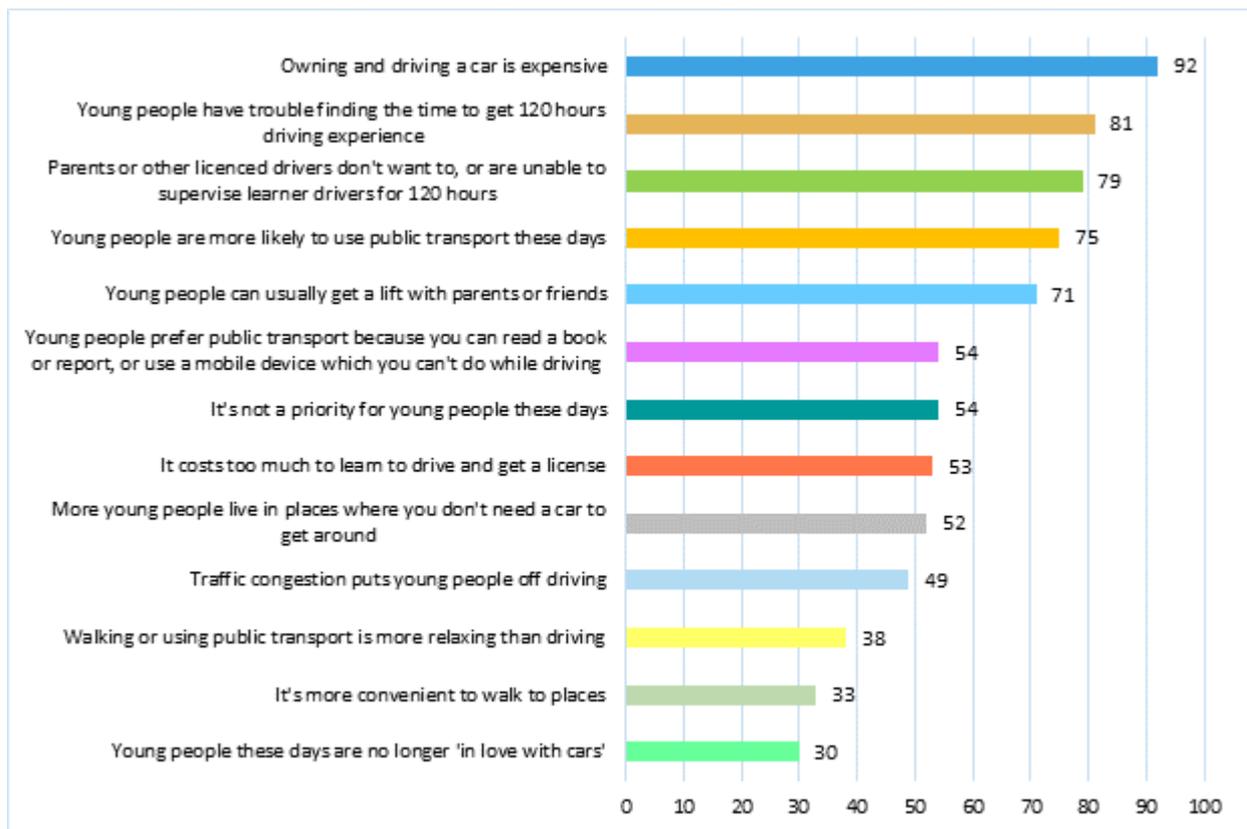
Just over half of young people agreed that more young people live in places where you don't need a car to get around (52%); that it costs too much to learn to drive and get a license (53%), that it's not a priority for young people these days (54%); and that young people prefer public transport because you can read a book or report, or use a mobile device which you can't do while driving (54%).

Smaller proportions of young people agreed that walking or using public transport is more relaxing than driving (38%); that it's more convenient to walk to places (33%); and that young people these days are no longer 'in love with cars' (30%).

In summary, consistent with the recent (though limited) research into reasons for declining rates of license-holding and driving among young people in Australia and overseas (Delbosc and Currie, 2013), a number of factors appear to be contributing to this trend. However, findings from this survey suggest that the most important factors are the costs associated with owning and driving a car, and the requirement for 120 hours of supervised driving for learner drivers. Finding this time is reportedly difficult for both young people (many of whom are in their final years of secondary education) and parents or other adults.

These constraints on license-holding are occurring within the context of many young people having access to alternative methods of travel in the form of public transport (including living in places where you don't need a car to get around), and obtaining a lift from parents or friends.

A number of other factors had lower levels of agreement, though collectively they are likely to contribute to the cost and effort of obtaining a license being seen as not worth the effort when alternatives to driving are available and in some ways more appealing.



**Figure 44: Young people's attitudes to obtaining a driver's license  
(% Strongly agree or Agree)**

Gender and age differences in young people's attitudes to obtaining a driver's license and driving a car were also explored, with the results summarised in Table 13.

Somewhat surprisingly, there was an overall pattern of young women tending to view license-holding and driving a car more positively than young men; perceiving more constraints on obtaining a driver's licence; and viewing alternatives to car travel more negatively than young men. However, only three of these factors were statistically significant, with young women significantly *less* likely than young men to agree that (i) obtaining a driver's license is no longer a priority for young people; (ii) it is more convenient to walk to places; and (iii) that young people are no longer 'in love with cars'.

These rather unexpected gender differences may reflect young women being more dependent on driving for their mobility due to their high levels of concerns about walking (including to access public transport) alone and after dark (see Section 4.2.9).

Young people in the older age group (18 – 20 years) were significantly more likely to agree that parents or other licenced drivers don't want to, or are unable to supervise learner drivers for 120 hours, and that it costs too much to learn to drive and get a license; and significantly less likely to agree that young people can usually get a lift with parents or friends.

**Table 6: Young people’s attitudes to obtaining a driver’s license (Strongly Agree or Agree) (%)**  
 (p-values: ≤0.05\*; ≤0.01\*\*; ≤0.001\*\*\*; ≤0.0001\*\*\*\*)

	Total	Gender		Age	
		Female	Male	15 – 17 Years	18 – 20 years
Owning and driving a car is expensive	92	92	91	92	93
Young people have trouble finding the time to get 120 hours driving experience	81	82	77	80	84
Parents or other licenced drivers don’t want to, or are unable to supervise learner drivers for 120 hours	79	80	74	75**	84
Young people are more likely to use public transport these days	75	73	81	77	72
Young people can usually get a lift with parents or friends	71	70	73	74**	66
Young people prefer public transport because you can read a book or report, or use a mobile device which you can’t do while driving	54	52	60	55	54
It’s not a priority for young people these days	54	52*	62	53	54
It costs too much to learn to drive and get a license	53	54	50	45****	67
More young people live in places where you don’t need a car to get around	52	51	55	51	53
Traffic congestion puts young people off driving	49	48	52	47	53
Walking or using public transport is more relaxing than driving	38	37	42	39	36
It’s more convenient to walk to places	33	32*	38	34	32
Young people these days are no longer ‘in love with cars’	30	28*	36	31	29

#### 4.2.18 Young people’s comments about young people and driving

Following the closed-ended question asking young people for their perceptions of reasons for a recent decline in license-holding among 18 year-olds in Victoria, young people were asked (Q23):

*“Would you like to add any comments about young people and driving?”*

Young people (n = 247) provided responses of varying length ranging from one word to several sentences. All responses were read to identify emergent themes, resulting in 12 themes; two of which were broken down into sub-themes. All responses were then re-read and coded into these themes and sub-themes. A total of 386 coded responses resulted, with a mean of 1.6 coded responses per survey participant who provided a response to this question.

The 12 themes and eight sub-themes, a brief description, the number of times each theme was mentioned, and the percentage of coded responses for each theme are summarised in Table 14 and illustrated in Figure 45.

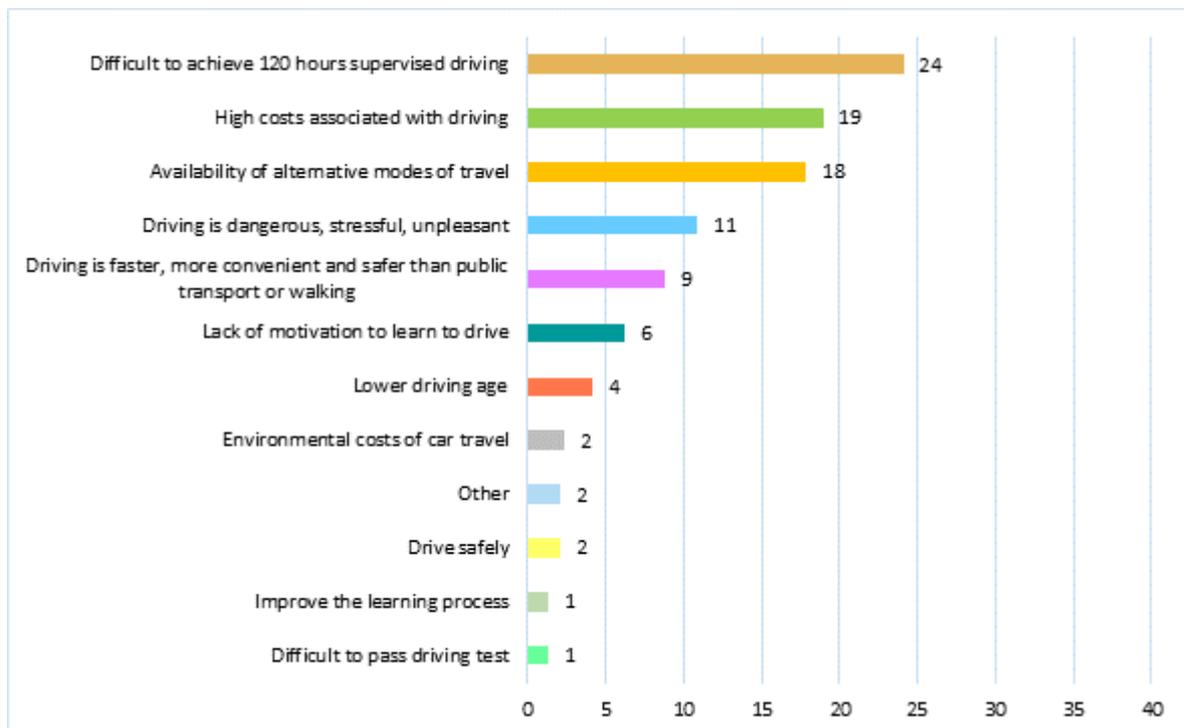
**Table 14: Reasons for declining license-holding among young people**

	Theme	Count	Percentage
<b>1</b>	<b>Difficult to achieve 120 hours supervised driving</b>	<b>93<sup>19</sup></b>	<b>24</b>
<b>1.1</b>	Lack of access to an adult supervisor (usually parent)	34	9
<b>1.2</b>	Young people don’t have time	32	8
<b>1.3</b>	120 hours difficult, unreasonable, unachievable, should be reduced	21	5
<b>1.4</b>	Log book requirements	4	1
<b>1.5</b>	Prefer to wait to 21 years old	2	1
<b>2</b>	<b>High costs associated with driving</b>	<b>73<sup>20</sup></b>	<b>19</b>
<b>2.1</b>	Car costs	36	9
<b>2.2</b>	Obtaining a driver’s license	24	6
<b>2.3</b>	Low wages, no job, other spending priorities	13	3

<sup>19</sup> Total of all Theme 1 comments.

<sup>20</sup> Total of all Theme 2 comments.

	Theme	Count	Percentage
3	Alternative modes of travel more appealing	69	18
4	Driving is dangerous, stressful, unpleasant	42	11
5	Driving is faster, more convenient and safer than public transport or walking	34	9
6	Lack of motivation to learn to drive	24	6
7	Lower driving age	16	4
8	Environmental costs of car travel	9	2
9	Drive safely	8	2
10	Other	8	2
11	Difficult to pass driving test	5	1
12	Improve the learning process	5	1



**Figure 45: Reasons for declining license-holding among young people (% of coded responses)**

The following section describes and discusses these themes and sub-themes.

#### 4.2.18.1 Difficult to achieve 120 hours supervised driving

The most frequently mentioned theme (n = 93, 24%) was difficulty in achieving 120 hours of supervised driving. The main reasons for this were:

**Theme 1.1:** Lack of access to an adult who can supervise them (n = 34, 9%); including parents/supervising drivers not wishing to supervise their driving, not having the time or ability, both parents working, single-parent households, finding time for multiple siblings, parents who don't drive, young people who live away from home, and the stress of driving for 120 hours with parents (as driving instructors).

**Theme 1.2:** Young people not having sufficient time due to multiple demands; mainly study, but also work (n = 32, 8%), with many young people specifically stating that study had higher priority than supervised driving, particularly in years 11 and 12.

**Theme 1.3:** 120 hours difficult, unreasonable, unachievable, or should be reduced (n = 21, 5%).

**Theme 1.4:** No requirement to travel long distances by car, so difficult to get 120 hours through multiple short trips; hassle of filling out log book for multiple short trips (n = 4, 1%).

**Theme 1.5:** Prefer to wait until 21 years old when 120 hours no longer required (n = 2, 1%).

Examples of Theme 1 comments include:

*"Getting 120hrs in 2 years is difficult if not almost impossible for most people."*

*"Hard to get your license as it's during year 12 exams."*

*"How am I supposed to get up 120 hours of driving with two parents working full time, my 1 year old brother needing to be taken care of and watched at any given point of time, and if I'm not able to be "supervised" by my friends with P-plates?"*

*"I believe that there is already so much pressure put on young people with choosing their career paths, focusing on study and trying to balance it with your social life and health and wellbeing, trying to study for drivers tests and booking lessons and getting 120 hours is just not as much of a priority."*

*"I have to wait until I'm 21 to get my license due to the fact that I only lived with my mum and it was hard to get 120 hours and now that I've moved out of home I have no way of getting the rest of these hours."*

*"It is very hard for young people living in town to obtain 120 hours as they are not in need of driving everywhere, everything is so close and only takes a 30 second drive which means it is just easier for parents to drive."*

*"Most people can't get the 120 hours and public transport is so good it doesn't matter anymore."*

*"People prefer to wait until they turn 21 so they don't have to do all of the hours."*

#### 4.2.18.2 High costs associated with driving

The second most frequently mentioned theme (n = 73, 19%) was the high costs associated with obtaining a driver's license and driving. These costs included:

**Theme 2.1:** car purchase, registration, insurance, petrol, maintenance, parking, toll roads, and traffic fines (n = 36, 9%).

**Theme 2.2:** driving lessons, supervised driving and license-testing (n = 24, 6%).

**Theme 2.3:** competing spending priorities (eg saving for a home) and lack of employment or low wages (n = 13, 3%).

Examples of Theme 2 comments include:

*"...is also very expensive to run a car when you're young."*

*"Getting lessons from instructors can be hard ....and makes me reluctant to get them due to having to work two hours to pay for a 45 minute lesson."*

*"It's far too expensive to get lessons and learn to drive. Fuel is expensive, wages are low and getting your licence is expensive also."*

*"I can't drive to uni because it costs \$20 to use the toll roads so I use public transport and walk."*

*"I think the decline in licensed 18 year olds is mostly due to the financial hardships pressing my generation. In my personal experience, I am unable to pay for lessons and my mother is too busy looking after her children and working to be available to teach or supervise me."*

*"Driving.... is faster, [but] you may as well better spend your money and spend a few dollars on public transport, rather than cars that need petrol/maintenance/insurance costs."*

*"Most young people are eager to get into the road and I should know I'm pretty eager myself but the costs of owning a car are insane, especially since most young adults like myself don't have a committed job and sometimes the parents can't afford everything."*

#### 4.2.18.3 Availability of alternative modes of travel

These comments referred to more appealing, accessible, faster, cheaper, sociable and relaxing modes of travel. Most comments referred to public transport, with a small number of comments referring to walking, Uber, and new technologies in the form of driverless cars. Most comments were made in the context of comparing these characteristics with those of driving a car (see Theme 5), with a common perspective being that when adequate public transport is available, public transport is preferred to driving. Many comments indicated that alternative modes of transport such as public transport were not necessarily considered intrinsically valuable or enjoyable, but rather were considered preferable when assessed relative to the hassles, time, costs and stress associated with obtaining a license and driving a car (refer to Theme 1, Theme 2 and Theme 4).

A number of young people also referred to the inadequacies of public transport that led them to drive instead; stating or implying that if public transport services in their area were better, they would use public transport instead of driving. These comments included poor public transport services in outer suburban, rural and regional areas (inner Melbourne was generally considered to have good public transport services); concerns about travelling after dark; slow and unreliable bus services; and poor cross-suburban public transport (eg for travel to non-CBD universities and other destinations).

Examples of comments include:

*"Public transport is easy."*

*"The expense of owning a car, registration and petrol seems unnecessary for me when I can just use a combination of walking, public transport, an Uber, and lifts from friends."*

*"What incentive do I have to start driving before 21, since I live in an area with good public transport?"*

*"In Melbourne inner city suburbs, public transport options are more than sufficient to not need a car."*

*"I have some friends who drive to uni, but sometimes they complain that the time they save is not worth the price of petrol and parking. Most people would rather just take public transport. Also, many students take public transport with their friends, so they are able to socialise during their commute, which they may not be able to do if they drove."*

*"Depends on the area, close to the city? No need to drive because you can walk or catch pt. Outer suburbs? It's painful not being able to drive. Walking to the shops casually is nice but when you have to spend 2 hours getting somewhere it sucks."*

*"... to get into the CBD public transport is more convenient and you don't have to pay for parking."*

*"In my experience I didn't get my P's until I was 20 because I lived in the inner city and could get everywhere I needed to easily by PT. The only ones who got their Ps early were those who lived in areas with poor public transport."*

*"Personally I have very minimal hours on my learners permit because I am just able to walk everywhere I go and prefer to do that."*

*"Public transport is getting more efficient and traffic congestion is getting worse hence more young people are using public transport instead of driving."*

*"To get into the city public transport is hugely more convenient and not just because of having to find a park and paying for parking, it is also a lot quicker, easier and more social."*

*"Sometimes I meet interesting people on trains and buses like old people who share their day with me and it's nice to speak to someone during peak hour which is why I like public transport more."*

#### 4.2.18.4 Driving is dangerous, stressful, unpleasant

A number of young people (n = 42, 11%) considered driving to be dangerous, unpleasant, or stressful; creating anxiety, insecurity and a lack of confidence in their ability to keep themselves and other road users safe while they are driving.

These comments included difficult, stressful traffic conditions; observing dangerous driving while on the roads; L and P drivers experiencing harassment and impatience from licensed drivers; congestion; way-finding under pressure (eg navigating into the correct lane, poor directions, other drivers giving way); media reports of traffic casualties; and media and public attention on “dangerous young drivers”.

Examples of Theme 4 comments include:

*“Other drivers get agitated and show signs of ‘road rage’ toward you whilst learning which is stressful and off-putting.”*

*“I never bothered to get a learners permit when I was 16 because of the high road death toll- no way was I going to become a statistic.”*

*“People on the roads make too many bad decisions (drink driving, speeding) and it turns people off wanting to drive.”*

*“I only just turned 16 and thought of learning to drive terrifies me.”*

*“Driving makes me anxious and putting myself in charge of other people’s lives and vice versa is terrifying. Need self-driving cars these days tbh only way I’d trust anyone.”*

*“Driving on roads with unpredictable drivers is very scary if you're not confident in your skills.”*

*“Encourage good driving behaviour so young people aren't afraid.”*

*“For the other drivers to respect Learners.”*

*“Driving can be quite stressful especially as a learner or p-plater as many other drivers are not considerate of the fact that changing lanes is quite stressful and therefore new drivers slow down so they are less likely to crash but it means other drivers just speed past without letting them in.”*

*“Crashes on our roads are a massive contributing factors as to why less young people are driving. From a young age we have had people telling us more about the dangers of driving and less about the positive side of driving a car. This creates a lot of anxiety about driving in young people.”*

*“Dangerous conditions and angry drivers in the city contribute to many of my friends not wanting to drive. It is simply too dangerous, confronting and stressful to deal with the type of traffic found in the suburbs or the city.”*

*“I don't drive because the thought of being in control of a vehicle scares me and even if I was good at it, you can't be sure the other people on the road are, so I'd just like to minimise the chances of me being injured.”*

*“Too many cars on the road and people being effected by drugs and alcohol making it more dangerous.”*

*“Traffic is horrid. I have a licence but only drive when I have to because it is so scary driving with erratic drivers in traffic.”*

#### **4.2.18.5 Driving is faster, more convenient and safer than public transport or walking**

These comments were effectively the ‘flip-side’ of Theme 3, with most comments referring to the ‘necessity’ of driving when other modes are unavailable, considerably slower or unappealing. As in Theme 3 above, driving a car was generally considered essential for independent mobility in outer suburban, rural and regional areas.

Examples of comments include:

*“Driving between suburbs is convenient and easier than taking public transport.”*

*“In Australia, public transport can be incredibly inconvenient. When trying to get you from point A to point B, some routes will literally take you round in circles. From personal experience, the time taken to get to my University from my home is 20 minutes by car and an hour by bus. It wouldn't surprise me if many people in my age group are driving as opposed to taking public transport out of frustration.”*

*“But I think it is also important to acknowledge that this is probably different for youth in more rural areas who don't have much access to public transport, having a driver's license is probably more ideal and a bigger priority.”*

*“Getting your p's in the country means freedom, and it's one of the best moments in life.”*

*“It's hard to get to public transport when you live in the outer suburbs.”*

*“In my community, it is essential for young drivers to have a car as we have poor public transport and getting places can be very difficult. But in suburban areas I think more people use public transport and don't drive.”*

#### **4.2.18.6 Lack of motivation to learn to drive**

These comments (n = 24, 6%) referred to young people's lack of motivation to learn to drive. Some of these comments tended to have a judgemental tone, stating that young people who did get their license were lazy, did not make learning to drive a priority, and were happy to be chauffeured by parents, older siblings or friends. Examples of comments include:

*“I think it's more about laziness and parents tending to their needs straight away.”*

*“Most of the young people I know who haven't got their licenses despite being of age usually just 'can't be bothered' learning to drive when their parents are still willing to drive them around.”*

#### 4.2.18.7 Lower the driving age

These comments (n = 16, 4%) referred to young people's suggestions for lowering the age at which young people can get a learner's permit, or a probationary license.

#### 4.2.18.8 Environmental concerns associated with car travel

These comments (n = 9, 2%) referred to young people having a preference for more environmentally-friendly forms of transport than driving a car, for example:

*"I got my Ls at the start of the year and still haven't booked a lesson because it's cheaper and more environmentally friendly to walk or catch public transport. I found when people my age got cars they drove to a lot of places that they could easily have walked to."*

#### 4.2.18.9 Drive safely

In these comments (n = 8, 2%), young people were advocating for young people (and indeed all drivers) to drive safely (also refer to Theme 4). Examples of comments include:

*"I think I'm one of the few who appreciate the restrictions on young drivers. Though, in the beginning it was frustrating, I am grateful for the rules that are made to keep us safe."*

*"Need stronger deterrents for mobile phone use in cars, it's way too prevalent and very dangerous."*

*"The idea behind speeding fines is to punish the people doing things outside the law and I understand why we have speeding fines and why speeding is a problem...but they should be a percentage of earnings not a constant amount because I'm not working for a major company doing 120k a year and 360\$ is a lot to me so maybe fine him a percentage of his salary and fine me that same percentage."*

#### 4.2.18.10 Other

"Other" comments (n = 8, 2%) included young people experiencing social pressure from family and friends to get their driving license. It is likely that some of the comments in Theme 6 about lazy, unmotivated young people may reflect this attitude among some young people. A small number of young people also referred to the need to improve walking and cycling infrastructure to support non-motorised mobility for young people who cannot or choose not to drive.

Examples of comments include:

*"Initially I didn't even want my learners because I felt there was no need however through pressure and necessity I needed to get my license."*

*"In some areas, it can be really built up yet there is very little walkability or infrastructure for cycling and accessing public transport, so this needs to be addressed if we want more young people to use these means of transport."*

#### **4.2.18.11 Difficult to pass driving test**

A small number of young people (n = 5, 1%) commented that the driving test had become more difficult; and was particularly difficult for young drivers. A few young people felt that driving instructors and license-testers were prejudiced against young drivers and reluctant to instruct young drivers; with license-testers excessively strict with young drivers and failing them to “teach you a lesson”, for example:

*“It is too easy to fail the test and people often give up, sometimes it seems like people fail just so Vic roads can get more money.”*

#### **4.2.18.12 Improve the learning process**

These comments (n = 5, 1%) included assisting disadvantaged young people to obtain their driver’s license; access to good learner driver resources in addition to on-road learning/experience (eg use of driving simulators; online programs and games; school driver education). Examples of comments include:

*“... there are a lot of people (driving instructors) who do not want to take on a first-timer and some people stereotype young people into reckless, immature teens who don't listen to instructions and drive recklessly once on P plates.”*

*“Teach at schools early the dangers and road rules making it fun.”*

*“There is a lack of availability of information for young people about learning to drive. Websites are complex or don't provide information in a clear manner. It's often difficult to find the appropriate guidelines for the probationary licence with how it changes from state to state. Non optional seminars in school was one of the only ways I personally got a grasp for the learning to drive pathway.”*

#### **4.2.18.13 Concluding comments**

Based on the well-established relationship between access to car travel and use of alternative travel modes such as walking, public transport and cycling (Steinbach et al., 2012), the survey included questions about young people obtaining a driver’s license and driving in the context of declining rates of license-holding among 18-year-olds in Victoria. Analysis of 247 young people’s responses to the open-ended question “*Would you like to add any comments about young people and driving?*” resulted in confirmation of the key reasons for delaying license-holding that were identified in the preceding closed-ended question (see Section 4.2.17), whilst also providing a more in-depth, detailed understanding of these reasons. In addition, an important, previously unidentified reason emerged (4. Driving is dangerous, stressful, unpleasant), together with some less-frequently mentioned constraints on licence-holding among young people.

The standout constraint on young people’s license-holding was difficulty in achieving 120 hours of supervised driving, principally due to lack of access to a driving supervisor (usually parent), and young people themselves not having sufficient time due to multiple demands associated with study and work.

The second most frequently mentioned factor was the high costs associated with obtaining a driver's license and driving. These costs included driving lessons, supervised driving and license-testing; together with car purchase, registration, insurance, petrol, maintenance, parking, toll roads, and traffic fines. Interestingly, this theme, together with Theme 1 (Difficulty in achieving 120 hours of supervised driving) appeared to be primarily *contingent* reasons for not obtaining a driver's license; that is, for many young people they appear to come into play when obtaining a driver's license is not considered *essential*, principally because other mobility options are available and/or preferable (mainly use of public transport as described below [Theme 3: Availability of alternative modes of transport]). Accordingly, when public transport was unavailable, inaccessible or very slow, young people were considered to have little choice but to overcome these barriers to obtaining their license. This finding is consistent with young people's perceptions that a liveable community is one that offers travel mode choices (see Sections 4.2.19 and 4.2.20).

Theme 3 comments (availability of alternative modes of transport) referred to public transport (and occasionally, walking or cycling) offering more appealing, accessible, faster, cheaper, sociable and relaxing modes of travel. Most of these comments were made in the context of comparing these characteristics with those of driving a car (see Theme 5), with a common perspective being that when adequate public transport is available, public transport is preferred to driving, and obtaining a driver's license has a lower priority for how young people spend their limited time and money.

Many young people perceived access to public transport to be strongly influenced by location. Accordingly, public transport access was considered good in inner and middle suburban areas, but poor in outer suburban and rural and regional areas, where obtaining a driver's licence and driving were considered virtually essential for young people's mobility. Cross-suburban travel by public transport was also considered relatively poor (compared with travel to and from the CBD); affecting young people who needed to travel to suburban schools, university and TAFE campuses, and also more local non-CBD workplaces.

The fourth most frequently mentioned theme was that of driving (and learning to drive) perceived as being dangerous, unpleasant, or stressful. Young people commented that traffic conditions in urban areas created anxiety and insecurity, engendering a lack of confidence in their ability to keep themselves and other road users safe while they are driving.

These comments included difficult, stressful traffic conditions; observing dangerous driving while on the roads; L and P drivers experiencing harassment and impatience from licensed drivers; congestion; way-finding under pressure (eg navigating into the correct lane, poor directions, other drivers failing to give way); media reports of traffic casualties; and media and public attention on "dangerous young drivers".

This constraint on young people obtaining a driver's license appears not to have been identified in recent research into delayed license-holding (Delbosc and Currie, 2013). It is interesting because it challenges current stereotypical perceptions of dangerous, reckless, risk-taking young drivers; instead raising questions about the impacts of poor driving

behaviour in the wider community on new generations of young drivers. A recent Transport Accident (TAC) road safety advertisement (“Strings”) taps into the importance of parents recognising that they act as role models for their children as future drivers (<https://www.tac.vic.gov.au/road-safety/tac-campaigns/tac-latest-campaigns#strings>). Findings from this study suggest that all drivers should view themselves as role models in assisting learner and new drivers to become safe, courteous, law-abiding (and less stressed) drivers. A recent Australian Transport Safety Board (ATSB) review of young drivers found that lack of experience and limited ability and judgement contribute to young people being at greater risk on the roads (findings cited by TAC: <http://www.tac.vic.gov.au/road-safety/tac-campaigns/young-drivers/strings#strings>). The influence of poor driving in the community in general appears not to have been investigated as a possible contribution to young people’s “lack of experience and limited ability and judgement”. Findings from this study suggest that the behaviour of other drivers may contribute to what is generally viewed as a ‘deficit’ among young people.

Theme 5 comments (driving is faster, more convenient and safer than public transport or walking) were effectively the ‘flip-side’ of Theme 3, with most comments referring to the ‘necessity’ of driving when other modes are unavailable, considerably slower or unappealing.

An interesting feature of these five key reasons for delaying/obtaining a driver’s license (together with a number of additional themes with a relatively small number of responses) is their inter-relatedness. As identified in Section 4.2.20 (young people’s perceptions of a liveable community), mobility is very important to young people, as is travel mode choice; with many inter-related factors impacting on these choices. Many young people appear to be fairly flexible in their travel mode choices, and appear to be amenable to being ‘nudged’ (Thaler and Sunstein, 2008) into using active, sustainable transport modes, provided these alternative modes are accessible and appealing. Findings from this study suggest that some of the perceived community pressure for more, better, faster, less congested roads is due to lack of feasible travel mode choices. Based on findings from this survey, it would be a mistake to equate mobility with driving a car for this generation of young people, and to continue to prioritise driving over other travel modes.

Most associations between young people and driving in the media and in public perceptions are in relation to dangerous, risky driving. However, findings from this analysis present a picture of many young people taking road safety very seriously, and being concerned about their own safety and that of other road users. Many young people support road safety measures, and others are let down by the behaviours of older drivers who are seen to be setting a poor example by modelling aggressive and dangerous driving to the extent that a number of young people are put off driving. Current discourses that focus on dangerous driving by young people rather than the majority of young drivers who are responsible drivers may be contributing to an element of ‘normalising’ dangerous driving for young people.

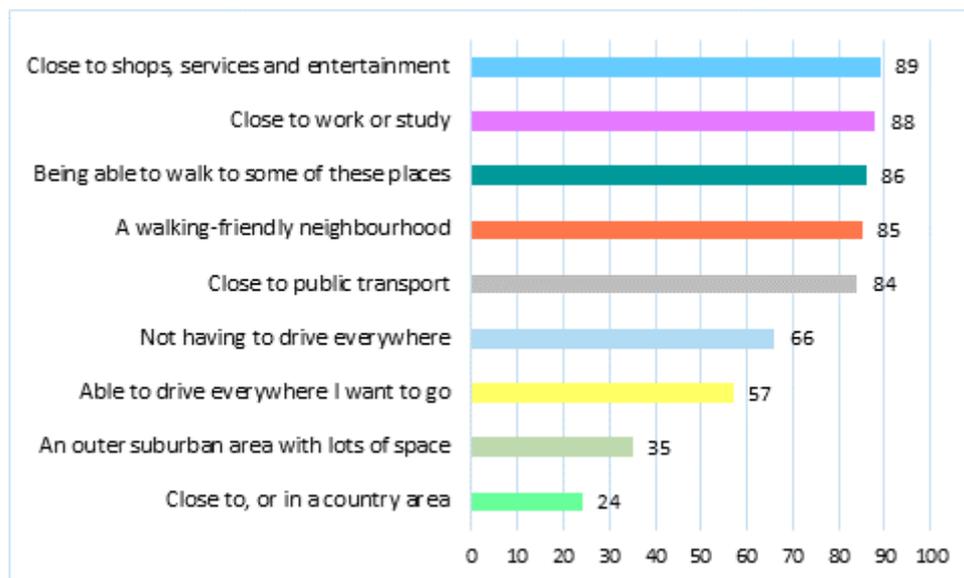
#### 4.2.19 Young people’s preferences for where they would like to live in the future

In the context of current debates about planning for Melbourne’s rapidly growing population, young people were asked for their views about the type of neighbourhood they would like to live in in the future. The vast majority of young people considered it important to be close to shops, services and entertainment; work or study; and public transport (Figure 46). There were also high levels of support for being able to walk to these destinations and for a walking-friendly neighbourhood in general.

Two-thirds of young people would like to live in a neighbourhood where they didn’t have to “drive everywhere”, though more than half (57%) wanted to have the *option* of being able to drive everywhere they want to go.

At first glance, some of these preferences might appear to be inconsistent, but findings from a follow-up open-ended question exploring young people’s views on what comprises a liveable community indicate that young people prefer to have access to travel mode *choices* (ie walking, public transport, driving) depending on the nature of specific trips (particularly distance, and time of day/night) (see Section 4.2.20).

Fewer young people expressed a preference for living in an outer suburban area (35%) or close to, or in a country area (24%).



**Figure 46: “Where would you like to live?” (% Very Important or Important)**

There were few gender differences in neighbourhood preferences, with the exception of more young women considering it important to live in a walking-friendly neighbourhood, possibly because recreational walking is more appealing to young women than young men. This difference might also be related to young women currently being constrained from walking at night due to concerns about their personal safety (see Section 4.2.9), and consequently expressing their desire for a walking-friendly neighbourhood that includes safe walking for young women after dark (Table 15).

In terms of age differences, 18 – 20 year-olds were more likely than 15 – 17 year-olds to consider it important to live close to public transport, while 15 – 17 year-olds considered it more important to be able to drive everywhere they wish to go. These age differences in preferences for driving or public transport might reflect the older group's greater experience of the realities of driving, including the costs of learning to drive and obtain a driver's license, and traffic congestion (see Section 4.2.17). It may be that the experience of driving is less positive than anticipated among younger non-drivers, though this tentative proposition requires further investigation.

**Table 7: "Where would you like to live?" (% Very Important or Important)**  
(p-values: ≤0.05\*; ≤0.01\*\*; ≤0.001\*\*\*; ≤0.0001\*\*\*\*)

	Total	Gender		Age	
		Female	Male	15 – 17 Years	18 – 20 years
Close to public transport	84	85	82	82*	88
Close to work or study	88	89	84	87	89
Close to shops, services and entertainment	89	88	88	87	89
Being able to walk to some of the above places	86	88*	81	85	86
Close to, or in a country area	24	24	23	23	26
Able to drive everywhere I want to go	57	57	56	61***	50
A walking-friendly neighbourhood	85	87**	79	85	85
Not having to drive everywhere	66	66	66	65	69
An outer suburban area with lots of space	35	36	31	34	36

#### 4.2.20 Young people's perceptions of a liveable community

The final content-related question was the open-ended question:

*Please complete the following sentence: "I think a liveable community in one where....."*

Young people (n = 713) provided responses of varying length ranging from one word to several sentences. All responses were read to identify emergent themes, resulting in 18 themes. All responses were then re-read and coded into these 18 themes. A total of 1287 coded responses resulted, with a mean of 1.8 coded responses per survey participant who provided a response to this question.

The 18 themes, a brief description, the number of times each theme was mentioned, and the percentage of coded responses for each theme are summarised in Table 16.

**Table 16: Characteristics of a liveable community**

	Theme	Brief description	Count	Percentage <sup>21</sup>
1	A safe community	Is safe, feels safe, safe after dark, safe in all public places, safe to walk, safe to use public transport, safe for all (gender, age, ethnicity), low crime rate.	353	27
2	A community with good, accessible, affordable facilities and services	Good access (also see 11-14) to shops, restaurants, entertainment, medical facilities, recreational facilities, education (also see 15), employment.	218	17
3	A friendly, connected community	People are friendly, kind, caring, helpful, considerate, welcoming, socially connected, engaged in community life, look out for one another.	190	15
4	A pleasant, green, natural environment	Access to parks, nature, open spaces, reserves, playgrounds, attractive scenery, places to roam (including in high density urban areas).	99	8
5	A clean, tidy, well-maintained community	A clean, tidy, well-maintained community	72	6
6	Accessible and affordable public transport	Accessible and affordable public transport	70	5
7	An inclusive community	A diverse, tolerant, inclusive, respectful community where all people live in peace and harmony.	48	4
8	Good active transport infrastructure and access to places	Safe, accessible walking (mainly) and cycling infrastructure (also see 14).	44	3
9	A range of mobility options	Access to a range of mobility options, travel mode choice and opportunities, easy to get around.	37	3

<sup>21</sup> Percentage of coded responses.

	Theme	Brief description	Count	Percentage
10	A sustainable, environmentally friendly community	A sustainable, environmentally friendly community	26	2
11	A vibrant, interesting community	Lots of things happening, interesting activities and places, entertainment, things to do.	26	2
12	A happy community	People are happy, comfortable, have a sense of wellbeing.	25	2
13	A trusting community	People are both trusting of others, and can be trusted themselves.	21	2
14	Freedom, independence, privacy	Freedom, independence, privacy	19	1
15	Access to education	Access to schools, education.	15	1
16	Affordable housing	Affordable housing, cost of living.	10	1
17	A good road system	A good road system	7	1
18	Other	For example, a pet-friendly community	7	1

The following section describes and discusses these 18 themes.

#### 4.2.20.1 A safe community

The most frequently mentioned theme (n = 353, 27%) referred to being safe and feeling safe in the community. While most young people did not refer specifically to personal safety or traffic safety, the context of their comments indicates that most were referring to personal safety, as many comments were about being safe after dark, safety for all community members (including all ages, women, CALD groups), being safe in all public places (including outside the home, when walking or using public transport), and a community with a low crime rate, and/or adequate community policing. A small number of comments referred to traffic safety.

Many comments referred to “feeling safe”, indicating that it is likely that the *perception* that places, times or activities are safe may be as important as, or more important than actual rates of crime or threatening incidents (also see Section 4.2.9). “Safety” comments were also frequently linked to the three themes of (a) a friendly, connected community; (b) a trusting community; and (c) an inclusive community; suggesting that these three elements of a liveable community also make the community safe and perceived to be safe.

Examples of comments about a safe community that illustrate these elements of a safe community include:

*"I feel safe and happy and go home to protection and love."*

*"People don't feel afraid walking after dark."*

*"I can feel safe and grow old happily."*

*"I feel safe walking by myself."*

*"People aren't scared of being attacked, threatened, robbed or raped."*

*"I feel safe to walk around my neighbourhood. For example I need to check the letterbox right now but there are 2 drunk men outside my house, swearing loudly and shoving each other. Nobody should have that outside their home."*

*"Kids can go out by themselves and be safe."*

*"It's not dangerous."*

*"I feel safe and secure on the streets without needing to stress about if I may be attacked."*

*"Where you don't have to worry about your safety."*

*"Where one will be able to be outside without feeling unsafe."*

*"Women aren't attacked."*

*"There are no 'danger zones' as such and there is a freedom to be able to go anywhere without fear."*

*"You can feel safe to walk day and night, and if you were in trouble you feel safe enough in your own local community to go knock on a stranger's door and they will help you - not just turn you away like most people do these recent years."*

*"Every community member feels safe."*

*"I don't have to be afraid of walking at night."*

*"You don't have to worry about what might be around the corner."*

*"I think a liveable community is one where you are not afraid to walk down the streets to the shops, everyone is able to be nice and kind to each other and able to feel safe all the time."*

*"It is safe for all ages."*

*"I feel safe, especially from racially motivated discrimination."*

*"You aren't assaulted for simply being outdoors at the 'wrong time of the day'."*

*"I'm not scared when leaving the house."*

*"You can relax outside of your home. You can also walk at night."*

*“People feel safe at any time of the day and can walk freely without fear of being attacked, abused or run over.”*

*“People feel safe and happy to live and be present without fear of any attacks or unpleasant incidents.”*

*“No one is afraid to go outside without the constant fear of being followed or threatened.”*

*“You don't feel fearful just because you're walking around at night.”*

*“You can walk safely at night. There is a social consensus that women are just people. Not objects to holler at for sexual favours.”*

*“You don't have to sort [of worry] about the safety of you or your kids if they want to play in your front yard or go for a walk or ride around the block.”*

*“I think a liveable community is one where an adolescent is safe to roam around without a parent constantly worrying and stopping them from doing things.”*

*“You are able to go about your business without feeling threatened by others.”*

The above three comments illustrate that safety is not simply safety from harm, but safety to do things that young people value without fear and without restrictions on their movements or activities (self-imposed or from parents). As discussed in Theme 2 below, independent mobility is very important to young people, as it is the means of participating in all aspects of community life as they move into adulthood. It is therefore understandable that safety concerns that restrict young people's independent mobility have a substantial impact on many other elements of a liveable community for young people (ie being able to access shops, services, community facilities, entertainment, education, employment, recreation and the natural environment – see Theme 2).

A few young people's comments referred specifically to traffic safety, for example:

*“People watch out for pedestrians on the roads, not try and go too fast or run them over.”*

*“I think a liveable community is one where there are kids safely riding their bikes out on the street.”*

In addition, the comment that *“You feel safe no matter what form of transport you take”* suggests that personal safety is perceived to vary for different transport modes; with young women in particular feeling more exposed and vulnerable when walking or using public transport, especially after dark, or in isolated areas with few people (see Section 4.2.9). These concerns restrict young people's travel mode options and choices, and possibly their ability to get to some places at all, if they are unable to travel by car.

The perception that, in order to feel safe, young people need to use a car to travel to some places at some times may help to explain the somewhat surprising finding that young women sometimes have more positive attitudes to cars and driving than young men (see Section 4.2.17), and are more likely than young men to seek and obtain lifts from parents or

friends (see Section 4.2.16). As discussed in Section 4.2.9, young women express higher levels of personal safety concerns than young men.

#### **4.2.20.2 A community with good, accessible, affordable facilities and services**

The second most frequently mentioned response (n = 218, 17%) referred to a liveable community being one where young people are able to access good facilities, services, shops, restaurants, entertainment, medical facilities, recreational facilities, education, and employment. However, many young people's comments indicated that they didn't wish to actually live in the midst of these services, but rather, to be able to access them from lower-density residential areas that were perceived to be pleasant, green, peaceful and private (see Theme 4).

There was very little support expressed in these young people's comments for high-density living. The emphasis was on *access* to services, facilities and activities, with some young people referring to "20-minute" neighbourhoods and centralised activity "hubs" that can be readily accessed from lower-density residential areas via a range of travel modes. In fact, many young people indicated that a liveable community is one where these services, facilities and activities can be accessed by walking, cycling or public transport, rather than requiring car travel. Once again, independent mobility via a range of travel mode options is considered important.

Examples of these comments include:

*"You feel protected and safe within the neighbourhood with a nice range of parks, open/bushland/park etc spaces, but can still commute to the city and locally have everything you need in terms of shops, restaurants etc."*

*"There is ready access to everything I need."*

*"Everything you need is provided within walking distance of your place of residence (eg - shops, cafes, public transport)."*

*"Services required such as shops, doctors, hospitals etc. are easily accessible."*

*"I have access to everything I need to live on within walking distance (eg supermarket)."*

*"Everything is accessible without having to drive, either within walking distance or lots of public transport."*

*"I feel safe and is accessible to places I want to visit without relying on my parents to drive me there."*

*"You are connected to all the resources you need, but live in an area that is not congested heavily by traffic."*

*"All appropriate amenities are nearby and can be accessed easily either by car or public transport."*

*“People can be connected to the main space easily no matter where they are. Shouldn't have to drive more than 10 minutes to reach the hub. The hub should be drive free with plenty of community activities, like youth clubs, churches, restaurants, health centres etc.”*

*“Necessary amenities (such as health care, retail, entertainment) are easily available to everyone.”*

*“Everything is accessible. I don't mean I want a cramped living space with everything very close because there's shops and shit like that, but it's just easy to get to.”*

#### **4.2.20.3 A friendly, connected community**

The third most frequently mentioned theme (n = 190, 15%) referred to a liveable community being one where people are friendly, kind, caring, helpful, considerate, welcoming, socially connected, engaged in community life, and look out for one another.

Accordingly, a liveable community is one with:

*“Kind people.”*

*“Warm and friendly people.”*

*“Everyone is friendly and looks out for each other.”*

*“People are friendly and you can feel safe leaving your house.”*

*“There are families and neighbourhood looking out for each other and not just themselves.”*

*“Everyone looks out for one another.”*

*“People care more about each other's' needs than their own.”*

*“People can just live their lives in a friendly, cooperative environment, and neighbourly interaction is frequent.”*

*“You have educated and friendly people around you that are productive and are willing to encourage you to a good path.”*

*“There is a sense of community, people are out and about socialising, supporting local business, spending time with family and being outdoors.”*

*“Everybody knows everybody, and when the holidays come around the kiddos are all out having a good time with each other cos their parents know it's safe.”*

*“People feel like the place they live is actually a community, where you know people as you walk down the street and feel good to say hello to them etc.”*

*“There is actually a sense of community, through events and kindness in passing.”*

*“All community is together as one.”*

*“Where everyone knows everyone and it's an overall safe little quaint place.”*

*“Neighbours all know each other.”*

*“There is strong community feel.”*

*“There is communication and friendship between neighbours.”*

*“The people are friendly and you feel safe.”*

The above comment illustrates the connection that many young people made between friendly, caring community members and feeling safe. These attributes appear to act as ‘cues’ to young people that are used to assess whether or not public spaces are safe for them to move around in (also see Theme 1 above).

#### **4.2.20.4 A pleasant, green, natural environment**

The fourth most frequently mentioned theme (n = 99, 8%) referred to a liveable community being one with access to parks, nature, open spaces, reserves, playgrounds, attractive scenery and places to roam and relax. While many young people appeared to associate these characteristics with low-to-medium density suburban or rural living, a few young people commented that pleasant, green, natural environments can also be provided within higher density urban areas.

Examples of comments include:

*“There is a lot of natural beauty.”*

*“The surrounding area maintains a good amount of greenery (trees, greens trips, parks, reserves, etc.) and creates a nice, relaxed environment that people feel they can come to to unwind, hangout, socialise, think, laze around, etc.”*

*“There are trees and parks, making outside a nice place to be.”*

*“Nice parks for sport, recreation and dogs.”*

*“There is ample green space. With growing urban density and an increasing number of high-rise buildings, this has become vital. I believe it is the key to our positive wellbeing in this stress-stricken world.”*

*“There is lots of greenery and you can feel like you're out in the bush without being isolated.”*

*“Lots of parks.”*

*“There is plenty of suburban vegetation to create a pleasant environment.”*

#### **4.2.20.5 A clean, tidy, well-maintained community**

Somewhat related to the above theme of a pleasant, green, natural environment is the perception of a liveable community being one that is clean, tidy and well-maintained (n = 72, 6%). These characteristics also appear to contribute to young people’s feelings of safety

in public places, as young people tended to link these themes in their responses (see Theme 1). This relationship forms the basis of the “broken windows” approach to neighbourhood crime prevention (Hinkle and Weisburd, 2008).

Young people’s comments under this theme included both the aesthetic and functional attributes of a clean, tidy, well-maintained community, for example:

*“People are free to walk...in a fresh, clean and pleasant neighbourhood.”*

*“The neighbourhood is peaceful and clean.”*

*“Keeping the neighbourhood clean is important and people don't litter.”*

*“The streets are clean and well maintained, well-lit paths to walk on in the late afternoons or early mornings.”*

*“The roads and footpaths are kept nice and tidy.”*

#### **4.2.20.6 Accessible and affordable public transport**

A number of young people (n = 70, 5%) described a liveable community as one that has good access to public transport. As described in Theme 2, young people require access to community facilities, services, shops and entertainment, but they generally prefer not to live within or next door to these commercial and service centres. When these destinations are not within walking distance, many young people rely on public transport to access them. Public transport therefore provides for independent mobility for young people who cannot or do not drive a car or get a lift from family or friends for the longer distance trips that are not feasible for walking (or cycling).

Examples of comments include:

*“Public transport is convenient for access.”*

*“There is easy access to public transport.”*

*“Public transport and walking routes are reliable and safe.”*

*“It has adequate public transport (in a country town) to travel to and from your work place.”*

*“It is safe and efficient and easy to get around by walking and public transport.”*

*“Shops, restaurants and conveniences are close, with options for public transport.”*

*“I think a livable community is one where people can feel safe at any time, you are close to shops and you have public transport nearby.”*

#### **4.2.20.7 An inclusive community**

A number of young people stated that a liveable community is one that is inclusive, tolerant, and respectful of diversity, and where all people live in peace and harmony (n = 48, 4%). This theme has much in common with Theme 3 (A friendly, connected community), but

comments coded under this theme made specific reference to diversity and inclusion. Some comments were fairly general, while others referred to specific segments of the population, including culture, race, religion, gender, disability, age, appearance, sexual orientation and lifestyle. Examples include:

*“Everyone and everything live in harmony.”*

*“All people can live in harmony and safety.”*

*“Where people don’t hate each other for absolutely no reason.”*

*“People can live in peace and harmony without worries.”*

*“Where all cultures/races/religions are accepted as one and everyone can get along.”*

*“Everyone is kind and in peace and harmony with no fear hanging over anyone’s heads.”*

*“People feel like they are safe and accepted.”*

*“Everyone can get along, the way you are doesn’t matter and everyone can trust and put their differences behind them and work as one sustained community.”*

*“All people in the community are included and feel safe and welcome.”*

*“Different people are able to have different lifestyles while living in the same space.”*

*“People, especially women and people of color, feel consistently safe with all people, at all places and during all times of the day.”*

*“You can walk without being judged, people say hi back to you and don’t look at you bad, also one that had a lot of safe houses that you can go to if you feel threatened.”*

*“You can feel safe at any time, regardless of gender, sexual orientation, religion, or any other factors.”*

*“I can practice my religion without fear of prejudice or discrimination, or being verbally or physically abused by other people.”*

*“The less fortunate have access to the help they need.”*

*“Many different cultures, disabilities, and genders are safe, respected, and welcomed.”*

*“There is a kind community of people with excellent accessibility for people with disabilities.”*

#### **4.2.20.8 Good active transport infrastructure and access to places**

A number of young people stated that a liveable community is one that provides young people with independent mobility through good active transport infrastructure (n = 44, 3%). Most references were to good walking infrastructure, with cycling infrastructure mentioned occasionally. This theme is linked to both Theme 6 (Accessible and affordable public transport) and Theme 9 (A range of mobility options), in that all three themes are expressing

a preference for a range of travel mode options that enable young people to meet their diverse travel needs. Examples of comments include:

*"People are free to walk wherever they want."*

*"One where footpaths are in good condition so all ages can walk safely."*

*"Walking options are available."*

*"Both walking and driving is accommodated and work well together. It doesn't work well when traffic builds up and prevents public transport buses from getting through or when getting off the bus and having to wait 10 minutes just to cross the road due to roundabouts preventing anyone from crossing the road."*

*"Shops and schools are close to access so that less cars are used and walking is available to get to places."*

#### **4.2.20.9 A range of mobility options**

A number of young people (n = 37, 3%) stated that a liveable community is one that provides young people with access to a range of mobility options that make it easier for them to get around independently, especially for those who do not or cannot drive a car or get a lift from family or friends. While young people currently have lower rates of obtaining a driver's license than previous generations (see Section 2.1.6), data from this survey suggests that young people are not rejecting car travel per se, but rather rejecting the *dominance* of car travel and associated lack of alternative travel mode options.

This theme is closely linked to Theme 6 (Accessible and affordable public transport), Theme 8 (Good active transport infrastructure and access to places) and Theme 17 (A good road system). However, comments that were coded within this theme were those that specifically mentioned *choice* of mobility options.

Examples of comments include:

*"You can live not only by driving but by walking."*

*"There is a balance between different modes of transport, with emphasis on public transport and walking/cycling options."*

*"There's many ways to get around."*

*"There are a variety of ways to get to all locations."*

*"People are free to take their desired transport methods - bike, car, walk, bus etc."*

*"Everyone can get around no matter who they are and it's efficient and affordable."*

*"People are able to travel freely and in ways in which they prefer without fear or scrutiny; you aren't seen as lesser for not having a licence or walking."*

*"I think a liveable community is one where people are free to drive, catch public transport and walk to where they want to go with safety at all times."*

*“Everything can be accessed quickly and easily; by public transport, walking, cycling or driving.”*

*“You should feel encouraged and supported no matter how you get around whether it be car, bike or public transport. It’s where all of these things can work together to get people to where they want to go.”*

*“In a built up area where driving isn't your main form of transportation.”*

*“...people are able to travel anywhere with relative ease (e.g. maybe some walking or bikes, but cars aren't a necessity).”*

#### **4.2.20.10 A sustainable, environmentally friendly community**

A number of young people (n = 26, 2%) stated that a liveable community is one that is sustainable and where the environment is protected. This theme is linked to Theme 4 (A pleasant, green, natural environment); however comments that were coded within this theme were those that specifically referred to sustainable living and environmental protection. Examples of comments include:

*“I'd also love it to be as Eco-friendly as possible.”*

*“People respect...the environment.”*

*“Energy is sustainable and the environment is clean.”*

*“Others care about the impact they are having on the environment, they don't drive everywhere.”*

*“Everyone gets along peacefully and look after the environment.”*

*“Nature is cared for, and it's NOT built around cars.”*

*“Can live a life of balance between driving and walk while being environmentally sustainable. The environment is so important to consider.”*

*“Traffic is not congested every workday morning and evening due to people driving by themselves to work and not carpooling, getting public transport etc.”*

#### **4.2.20.11 A vibrant community**

A number of young people (n = 26, 2%) stated that a liveable community is one that is a vibrant, interesting community with lots of things happening, interesting activities and places, entertainment, and things to do. Examples of comments include:

*“It's crowded and has a street vibe to it. Urban with everything nearby.”*

*“There is a variety of entertainment options.”*

*“PARTY AND ENTERTAINMENT WOOOOOO.”*

*“Community events.”*

*“There is life around. Homes, cafes and shops are close to each other and people are walking around regularly. The area is nice and easy to get around in (driving or walking) and is well lit at night.”*

*“There is a hub of cafes, entertainment, and other such things.”*

#### **4.2.20.12 A happy community**

A number of young people (n = 25, 2%) stated that a liveable community is one where they, and people in general are happy, comfortable, and have a sense of wellbeing. This theme is linked to Theme 3 (A friendly, connected community); however comments that were coded within this theme were those that specifically referred to happiness or other aspects of wellbeing.

Examples of comments include:

*“People are happy, talking to each other, able to get outside and enjoy their neighbourhood.”*

*“People are happy and healthy.”*

*“Everyone is happy.”*

#### **4.2.20.13 A trusting community**

A number of young people (n = 21, 2%) stated that a liveable community is one where people are both trusting of others, and can themselves be trusted. This theme is linked to Theme 1 (A safe community) and Theme 3 (A friendly, connected community); however comments that were coded within this theme were those that specifically referred to trust.

Examples of comments include:

*“A safe and trustworthy community.”*

*“You feel safe and trust the people around you.”*

*“No one trusts anyone anymore and it’s sad to see. We need to learn to establish more trust in our neighbours and local communities and learn to be kinder when out - even somewhere as simple as the local shops.”*

*“The neighbours are kind and trustworthy.”*

*“...trustworthy neighbours.”*

#### **4.2.20.14 Freedom, independence, privacy**

A number of young people (n = 19, 1%) stated that a liveable community is one where people have a right to freedom, independence and privacy. This theme is linked to Theme 7 (An inclusive community); however comments that were coded in this theme were those that referred more to individual rights than to community responsibilities to be tolerant and inclusive of diversity. Examples of comments include:

*“Everyone is free to live a lifestyle that suits them.”*

*"Freedom is everywhere!"*

*"Everyone feels safe to go where they want the way they want when they want."*

*"It is easy to do the things you want to do."*

*"You feel comfortable to live the life you choose with like-minded people."*

*"People are allowed their own initiative."*

#### **4.2.20.15 Access to education**

A number of young people (n = 15, 1%) stated that a liveable community is one where people have good access to schools and affordable education. This theme is linked to Theme 2 (A community with good, accessible, affordable facilities and services); however comments that were coded within this theme were those that specifically referred to access to educational services. Examples of comments include:

*"...access to schools."*

*"It is easy to walk .....to school."*

*"...where you can get good education."*

*"...where you can count on an outstanding education."*

#### **4.2.20.16 Affordable housing**

A number of young people (n = 10, 1%) stated that a liveable community is one where people have good access to affordable housing. Examples include:

*"There is a place to live (connected water/gas/electricity & covered roof), and an ability to afford all costs associated with living."*

*"Housing is affordable and has what I want, everything else is irrelevant."*

*"Affordable housing is a priority for people in this day and age."*

#### **4.2.20.17 A good road system**

A small number of young people (n = 7, 1%) stated that a liveable community is one that has a good road system, for example:

*"Plenty of freeway entrances and exits to alleviate traffic congestion."*

*"Great roads."*

*"Safe roads for driving places when necessary."*

#### **4.2.20.18 Other**

Among the small number of comments categorised as "Other" (n = 7, 1%) were comments such as:

*"There are less people who live in the community."*

*“Your neighbours aren’t too close.”*

*“Pet friendly.”*

*“Dog friendly.”*

*“Lots of cats!”*

#### **4.2.20.19 Young people’s perceptions of a liveable community - concluding comments**

In response to an open-ended question, 713 young people shared their perceptions of a liveable community. Overwhelmingly, for these young people, a liveable community is a community that is safe, and perceived to be safe so that community members can do the things they wish to do without fear of being threatened or harmed.

The importance of safety in public places is consistent with the second most frequently mentioned characteristic of a liveable community being access to good facilities, services, shops, restaurants, entertainment, medical facilities, recreational facilities, education, and employment. As young people’s activity horizons expand, they require safe, independent mobility to and from a range of destinations. In order to access these facilities, services and activities, young people require a range of travel mode options and choices, including walking, public transport, cycling and travel by car.

While many young people expressed a preference for these facilities and services to be within walking distance or accessible by public transport, it is important to note that they are not anti-car; rather they are pro travel mode choice. They are not rejecting the option of car travel, but they are rejecting car-dominance to the exclusion of other travel modes, and are looking for a better balance of provision for motorised and non-motorised travel.

It also appears that some young people’s preferences for walking or using public transport over car travel are overridden by concerns about personal safety when walking or using public transport, particularly after dark and for young women. For these young people, car use may be seen as the only safe travel option. This finding might help to explain the rather surprising survey finding that, on some measures, young women appeared to have more positive attitudes to cars and driving than young men (see Section 4.2.17).

Young people also express a strong desire to live in a community where people are friendly, kind, caring, helpful, considerate, welcoming, socially connected, engaged in community life, and look out for one another; where the community is inclusive, tolerant, and respectful of diversity, and where all people live in peace and harmony; and where people are both trusting and trust-worthy. For young people, these characteristics are not only valued in their own right, but also appear to be important in contributing to young people’s perceptions of a community that is safe for them to move about in.

Young people also value living in a pleasant, green, natural environment, with good access to parks, nature, open spaces, reserves, playgrounds, attractive scenery and places to roam and relax. A number of young people appeared to associate these characteristics with low-to-medium density suburban or (occasionally) rural living, suggesting that their preferred

living places are those that combine pleasant green outdoor spaces with good access to shops, facilities and services.

Conclusions and recommendations that draw on the three components of the study are presented in the following section.

## 5 STUDY CONCLUSIONS

The following study conclusions are based on key findings from the three phases of the study grouped according to the four study aims.

### 5.1 WHAT ROLE DOES WALKING PLAY IN YOUNG PEOPLE'S INDEPENDENT MOBILITY?

Independent mobility is important to young people as they transition from predominantly parent-supervised activities as children to more independent lifestyles as young adults. This transition is associated with young people participating in a wider range of activities in more diverse locations associated with education, work, entertainment, socializing, and accessing shops, services and public transport.

Findings from this study and related research suggest that both recreational and transport walking are largely functional for young people (ie used as a means to an end), though the 'functions' vary. Walking for recreation is generally not undertaken specifically for health and fitness (though health is considered a by-product of walking), but rather to relax, socialise, listen to music and take personal time out. It is therefore not surprising that recreational walking is supported by having safe, pleasant, interesting places to walk to; family and friends who encourage walking (often by accompanying young people on walks); good pedestrian infrastructure; and safe, natural, green, outdoor environments. Walking for transport, on the other hand, provides access to destinations such as school, work, university, entertainment, shops and services, and friends' houses; so walking is supported by living in close proximity to these destinations, with good well-lit walking infrastructure that provides safe, direct routes to destinations.

It is also important to note that young people's walking frequently involves walking to access public transport (see Section 4.2.3), and, consequently, in many instances, walking after dark (about 5.30pm in winter in Victoria), often in suburban residential areas with poor lighting. Safety concerns associated with these conditions are a major barrier to walking, as discussed in the following section.

### 5.2 WHAT OBSTACLES AND BARRIERS ACT AS CONSTRAINTS ON YOUNG PEOPLE'S WALKING?

One of the key obstacles to young people walking is concern about personal safety when moving around in public places. These concerns are substantially greater for young women than young men, and are of particular concern to young women when walking alone, after dark, and in some locations.

Concerns about walking at night appear not to be substantially alleviated by young people being confident of their ability to look after themselves when walking alone, as 69% of

young people agree that they are able to look after themselves when walking alone. The rather disappointing finding that many young people can be confident of their ability to look after themselves whilst also *feeling* unsafe highlights the importance of distinguishing between being safe and feeling safe, and recognising that both are important, and therefore both need to be addressed. These findings also highlight the limitations of expecting (and educating) young people to ensure their personal safety through their own agency when environments and other people play a major role in actual and perceived safety.

The 'safety measure' of young women avoiding walking alone in public places after dark restricts young women's independent mobility and consequently participation in public life; is discriminatory in that it is less likely to be required of young men; and can lead to victim-blaming of young women who are perceived to "choose to expose themselves to danger".

Young people's concerns about personal safety while walking appear to be influenced by their experiences, observations and communications about threats to safety while walking (via mass media, social media and parent and friends). These findings highlight the importance of achieving the right balance between informing and educating young people about how to be safe while walking, while avoiding causing undue alarm about the potential risks.

Qualitative data from comments young people made about personal safety while walking provide insights into what makes young people feel unsafe while walking. Many young people commented about feeling unsafe, anxious or fearful, primarily associated with walking at night; being female; being harassed while walking; walking alone; being vulnerable due to age, appearance, or circumstances; and being threatened or assaulted.

These findings highlight that behaviours that some men may perceive to be relatively harmless (eg catcalling, verbal and sexual harassment) are not perceived as harmless by many young women. On the contrary they are perceived as distressing incidents of sexual harassment, verbal abuse, and threatening behaviour that create fear, anxiety and feelings of vulnerability, and restrict young women's independent mobility. These forms of harassment of young women are not permitted in organisational and institutional settings, and neither should they be tolerated when directed at young women moving around in public places.

The finding that some young people (51% of young women and 35% of young men) agree that there are some places in their neighbourhood that they would not feel safe walking at any time, suggests that opportunities exist to identify these specific places and improve their safety. Accordingly, both community-wide and location-specific measures can be adopted to improve young people's safety and perceived safety.

Traffic safety appears to be less of a concern and constraint on walking than personal safety, although about half of young people expressed concerns about not being able to depend on drivers to obey the road rules, including not giving way at pedestrian crossings, and when turning left or right at intersections, and generally not keeping a careful look out for pedestrians.

Living in an area where common destinations such as school, university/TAFE, shops, services and entertainment are inaccessible by walking (greater than about 2km for the majority of young people) is also a constraint on young people walking. This was frequently seen to be the case in outer suburban areas and in some rural areas, where car travel (as passenger or driver) was considered essential for young people's mobility.

Lack of access to public transport is also a constraint on walking, as travel by public transport usually involves walking to and from bus, train and tram stops ([http://www.victoriawalks.org.au/PT\\_walking/](http://www.victoriawalks.org.au/PT_walking/)). Young people report that poor access to public transport occurs mainly in outer suburban and rural areas, and for cross-suburban travel in middle suburban areas; for example, to travel to school, university, entertainment, or to visit friends in neighbouring suburbs.

Young people place a high value on having access to pleasant, natural, green and attractive public places such as parks and reserves for walking, consistent with a key motivation for walking being for relaxation and stress-reduction. Consequently, the absence of green, natural, open public spaces is a constraint on walking.

Similarly, the absence of pleasant, interesting, safe walking routes (to a variety of destinations) is a constraint on young people's walking. This constraint includes non-existing, poorly lit, or poorly maintained footpaths. As is the case for public transport, poor walking infrastructure (apart from poor street lighting, which appears to be fairly widespread) is perceived to be more of a problem in outer suburban and rural areas.

Lack of direct routes to destinations was also a barrier, particularly when young people feel obliged to walk further to avoid unsafe or unpleasant areas.

### 5.3 WHAT SUPPORTS YOUNG PEOPLE WALKING, AND WHAT ARE THE OPPORTUNITIES FOR INCREASING WALKING AMONG YOUNG PEOPLE?

Young people's attitudes to walking are generally very positive, with high levels of agreement that walking is healthy, environmentally friendly, enables independent mobility, and represents a good way to get to know the neighbourhood and a relaxing way to get around.

The contribution of walking to young people's overall levels of physical activity is substantial, increasing from 40% for 15-17 year-olds to 49% for 18-20 year-olds, due mainly to a decrease in recreational physical activity with age. Walking for transport as a part of daily life therefore provides an opportunity for young people to remain active into adulthood as a counter to the decline in recreational physical activity that occurs with age (Australian Bureau of statistics, 2013).

The incidental nature of physical activity in the form of walking for transport can assist in "nudging" (Thaler and Sunstein, 2008) otherwise relatively inactive population groups such as young women, "non-sporty" young people, and disadvantaged young people into becoming more physically active by creating supportive environments that "make the healthy choice the easy choice" (Ewles and Simnett, 2005). Walking for transport therefore

improves the health of young people, and contributes to reducing inequalities in physical activity participation, and consequently, inequalities in health (Turrell et al., 2006).

Many young people are prepared to walk reasonable distances to get to destinations, with 82% of young people prepared to walk 1.2 km or more, and 40% prepared to walk 2 km or more. These distances provide access by foot to many destinations in medium-density suburban areas without the need to live in high-density urban areas. Many young people value access to places such as shops, services, entertainment, education and work, but prefer not to “live on top of, or next door to” these places. Access to natural, green, pleasant outdoor spaces is also important (see below), and these may be perceived to be limited in inner-city areas.

Key motivations for recreational walking for young people are psychological benefits in the form of relaxation, stress reduction, and improved mood, including “just to get out of the house for a while”. Contrary to some previous study findings, young people largely recognize the health benefits of walking for transport, though nearly half of young people prefer more vigorous forms of activity than walking if their aim is to improve fitness.

Increases in recreational walking are likely to be achieved through messages that focus on the emotional and social wellbeing benefits of walking, and the provision of pleasant and interesting places to walk; while increases in walking for transport are likely to be achieved by creating environments and walking conditions that enable more young people to get to more places by foot more often. Key measures for establishing safe walking environments include the provision of adequate street lighting, particularly in suburban residential areas; safe and well-maintained footpaths and walking tracks and trails; and safer driver-pedestrian interactions. However, there is some overlap in the conditions that support both utilitarian walking and recreational walking, in that young people also prefer pleasant, safe and interesting walking routes to destinations.

The opportunity to combine exercise time with travel time is also likely to be appealing to young people, as about half of young people (48%) agree that they are often too busy to find time for exercise.

There are also opportunities to increase walking by encouraging and supporting the social aspects of walking (ie walking with parents or friends), though less so through walking events (eg fund-raising), a challenge or a game, especially for the older age group (18 – 20 years). The social aspects of everyday walking appear to be more important than specific walking events.

Good access to public transport for trips that are too far to walk also promotes higher levels of walking than does motor vehicle use for these trips ([http://www.victoriawalks.org.au/PT\\_walking/](http://www.victoriawalks.org.au/PT_walking/)). As noted above, most young people have a positive attitude to using public transport when it is available, and public transport access appears to support delayed license-holding among young people. Improving public transport in outer suburban areas, rural and regional Victoria, and for trips between suburbs

(which are often possible, but very indirect and time-consuming) is likely to lead to more young people delaying obtaining a driver's license, driving less, and walking more.

As discussed below, improving personal safety (and perceptions of personal safety) will assist more young people (particularly young women) to walk more. While young women would like other people to behave more respectfully and safely around them, they appear to accept a high degree of personal responsibility for ensuring their safety while walking in public places (ie, remaining vigilant; avoiding walking alone, after dark, or in 'unsafe' places; and acquiring and using protective measures). The provision of school and community-based personal safety skills programs and resources will assist young people to both be safe and feel safer while walking.

Assisting more young women to walk in more places at more times without the necessity for accompaniment will support more young women walking, including for accessing public transport. The types of verbal abuse and harassment described by many young women in this and other studies (Plan International Australia, 2016) are no longer permitted in organisational and institutional settings, and neither should they be tolerated when directed at young women moving around in public places.

It appears that, currently, an optimal balance of individual and social responsibility for establishing walking environments and conditions that are both safe and *feel* safe has not been achieved. Young people moving around by foot in "liveable communities" should not have to restrict their movements or be constantly vigilant to possible threats in ways that substantially detract from the utility and enjoyment of walking for recreation or transport. Interventions aimed at establishing supportive physical/built, social/cultural, and policy/regulatory environments are needed to complement and support individual behavioural measures.

Young people's levels of agreement with eleven suggested measures for increasing walking were consistent with both motivations for walking and safety concerns. Items with the highest levels of agreement were aesthetic factors; namely, having pleasant and interesting walking routes (89%) and nice parks or reserves nearby (80%). These environmental characteristics presumably assist young people to relax and calm down when stressed, angry or anxious, and to "get out of the house for a while", which are key motivations for walking as described above.

Consistent with high levels of concern about walking at night, 78% of young people agreed that making walking safer after dark would encourage them to walk more. The majority of young people also agreed that a clean and tidy neighbourhood (66%), having a direct route (61%), more footpaths (56%), and more people out walking (50%) would encourage more walking.

Young people's responses to an open-ended question about improving walking conditions in their community (n = 273), indicated that improving traffic safety for pedestrians was also considered important, with many young people expressing frustration at risky driver behaviour, which is often perceived to receive low priority in terms of road infrastructure,

driver education and policing of driver behaviour. These concerns impact on young people's safety and also their perceptions of safe and pleasant places to walk.

As is the case for personal safety, most young people have been taught by parents, in schools and in the wider community that they must walk carefully, safely and defensively; anticipating driver errors (including failure to give way to pedestrians when required); and avoiding making "one false move" (Hillman, 1993).

Australia's National Road Safety Strategy is based on establishing a Safe System framework of safe roads, safe road users, safe speeds, and safe vehicles that are 'forgiving' of the occasional mistakes made by road users. However, currently Australia's road safety strategy is more forgiving of driver mistakes than pedestrian mistakes, with a recent review of the strategy recommending a greater focus on the safety of vulnerable road users such as pedestrians (Lydon et al., 2015; Bailey and Woolley, 2017). As is the case for improving personal safety, improved road safety for pedestrians requires both individual behaviour change and environmental, social/cultural, and policy/regulatory change.

The rather disappointing finding that 40% of young people did not agree that they can trust most people in their neighbourhood is also likely to contribute to safety concerns while walking. Strategies that facilitate community participation, community engagement, tolerance of diversity, and sense of community belonging can assist in creating the sort of liveable communities that young people wish to live in (see below).

As noted above, creating opportunities for walking for transport also involves understanding young people's access to car travel as an alternative to walking. Being "car-free" for young people is facilitated by good access to public transport, good walking infrastructure, safe walking conditions (well-lit neighbourhoods and well-maintained footpaths) and common destinations that are accessible by foot or public transport.

Delayed driving and the availability of alternative active travel modes are mutually interactive in that delayed driving is facilitated by the ability to walk or use public transport to travel to destinations; while in turn, lack of a driving license or access to a car facilitates more walking and use of public transport.

Thematic analysis of 247 young people's comments about young people and driving indicates that delayed license-holding, and delayed car ownership and use is influenced by the high costs associated with owning and driving a car, and the requirement for 120 hours of supervised driving for learner drivers, which was reportedly difficult for both young people and parents.

Young people also delay obtaining a driver's license because driving (and learning to drive) is perceived as being dangerous, unpleasant, or stressful. Young people commented that traffic conditions in urban areas create anxiety and insecurity, and engender a lack of confidence in their ability to keep themselves and other road users safe while they are driving. These comments included difficult, stressful traffic conditions; observing dangerous driving while on the roads; learner and probationary drivers experiencing harassment and impatience from licensed drivers; congestion; way-finding under pressure (eg navigating

into the correct lane, poor directions, other drivers failing to give way); media reports of traffic casualties; and media and public attention on “dangerous young drivers”.

Traffic congestion and parking in built-up areas were also mentioned as constraints on driving. As described below, most young people are not ‘anti-car’, with a number of comments referring to situations where cars are considered to be essential, particularly in country areas and for cross-suburban trips that are too far to walk and too slow to use public transport. On the contrary, many young people favour travel mode choice (ie based on trip purpose, distance, time and place) rather than being dependent on “driving everywhere”.

The availability of appealing, safe travel mode options and choices is the key factor that distinguishes developed countries with high rates of both car ownership and active transport (mainly in Europe and Asia) and the more car-dependent countries such as Australia that have low rates of active transport. Many young people in this study appeared to be expressing a preference for the former type of transport environment (also see “Young people’s perceptions of a liveable community” below).

#### 5.4 WHAT ARE YOUNG PEOPLE’S PERCEPTIONS OF A LIVEABLE COMMUNITY?

Young people’s preferences for the type of area they would like to live in, and, relatedly, their perceptions of a liveable community were assessed using a closed-ended question and an open-ended question respectively in the online survey.

Based on responses to the closed-ended question, the majority of young people would prefer to live in a walking-friendly neighbourhood (85%); that is, one where they are close to shops, services, entertainment (89%), work or study (88%) and public transport (84%), with the option of walking to many of these destinations (86%) and “not having to drive everywhere” (66%).

These responses indicate that most young people prefer to live in places that have good access to education, work and services, whilst also providing access to natural, green, open spaces (see below). For the majority of young people this combination of built services and natural spaces precludes living in “an outer suburban area with lots of space” (35%). The combination of good access to a variety of services and to natural spaces is consistent with their preferences for having a choice of active and motorised travel modes to access these destinations and places.

In response to the final open-ended survey question, 713 young people shared their perceptions of a liveable community. Overwhelmingly, for these young people, a liveable community is one that is safe, and perceived to be safe so that community members can do the things they wish to do without fear of being threatened or harmed.

The importance of safety in public places is consistent with the second most frequently mentioned characteristic of a liveable community being access to good facilities, services, shops, restaurants, entertainment, medical facilities, recreational facilities, education, and

employment. As young people's activity horizons expand, they require safe, independent mobility to and from a range of destinations.

Many young people's preferences for these facilities and services to be within walking distance or accessible by public transport is indicative of young people's desire for travel mode choices. Many young people appear to be rejecting car-dominance to the exclusion of other travel modes, and are looking for a better balance of provision for motorised and non-motorised travel.

It also appears that some young people's preferences for walking or using public transport over car travel are overridden by concerns about personal safety when walking or using public transport, particularly after dark and for young women. For these young people, car use may be seen as the only safe travel option. This finding might help to explain the rather surprising survey finding that, on some measures, young women appeared to have more positive attitudes to cars and driving than do young men.

Young people also express a strong desire to live in a community where people are friendly, kind, caring, helpful, considerate, welcoming, socially connected, engaged in community life, and look out for one another; where the community is inclusive, tolerant, and respectful of diversity, and all people live in peace and harmony; and where people are both trusting and trust-worthy. For young people, these characteristics are not only valued in their own right, but also appear to be important in contributing to young people's perceptions of a community that is safe for them to move about in.

Young people also value living in a pleasant, green, natural environment, with good access to parks, nature, open spaces, reserves, playgrounds, attractive scenery and places to roam and relax. A number of young people appeared to associate these characteristics with low-to-medium density suburban or (occasionally) rural living, suggesting that their preferred living places are those that combine pleasant green outdoor spaces with good access to shops, facilities and services.

As described above, many elements of young people's perceptions of a liveable community reflect the interconnectedness of planning, transport, the environment, community safety, social life, education and employment. The voices of these young people are expressing a desire for the type of communities that are well-established in a number of OECD countries (particularly in Western Europe and developed Asian countries such as Japan), and talked about and recommended in countries like Australia, but rarely implemented. Hopefully the voices of young people will assist in the establishment of liveable communities for the current generation of young people as they move into adult life.

## 6 RECOMMENDATIONS FOR INCREASING WALKING FOR YOUNG PEOPLE

Based on the study findings, the following recommendations are proposed.

### 6.1 WALKING PROMOTION

1. Health promotion messages aimed at increasing recreational walking for young people should focus on:
  - a. The psychological and social wellbeing benefits of walking.
  - b. The flexibility, convenience and low cost of walking.
2. Health promotion messages aimed at increasing walking for transport for young people should:
  - a. Highlight the cost, convenience, health, environmental and community benefits of walking for transport.
  - b. Recognise the different influences on walking for:
    - i. Children, adolescents and young adults.
    - ii. Young women and young men.
    - iii. Recreational and transport walking.
    - iv. Different trip purposes, times and locations.
  - c. Be based on an understanding of the advantages and disadvantages of walking, driving and using public transport (including buses, trains and trams) in order to maximise the advantages of walking (and public transport use) and minimise the barriers to walking (and public transport use).
  - d. Be well informed of the systematic and structural pressures and social context that impact upon young people's decisions to walk for transport.
3. Develop a program to encourage and support young women, particularly those who are not involved in sport, to walk in their neighbourhood and engage in their local community, that can be implemented in local settings.
4. Work with education providers and/or youth mentoring programs to develop active travel programs to help maintain or establish a 'habit' of walking during periods of transition for young people, such as from primary school to secondary school; secondary school to higher education; and participation in paid employment. This could be complementary to programs seeking to increase social connection during times of transition (eg "walking buddies" programs.)

### 6.2 URBAN PLANNING AND DESIGN

5. Provide safe, realistic and appealing alternatives to car travel in the form of high level of service walking, bicycle paths, and public transport networks between suburban hubs, as well as in and out of city centres, to provide opportunities for independent travel and support delayed license-holding among young people.

6. Establish walking-friendly communities that provide access by walking to education, work, shops, services, entertainment, public transport, and interesting, pleasant and relaxing parks and green open spaces by ensuring that:
  - a. These places are within walking distance of homes (up to about 1.5km)
  - b. Footpaths are constructed, safe, well-lit and well-maintained.
  - c. Regular safe street crossing opportunities are provided, particularly on arterial roads.
  - d. Crime Prevention Through Environmental Design is prioritised in urban planning and the management of streets and public space.
7. Provide substantial investment in walking infrastructure and pedestrian oriented design, beginning with the implementation of recommendations 4.1.2, 4.1.3 and 4.2.1 of *Victoria's 30-Year Infrastructure Strategy*.
8. Establish liveable communities that are safe, inclusive, friendly, caring and neighbourly by:
  - a. Maintaining and expanding existing investment that supports community participation and engagement.
  - b. Exploring the potential to link government programs that focus on young people's community engagement, such as the Engage and Advance grants, with wider community planning.
  - c. Ensure local government youth services are involved in wider community building and wellbeing programs.
9. Develop a Walking Strategy for Victoria to provide a coordinated, whole of government approach to guide policy and investment, including actions to address significant barriers to walking identified in this report.

### 6.3 SAFETY

10. Improve the personal safety of young women moving around in public places, including at night by implementing recommendations from the study "A right to the night" (Plan International and Our Watch, 2016) which include the following<sup>22</sup>:
  - a. Provide training for the media, law enforcement, and community leaders on the importance of avoiding victim-blaming when responding to or reporting on incidents of violence against women in public (and private) spaces.
  - b. Promote and fund whole school approach to Respectful Relationships Education in schools, which include issues of personal safety and the effects of 'catcalling', or integrate this content into existing programs.
  - c. Involve girls and young women in developing the solutions for safer and more inclusive public places.

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<sup>22</sup> Some of these recommendations are already being implemented in association with Victoria's *Free From Violence Strategy and Rolling action Plan*.

11. Develop and implement public campaigns which allow men and women to learn about and discuss issues relating to gender equality and respect.
12. Address barriers to personal and road safety in the implementation of Plan Melbourne, particularly in refining the concept of 20 minute neighbourhoods.
13. Improve traffic safety for pedestrians by developing and adopting a Safe System road safety strategy for vulnerable road users, particularly pedestrians, in order to address the current imbalanced focus on motor vehicle occupants. Actions should include:
  - a. Undertake a road safety campaign to encourage motorists to give way to pedestrians as required by law.
  - b. Increase policing of illegal driving behaviours that increase the risk of pedestrian injury.

## REFERENCES

- Adams, E.J., Goodman, A., Sahlqvist, S., Bull, F.C., Ogilvie, D., 2013. Correlates of walking and cycling for transport and recreation: factor structure, reliability and behavioural associations of the perceptions of the environment in the neighbourhood scale (PENS). *International Journal of Behavioral Nutrition & Physical Activity*, 10:87-101.
- Ainsworth, B., Haskell, W., Whitt, M., Irwin, M., Swartz, A., Strath, S., et al., 2011. Compendium of Physical Activities: a second update of codes and MET values. *Medicine and Science in Sports and Exercise*, 43:1575-81.
- Allender, S., Cowburn, G., Foster, C., 2006. Understanding participation in sport and physical activity among children and adults: a review of qualitative studies. *Health Education Research*, 21:826-35.
- Australian Bureau of Statistics, 2015. *National Health Survey: First Results, 2014-15, Cat. No. 4364.0.55.001*. ABS, Canberra.
- Australian Bureau of Statistics, 2013. *Australian Health Survey: Physical Activity, 2011-12. Cat No. 4364.0.55.004*. ABS, Canberra.
- Australian Bureau of Statistics, 2012. *Participation in sport and physical recreation, Australia, 2011-12. Cat. No. 4177.0*. ABS, Canberra.
- Australian Bureau of Statistics, 2009. *Environmental issues: waste management and transport use, Cat No. 4602.0.55.002*. ABS, Canberra.
- Australian Bureau of Statistics, 1995. *Travel to work, school and shops, Victoria, October 1994. Cat No. 9201.2*. ABS, Canberra.
- Australian Bureau of Statistics Victorian Office, 1985. *Travel to work, school and shops, Victoria, October 1984. Cat. No. 9201.2*. ABS, Melbourne.
- Australian Bureau of Statistics, 1975. *Journey to work and journey to school, August 1974*. ABS, Canberra.
- Bailey, T., Woolley, J., 2017. Vulnerable road users in a Safe System. *Journal of the Australasian College of Road Safety*, 28:40-49.
- Bartley Consulting Pty Ltd, 2008. *Walking and cycling: census analysis*. Bartley Consulting Pty Ltd, Melbourne.
- Bassett, D.R., Pucher, J., Buehler, R., Thompson, D.L., Crouter, S.E., 2008. Walking, cycling, and obesity rates in Europe, North America, and Australia. *Journal of Physical Activity and Health*, 5:795-814.
- Berrigan, D., Troiano, R.P., McNeel, T., DiSogra, C., Ballard-Barbash, R., 2006. Active Transportation Increases Adherence to Activity Recommendations. *American Journal of Preventive Medicine*, 31:210-16.
- Biddle, S.J., Whitehead, S.H., O'Donovan, T.M., Nevill, M.E., 2005. Correlates of participation in physical activity for adolescent girls: a systematic review of recent literature. *Journal of Physical Activity and Health*, 2:423-34.
- Buehler, R., Pucher, J., 2012. Walking and cycling in Western Europe and the United States: trends, policies and lessons. *TR News*, May-June: 34-42.
- Carlin, A., Murphy, M.H., Gallagher, A.M., 2015. Current influences and approaches to promote future physical activity in 11-13 year olds: a focus group study. *BMC Public Health*, 15:1270.
- Carver, A., Watson, B., Shaw, B., Hillman, M., 2013. A comparison study of children's independent mobility in England and Australia. *Children's Geographies*, 11:461-75.
- Carver, A., Timperio, A., Crawford, D., 2008a. Playing it safe: The influence of neighbourhood safety on children's physical activity--A review. *Health & Place*, 14:217-27.

- Carver, A., Timperio, A., Crawford, D., 2008b. Perceptions of neighborhood safety and physical activity among youth: The CLAN Study. *Journal of Physical Activity and Health*, 5:430-44.
- Carver, A., Salmon, J., Campbell, K., Baur, L., Garnett, S., Crawford, D., 2005. How do perceptions of local neighborhood relate to adolescents' walking and cycling? *American Journal of Health Promotion*, 20:139-47.
- Chillon, P., Gottrand, F., Ortega, F.B., Gonzalez-Gross, M., Ruiz, J.R., Ward, D.S., De Bourdeaudhuij, I., Moreno, L.A., Martinez-Gomez, D., et al., 2011. Active commuting and physical activity in adolescents from Europe: results from the HELENA study. *Pediatric Exercise Science*, 23.
- Cleland, V., Ball, K., Hume, C., Timperio, A., King, A.C., Crawford, D., 2010. Individual, social and environmental correlates of physical activity among women living in socioeconomically disadvantaged neighbourhoods. *Social Science & Medicine*, 70:2011-8.
- Commonwealth Department of Health, 2014. *Australia's physical activity and sedentary behaviour guidelines*. Commonwealth Department of Health, Canberra.
- Crawford, S., Bennetts, S.K., Cooklin, A.R., Hackworth, N., Nicholson, J.M, D'Esposito, F., Green, J., Matthews, J., Zubrick, S. R., Strazdins, L. & Parcel, G., 2015. *Parental fear as a barrier to children's independent mobility and resultant physical activity: Final Report*. La Trobe University, Melbourne.
- Currie, G., Delbosc, A., Mahmoud, S., 2010. *Perceptions and Realities of Personal Safety on Public Transport for Young People in Melbourne*, Paper delivered at the 33rd Australasian Transport Research Forum Conference Canberra, 29 September - 1 October.
- Darker, C.D., Larkin, M., French, D.P., 2007. An exploration of walking behaviour—An interpretative phenomenological approach. *Social Science & Medicine*, 65:2172-83.
- Davis, B., Dutzik, T., Baxandall, T., 2012. *Transportation and the new generation: why young people are driving less, and what it means for transportation policy*. Frontier Group and U.S. Public Interest Research Group Education Fund.
- Davison, K., Werder, J., Lawson, C., 2008. Children's active commuting to school: current knowledge and future directions. *Preventing Chronic Disease: Public Health Research, Practice and Policy*, 5:1-11.
- De Cocker, K., Ottevaere, C., Sjostrom, M., Moreno, L.A., Warnberg, J., Valtuena, J., Manios, Y., Dietrich, S., Mauro, B., et al., 2011. Self-reported physical activity in European adolescents: results from the HELENA (Healthy Lifestyle in Europe by Nutrition in Adolescence) study. *Public Health Nutrition*, 14:246-54.
- De Meester, F., Van Dyck, D., De Bourdeaudhuij, I., Deforche, B., Cardon, G., 2014. Changes in physical activity during the transition from primary to secondary school in Belgian children: what is the role of the school environment? *BMC Public Health*, 14:261-75.
- De Bruijn, G., Kremers, S.P.J., Singh, A., vandenPutte, B., vanMechelen, W., 2009. Adult active transportation: adding habit strength to the theory of planned behaviour. *American Journal of Preventive Medicine*, 36:189-94.
- Delbosc, A., Currie, G., 2013. Causes of Youth Licensing Decline: A Synthesis of Evidence. *Transport Reviews*, 33:271-90.
- Durand, C.P., Tang, X., Gabriel, K.P., Sener, I.N., Oluoyomi, A.O., Knell, G., Porter, A.K., Oelscher, D.M., Kohl, H.W., 3rd, 2016. The association of trip distance with walking to reach public transit: data from the California Household Travel Survey. *Journal of Transport and Health*, 3:154-60.
- Ewles, L., Simnett, L., 2005. *Promoting Health - a practical guide*. Balliere Tindall, Edinburgh.
- Fischhoff, B., Bostrom, A., Quadrel, M. 2002. Risk perception and communication. In: Detels, R., Mcewen, J., Beaglehole, R., Tanaka, H. (eds.) *Oxford textbook of public health*. London: Oxford University Press.

- Gardner, B., 2009. Modelling motivation and habit in stable travel mode contexts. *Transportation Research Part F*, 12:68-76.
- Gardner, B., Abraham, C., 2008. Psychological correlates of car use: a meta-analysis. *Transportation Research Part F*, 11:300-11.
- Garrard, J., 2013. *Senior Victorians and walking: obstacles and opportunities*. Victoria Walks, Melbourne.
- Garrard, J., 2011. *Active Travel to School Literature Review*. ACT Health, Canberra.
- Garrard, G., Rissel, C., Bauman, A., 2012. Health benefits of cycling, in: Buehler, P.J. (Ed.), *City Cycling*. The MIT Press, Cambridge, Massachusetts.
- Garrard, J., 2010. *Active school travel research project: final report*. Victorian Department of Planning and Community Development, Melbourne.
- Garrard, J., 2009. *Active transport: children and young people. An overview of recent evidence*. Victorian Health Promotion Foundation, Melbourne.
- Goodwin, P., Van Dender, K., 2013. 'Peak Car' — Themes and Issues. *Transport Reviews* 33:243-54.
- Harris, B., 2016. Spare change. *Royalauto*, 62-65.
- Hillman, M., 1993. One false move...An overview of the findings and issues they raise, in: Hillman, M. (Ed.), *Children, transport and the quality of life*. Policy Studies Institute, London.
- Hinkle, J.C., Weisburd, D., 2008. The irony of broken windows policing: A micro-place study of the relationship between disorder, focused police crackdowns and fear of crime. *Journal of Criminal Justice*, 36:503-12.
- Jensen, S.U., Hummer, C.H., 2003. Safer routes to Danish schools, in: Tolley, R. (Ed.), *Sustainable transport: planning for walking and cycling in urban environments*. Woodhead Publishing Limited, Cambridge, England, pp. 588-98.
- Johnson, M., Bennett, E., 2015. *Everyday sexism: Australian women's experiences of street harassment, Briefing note*. The Australia Institute, Canberra.
- Jose, K.A., Cleland, V.J., Venn, A.J., Hansen, E., 2013. Young adult perceptions of Australia's physical activity recommendations for adults. *Health Promotion Journal of Australia*, 24:199-205.
- Kavanagh, A., Thornton, L., Tattam, A., Thomas, L., Jolley, D., Turrell, G., 2007. *Place does matter for your health. Key Centre for Women's Health in Society*. The University of Melbourne, Melbourne.
- Kirby, J., Inchley, J., 2013. Walking Behaviours among Adolescent Girls in Scotland: A Pilot Study. *Health Education*, 113:28-51.
- Lake, A.A., Townshend, T.G., 2013. Exploring the built environment, physical activity and related behaviours of young people attending school, college and those not in employment. *Journal of Public Health*, 35:57-66.
- Larouche, R., Saunders, T.J., Faulkner, G., Colley, R., Tremblay, M., 2014. Associations between active school transport and physical activity, body composition, and cardiovascular fitness: a systematic review of 68 studies. *Journal of Physical Activity and Health*, 11:206-27.
- Line, T., Chatterjee, K., Lyons, G., 2012. Applying behavioural theories to studying the influence of climate change on young people's future travel intentions. *Transportation Research Part D: Transport and Environment* 17:270-76.
- Line, T., Chatterjee, K., Lyons, G., 2010. The travel behaviour intentions of young people in the context of climate change. *Journal of Transport Geography*, 18:238-46.
- Litman, T., 2013. *Evaluating non-motorised transportation benefits and costs*. Victoria Transport Policy Institute, Victoria, BC, Canada.
- Litman, T., 2016. *The future isn't what it used to be: changing trends and their implications for transport planning*. Victoria Transport Policy Institute.

- Lorenc, T., Brunton, G., Oliver, S., Oliver, K., Oakley, A., 2008. Attitudes to walking and cycling among children, young people and parents: a systematic review. *Journal of Epidemiology and Community Health*, 62:852-7.
- Lydon, M., Woolley, J., Small, M., Harrison, J., Bailey, T., Searson, D., 2015. *Review of the National Road Safety Strategy*. Austroads, Sydney.
- McKenzie-Mohr, D., 2011. *Fostering sustainable behavior: an introduction to community-based social marketing*. Third edition. New Society Publishers, Canada.
- Mitra, R., Buliung, R.N., 2015. Exploring differences in school travel mode choice behaviour between children and youth. *Transport Policy*, 42:4-11.
- Nelson, N.M., Foley, E., O’Gorman, D.J., Moyna, N.M., Woods, C.B., 2008. Active commuting to school: how far is too far? *International Journal of Behavioural Nutrition and Physical Activity*, 5:1.
- Okely A.D., S.J., Vella S.A., Cliff D., Timperio A., Tremblay M., Trost S.G., Shilton T., Hinkley T., Ridgers N., Phillipson L., Hesketh K., Parrish A-M., Janssen X., Brown M., Emmel J., Marino N. A., 2012. *Systematic Review to update the Australian Physical Activity Guidelines for Children and Young People*. Report prepared for the Australian Government Department of Health Department of Health, Canberra.
- Olds, T., Wake, M., Patton, G., Ridley, K., Waters, E., Williams, J., Hesketh, K., 2009. How do school-day activity patterns differ with age and gender across adolescence? *Journal of Adolescent Health*, 44:64-72.
- Ostergaard, L., Kolle, E., Steene-Johannessen, J., Anderssen, S.A., Andersen, L.B., 2013. Cross sectional analysis of the association between mode of school transportation and physical fitness in children and adolescents. *International Journal of Behavioural Nutrition and Physical Activity* 10:91.
- Pizarro, A.N., Ribeiro, J.C., Marques, E.A., Mota, J., Santos, M.P., 2013. Is walking to school associated with improved metabolic health? *International Journal of Behavioural Nutrition and Physical Activity*, 10:12.
- Plan International Australia, 2016. *A right to the night: Australian girls on their safety in public places*. Plan International Australia, Melbourne.
- Raimond, T., Milthorpe, F., 2010. Why are young people driving less? Trends in licence-holding and travel behaviour. *Proceedings of Australasian Transport Research Forum*, Canberra.
- Sallis, J.E., Cervero, R.B., Ascher, W., Henderson, K.A., Kraft, M.K., Kerr, J., 2006. An ecological approach to creating active living communities. *Annual Review of Public Health*, 27:297-322.
- Shephard, R., 2008. Is active commuting the answer to population health? *Sports Medicine*, 38:751-58.
- Simons, D., Clarys, P., De Bourdeaudhuij, I., de Geus, B., Vandelanotte, C., Deforche, B., 2013. Factors influencing mode of transport in older adolescents: a qualitative study. *BMC Public Health*, 13:1-10.
- Slater, A., Tiggemann, M., 2010. “Uncool to do sport”: A focus group study of adolescent girls’ reasons for withdrawing from physical activity. *Psychology of Sport and Exercise*, 11:619-26.
- Smith, A., McKenna, J., Duncan, R., Jonathan, L., 2008. *The impact of additional weekdays of active commuting on children achieving a criterion of 300+ minutes of moderate-to-vigorous physical activity*. Australasian Association for Exercise and Sports Science Conference. Melbourne, March 2008.
- Steinbach, R., Green, J., Edwards, P., 2012. Look who’s walking: social and environmental correlates of children’s walking in London. *Health and Place*, 18:917-27.
- Stokes, G., 2013. The prospects for future levels of car access and use. *Transport Reviews*, 33:360-75.

- Thaler, R., Sunstein, C., 2008. *Nudge: improving decisions about health wealth and happiness*. Yale University Press, New Haven.
- Turrell, G., Stanley, L., de Looper, M., Oldenburg, B., 2006. *Health Inequalities in Australia: Morbidity, health behaviours, risk factors and health service use. Health Inequalities Monitoring Series No. 2. AIHW Cat. No. PHE 72*. Queensland University of Technology and the Australian Institute of Health and Welfare, Canberra.
- Valentine, G., 1997. "Oh yes I can." "Oh no you can't": children and parents' understandings of kids' competence to negotiate public space safely. *Antipode*, 29:65-89.
- Van Dyck, D., Cardon, G., Deforche, B., Bourdeaudhuij, I.D., 2009. Lower neighbourhood walkability and longer distance to school are related to physical activity in Belgian adolescents. *Preventive Medicine*, 48:516-18.
- Voss, C., Sandercock, G., 2010. Aerobic fitness and mode of travel to school in English school children. *Medicine and Science in Sports and Exercise*, 42:281-87.
- Whitehead, S., Biddle, S., 2008. Adolescent girls' perceptions of physical activity: A focus group study. *European Physical Education Review*, 14:243-62.
- Wundersitz, L., Bailey, T., Raftery, S., Baldock, M., Smith, R., 2015. *Are young adults' choice of travel mode changing?* Australasian Road Safety Conference, Gold Coast, Australia.

## APPENDIX A: FOCUS GROUP DISCUSSION FORMAT

1. Can you please tell me about any walking that you do?  
(purpose, where, walking time/distance, who with, other activities while walking)

### Reasons for walking

2. What are your main reasons for walking?
3. Do you like walking?
4. Is your neighbourhood an interesting and pleasant place to walk?
5. Is your neighbourhood a safe place to walk? (personal safety and traffic safety)

### I'd like to just focus now on walking for exercise and leisure

6. Do you walk for exercise or leisure? (Why? Why not? Benefits?)
7. What things would put you off walking for exercise or leisure?
8. Would you say you now walk for exercise or leisure more or less or about the same as you did a couple of years ago? (reasons for any change)
9. Are there any things that might encourage you to walk (more) for exercise or leisure?

### Focussing now on walking for transport

10. Do you walk to get to places like school, uni, TAFE, work, friends places, shops?  
(reasons, other travel methods used)
11. What are some of the benefits of walking to get to places? (Probe: a good form of exercise?)
12. What things put you off walking to places?
13. Do you have any concerns about walking to places?
14. How much time are you prepared to spend walking to places? (does it depend on purpose, location?)
15. Would you say you now walk for transport more or less or about the same as you did a couple of years ago? (reasons for any change)
16. Are there any things that might encourage you to walk (more) to get to places?

### Driving a car

17. Do you have a learner's permit? Driver's license? Car?
18. If not, do you intend to get a driver's license? Why? When?
19. Do you think owning a car is a necessity when you reach driving age – or can/do you manage without one?
20. Are you able to get a lift with someone when you need it? Who with?
21. Do you like driving?
22. Do your friends like driving?

**23. Young people in Victoria are less likely to hold a driver's license than 10 years ago – why do you think this is happening?**

24. Thinking into the future now when you move out of home and live somewhere else, would you prefer to live somewhere where you don't need a car to get to places?

**If time:**

**Walking associated with PT use**

25. Do you use public transport? Why? Why not?

26. What are some of the advantages of using public transport?

27. What are some of the disadvantages of using public transport?

28. Do you feel safe using public transport?

29. If or when you use public transport, do you walk to get to or from the bus, train or tram? (for about how long?)

**30. Is there anything else you'd like to say about walking for recreation or transport, public transport use, or about driving?**

THANK YOU!

**APPENDIX B: FOCUS GROUP DISCUSSIONS: BRIEF PARTICIPANT QUESTIONNAIRE**

1. What is your gender? \_\_\_\_\_
2. How old are you? \_\_\_\_\_ (years)
3. What SUBURB or TOWN do you live in? \_\_\_\_\_

4. Which of the following best describes your living situation?

I live at home with parents	<input type="checkbox"/>	I live with a partner	<input type="checkbox"/>
I live alone	<input type="checkbox"/>	No fixed address	<input type="checkbox"/>
I live in a share house	<input type="checkbox"/>	Other	<input type="checkbox"/>

5. Which of the following best describes your work/study situation? (tick as many as apply)

I work full time	<input type="checkbox"/>	I do not work or study	<input type="checkbox"/>
I work part time	<input type="checkbox"/>	I'm in secondary school	<input type="checkbox"/>
I work casually	<input type="checkbox"/>	I'm in post-secondary study (uni, tafe etc.)	<input type="checkbox"/>

6. Approximately how often do you usually walk (i) for fitness, leisure or social reasons; and (ii) to get to places such as work, school, university, shops, entertainment, social activities, or train, bus or tram stops?

	Two or three times a day or more	On most days	3-5 days a week	1-2 days a week	Once or twice a month	Rarely or not at all
Walking for fitness or leisure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking to get to places	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. How do you usually travel to get to places?

Please list up to FOUR, starting from 1. for most often.

Car as driver	<input type="text"/>	Car as passenger	<input type="text"/>	Walk	<input type="text"/>
Bicycle	<input type="text"/>	Bus	<input type="text"/>	Tram	<input type="text"/>
Train	<input type="text"/>	Taxi	<input type="text"/>	Other	<input type="text"/>

THANK YOU!

## Young people and walking

### 1) How old are you?

- 14 years or less
- 15 years old
- 16 years old
- 17 years old
- 18 years old
- 19 years old
- 20 years old
- 21 years or older

### 2) I believe that my parent or guardian would not object to me taking part in this survey.

- Agree (Parent/guardian would not object)
- Disagree (Parent/guardian might object)

### 3) About how often do you usually walk for fitness, sport or recreation? (Do not include walking just to get to places - this is covered in the next question)

- Two or three times a day or more
- Every day or most days
- 3-5 days a week
- 1-2 days a week
- Once or twice a month
- Rarely or not at all

### 4) About how often do you usually walk to get to places such as work, school, university/TAFE, shops, entertainment, social activities, a friend's house, or train, bus or tram stops?

- Two or three times a day or more
- Every day or most days
- 3-5 days a week
- 1-2 days a week
- Once or twice a month

Rarely or not at all

**5) Do you walk to any of the following places? (Tick one or more boxes)**

- School
- University, TAFE, or other post-secondary study
- Work
- Train, tram or bus stops
- Shops
- To visit friends or relatives
- Cafes, restaurants, pubs or clubs
- Other events or activities - please describe:

**6) How far do you, or are you prepared to walk to these sort of places? (Exclude walks that are mainly for recreation or leisure)**

- Up to 500 metres (about 5 minutes)
- 500 metres - 1 km (about 5 - 10 minutes)
- 1.1 km - 2 km (about 10 - 20 minutes)
- 2.1 km - 4 km (about 20 - 40 minutes)
- 4.1 km - 6 km (about 40 - 60 minutes)
- More than 6 km (more than an hour)

**7) How often do you use the following methods to get around (eg to places such as work, school, university, shops, etc)?**

	<b>2 or 3 times a day or more</b>	<b>Every day or most days</b>	<b>A few times a week</b>	<b>A few times a month</b>	<b>A few times a year</b>	<b>Rarely or never</b>
Car as driver	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Car as passenger	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Train	<input type="checkbox"/>					
Bus	<input type="checkbox"/>					
Tram	<input type="checkbox"/>					
Taxi	<input type="checkbox"/>					
Uber	<input type="checkbox"/>					
Other	<input type="checkbox"/>					

**8) In a typical week, how much time do you spend on physical activity for fitness, sport or recreation? (Do not include walking or cycling to get to places - this is covered in the next two questions)**

- 0 - 30 minutes a week
- 31 minutes - 1 hour a week
- 1 - 2 hours a week
- 2 - 3 hours a week
- 3 - 4 hours a week
- 4 - 5 hours a week
- 5 - 6 hours a week
- 6 - 7 hours a week
- More than 7 hours a week

**9) In a typical week, how much time do you spend walking to get to places? (Include walking to and from train, bus and tram stops)**

- 0 - 30 minutes a week
- 31 minutes - 1 hour a week
- 1 - 2 hours a week
- 2 - 3 hours a week
- 3 - 4 hours a week
- 4 - 5 hours a week
- 5 - 6 hours a week
- 6 - 7 hours a week
- More than 7 hours a week

**10) In a typical week, how much time do you spend riding a bicycle to get to places? (Include riding a bicycle to and from train, bus and tram stops)**

- 0 - 30 minutes a week
- 31 minutes - 1 hour a week
- 1 - 2 hours a week
- 2 - 3 hours a week
- 3 - 4 hours a week
- 4 - 5 hours a week
- 5 - 6 hours a week
- 6 - 7 hours a week
- More than 7 hours a week

**11) Walking means different things to different people.**

**To what extent do you agree or disagree with the following statements?**

	<b>Strongly agree</b>	<b>Agree</b>	<b>Neither disagree nor agree</b>	<b>Disagree</b>	<b>Strongly disagree</b>
Going for a walk is a good way to relax and calm down when I am stressed, angry or anxious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sometimes I walk just to get out of the house for a while	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am more likely to go for a walk if there is a nice park or reserve nearby	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking is a good way for me to get to places such as school, university, TAFE, work, shops, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like the social side of walking - you can	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

chat with the people you are walking with					
I am more likely to walk if a family member or friend asks me to walk with them	( )	( )	( )	( )	( )
I am more likely to walk if it's part of an event (eg fund-raising), a challenge, or a game	( )	( )	( )	( )	( )

**12) Do you agree or disagree with the following?**

	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>	<b>Not applicable</b>
If I can't drive a car or get a lift I usually walk or catch public transport	( )	( )	( )	( )	( )	( )
Walking enables me to get around independently	( )	( )	( )	( )	( )	( )
Walking is a convenient way to get around	( )	( )	( )	( )	( )	( )
Walking is a healthy way to get around	( )	( )	( )	( )	( )	( )
Walking is an environmentally friendly way to get around	( )	( )	( )	( )	( )	( )
Walking is a good way to get	( )	( )	( )	( )	( )	( )

to know the neighbourhood						
Walking is a relaxing way to get around	( )	( )	( )	( )	( )	( )
Having a dog means I walk more	( )	( )	( )	( )	( )	( )
I'm often too busy to find time for exercise	( )	( )	( )	( )	( )	( )
You have to walk quickly to get a health benefit from walking	( )	( )	( )	( )	( )	( )
I prefer more vigorous forms of activity than walking for getting fit	( )	( )	( )	( )	( )	( )

**13) Do you agree or disagree with the following statements about personal safety while walking?**

	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
I feel safe walking around during the day	( )	( )	( )	( )	( )
I feel safe walking around at night	( )	( )	( )	( )	( )
There are some places in my neighbourhood I would not feel safe walking at any time	( )	( )	( )	( )	( )

I feel safer walking in busy places where there are more people around	<input type="checkbox"/>				
I'm confident I can look after myself when walking alone	<input type="checkbox"/>				
Most people think my neighbourhood is a safe place to walk	<input type="checkbox"/>				
My neighbourhood looks untidy and neglected	<input type="checkbox"/>				
You can trust most people in my neighbourhood	<input type="checkbox"/>				

**14) This question is about experiences and awareness of threats to safety while walking**

	<b>Yes</b>	<b>No</b>
Have you ever been attacked or threatened by someone while walking?	<input type="checkbox"/>	<input type="checkbox"/>
Have you ever observed someone being attacked or threatened while walking?	<input type="checkbox"/>	<input type="checkbox"/>
Have you ever felt threatened by someone while walking?	<input type="checkbox"/>	<input type="checkbox"/>
Have you ever heard of someone being threatened or attacked while walking, through the media?	<input type="checkbox"/>	<input type="checkbox"/>
Have you ever heard of someone being attacked or threatened, through a friend or relative?	<input type="checkbox"/>	<input type="checkbox"/>
Have you ever heard of someone being threatened or attacked while walking, through social media?	<input type="checkbox"/>	<input type="checkbox"/>

**15) Would you like to add any comments about personal safety while walking?**

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**16) Do you agree or disagree with the following statements?**

**I would be more likely to walk more if:**

	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
I had a route that didn't go along a busy road	( )	( )	( )	( )	( )
I didn't have to share the path with bicycles	( )	( )	( )	( )	( )
There were more people out walking	( )	( )	( )	( )	( )
The walking route was pleasant and interesting	( )	( )	( )	( )	( )
There were more footpaths in my neighbourhood	( )	( )	( )	( )	( )
The traffic in my neighbourhood was slower	( )	( )	( )	( )	( )
The neighbourhood streets were kept clean, tidy and well-maintained	( )	( )	( )	( )	( )
There was less traffic in my neighbourhood	( )	( )	( )	( )	( )
It was safe for me to walk after dark	( )	( )	( )	( )	( )
There were nice parks or reserves nearby	( )	( )	( )	( )	( )

I didn't have to walk the long way around to avoid unsafe or unpleasant areas	<input type="checkbox"/>				
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**17) Do you agree or disagree with the following statements?**

	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
You can depend on drivers to obey the road rules	<input type="checkbox"/>				
You can depend on drivers giving way at pedestrian crossings, slip lanes and when turning left or right across your path when you are walking	<input type="checkbox"/>				
Drivers keep a careful eye out for pedestrians	<input type="checkbox"/>				

**18) Do you have any suggestions for what could be done to improve walking conditions in your community?**

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**19) Do you have a driver's licence?**

- No
- Yes, a learner's permit
- Yes, P-plates
- Yes, a full licence

**20) Do you own your own motor vehicle (ie car, motor bike or motor scooter)?**

- Yes
- No

**21) Are you able to get a lift in a car from your parent(s) or other adult in your household when you need to go somewhere?**

- Most of the time
- Some of the time
- Occasionally
- Rarely or never
- Not applicable - I can drive myself

**22) The number of 18-year-olds in Victoria who have a driver's licence has been declining for several years.**

**Do you think any of the following factors are contributing to this trend?**

	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>	<b>Don't know</b>
It costs too much to learn to drive and get a licence	<input type="checkbox"/>					
It's not a priority for young people these days	<input type="checkbox"/>					
Young people have trouble finding the time to get 120 hours driving experience	<input type="checkbox"/>					
Parents or other licenced drivers don't want to, or are unable to supervise learner drivers for 120 hours	<input type="checkbox"/>					

Young people can usually get a lift with parents or friends	( )	( )	( )	( )	( )	( )
Owning and driving a car is expensive	( )	( )	( )	( )	( )	( )
Young people are more likely to use public transport these days	( )	( )	( )	( )	( )	( )
It's more convenient to walk to places	( )	( )	( )	( )	( )	( )
More young people live in places where you don't need a car to get around	( )	( )	( )	( )	( )	( )
Young people these days are no longer 'in love with cars'	( )	( )	( )	( )	( )	( )
Traffic congestion puts young people off driving	( )	( )	( )	( )	( )	( )
Walking or using public transport is more	( )	( )	( )	( )	( )	( )

relaxing than driving						
Young people prefer public transport because you can read a book or report, or use a mobile device which you can't do while driving	( )	( )	( )	( )	( )	( )

**23) Would you like to add any comments about young people and driving?**

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**24) When thinking about where you'd like to live in the future, how important are the following factors?**

	<b>Very important</b>	<b>Important</b>	<b>Neutral</b>	<b>Unimportant</b>	<b>Very unimportant</b>
Close to public transport	( )	( )	( )	( )	( )
Close to work or study	( )	( )	( )	( )	( )
Close to shops, services and entertainment	( )	( )	( )	( )	( )
Being able to walk to some of the above places	( )	( )	( )	( )	( )

Close to, or in a country area	<input type="checkbox"/>				
Able to drive everywhere I want to go	<input type="checkbox"/>				
A walking-friendly neighbourhood	<input type="checkbox"/>				
Not having to drive everywhere	<input type="checkbox"/>				
An outer suburban area with lots of space	<input type="checkbox"/>				

**25) Please complete the following sentence: I think a liveable community is one where.....**

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**26) What is your gender?**

- Male
- Female
- Other

**27) What is your postcode?**

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**28) Which of the following best describes your living situation?**

- I live at home with parent(s)/guardian
- I live alone
- I live in a share house
- I live with a partner
- No fixed address
- Other - Please describe: \_\_\_\_\_

**29) Which of the following best describes your work/study situation? (tick as many as apply)**

I work full-time

I work part-time

I work casually

I'm in secondary school

I'm in post-secondary study (University, TAFE, etc.)

I do not work or study

**30) Thank you for your responses.**

**If you would like to go in the draw for one of five \$100 Coles Myer Group gift cards, please write your email address in the text box below so we can contact you if you have won a prize.**

**Your email address will be separated from your survey responses so that your responses remain anonymous, and will not be used for any other purpose.**

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**Thank You!**