

WalkSpot

Melbourne Project Report

Prepared by CrowdSpot

June 2017



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How safe do you feel walking in Melbourne?

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Disclaimer

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1. Introduction

Great cities are great places to walk around. Some communities face many serious health and economic challenges relating to physical inactivity and road trauma, so it is critical that we get a better understanding of people's road safety concerns. Gaining a deeper understanding people's walking issues and concerns is essential for attempting to resolve problems and get more people walking.

The primary aim of the WalkSpot project is to further understand the perceived level of road safety and amenity at locations across Metropolitan Melbourne. Specifically, the project aimed to:

- Identify priority locations for future improvement
- Understand existing conditions that work well
- Explore differences in perceived safety concerns and historical crash statistics.



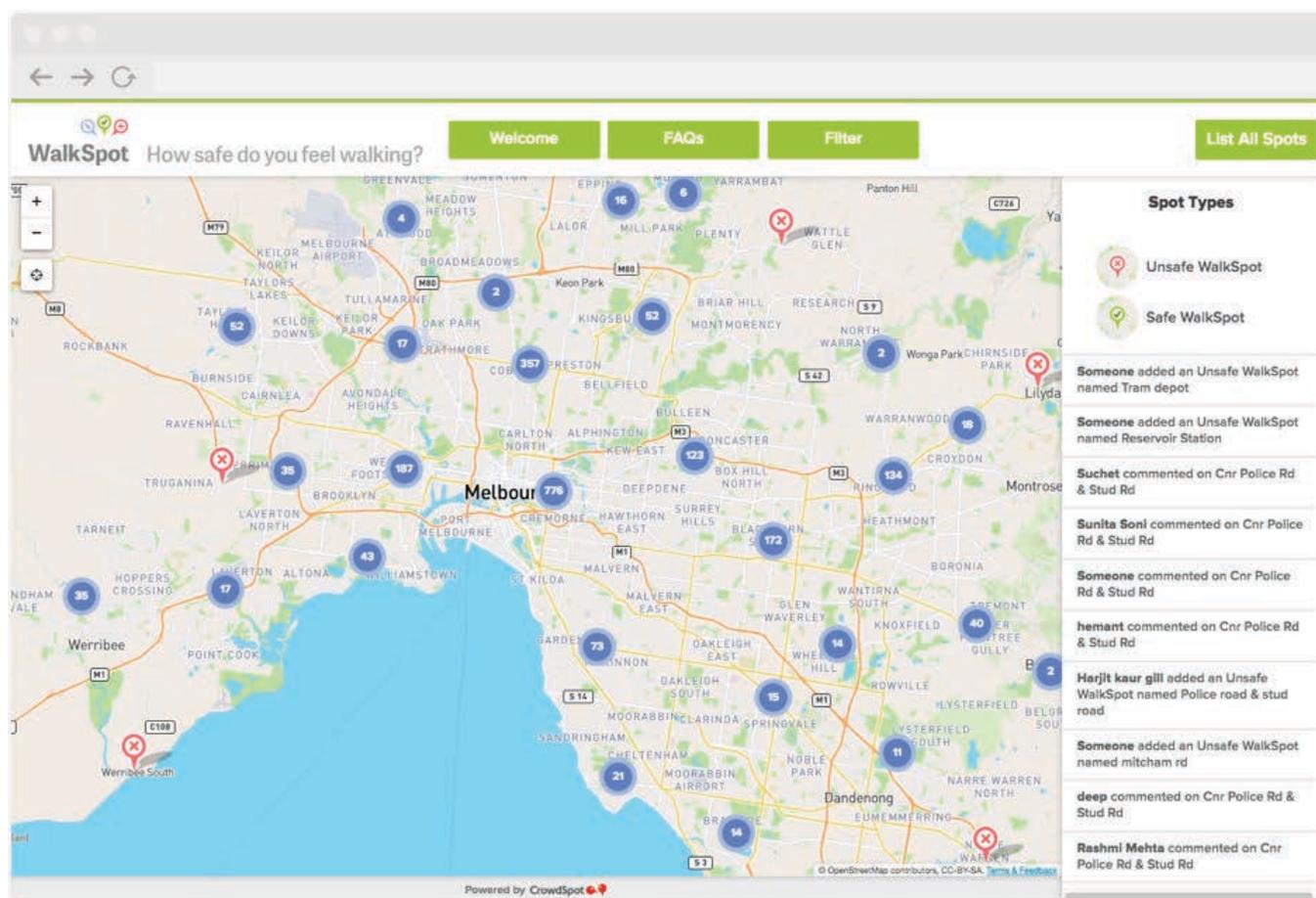
Central to the project was an interactive online map that allowed people to 'Add a Spot' directly to the map where they do or do not feel safe walking. Users were also able to vote and comment on other spots already added to the map by different users. The survey within the online map was designed by CrowdSpot and Victoria Walks in consultation with the Monash University Accident Research Centre (MUARC) and government partners. The map was open for public participation for a little over 6 weeks, officially launching on 13 March 2017 and closing 30 April 2017.

The WalkSpot project is a collaboration, enabled by a TAC Community Road Safety Grant, between Victoria Walks and CrowdSpot. The project involved the partnership of 15 government organisations (refer to acknowledgements at the of this report).

2. The Project Map

The online CrowdSpot map was accessed via the WalkSpot website (www.walkspot.org.au) or directly via the CrowdSpot map URL (<http://walkspot.crowdspot.com.au/>). The map allowed users to identify locations where they either felt safe walking (Safe WalkSpot) or did not feel safe walking (Unsafe WalkSpots).

Figure 1 – WalkSpot Project Map



Contributing to the map

Adding a spot involved completion of a survey form containing a combination of location specific questions (type of spot, specific issue at the location, etc.), a general question relating to the level of importance of issues in their area and demographic questions of the user (age, gender, etc.).

There were three ways people were able to actively contribute their input to the map. This includes:

1. 'Adding a Spot' to the map via the survey form
2. 'Commenting' on existing spots already on the map
3. Voting on existing spots already on the map by clicking the 'support' button

WalkSpot How safe do you feel walking? Welcome FAQs Filter List All Spots

Tell us about walking safety around Melbourne...

What is the name of this spot? (* indicates required)
Street, Park, Landmark, etc.

What type of Spot is this? Choose One
Unsafe WalkSpot
Safe WalkSpot

What makes you feel unsafe or makes walking difficult at this spot?
Choose One

How often do you walk here? Choose One

Please add an image of this spot if you have one
Add Image

Is there anything more you would like to tell us about this spot?
Please describe...

In the past 2 years, have you been involved in a collision, experienced a 'near miss' or fallen while walking at this spot? Choose One

General question

Spot Types

- Unsafe WalkSpot
- Safe WalkSpot

Someone added an Unsafe WalkSpot named Tram depot

Someone added an Unsafe WalkSpot named Reservoir Station

Suchet commented on Cnr Police Rd & Stud Rd

Sunita Soni commented on Cnr Police Rd & Stud Rd

Someone commented on Cnr Police Rd & Stud Rd

hemant commented on Cnr Police Rd & Stud Rd

Harjit kaur gill added an Unsafe WalkSpot named Police road & stud road

Someone added an Unsafe WalkSpot named mitcham rd

deep commented on Cnr Police Rd & Stud Rd

Rashmi Mehta commented on Cnr Police Rd & Stud Rd

Figure 2 – WalkSpot Survey Form

Figure 3 – Example of a spot with comments and supports

WalkSpot How safe do you feel walking? [Welcome](#) [FAQs](#) [Filter](#) [List All Spots](#)

Nepean Hwy and Glenhuntly Road 18 Support

Anthony added this Unsafe WalkSpot 2 months ago - 2 comments

Traffic light issues (eg. long wait for green man)

Description: Crossing Nepean Hwy from Glenhuntly Rd is just plain dangerous. The locals know to run for their life as soon as the green man appears, even then you can't even make it half way. Then on the 2nd half you need to watch out for cars at speed turning right straight into pedestrians.

2 comments [Leave a Comment](#)

Unfortunately this crossing has been deadly before.
<http://mobile.abc.net.au/news/2010-10-05/pedestrian-killed-crossing-nepean-highway/2284922>

Elsternwick around 2 months ago

Yes, this is a disgrace. I feel ashamed every time I see an older person trying desperately to make it across in time.

At the very least, the two sides of the crossing should have separate light phases, so that one side can start crossing early.

Spot Types

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3. Participation Data

The data collected through the map includes a combination of both active and passive participation. Active participation refers to user interactions where people have submitted their input by either adding a spot, comment or 'support'. Passive participation refers to cases where users have loaded the online map and explored it's contents without actively participating (no submission).

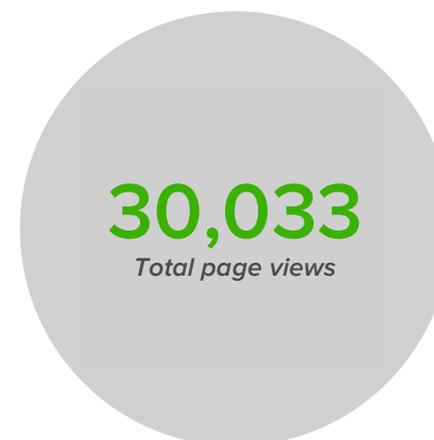
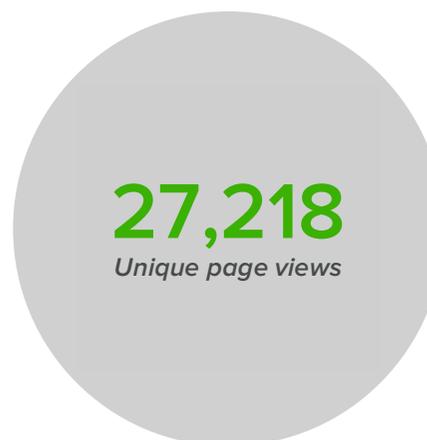
Active Participation



Passive Participation

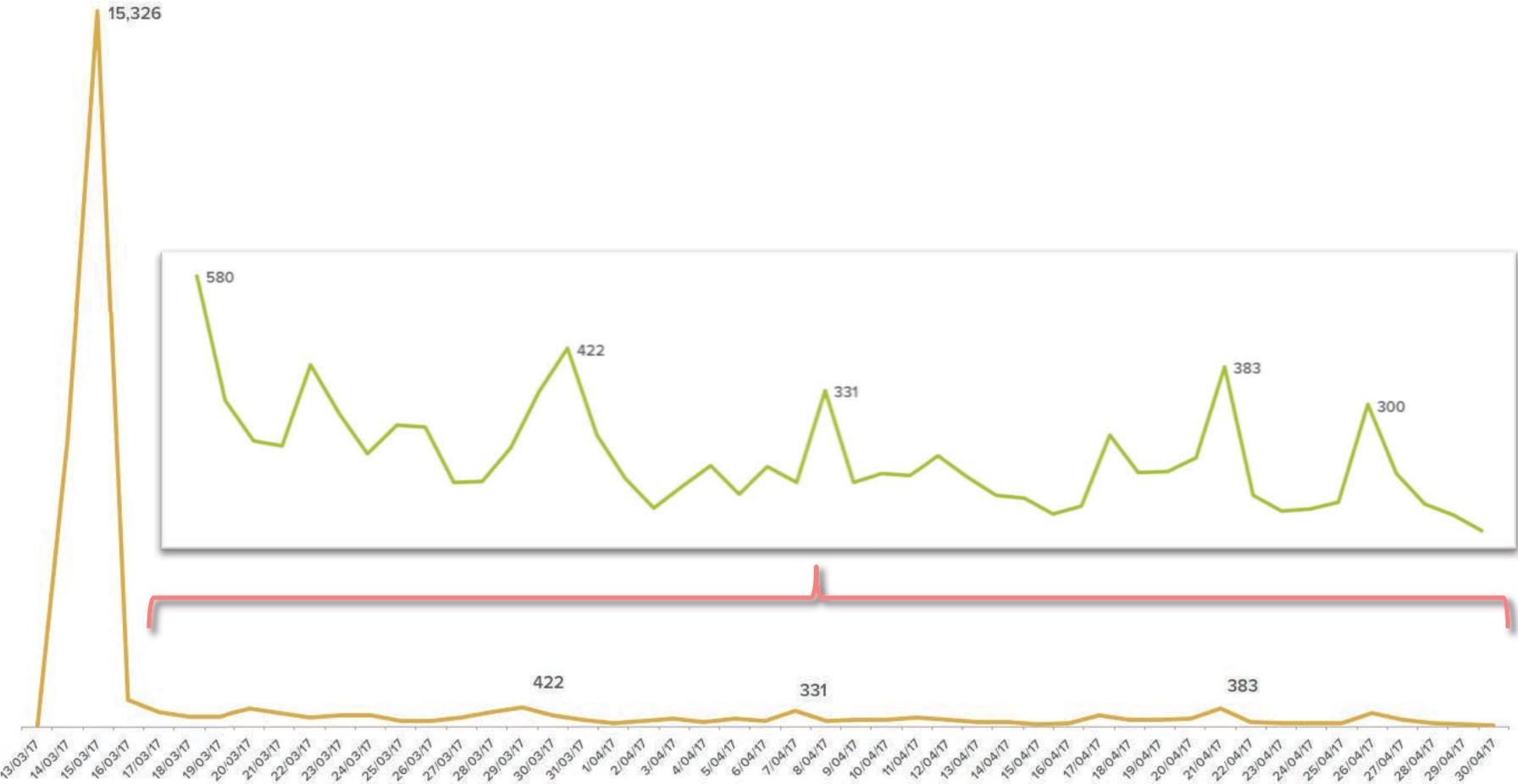


Page Views

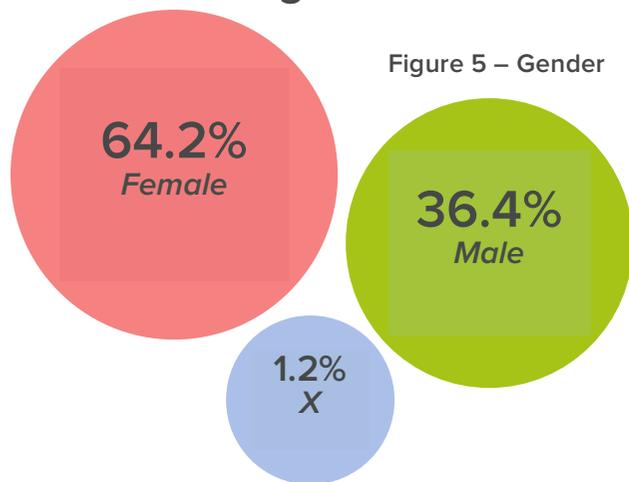


In total, there were 1,658 unique active participants who submitted input on the map while Google Analytics captured 27,218 unique page views. As a result, we can determine that there were 25,560 passive participants, those who came to the website but did not make a submission. A significant factor in receiving a large number of passive (and active) participants was due to the strong media attention the project received at the launch of the project (refer to Appendix C). This included an article with the map embedded in The Age online. This triggered a massive burst of initial participation with over 15,000 views on the 14th and 15th of March (figure 4). As the engagement period continued there were further smaller spikes in participation, reflecting the ongoing promotion efforts by project partners, particularly Facebook promotion.

Figure 4 – Participation over time (source: Google Analytics)



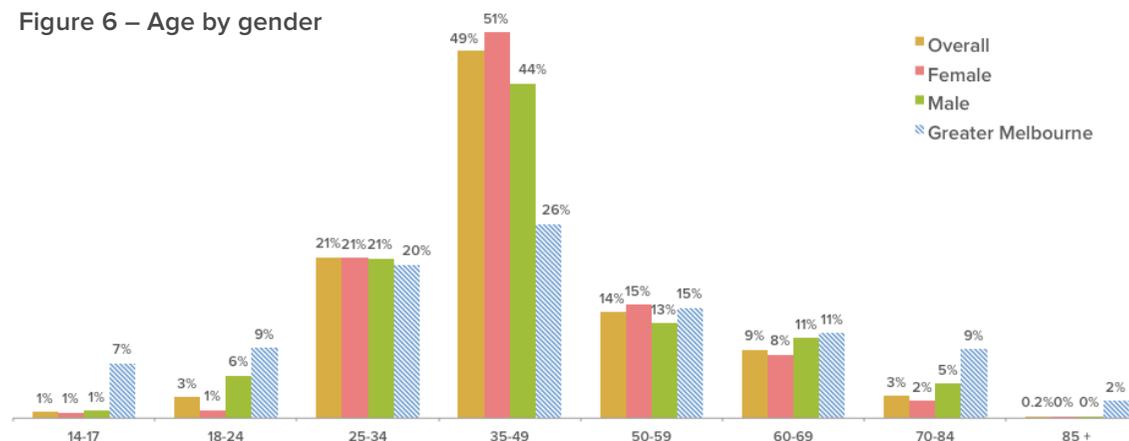
Gender and Age



Overall, women represented 64.2% and men represented 36.4% of all active participants. 'X' represented the remaining 1.2%. While this differs from the broad gender representation across Greater Melbourne where women represent 51% and men 49% (ABS, 2015), the WalkSpot gender mix is consistent with an understanding that women tend to walk for exercise more for both transport and exercise than men (ABS, VicHealth)¹.

Of the 1,658 active participants the most engaged age group was the 35-49 range, which accounted for 49% of active participants (Figure 6). The two most active age ranges (25-34 and 35-44) represented a combined total percentage of 70%. This is likely to consist of more able bodied or actively mobile people and therefore this dataset may not strongly represent walking issues of all walkers, particularly the more vulnerable. For example, only 12% of participants were over 60, whereas this group is 22% of the population of Greater Melbourne (ABS, 2015).

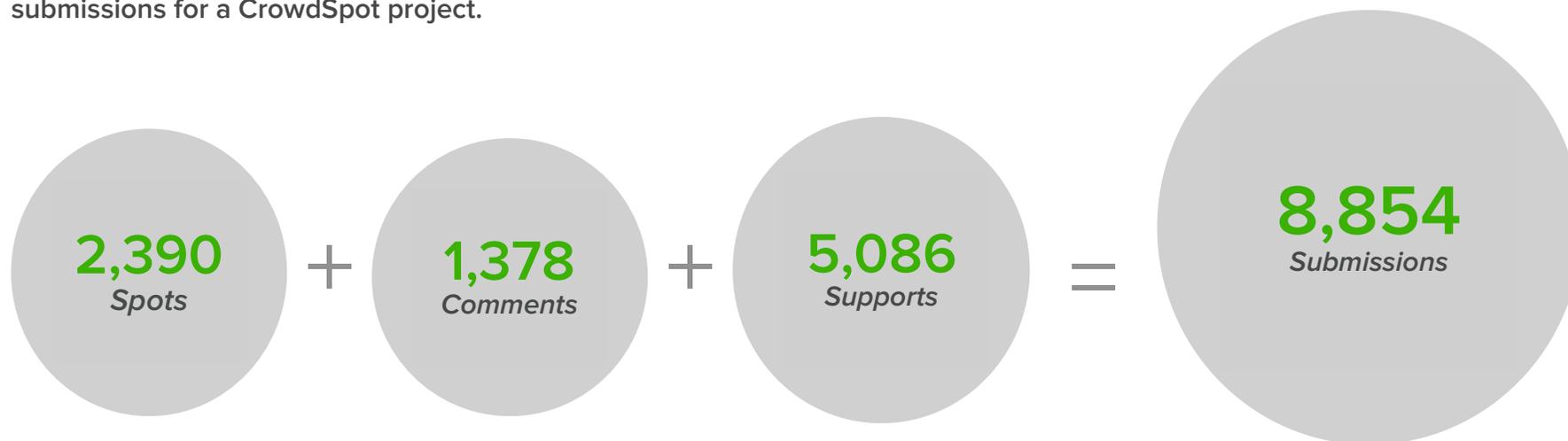
Figure 6 – Age by gender



¹ <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4177.0>
<https://www.vichealth.vic.gov.au/search/active-transport-adults>

4. Total Number of Submissions

There was a total of 8,854 submissions made up of spots, comments and supports. This is very high and is a record number of submissions for a CrowdSpot project.



Types of Spots

The majority of locations added to the map were 'Unsafe WalkSpots' which accounted for 89% of all the Spots added to the map (Figure 7).

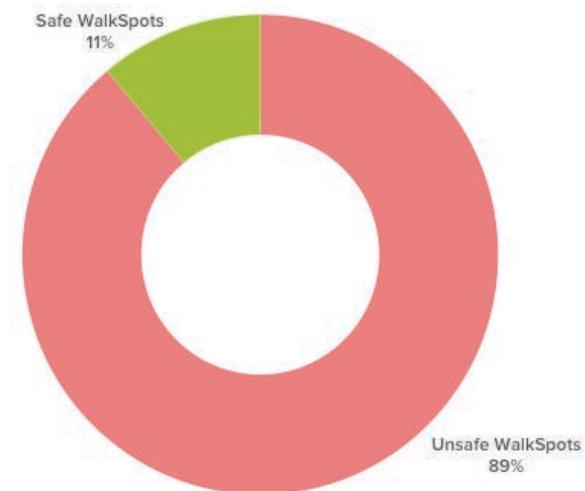
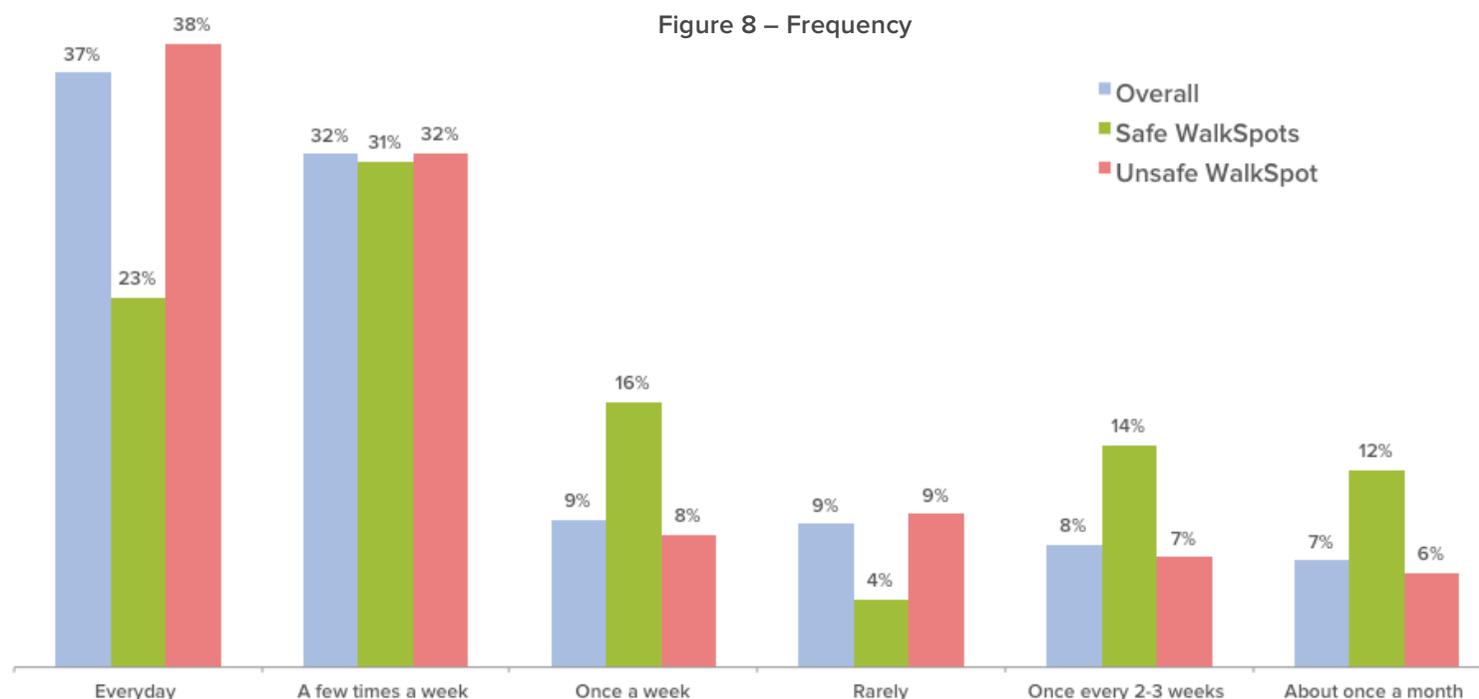


Figure 7 – Spot types

5. How often do people walk at these spots?

During the completion of the survey form people were asked how frequently they walked at their Safe or Unsafe WalkSpot. Interestingly, people walk at least once a week at over 75% of locations added to the map. With 89% of locations representing Unsafe WalkSpots this indicates that people are persisting with their existing walking locations despite experiencing safety and amenity concerns. There appears to be less frequent walking at Safe WalkSpot locations. This may be a result of people identifying recreation-based walking locations, which takes place on weekends or in spare time, rather than more frequent commuting-based walking purposes. The type of pedestrian priority spaces that were most often nominated as safe spots are also very uncommon compared to streets designed for vehicles, so are likely to be infrequently visited.



6. Safe WalkSpots

Top Safe WalkSpots

The top spots are identified by combining the number of comments and ‘supports’ of all the spots that share the same sentiment at the same location. Below are the top 10 Safe WalkSpots along with quotes that represent their sentiment.

1. Elizabeth St & Flinders St Intersection – Pedestrian Scramble Crossing

‘The pedestrian priority traffic lights with the whole intersection open to pedestrians in the one cycle should be rolled out elsewhere in the city.’
- Rebecca

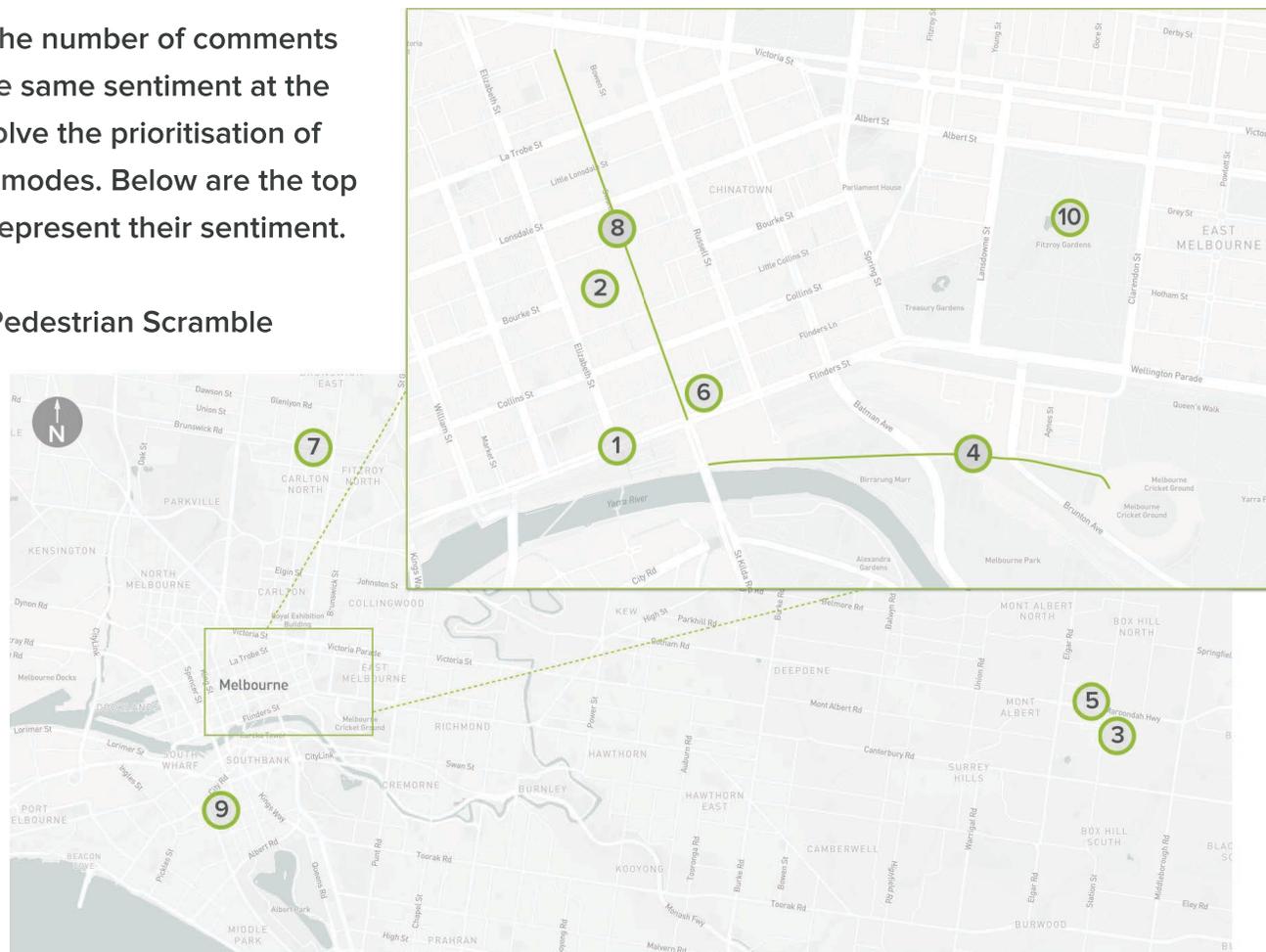
2. Bourke Street Mall

‘Lovely pedestrian mall, we need more of them!’
- Phil

3. Main Street, Box Hill Mall

‘Bollards preventing people from driving into Main Street.’
- Janice

Figure 9 – Top Safe WalkSpots



4. William Barak Bridge – Connection to MCG

I love the walk to the MCG and across the William Barak Bridge. A lovely walk, and the bridge, with its unique soundscape, is very evocative.

- Helen

5. Maroondah Highway and Bruce Street, Box Hill (outside Australian Tax Office) – Quality shared path design

Nice spot with really good footpath and shared path. They should make more of these, all around box hill.

- Darren

6. Degraives St, Melbourne CBD

Crowded, but safe.

- George

7. Amess St, Brunswick East – Pedestrian Priority

Here pedestrians and cyclists along the Capital City Trail have priority over motor vehicle traffic. It works very well, and the same should be applied to College Crescent, Rae St, Brunswick St Nth and Bennett St.

- John Handley

8. Swanston Street, Melbourne CBD

Swanston St, I love you. A street for people. Great to walk along, see lots of people, shops, people on bikes, and trams. Brilliant. CoM should rid the remaining cars, and the cops should focus on errant drivers instead of their box-ticking blitzes on pedestrians, bikes, etc, harming no one. MORE OF THIS, PLEASE!

- Tnp

Figure 10 – Bourke Street Mall



9. Coventry St & Cecil St, South Melbourne – Pedestrian Priority Crossing

The roundabouts on Cecil Street have pedestrian priority crossings and separated bike lanes. While there needs to be some work on enforcement for cars actually giving way to pedestrians, this is a big improvement on what's normally out there. More of this please!

10. Fitzroy Gardens

A lovely spot to walk. I use it for my daily and have always felt safe, even at night. Most cyclists abide by the no cycling in the park rule, making it extremely pedestrian friendly.

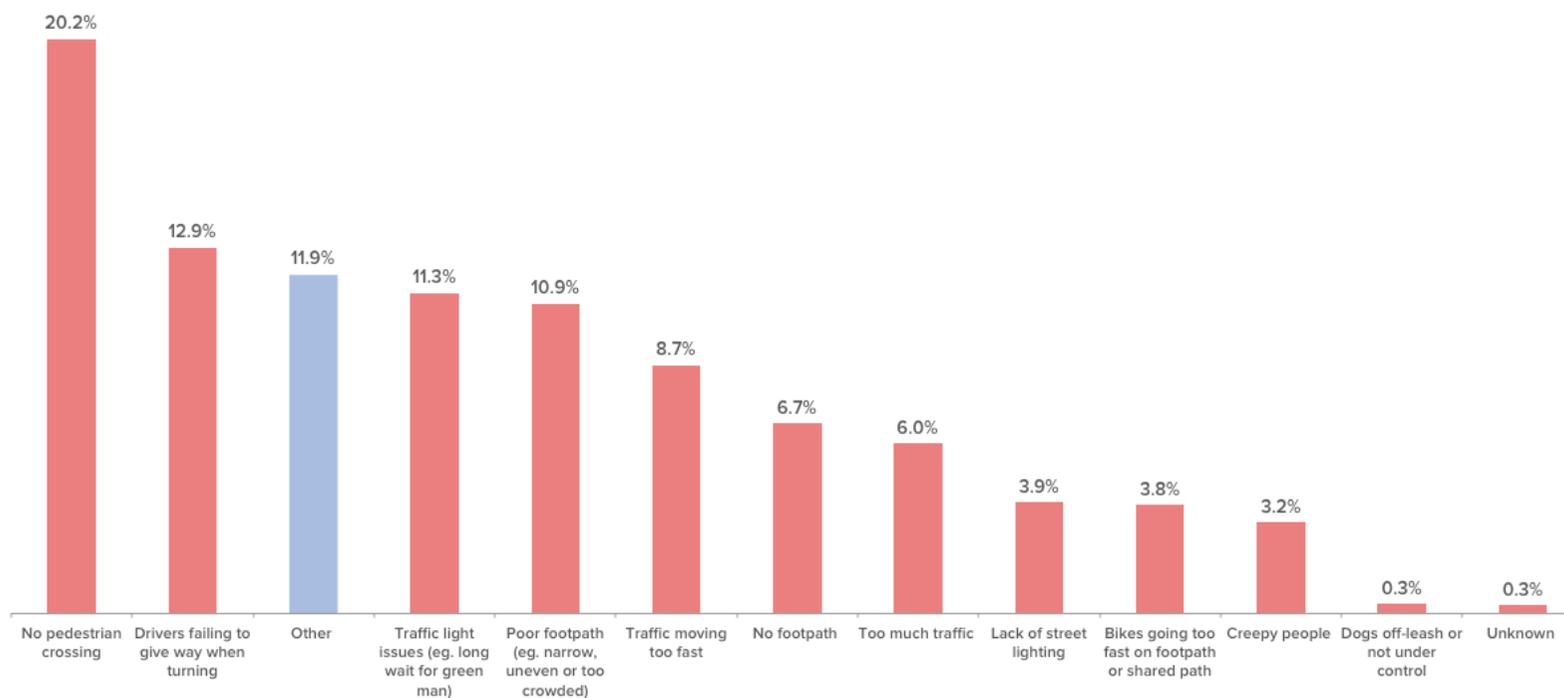
- Someone

7. Unsafe WalkSpots

Issues within Unsafe WalkSpots

When an Unsafe WalkSpot was selected, users were asked to identify *'what makes you feel unsafe or makes walking difficult'* at that specific location from a list of provided options. Across all Unsafe WalkSpots clearly the most common issue identified was *'No pedestrian crossing'* with 20.2%. Other significant issues included *'Drivers failing to give way when turning'* (12.9%), *'Traffic light issues'* (11.3%) and *'Poor footpath'* (10.9%). A large proportion of users selected *'Other'*² (11.9%). The chart below shows the results before detailed consideration of responses under *'other'*.

Figure 11 – Top Unsafe WalkSpot Issues

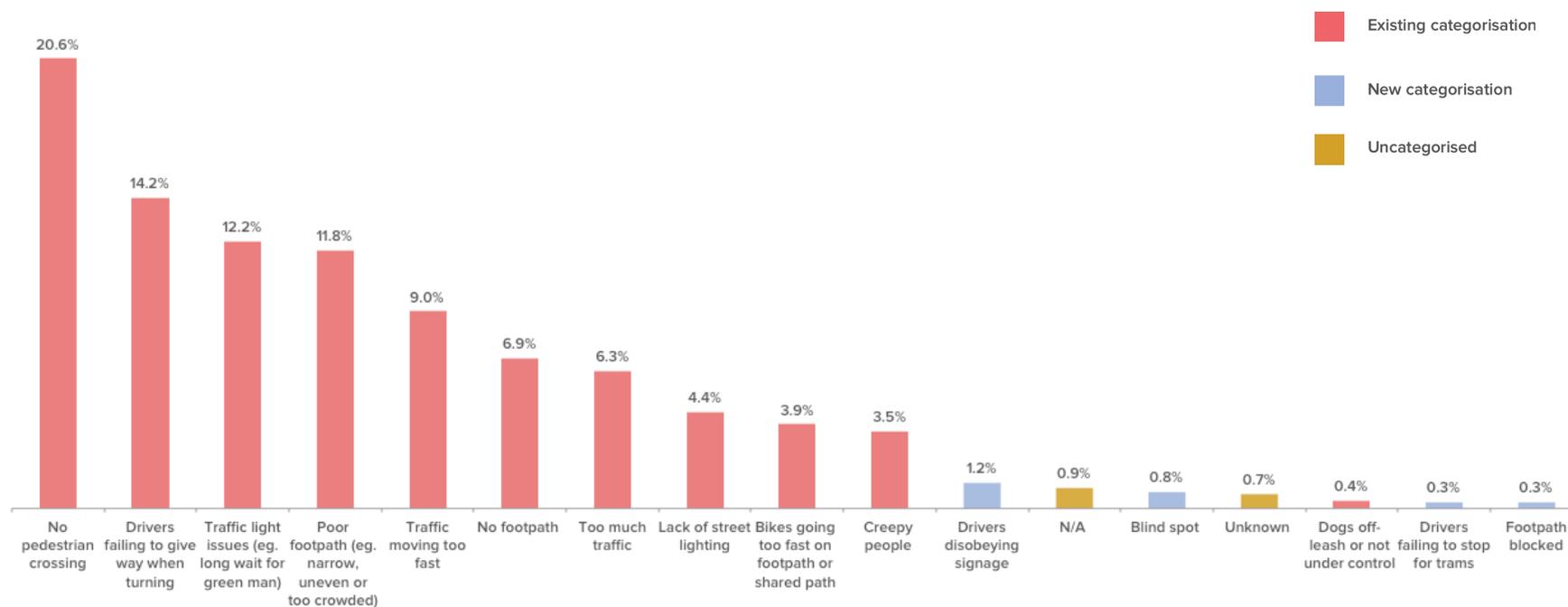


² Refer to Appendix for breakdown of *'Other'* category.

Issues – After ‘Other’ categorisation

The chart below represents the Unsafe WalkSpot issues after the responses under the ‘Other’ option were re-categorised by CrowdSpot, looking at the detailed comments provided. The order of the existing categories remains the same but there are many new categories. The more prominent new categories include ‘Drivers disobeying signage’, ‘Blind spot’, ‘Drivers failing to stop for trams’ and ‘Footpath blocked’. Uncategorized Unsafe WalkSpots included submissions that weren’t relevant to walking or could not be understood.

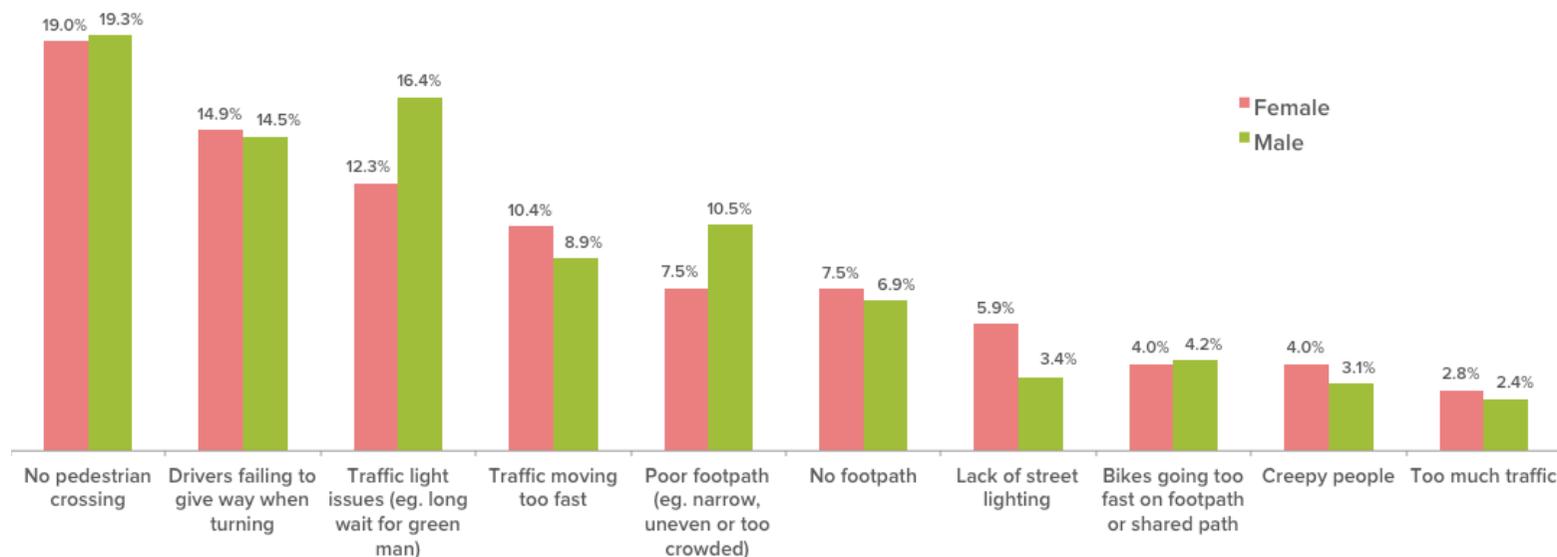
Figure 12 – Top Unsafe WalkSpot Issues – After ‘Other’ categorisation



WalkSpot Issues by Gender

The chart below (Figure 13) compares the female and male top 10 issues that were submitted within individual spots. The issue with the greatest difference was ‘Traffic light issues (eg. Long wait for green man)’. This issue represented 16.4% of Unsafe WalkSpots for men and 12.3% of Unsafe WalkSpots for women. Men also reported more issues under the category of ‘Poor footpath (eg. Narrow, uneven or too crowded)’ than women. ‘Lack of street lighting’, ‘Traffic moving too fast’ and ‘Creepy people’ were walking issues that were more prominent amongst women. This is consistent with a higher level of concern about personal safety and may also reflect issues of concern when walking with children.

Figure 13 – Top 10 Unsafe WalkSpot Issues by Gender

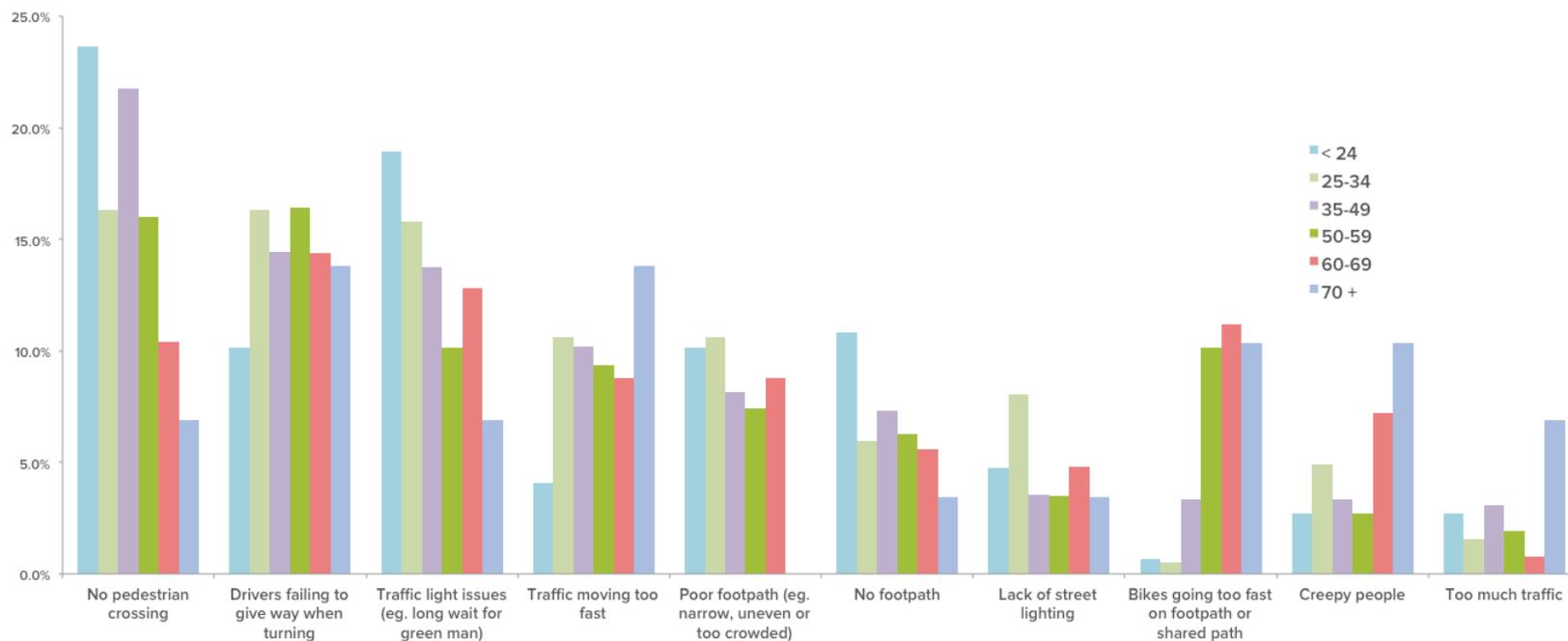


Note: Figures can also be found in Appendix B

WalkSpot Issues by Age

It is interesting to view the various WalkSpot issues broken down into age groupings (Figure 14). It appears that younger people are more concerned with issues associated with a lack or inadequacy of infrastructure ('No pedestrian crossing', 'Traffic light issues' and 'No footpath'), while older people appear to be relatively more concerned about the behaviour of other people ('Bikes going too fast on footpath or shared path' and 'Creepy people'). 'Traffic moving too fast' and 'too much traffic' rated comparatively highly as a concern for those aged over 70, but the sample size for this group was small (29 spots in total).

Figure 14 – Top 10 Unsafe WalkSpot Issues by Age



Note: The '70 +' age group represents only 29 respondents. Full table can be viewed in Appendix

General Walking Issues

When submitting a spot, regardless of whether it was a Safe or Unsafe WalkSpot, users were asked to identify their ‘most important’, ‘second most important’ and ‘third most important’ issues they felt were most concerning when walking in their area. Figure 12 below represents a consolidated chart across priority concerns where ‘most important’ submissions are more heavily weighted³. Consistent with the issues identified in the specific Unsafe WalkSpots, ‘Lack of pedestrian crossings’ was the most concerning issue with 16%. The top 4 categories all relate to interactions with vehicle movement. After ‘Lack of pedestrian crossings’, the next four were ‘traffic moving too fast’, ‘Drivers failing to give way’, ‘Too much traffic’ and ‘Traffic light issues’.

In comparing these results to the issues for specific spots, the results are generally similar, but some differences emerge. Traffic speed and volume feature more as general issues than for specific locations. This is also true of concerns about dogs, although this is still the lowest rating issue.

Conversely, poor footpaths and lack of pedestrian crossings rate slightly lower as general issues than as location specific issues, but still rate highly overall. Overall, ‘Creepy people’ rated lowly as an issue. However the promotion of WalkSpot focused on road safety rather than general concerns about personal safety. This result should therefore be treated with caution.

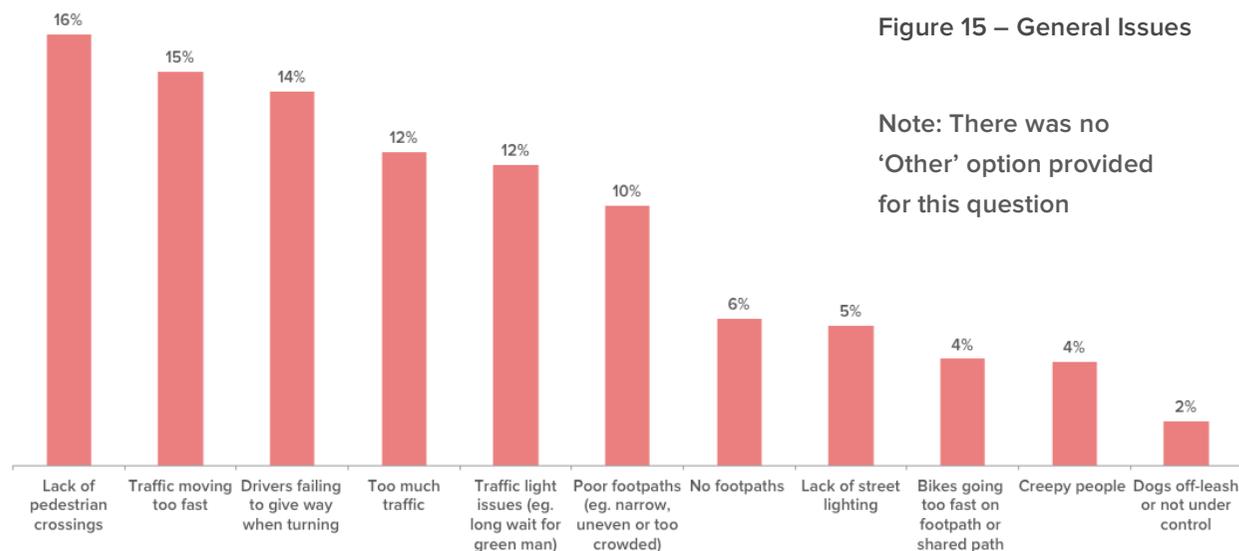


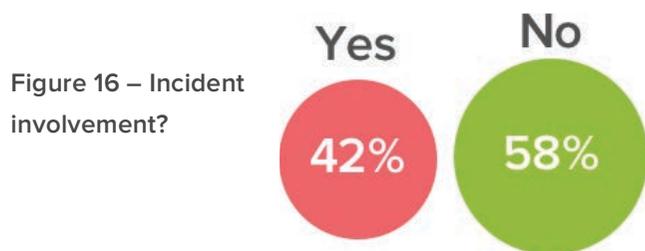
Figure 15 – General Issues

Note: There was no ‘Other’ option provided for this question

³ ‘Most important’ received 3 points, ‘Second most important’ 2 points and ‘Third most important’ 1 point

Incidents reported

All spot submissions required users to answer if in the past 2 years they had been involved in a collision, experienced a near miss or fallen while walking at that specific location. 42% or 986 spots experienced an incident.



The vast majority (77%) of incidents recorded by users were classified as a 'Nearmiss'. After nearmisses, 'Vehicle collision' (7%) and 'Trip or fall' (6%) were the second and third most common incident types recorded. A low proportion of trips or falls could be as a result of the relatively younger age group (Figure 6) of participants.

In terms of what time the incident occurred, they are fairly evenly spread across periods of the day, whereas only 5% occurred at night. Evening peak hours were the most common period of the day for incidents to occur representing 32% of all incidents.

Figure 17 – Incident type

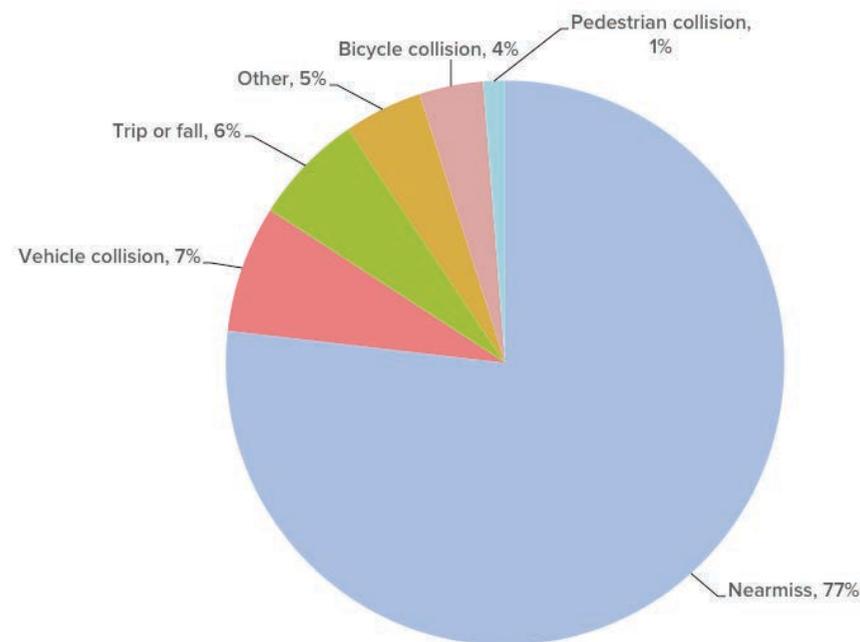
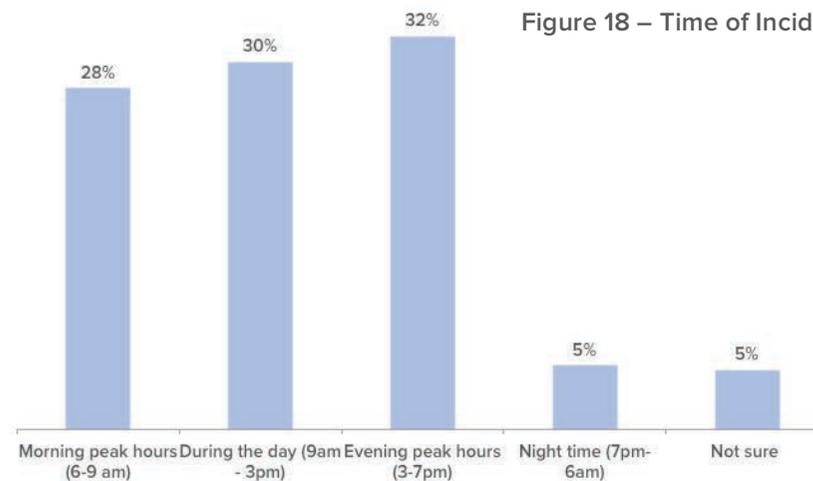


Figure 18 – Time of Incident



Incidents involving collisions

There were 116 incidents reported that involved a collision with a vehicle, bicycle or another pedestrian. The most common type of collision reported was the 'Vehicle collision' option with 59% followed by 'Bicycle collision' (30%) and 'Pedestrian collision' (10%). Collisions with bicycles appear to be a significant proportion of overall collisions. This could be seen as a surprise, given that crash statistics typically suggest a very low proportion of pedestrian crashes are with bicycles. However, this could be a result of these types of collisions being more commonly low impact in nature and therefore not captured by crash statistics.

Half of the participants who responded to experiencing a collision did not complete the question if they were injured or not. For the incidents that involved a collision, all individuals that responded sustained some form of injury (Figure 20). The majority of people (75%) sustained injuries that did not require medical attention, while 5% of incidents required people to be admitted to hospital, 9% were admitted to hospital emergency and 11% of people were treated by doctor. 90% of people who completed this section of the survey indicated that their crash did not involve any police reporting.

Figure 19 – Collisions

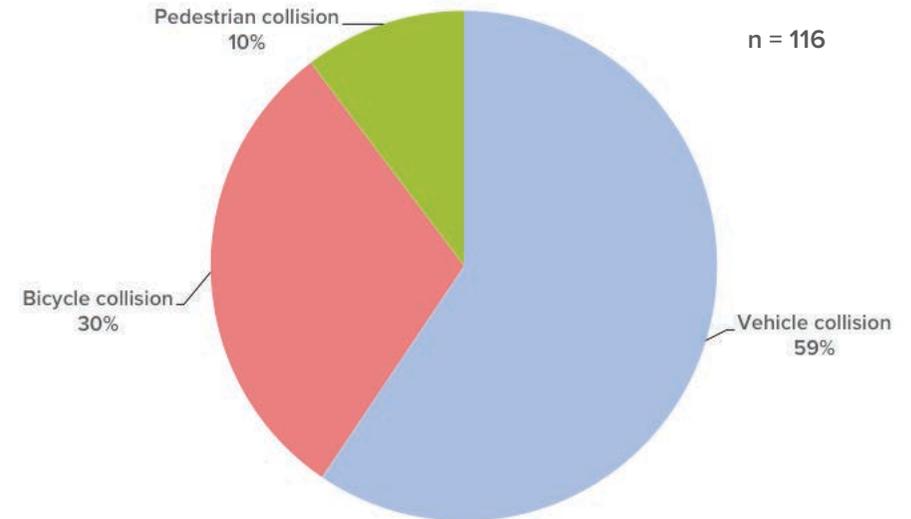
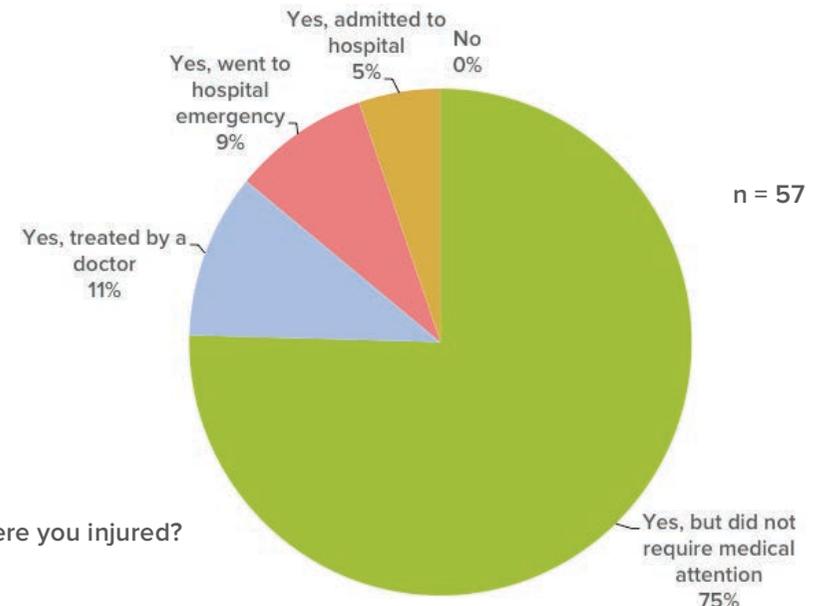


Figure 20 – Were you injured?



The most common pedestrian activity when collisions occurred was while crossing the road at an intersection (45%), with or without traffic lights. Standing or walking on the footpath was also a common walking activity during collisions (31%). This high proportion of people being hit in what should be a safe location is concerning. If people were hit by a person or vehicle crossing at an intersection they were asked about the vehicle activity at the time of the collision. Vehicle activity at the time of collision was ‘going straight ahead’ (40%) followed by ‘turning right’ (27%) and ‘turning left’ (25%). This suggests that more than half of collisions involved a pedestrian being hit by a turning vehicle that they may have perceived should have given way to them.

Figure 21 – Pedestrian activity at time of collision?

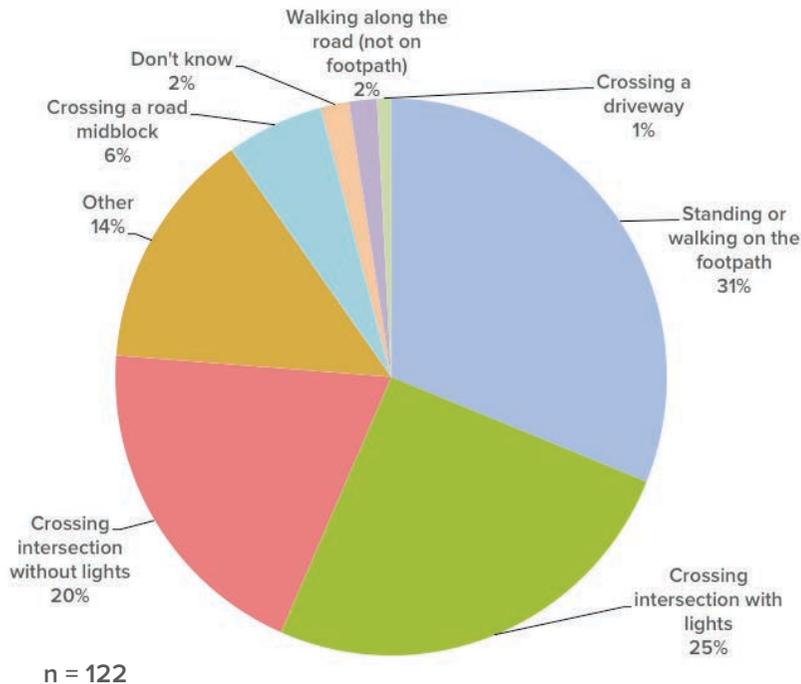
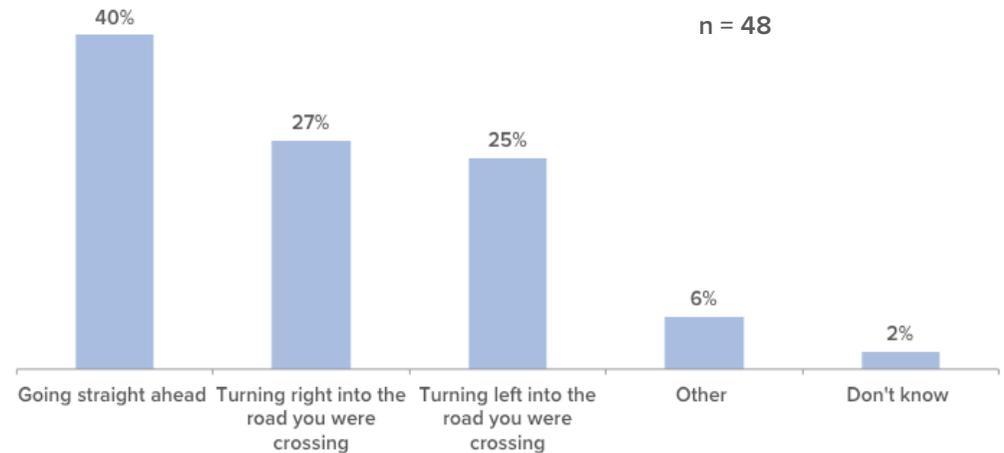


Figure 22 – Vehicle activity at time of collision at intersections?



Incidents involving a trip or fall

The most common pedestrian activity at the time of a trip or fall was ‘standing or walking on the footpath’ (60%). ‘Crossing intersection with lights’ and ‘Other’ both represented 10% (or 5 responses) of activities during trips or falls. The main cause of a trip or fall was very clearly ‘Uneven road or footpath surface’ (62%). ‘Slippery surface’ was the next most common response with 17%.

Figure 23 – Pedestrian activity at time of trip or fall?

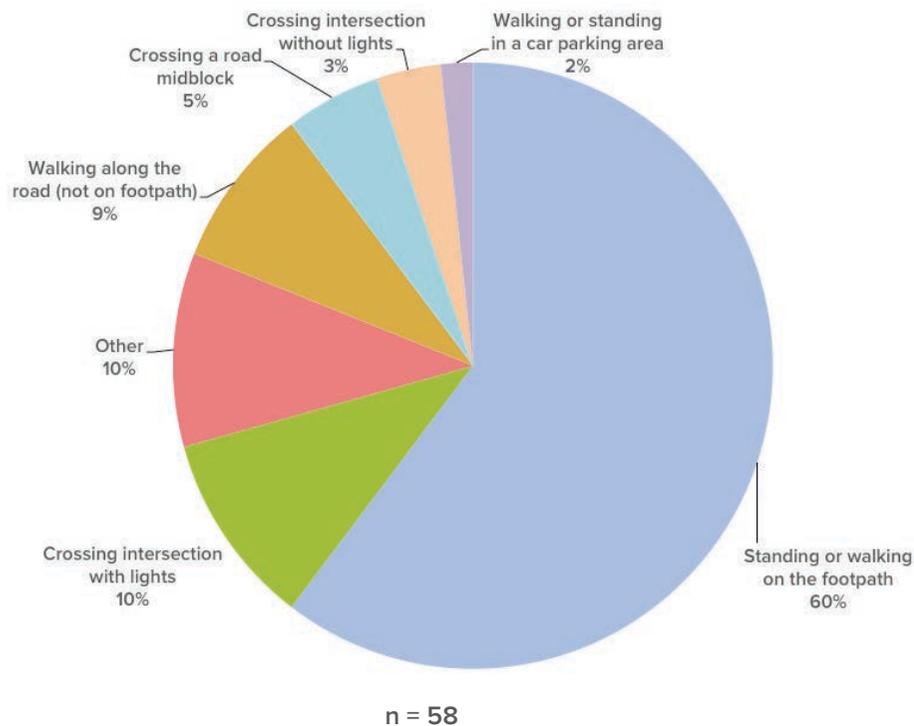
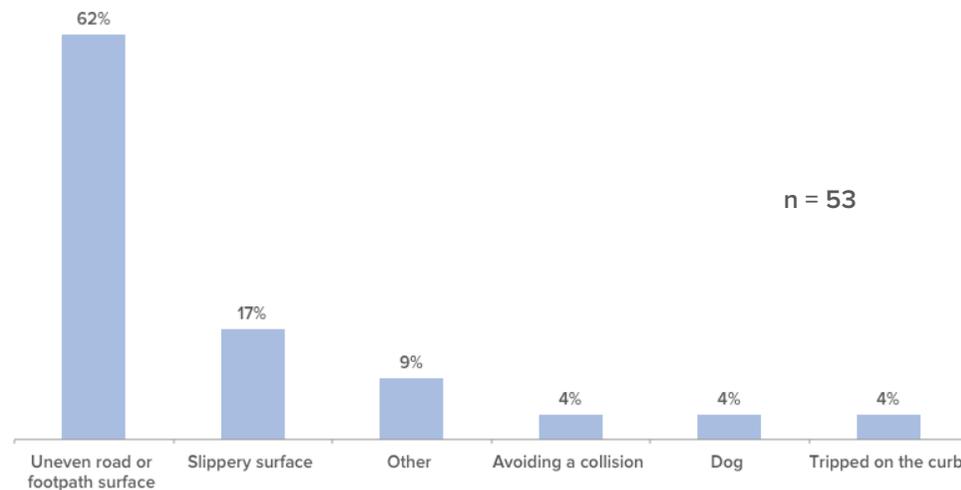


Figure 24 – Cause of trip or fall?



Top Unsafe WalkSpots

Similar to the top Safe WalkSpots, it was possible to identify the top Unsafe WalkSpots by combining the number of comments and ‘supports’ of all spots that share the same sentiment at the same location. Due to the relatively large number of Unsafe WalkSpots, the top 15 Unsafe WalkSpots ranking has been produced. In the list below, * indicates locations where there appears to have been community organising to encourage local support and possibly prominence of the issue. Clearly, as a public engagement exercise, these results are open to being influenced by this sort of campaign. The spots below are therefore not necessarily the most dangerous, but they do reflect community concern.

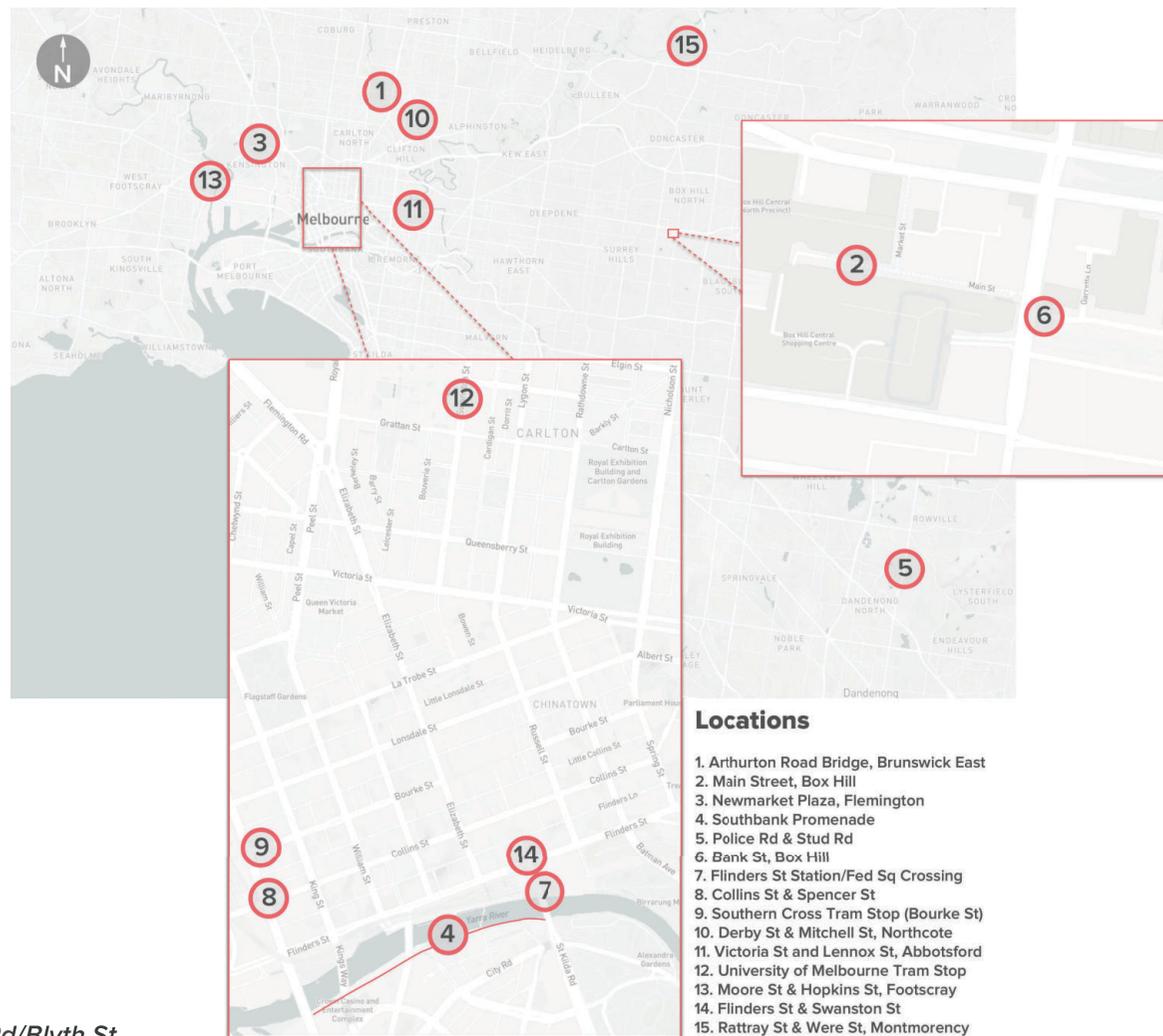
1. Arthurton Road Bridge, Brunswick East* – Narrow path

(Photo on following page)

‘Narrow footpath and no protection from traffic. Arthurton Rd/Blyth St has 15,000+ vehicles per day. Bike riders often ride on footpath rather than road as they feel unsafe on narrow bridge crossing.’

- Helen

Figure 25 – Top Unsafe WalkSpots



2. Main Street, Box Hill* – Creepy people

'Many people loiter around here in the day and night. I don't feel safe.'

- Darren

3. Newmarket Plaza, Flemington – No footpath

'There is no footpath between the Racecourse Road tram stop/main entrance and the shopping centre. This forces pedestrians to walk on the road, putting them in danger of being hit by a car.'

4. South Bank Promenade – Bikes going too fast on path

'As a cyclist and a pedestrian in this area, many cyclists ride at ridiculous speeds here. I'm surprised this isn't policed. Only a matter of time before someone's hurt.'

- Skeg

5. Police Rd & Stud Rd*, Rowville – No footpath

'Service Road entry like Polish House would save life threatening accidents for visitors to Football Ground, Tennis, Reserve & Nirankari volunteers.'

- Manjit

6. Bank St & Station St, Box Hill* – Dark and unsafe underpass

'Really unsafe especially late at night- really need more lighting and updated security cameras; as I often see the ONE camera covered in graffiti.'

- A concerned resident



Figure 26: Arthurton Road

7. Flinders Street Station/Federation Square Crossing – Traffic light issues

'These lights change far too quickly, when I am with my mum there is not enough time for her to cross. the lights turn green for cars before she gets across..'

- George

8. Collins St & Spencer St Intersection – Poor footpaths and crossing width

'This junction is exceedingly dangerous at peak hours and during the day, with many people entering/leaving the station. Crossings are not wide enough, and drivers often queue across junction and crossings..'

- Someone

9. Southern Cross Tram Stop (Bourke St) – Pedestrian congestion

'Tram stop isn't designed to allow large numbers of people on and off trams and then through the intersection. Large numbers of people get caught in the middle of the road. Then there is not enough room on the footpath if they can get there.'

- Brownie

10. Derby St & Mitchell St, Northcote* – Crossing improvements required

'Popular walk to school direction. Needs traffic island. Wide road. Lots of traffic. Young families'

- Jenny

Figure 27: Flinders Street Station/Federation Square Crossing



11. Victoria St & Lennox St, Abbotsford – Creepy people

'Filthy spitting swearing druggies. No thanks. Avoid at all costs.'

- Fi

12. University of Melbourne / Swanston St Tram Stop Crossing – Traffic light issues

'Multiple issues – 1) The green pedestrian light often takes a few minutes to change. 2) Vehicles often don't see the red light and fail to stop at the crossing. 3) The crossing waiting point in the centre at the tram stop is too narrow and often spills over onto the tram tracks.'

- Phil

13. Moore St & Hopkins St, Footscray

'Primary safety issues are the large volume of heavy vehicles and the speed with which traffic turns corners.'

- Del

14. Flinders St & Swanston St Intersection

'Multiple issues - 1). There is not enough space for people on all corners of the intersection, often totally blocked waiting for crossing phases. 2) The vehicle traffic is annoying they consistently block crossings during pedestrian phases. It is most detrimental to young children, the elderly, and the disabled.'

- Neville

15. Rattray Rd & Were St Crossing, Montmorency

'Even though it is a 24/7 pedestrian crossing, cars often drive straight through, even if there is a pedestrian about to cross.'

- Catherine

Figure 28: Moore St & Hopkins St, Footscray



Source: Google

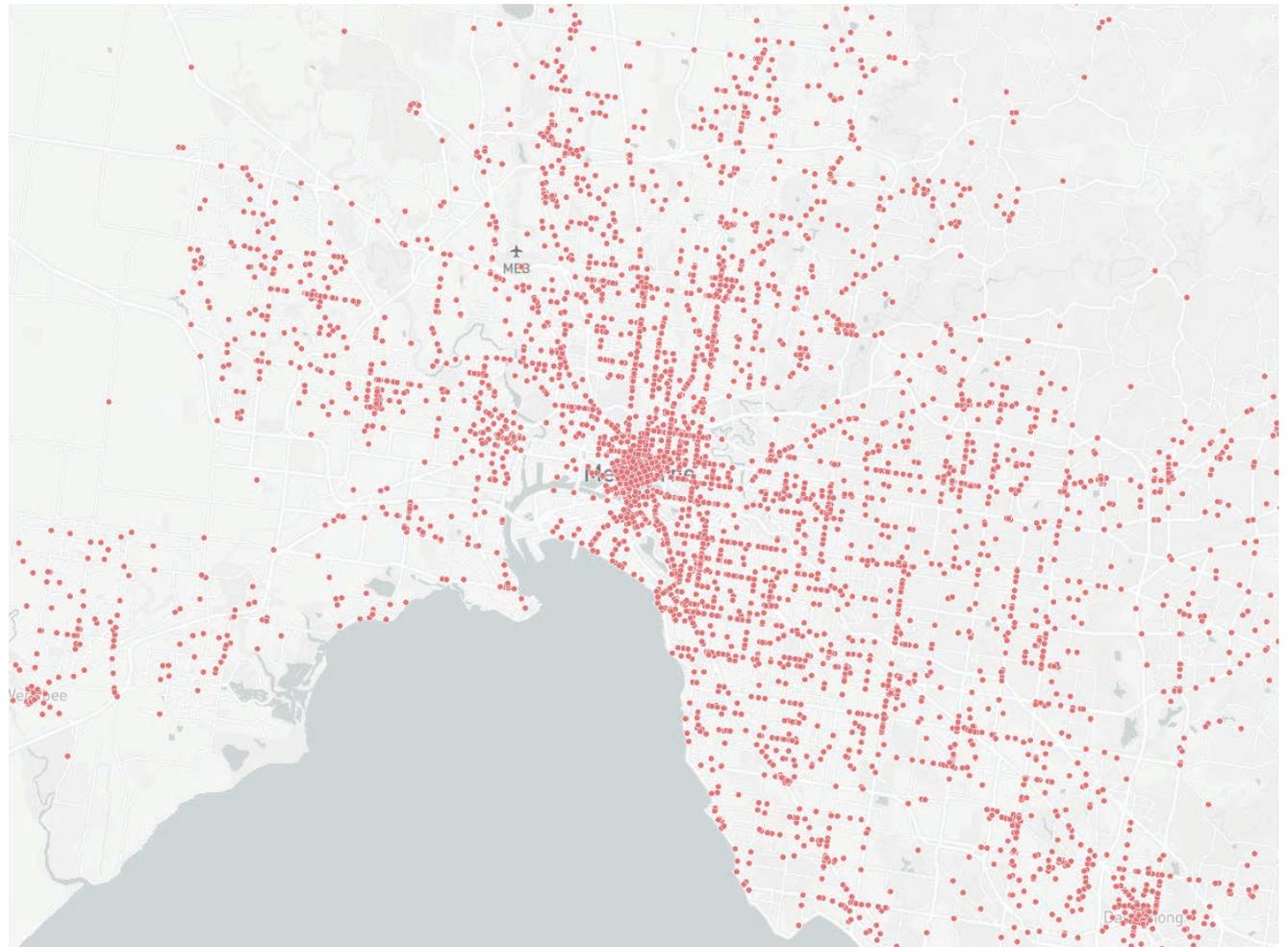
8. Unsafe WalkSpots Vs CrashStats

In the previous section of this report we identified the top unsafe walking locations based on people's perceptions. Comparing these locations with VicRoads CrashStats data for pedestrian crashes (Figure 29) may provide a deeper understanding of circumstances for the relative walking risk in Melbourne.

It is important to note that VicRoads CrashStats data is generated through police crash reporting. As a result, these tend to involve more serious injuries and therefore minor crashes often go unreported.

Figure 29 compares the top 15 Unsafe WalkSpots with the number of pedestrian crashes reported in

Figure 29: 2012-2016 Pedestrian CrashStats



Source: VicRoads CrashStats

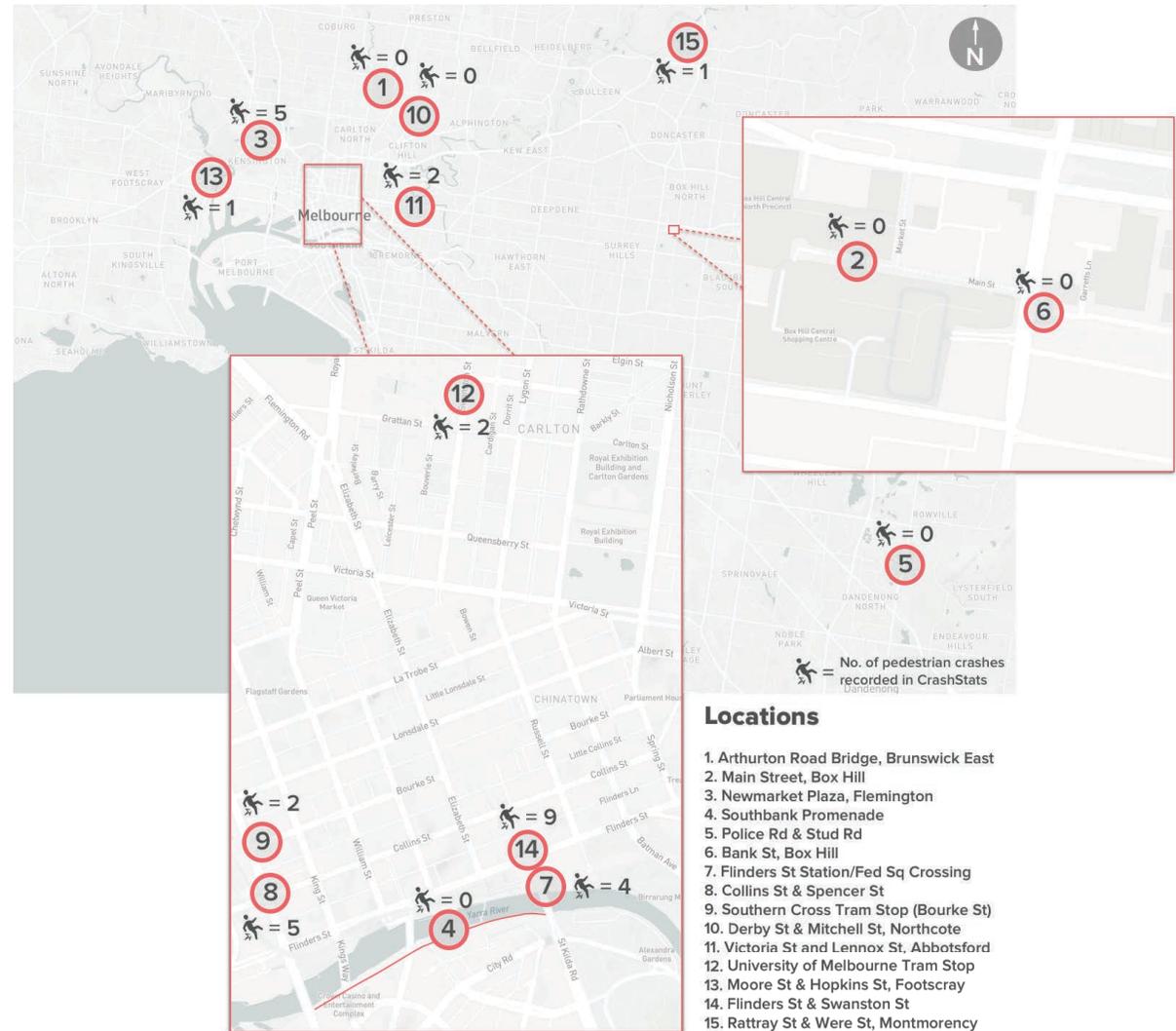
CrashStats that took place in the 5-yr period between 2012-16.

Reviewing this map, you will notice that there is a lot of variation between the numbers of crashes that were recorded at these top Unsafe WalkSpots. Key points include:

- Six Unsafe WalkSpot locations did not witness any recorded crashes between 2012-16. Note that two of these WalkSpots (No. 2 and No. 11) relate to anti-social behavior and are therefore unlikely to have any correlation with crash data.
- Four of the 15 locations recorded 4 or more crashes during the 5-year period. These locations experience relatively high volumes of pedestrian movement.

Despite the fact that many of these locations do not have a strong historical crash record, it does not mean that they do not pose any risk. Not only do crash records tend to capture more serious incidents but also it is reasonable to expect that people who perceive risk at certain

Figure 30: Top Unsafe WalkSpots and CrashStats (2012-2016)



locations would tend to take more caution when walking at those locations. This confirms that people’s perception of safety and amenity concerns can vary considerably from official crash data and may include considerations beyond risk from traffic. While these data sources can tell a different story they can both have an impact on people’s willingness to walk more often.

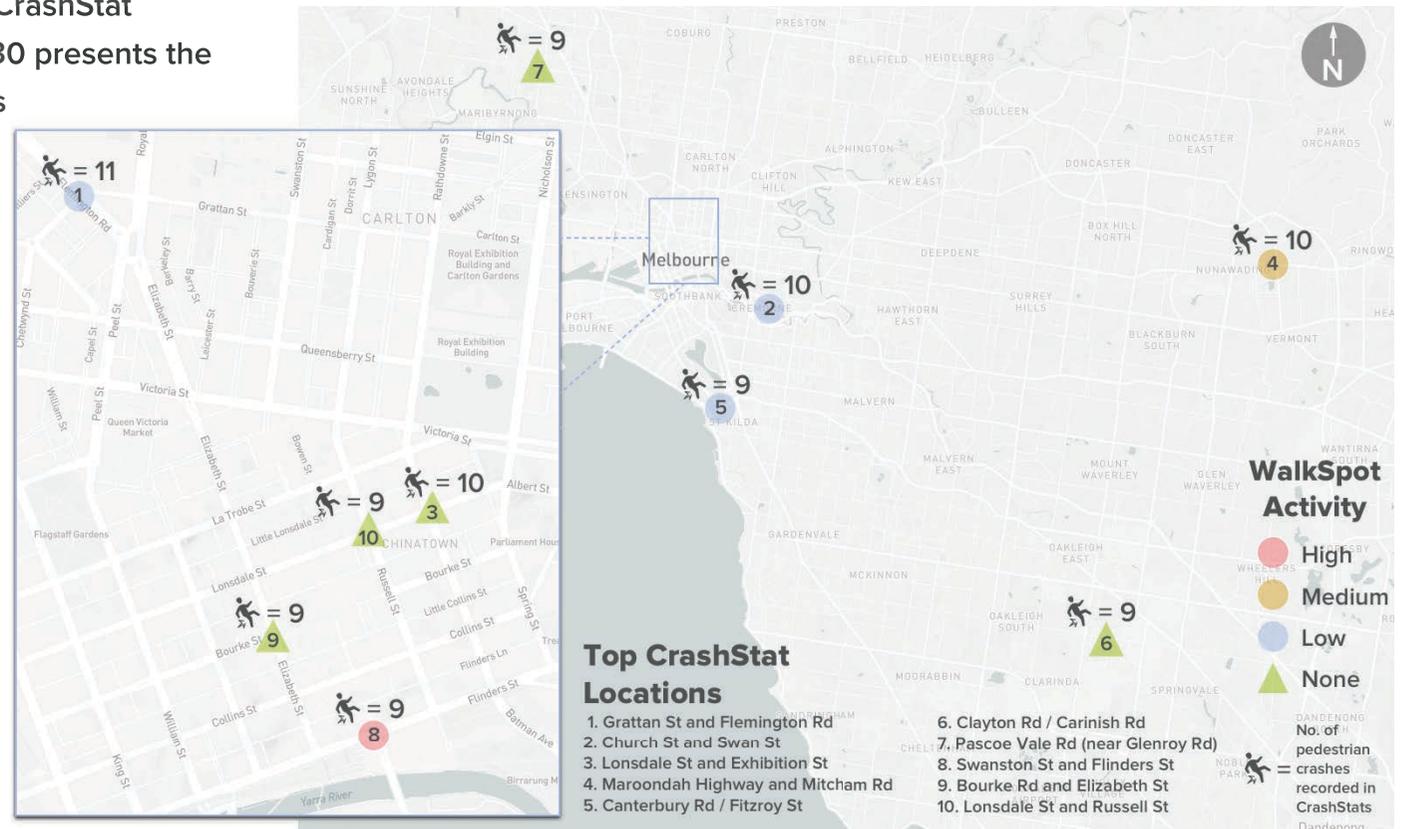
Top CrashStat Locations and Unsafe WalkSpots

In addition to comparing Top Unsafe WalkSpot locations with CrashStats it is also worthwhile comparing the top CrashStat locations with WalkSpot data. Figure 30 presents the top 10 CrashStat (2012-2016) locations compared to the amount of Unsafe WalkSpot submission activity⁴.

The top 10 crash locations were identified through counting the number of pedestrian crashes at those locations. Please note that there is no priority ranking for locations with the same number of historical pedestrian crashes.

⁴ WalkSpot activity = No. Comments + No. Supports (Low = <5, Medium = 5-20, High = >20)

Figure 31: Top CrashStat Locations (2012-2016) and WalkSpot



Five of out the Top 10 CrashStat locations did not receive any WalkSpot activity. Three locations had 'low' WalkSpot activity and the remaining two locations received 'medium' and 'high' WalkSpot activity. These findings suggest that there are high-crash locations that people don't potentially perceive as a significant safety risk. Once again, the variation between CrashStats and WalkSpot data confirms that historical crash record locations may vary from people's safety perceptions of those locations.

10. WalkSpot Summary

In total, 27,218 people engaged (both passively and actively), with the map receiving over 8,500 submissions, including 2,390 spots. The majority of participants were female (64%) and overall they were aged between 25-49 (70%). The vast majority of spots added to the map were Unsafe WalkSpots (89%), of which over 75% of spots were where people indicated they walked at least once a week. The remaining spots were made up of Safe WalkSpots (11%), which were typified by locations designed specifically with pedestrian prioritization and amenity in mind.

The most common unsafe walking issues across all locations was 'no pedestrian crossing' (20.2%), followed by 'Drivers failing to give way' (12.9%) and 'Traffic light issues' (11.3%). 'Other' was also a common selection (11.9%) and represented numerous different walking concerns (Figure 11). This highlights the complexity of experiences people face when walking in Melbourne. Interestingly, younger respondents were more concerned about the inadequacy of infrastructure while older people tended to report more issues associated with the behaviour of other people. When asked to rank their walking concerns more generally, the most popular responses were 'lack of pedestrian crossing' (16%), 'Traffic moving too fast' (15%) and 'Driver failing to give way when turning' (14%). These concerns were similar to those represented at specific locations within Unsafe WalkSpots and perhaps not surprisingly all involve pedestrian interaction with motor vehicle traffic.

A large number of people (42%) also reported incidents taking place at their submitted spot, although the majority were categorised as a 'Nearmiss' (77%). 'Vehicle collision' (7%) and 'Trip or fall' (6%) were the next two most common responses for users when categorising their incident type. The most common cause for a trip or fall was 'Uneven road or footpath surface' (62%).

When comparing the top Unsafe WalkSpots to CrashStats (2012-2016), there was considerable variation in the level of correlation at different locations. Six of the top 15 Unsafe WalkSpots, notably those where there was an apparent public campaign, did not record a single crash. By comparison the Flinders St and Swanston St intersection is a significant concern with 9 crashes recorded over the past five years. Inner-city locations that experience high levels of pedestrian movement, such as Flinders St and Swanston St, recorded a stronger historical crash record. There was also a notable difference when comparing the top CrashStat locations (2012-2016) to Unsafe WalkSpot submission activity. Five of the top 10 CrashStat locations had no WalkSpot activity and only two locations had medium or high WalkSpot activity.

The WalkSpot project highlights the community's strong interest in improving pedestrian road safety and amenity. Comments show that there are a complex variety of issues and concerns that people face when walking throughout metropolitan Melbourne. It is clear that intersections and other public spaces that have strong pedestrian prioritisation designs are appreciated by the community. This project also highlights a different story from the one being told by official crash statistics. On the one hand, there are locations that are concerning to many individuals that have recorded no crash history. This could be as a result of people taking more caution at locations where they perceive there to be a great risk, or possibly avoiding places they would like to walk. Conversely, there are locations with a high crash history where there was little concern expressed by the community through WalkSpot. Despite this, people's safety and amenity perceptions, in addition to official crash statistics, needs to become a stronger consideration when planning for future improvements. Crash statistics do not reflect people's experience and perception of places, but it is those perceptions that will shape their behaviour. If people's perceptions of walking safety are not factored in to identifying locations for priority improvements, important issues that prevent people from walking more often may be missed.

11. Conclusion

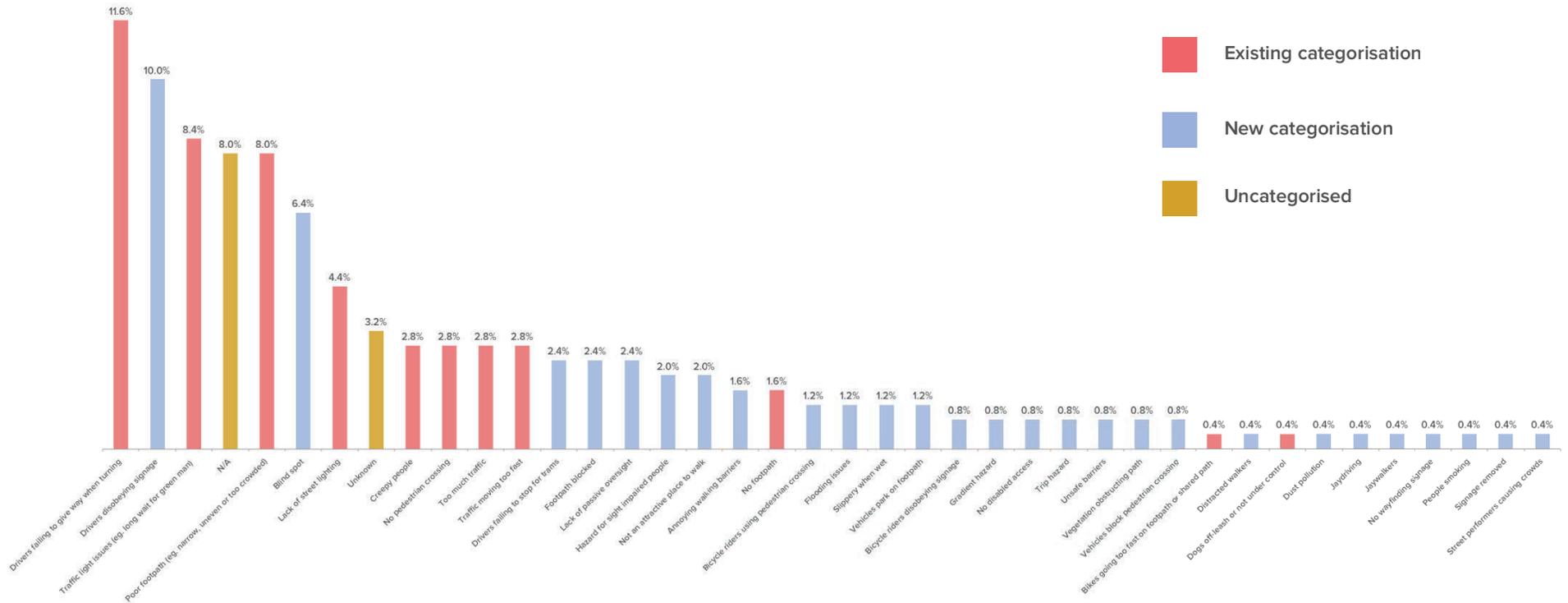
A major focus of this project is the identification of specific locations where action is needed to address pedestrian safety. The data gathered has been provided directly to VicRoads and the various council partners shown at the end of this report. This will give them a new and different resource to inform investment decisions, rather than relying solely on CrashStats.

While the findings of this project largely relate to infrastructure, there are some general findings that should inform broader policy and practice. The results suggest a common perception amongst walkers that many drivers do not give way when they should (although drivers are not always required to give way when turning). The findings around collisions suggest that a little more than half (52%) of the collisions involved people being hit by a turning vehicle. This is consistent with other Victoria Walks research – Safer Road Design for Older Pedestrians – which found the most common crash scenario for older pedestrians was being hit by a turning vehicle.

Similarly, there is strong concern with the level of service provided to pedestrians at traffic lights. Crossing at traffic lights typically requires a pedestrian to push a button and wait for the green signal, which will display for a pre-determined length of time. If the pedestrian was not aware that they needed to push the button, forgot to push it, or did not reach it in time, the walk signal will not usually appear. In some cases, the signals may not allow adequate time to cross safely. The results of this project suggest the level of service typically provided to pedestrians at signals is causing genuine frustration amongst the public. There are a range of technical options available that give higher priority to pedestrians at traffic signals and there is substantial scope to apply these more broadly.

Appendix A

Figure 32: 'Other' Unsafe WalkSpot Issues



Appendix B

Figure 33: Unsafe WalkSpot Issues by Age and Gender

WalkSpot Issues Reported	Female								Male								X								Blank Total				Grand Total			
	14-17	18-24	25-34	35-49	50-59	60-69	70-84	(blank)	Female Total	14-17	18-24	25-34	35-49	50-59	60-69	70-84	(blank)	Male Total	18-24	25-34	35-49	50-59	70-84	85+	(blank)	X Total	25-34	35-49		60-69	Blank Total	
Annoying walking barriers				1					1			1	1	1				3														4
Bicycle riders disobeying signage					1				1					1				1														2
Bicycle riders using pedestrian crossing			1						1					1	1			2													3	
Bikes going too fast on footpath or shared path			2	16	12	11	1	1	43		1		12	14	3	2		32			1					1	2				77	
Blind spot			3	4	2				9		1	1	1		1			4													13	
Creepy people		1	15	17	6	4			43		2	4	11	1	5	1		24	1		1		1	1		4					71	
Distracted walkers							1		1																						1	
Dogs off-leash or not under control			1		2				3					1		2	1	4													7	
Drivers disobeying signage			2	13	4				19			2	3	1				6													25	
Drivers failing to give way when turning	1	3	33	77	27	13	2	3	159		12	28	49	13	5	2	2	111		1		2				3	1		1		274	
Drivers failing to stop for trams							3		5					1				1													6	
Dust pollution													1					1													1	
Flooding issues			1	1					2					1				1													3	
Footpath blocked				1			1		2			1	2	1				4													6	
Gradient hazard			1			1			2																						2	
Hazard for sight impaired people						1			1					2				2							1	1					4	
Jaydriving													1					1													1	
Lack of passive oversight				2	1		1		4																						4	
Lack of street lighting	1	4	23	18	9	6	1	1	63		3	8	13			2		26							1	1					90	
N/A			3	6	3	1			13				1	2		1		4	1							1					18	
No disabled access												1	1					2													2	
No footpath			2	18	44	9	5	2	80		16	5	20	7	2	1	2	53							1	1					134	
No pedestrian crossing	2	2	43	117	25	8	1	5	203		33	18	72	16	5	3		147		1	1			1	3	6	1		1		357	
No wayfinding signage														1				1													1	
Not an attractive place to walk			1	1				1	3		1	1						2													5	
People smoking			3	14	5				22		1	6	5	1	1	1		15					1		1	2					39	
Poor footpath (eg. narrow, uneven or too crowded)		2	20	38	10	7		3	80	2	13	20	32	8	4	1		80			1	1			2	4	1		1		165	
Signage removed												1						1													1	
Slippery when wet			1	1		1			3																						3	
Street performers causing crowds			4	11	5				20	1	1	2	10	1	3			18			1	1				2					40	
Too much traffic			2	22	3		1	2	30	1	4	4	5	2	1	1		18													48	
Traffic light issues (eg. long wait for green man)		3	31	64	19	8	2	5	132	1	25	28	55	7	7	2		125		2						2	1	1	2		261	
Traffic moving too fast		1	22	60	19	5	2	2	111		5	18	29	5	5	2	4	68		1					2	3		1	1		183	
Trip hazard														1				1													1	
Unknown				7	1	1			9					1		1		2													11	
Unsafe barriers				1					1					1				1													2	
Vegetation obstructing path							1		1																							1
Vehicles block pedestrian crossing							1		1					1				1													2	
Vehicles park on footpath							1		1				1					1													2	
Grand Total	6	16	229	539	163	78	13	25	1069	5	119	149	328	88	45	13	16	763	2	5	5	5	1	2	12	32	3	1	2	6	1870	

Appendix C

Media items:

- 1) Article in The Age Online – Walking into danger: Melbourne’s worst pedestrian problem spots (14 March 2017)
 - <http://www.theage.com.au/victoria/walking-into-danger-melbournes-worst-pedestrian-problem-spots-20170314-guxvaz.html>
- 2) Interview with Ben Rossiter, Victoria Walks (14 March 2017) on 3AW radio, also broadcast on 14 other stations
- 3) Interview ABC radio Melbourne (15 March)
- 4) Article in Herald Sun / Port Phillip Leader - Port Phillip pedestrians urged to log unsafe locations on WalkSpot interactive map (23 March 2017)
 - <http://www.heraldsun.com.au/leader/inner-south/port-philip-pedestrians-urged-to-log-unsafe-locations-on-walkspot-interactive-map/news-story/6cc298c9b62acc3d7ca42feec96e767d>
- 5) Article in Glen Eira Leader (28 March)
- 6) Article in Diamond Valley Leader (29 March)
- 7) Article in Northern Weekly (4 April)
- 8) Article in Whittlesea Leader (18 April)

Figure 34: WalkSpot embedded in The Age online



Acknowledgements

Thank you to all of our Project Partners who helped promote the project.

