

Strategies to reduce Pedestrian Knockdowns: *Beware the Rhino*

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1 EXECUTIVE SUMMARY

Yarra Trams is committed to Zero Harm; not only to its employees, but Zero Harm to passengers, the communities in which we operate and the environment. In the year from July 2010 – June 2011 there were a total of 41 “pedestrian knockdowns”, where a person was struck by a tram. This number has doubled since the year July 2007 – June 2008.

A pedestrian knockdown incident is often outside the control of the tram driver and generally involves a pedestrian walking in front of a moving tram or into the side of the tram. In Melbourne, this kind of incident most often involves pedestrians aged 18-25 years.

To address an increase in pedestrian knockdowns, Yarra Trams launched *Beware the Rhino* an exciting marketing strategy tailored specifically to this demographic with the aim of trying to make people aware of the importance of being alert around trams. The *Beware the Rhino* campaign compares the weight of a tram (up to 50 tonnes) to the weight of 30 rhinos. The premise is that if a rhinoceros was heading your way at speed, you would get out of the way, so you should do the same with trams.

A survey of 1087 people showed there was significant campaign recognition and the *Beware the Rhino* message was successful in communicating the safety message to “look, listen and be alert around trams”. Results showed that customers and staff believe there has been a change in pedestrian behaviour since the implementation of the campaign. However, the most important purpose of this initiative was to reduce pedestrian knockdowns and the campaign has had a genuine effect on pedestrian behaviour as the total number of incidents has declined in comparison to the previous year.

2 INTRODUCTION

Melbourne has the world’s largest operating tram network with 250 kilometres of double track and more than 1750 tram stops. It is also one of the oldest networks with electric trams having operated continuously since 1906.

Yarra Trams operates a fleet of 486 trams on 29 routes and the popular City Circle Tram for tourists and visitors. Approximately 85 per cent of the tram network shares the road with other road users, often within highly populated city and suburban settings. Trams travel approximately 25 million kilometres per year, with over 180 million passenger trips. Yarra Trams provides special services to major events such as the Australian Open tennis and the Formula One Grand Prix which account for more than half a million passenger journeys each year.

Yarra Trams maintains eight different classes of tram with an average age of 30 years. These vary from the historic W Class trams that have serviced the people of Melbourne for over 60 years, to modern Combino and Citadis low floor vehicles (see Figure 1).

Figure 1: Z1 tram and D2 Combino tram



Yarra Trams has been operated since November 2009 by KDR Victoria; a partnership of Keolis and Downer EDI Rail.

- Keolis – internationally renowned public transport solution provider operating in 13 countries through 160 subsidiary operations and a worldwide workforce of 45,500 staff.
- Downer EDI – Australia’s oldest rail company with over 100 years operating experience in rolling stock and infrastructure.

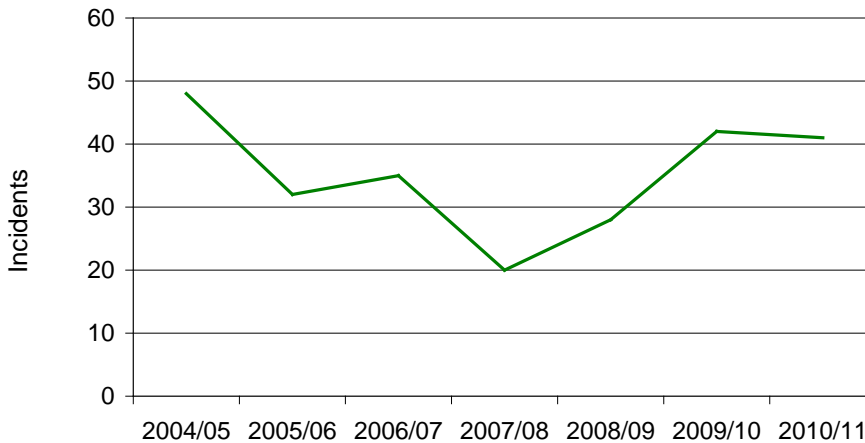
3 ZERO HARM PHILOSOPHY

Zero Harm means aspiring towards zero safety incidents and eliminating harm to our staff, customers, the environment and the communities in which we operate. This is a key philosophy for Yarra Trams as the company strives to deliver an even more attractive service to customers and maintain a work environment that supports the health and safety of our team.

A pedestrian knockdown incident involves a person making contact with the outside of a tram, which may or may not result in an injury or even a fatality. As seen in Figure 2, there has been an upward trend with the number of incidents doubling in the year July 2010 – June 2011 compared to July 2007 – June 2008. A total of 41 people were struck by trams in the Yarra Trams network in the 12 months to June 2011 including one fatality.

With Zero Harm in mind, Yarra Trams has sought to address this trend by undertaking a whole of company approach, from driver training and passenger marketing to enhancing segregation at key locations throughout the network.

Figure 2: Overall pedestrian knockdown incidents (July 2004 – June 2011)



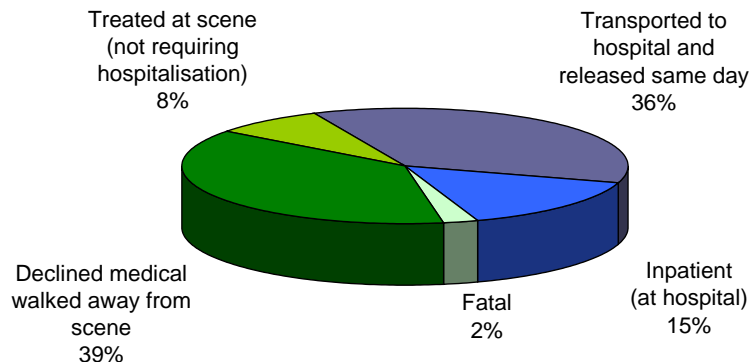
4 ANALYSING THE CHALLENGE

Before developing a plan to address the increasing number of pedestrian knockdowns, Yarra Trams undertook a period of analysis to better understand the nature of these incidents.

Whilst the number of incidents has risen, there has also been an increase in the number of reports from tram drivers and customer service staff of ‘near misses’.

Figure 3 shows that most of the pedestrian knockdowns do not result in major harm: 39 per cent of people walk away from the incident relatively unscathed. However, two per cent of incidents over the past seven years have resulted in a fatality.

Figure 3: Consequences of knockdowns (July 2004 – June 2011)

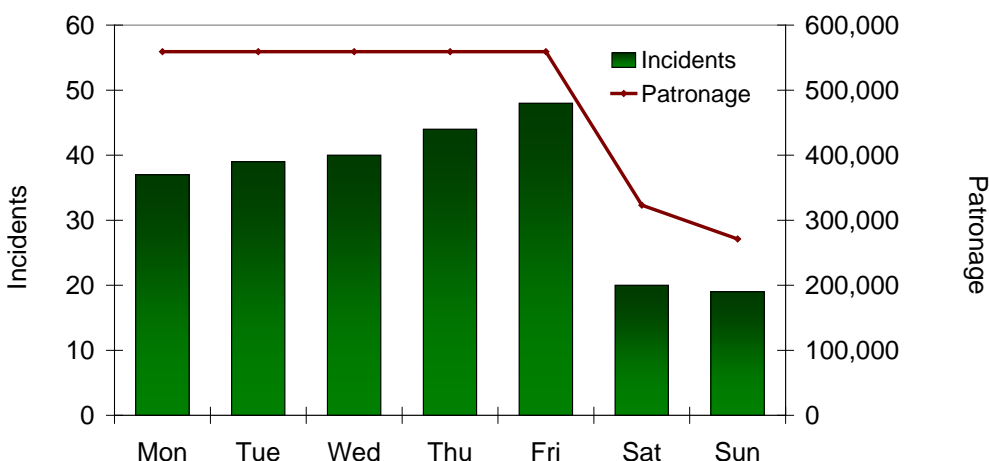




Analysing the locations of pedestrian knockdowns points to the busiest streets in the city and the most active suburban shopping areas as high risk zones. In some places, engineering controls can be created, such as barriers, however this is not a practical solution in many locations.

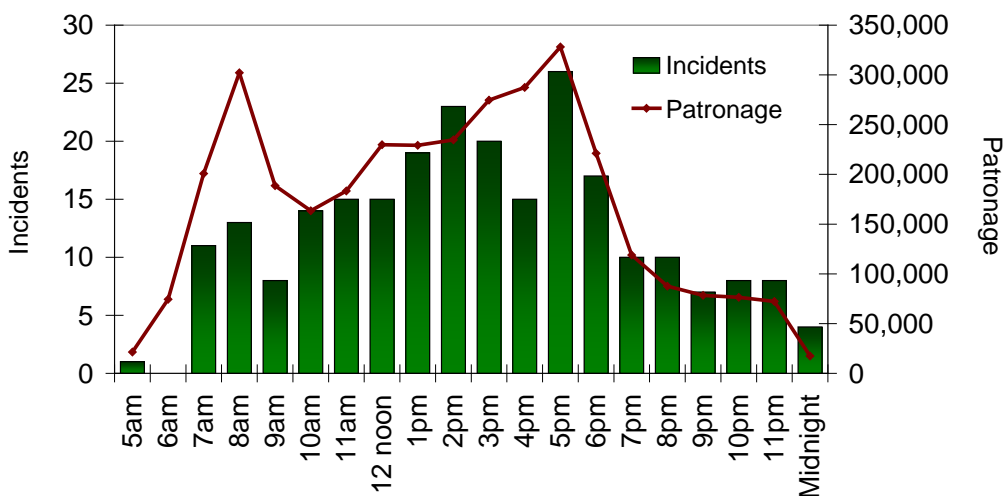
There is also some useful analysis on when these incidents occur. There is a slight increase in the prevalence of incidents as the working week progresses with Friday recording the largest number of incidents.

Figure 4: Comparison of pedestrian knockdown incidents against average patronage on each day of the week (July 2004 – June 2011)



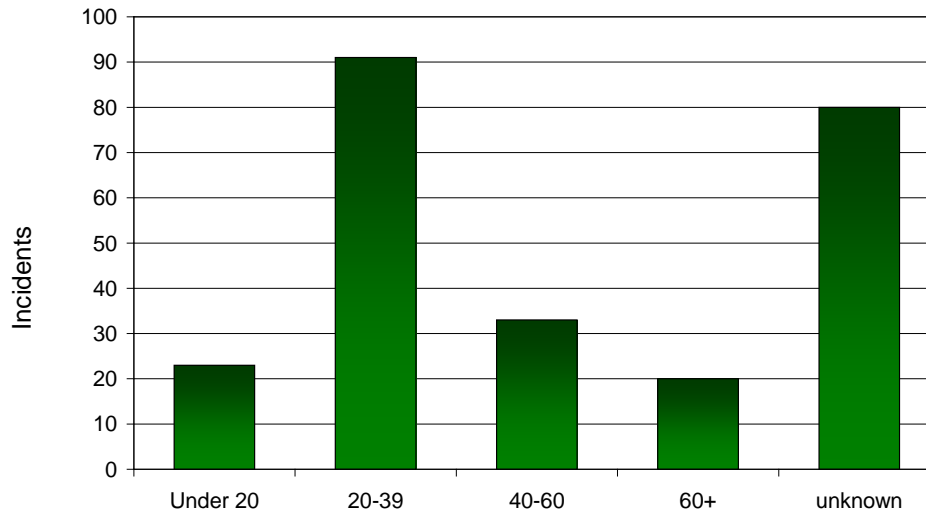
There is a slightly more complicated story when looking at the data showing the time of day that incidents occur. Figure 5 shows that a pedestrian knockdown is more likely to occur later in the working day. During the AM peak it is less likely for incidents to occur despite the high patronage. The PM peak timeframe has the highest likelihood of incidents which reflects an increase in patronage figures. The middle of the day is also a period when incidents are likely to occur, with the hour between 2pm and 3pm recording the second highest number of incidents.

Figure 5: Comparison of pedestrian knockdown incidents against average patronage at different times of a typical weekday (July 2004 – June 2011)



Analysis of the age of pedestrians involved in incidents shows some clear influencing factors. Young people aged between 20 and 39 are three times more likely to be involved in a tram pedestrian knockdown than any other age bracket. People under 40 make up over 68 per cent of all incidents where the age is known (see Figure 6). This age group therefore appears to be the most at risk of a being involved in a pedestrian knockdown involving a tram.

Figure 6: Age profile of pedestrians involved in knockdowns (July 2004 – June 2011)



From July 2004 to June 2011, almost 50 per cent of incidents involved a pedestrian walking into the side of a moving tram with this trend increasing significantly in the past three years.

An emerging trend is an increased number of reports of pedestrians involved in incidents using mobile phones or listening to music with headphones. As more and more people use these electronic devices they became less aware of their surroundings. Traditional methods of alerting pedestrians of the presence of a tram or tram tracks such as the audible gong, signage or line markings are less likely to influence the behaviour of pedestrians engrossed in using electronic devices.

With all of these findings in hand, it was clear that an innovative marketing campaign was required to cut through the maelstrom of safety alerts and warnings in order to reach the target audience.

5 CAMPAIGN

5.1 Key Message

The key aim of the campaign was to make pedestrians more alert when near trams or crossing tram tracks.

The target market for the campaign was those people identified as the most at risk of a pedestrian knockdown, namely those aged between 18 and 30 years.

Given the young age group, Yarra Trams wanted to use a creative approach with a significant social media and community engagement component. It was important not to preach to passengers and the general public by using a traditional scare campaign. Instead, the key objective was to create a memorable campaign which would generate interest via word of mouth and social media.

Thus ***Beware the Rhino*** was born. It uses the comparison that a tram can weight up to 50 tonnes, which is about the same weight as 30 rhinos. The premise is that:

“If a rhinoceros on a giant skateboard was heading your way, you’d get out of the way, Right? Well guess what, a tram weighs about the same as 30 rhinos so it’s not something you want to get hit by.”



5.2 Channels

Figure 7: Beware the Rhino poster and tram wrap



The campaign utilised the contrasting colours of bright yellow and black across the network, inside and outside trams as well as at tram and bus stops.

This eye-catching campaign was seen widely by passengers and the general community throughout Melbourne.



Figure 8: Beware the Rhino cinema advertisement



The *Beware the Rhino* campaign was also advertised in cinemas with a 30 second commercial. The ad was screened before films appealing to the under 30 market at cinemas near tram lines. The ad also became a hit online via *YouTube* and *Facebook*.

Figure 9: Facebook page



For the first time, Yarra Trams used a *Facebook* campaign to interact with a youth audience.

The *Facebook* page enabled people to discuss tram safety in an online community environment, Yarra Trams Communications and Marketing staff continually updated the page to ensure it maintained ongoing interest from followers. This included status updates, photos and competition prizes.

At the end of August 2011 the *Beware the Rhino* page on *Facebook* had almost 3000 friends.

Figure 10: Promotional days



To gain direct access to the target demographic, promotional days were held at universities and markets.

Beware the Rhino merchandise, including t-shirts and badges, was distributed to thousands of students. During these visits, people had their photo taken with 'Spike', a life-size rhino, and these photos were uploaded to the *Beware the Rhino* page on Facebook.

The promotional days were very successful at extending the relationship the target audience with 73 per cent of attendees consequently joining the Facebook page.

Other promotional items were developed for cafés, high schools and community events in the tram catchment area.

5.3 Evaluation

A survey of 1087 people was conducted to assess the effectiveness of the campaign. Figure 11 shows that 93 per cent of tram passengers were aware of the campaign.

Respondents were asked to rate the campaign, on a 0 ('Poor') to 10 ('Excellent') point scale. Ratings given to the campaign by tram passengers were very positive with the majority (85 per cent) of passengers giving a rating of seven or better for both the effectiveness of the campaign message and the campaign overall (see Figure 12). These high ratings were consistent across all channels.

The campaign was even more effective amongst the target market with 89 per cent of those aged under 25 rating the campaign seven or more out of 10 for the success of getting the safety message across to "look, listen and be alert around trams".

Figure 11: Awareness of *Beware the Rhino*

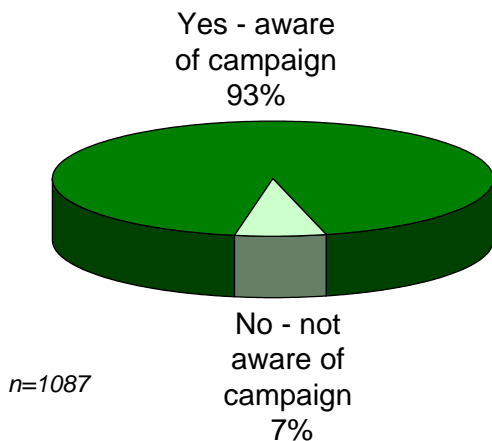


Figure 12: Effectiveness of *Beware the Rhino* Message

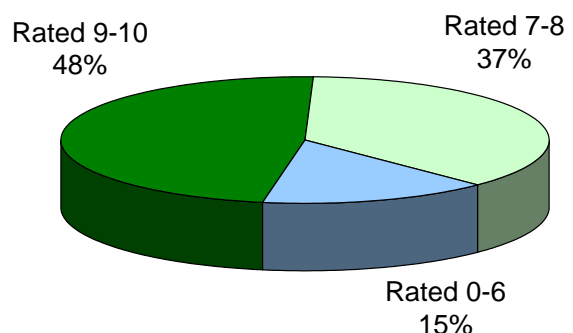


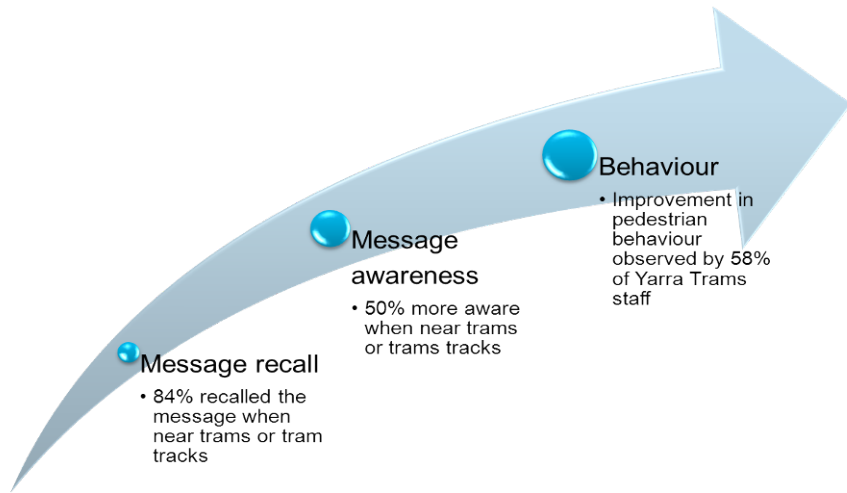
Figure 13 shows that there are positive indicators that the campaign has influenced a behavioural change with 84 per cent of respondents recalling the message when they were near trams or tram tracks. The results were higher amongst the target demographic at 86 per cent.

Since seeing the campaign, 50 per cent of respondents stated they are more aware when walking near trams or tram tracks. The results were higher amongst the target market at 53 per cent.



To complement this customer research, a survey of Yarra Trams staff was also conducted to evaluate the effectiveness of the campaign from the perspective of frontline staff. This survey found that of the 585 staff respondents 58 per cent believed the campaign had led to an improvement in pedestrian behaviour around trams.

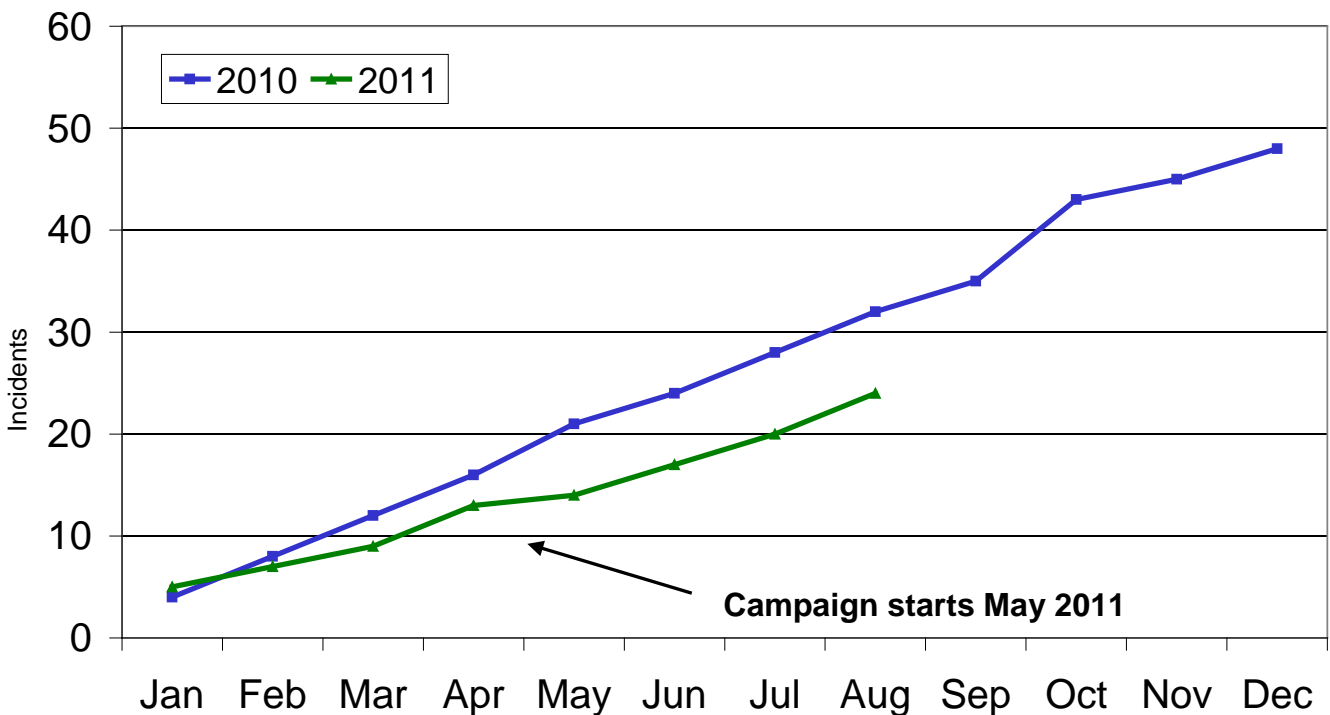
Figure 13: Behavioural Change



The most important measure of the success of the campaign is the number of pedestrian knockdowns since its launch at the start of May 2011. The results to date have been encouraging.

Figure 14 shows that in the year to August 2011, the number of pedestrian knockdowns is 25 per cent down on the same period in 2010. This can be largely attributed to a significant decrease in the number of incidents in May 2011 – the month that the Rhino campaign was launched. Since this time, there were also fewer incidents in July 2011 and in the four months since the launch of the campaign, monthly figures have not exceeded those of 2010.

Figure 14: Monthly Cumulative Pedestrian Knockdowns (2010 – 2011)



6 CONCLUSION

The *Beware the Rhino* campaign aimed to educate pedestrians in an innovative, creative and eye-catching way to be alert around trams and thereby reduce the number of pedestrian knockdowns involving trams. The target market for the campaign was people identified as the most at risk of a pedestrian knockdown - those aged between 18 to 30.

There has been very positive feedback from the evaluation survey of the *Beware the Rhino* campaign with an increase in customer awareness and staff observing a change in pedestrian behaviour around trams and tram tracks. Most importantly since the implementation of the campaign, the number of pedestrian knockdowns has been reduced compared to the previous year.

The success of the *Beware the Rhino* campaign has prompted Yarra Trams to extend the concept to tram and car collisions. Collisions involving trams and motor vehicles occur on average three times a day across Melbourne. These collisions not only result in injury to motorists, but also to tram passengers who may not be holding on while standing. For every collision, there are a number of near misses that can lead to passengers being injured due to the unavoidable use of emergency brakes by the tram driver.

This second phase of the campaign will be launched in mid-October 2011 and will target inner-city motorists.

The challenge for Yarra Trams is to leverage the momentum created by the *Beware the Rhino* campaign to ensure the reduction in pedestrian knockdowns is sustained.

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