Convenience
Advertising

Convenience Advertising: DonateLife Narrowcast Messaging Evaluation: Year 1

Final Report

Dr Shaun Ratcliff
The University of Sydney

July 2022

DonateLife Narrowcast Messaging Evaluation: Year 1

Final Report

JULY 2022

PREPARED FOR
Convenience Advertising

PREPARED BY
Dr Shaun Ratcliff
The University of Sydney

DonateLife Narrowcast Messaging Evaluation: Year 1

Prepared for Convenience Advertising by Dr Shaun Ratcliff

July 2022

Contents

Executive Summary

This report seeks to identify the impact from Year 1 of a two year organ and tissue donation registration messaging campaign by Convenience Advertising (CA) displayed in public bathrooms at over 500 licensed venues (pubs, bars and clubs), shopping centres, airports and education venues across Australia on behalf of DonateLife.

Using survey data collected over seven selected sites, it examines prompted and unprompted recall of campaign messages, and the relevance of public health messaging placement in the bathroom environment on target audiences.

Both the campaign and survey fieldwork was heavily affected by COVID-19 lockdowns in 2021 and early 2022, impacting the initial audience engagement numbers in the first year.

Key findings

- Most of those surveyed regularly visit the bathrooms at the study sites, and of these, a majority observed the advertising and were able to fully or partially recall the DonateLife messaging.
- 60 per cent of respondents said they were able to recall an advertisement on the walls or anywhere else when they were in a bathroom in the venue.
- The vast majority of respondents understood the campaign messaging, with 72 per cent of those who observed the advertising able to provide general answers relating to organ donation.
- Men were more likely to fully recall the advertising than women (54 versus 45 per cent).
- Younger respondents were more likely to recall the campaign messaging than older respondents, with 70 per cent of respondents aged 18 to 34 who observed the advertising able to fully or partially recall the DonateLife messaging without any prompts, compared to 60 per cent of those aged 65 and older.
- Spending more time in the venue facilities — and therefore increasing exposure to the campaign messaging — was strongly associated with unprompted recall of the advertising. Controlling for their demographic characteristics, a respondent who spent 5 minutes in these facilities had a 9 percentage point increase in probability of fully recalling the messages compared to a respondent who spent 1 minute in these facilities (30 per cent versus 21 per cent).
- 12 per cent of respondents said they scanned the QR codes, 3 per cent said they sent an SMS to the number on the advertisement and 2 per cent said they registered to become an organ donor.
- Ongoing high volume of traffic through the venues resulted in very high QR click through rates, with a total of 11,566 as of 29 June 2022.

Introduction

Convenience Advertising (CA) is an out of home bathroom advertising company that delivers place-based public health messaging in over 3,000 venues across Australia. In partnership with DonateLife, CA has completed Year 1 (2021-22) of a two year narrowcast messaging campaign to drive an increase in organ and tissue donor registrations over the next few years.

The advertisement, shown in 1 was displayed on 2,500 panels over 500 venues across Australia, including shopping centres, airports, tertiary institutions, pubs, bars and clubs. It targeted audiences aged 18 and older in public bathrooms to register to become an organ and tissue donor by texting 'DONATE' to the number provided for more information or scanning the unique QR code displayed, which opens to a registration page on the DonateLife website.

This report examines the impact of the messaging campaigns on the target audience over seven sites in Victoria (VIC), New South Wales (NSW), South Australia (SA) and Queensland (QLD; see table 1 below). It examines surveyed responses to the messaging through methods of prompted and unprompted recall, and measures impact factors on the call to action.

The results of this evaluation will be used to inform creative output for Year 2 of the DonateLife campaign, as well as reviewing the efficacy of the captive bathroom advertising environment and dwell times to reach audience groups such as younger Australians that are often difficult to target. It will be reviewed again in 12 months time, noting that COVID-19 lockdowns in in 2021 and early 2022 will have impacted audience reach during the first year of the campaign.

Background

DonateLife is an initiative of the Organ and Tissue Authority (OTA), which was established in 2009 as an independent statutory agency to lead the Australian Government's program to:

1. Increase organ and tissue donation for transplantation
2. Increase consent rates for deceased organ and tissue donation
3. Provide specialist support for families involved in the donation process
4. Enhance systems and processes to support donation and transplantation (Australian Government Organ and Tissue Authority 2022).

The narrowcast messaging campaign with CA seeks to maximise the long dwell times in public bathrooms across licensed venues, shopping centres, airports and educational institutions to prompt target audiences to the call to action, to register as an organ and tissue donor, using a social marketing approach.

This is a framework that applies commercial marketing principles with behavioural interventions informed by psychology, sociology, anthropology and communications theory (Kotler and Zaltman 1971). Groups within a population are then targeted by campaigns designed to deliver behavioural or attitudinal responses that support improved public health and wellbeing outcomes (French 2017).

Social marketing has been recognised in public health as a valuable tool for addressing key social and health challenges. It has been successfully trialled in a variety of health interventions, ranging from encouraging people to increase physical exercise, improve their diet, to changing behaviours around alcohol and tobacco misuse. Evaluations of these interventions in the UK have found that social marketing can be effective across a range of target groups including youth, adults, minority and disadvantaged populations, and in settings such as schools, workplaces, supermarkets and media-based, with both narrow and broad focused campaigns providing a "very promising health behaviour intervention approach" (Gordon et al. 2006).

However, due to the timing of Year 1 of the campaign commencing in July 2021, the ability to engage audiences was heavily impacted by COVID-19 restrictions in 2021 and early 2022, particularly in NSW and VIC.

Figure 1: Examples of DonateLife advertisement artwork. Images from Convenience Advertising.

About the Author

Dr Shaun Ratcliff is an applied data scientist, political scientist and survey researcher.

He works as a consulting data scientist with survey research firms and other organisations, managing complex survey projects, designing instruments to measure and track behaviours and attitudes, and identifying ways to engage with the public; and applies innovative data science methods to political, policy, academic and industry research.

He works with businesses, political campaigns, NGOs, trade unions and other clients, providing them with the data needed to develop strategy and make well-informed decisions. His research examines how the public thinks about issues, organisations and events, how they behave in different situations, and what influences their beliefs and actions.

He also regularly engages in public discussion and research on public opinion, voter behaviour and related topics, and has authored articles on and been interviewed about these matters for international and Australian media outlets.

Between 2017 and early 2022 he was a lecturer at the University of Sydney. During this period he taught politics in the United States Studies Centre and the Department of Government, and data science in the Faculty of Engineering. He also coordinated the survey research program at the United States Studies Centre, and was chief investigator of the 2019 and 2022 Cooperative Australian Election Surveys.

He remains affiliated with the University of Sydney, as an honorary associate with the US Studies Centre, and a lecturer for the Faculty of Engineering. He also teaches data science and survey writing courses with the Australian Consortium for Social & Political Research.

Shaun has a PhD in political science from Monash University, and previously worked at the University of Melbourne and Monash.

Data and methodology

Data has been collected by CA, which will inform the recommendations of this report.

The aim of collecting this data is to understand:

- Visitation trends including the frequency of visitation.
- Average dwell time in bathrooms.
- Unprompted recall and prompted recall rate of the DonateLife messaging campaign.
- Audience understanding of the messaging.
- Take up of call to action.

A targeted sample of 300 visitors to shopping centres in NSW, VIC, QLD and SA was used to measure the impact of the DonateLife messaging campaign. These surveys were conducted by CA, and fielded in the centres shown in table 1 between Wednesday 6 April and Tuesday 21 June, 2022. The data was collected using intercept interviews conducted on site with patrons of participating venues outside the bathrooms via a short, structured survey. Each respondent was asked to complete a battery of questions with a live interviewer. Answers were recorded digitally using an iPad. The location of these centres and the respondents interviewed in them are shown in figure 2.

Table 1: SITES COVERED BY DONATELIFE EVALUATION

Venue	Address
Rundle Mall	60 Rundle Mall, Adelaide SA 5000
Kurralta Shopping Centre	153 Anzac Hwy, Kurralta Park SA 5037
Northland Shopping Centre	2-50 Murray Rd, Preston VIC 3072
DFO Southwharf	20 Convention Centre Pl, South Wharf VIC 3006
Warriewood Square	12 Jacksons Rd, Warriewood NSW 2102
Myer Centre	91 Queen St, Brisbane City QLD 4000
Grand Plaza	27/49 Browns Plains Rd, Browns Plains QLD 4118

Table 2: DEMOGRAPHIC CHARACTERISTICS OF STUDY RESPONDENTS

	N	%
Gender		
Men	131	0.44
Other	2	0.01
Women	167	0.56
Age		
18-34	135	0.45
35-64	125	0.42
65+	38	0.13
Household income		
Less than $60,000	111	0.37
More than $60,000	46	0.15
Not supplied	143	0.48
Employment		
Employed	210	0.70
Not employed	89	0.30

Of the respondents surveyed, some trends in demographics were identified. There were slightly more females than males surveyed, almost all were employed and there was an over-sample of young people (aged 18-34), which is particularly useful for this evaluation as younger Australians are under-represented on the Organ Donor Register.

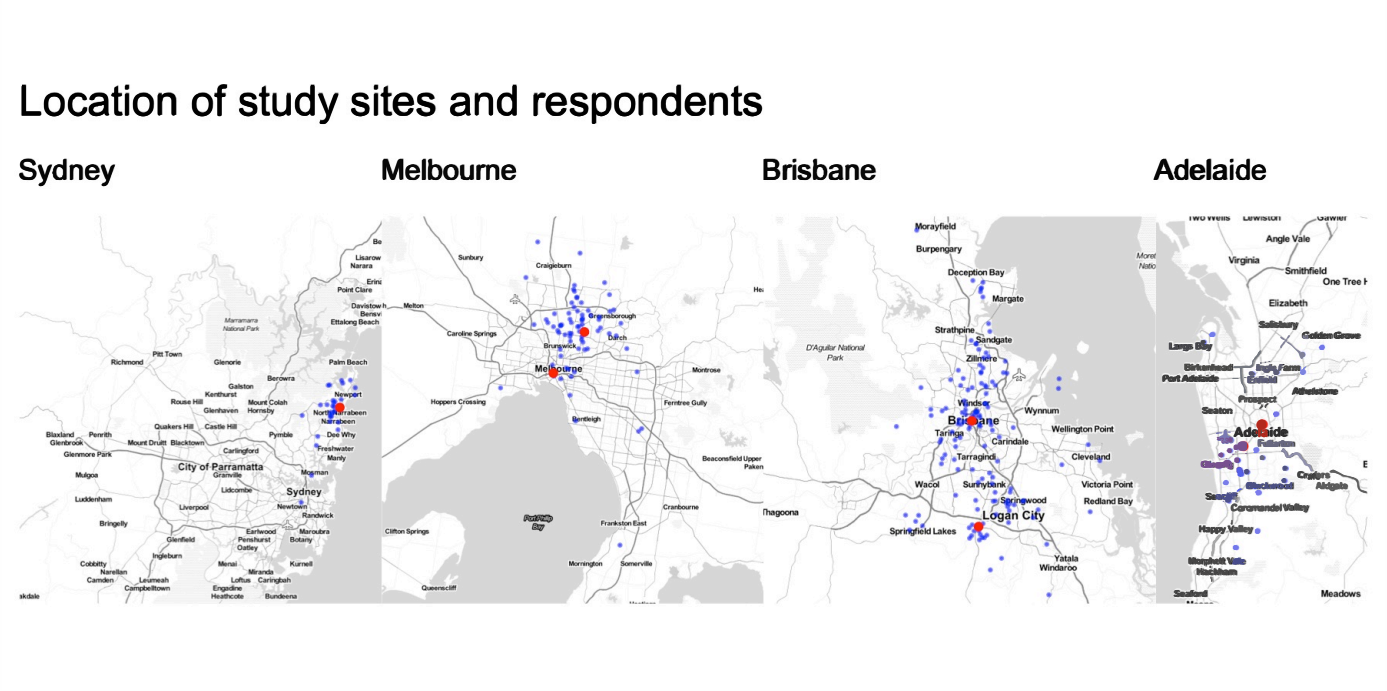

Figure 2: The location of a) study centres, represented by red points; and b) respondents, represented by blue points.

Results

Visitation trends

Using the data on visitations to the bathroom facilities, including the frequency of visitations and dwell times of respondents who visited the sites being examined, a number of trends can be identified.

Overall, the vast majority of respondents on average use the facilities at the study venue at least once per visit (figure 3). Just 9 per cent say they never use these facilities on an average visit to the centre, while just over half say they use them once, and 16 per cent more than once each time they visit the centre.

This is also broken down by respondent demographics: gender, age, employment and household income (also figure 3). Respondents aged 18-34 were more likely than older respondents to say they used the facilities more than once each time they visited the study venue, while those aged 35-64 were fractionally more likely to say they never used them. The employed were more likely than those outside the workforce to use the facilities. Men were both fractionally more likely to use the facilities than women, and more likely to say they never used them (these results were not statistically significant, though). There was little difference in use based on respondent household income.

This shows that 18 per cent of men reported using the bathroom on average more than once each time they visited the centre, and another 43 per cent at least once per visit. Just 10 per cent said they never did. Conversely, 15 per cent of women said they used these facilities more than once per visit to the centre, 47 per cent at least once per visit and 8 per cent never used these facilities.

There were no clear patterns between reported household income and facility use, but there was with age. Older respondents were more likely to use these facilities more frequently, with 11 per cent of those aged 65 and older reporting that they used the facilities more than once each time they visited the surveyed centres, compared to 19 per cent of respondents aged 18-34. Only 5 per cent of respondents 65 and older said they never used these facilities, versus 9 per cent for those aged 18-34.

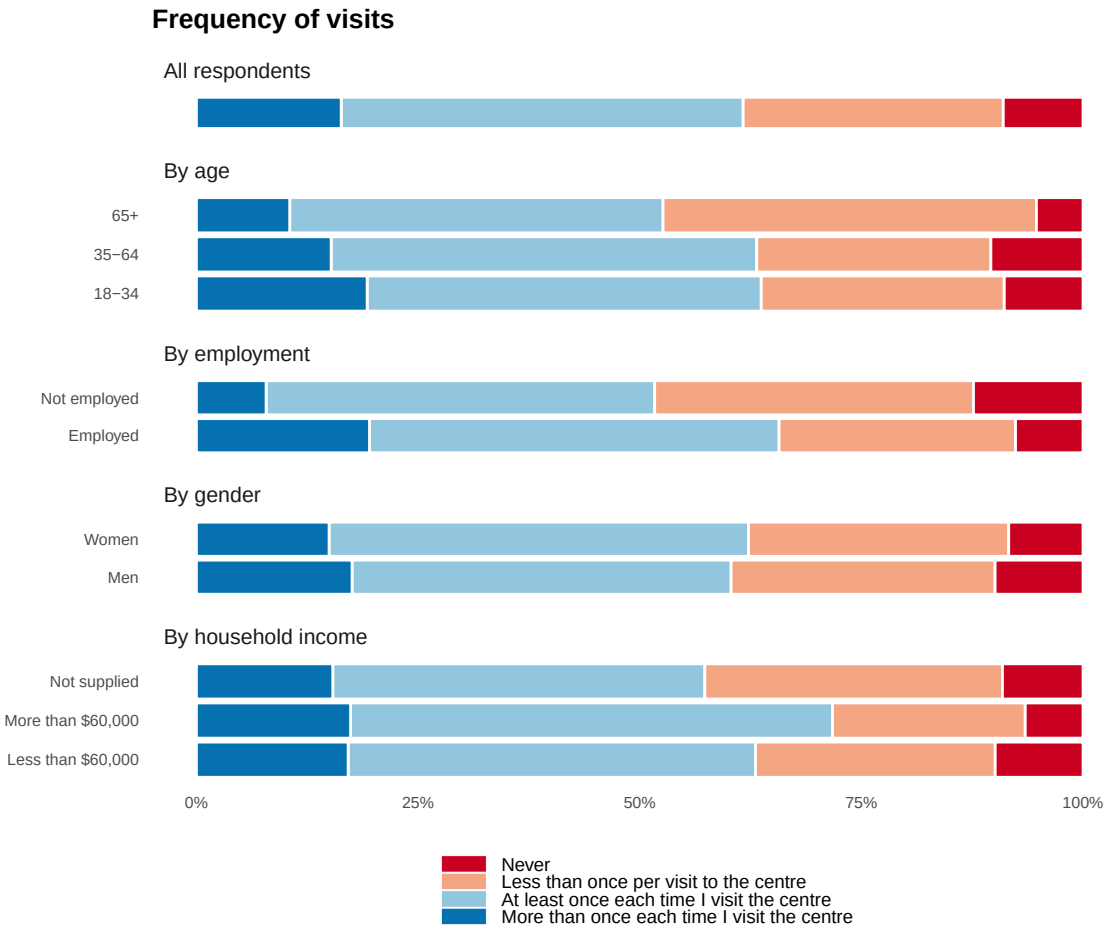

Figure 3: Frequency of reported bathroom visits across the sample, and by respondent demographic characteristics.

Average dwell times in facilities

While most respondents spend less than five minutes in the bathroom, more than a quarter of those who use these facilities spent five or more minutes in them (14 per cent spent 5-10 minutes, 2 per cent spent more than 10 minutes; see figure 4).

There was a non-linear relationship between age and dwell times. Older respondents were more likely to say they spent less than five minutes using the bathrooms at the study site (89 per cent of those over 65 versus 84 and 82 per cent of those aged 18-34 and 35-64 respectively). However, the vast majority of all age groups claimed to spend shorter periods using these facilities. Those aged 35-64 were most likely to say they spent longer using these facilities, but even for this group the rate was less than 20 per cent.

Similarly, while those outside the formal workforce were more likely to say they used the facilities longer than those who were employed, the rate was still only 20 per cent.

Men were slightly less likely than women to say they spent less than five minutes using bathrooms (82 per cent for the former, 85 per cent for the latter), and more likely to say they spend between 5 and 10 minutes using these facilities (16 per cent for men versus 12 per cent of women).

Respondents who reported higher household incomes were more likely to say they spent more time using these facilities compared to those with lower incomes. Conversely, those who refused to disclose their incomes were also less likely to say they spent longer times using the facilities.

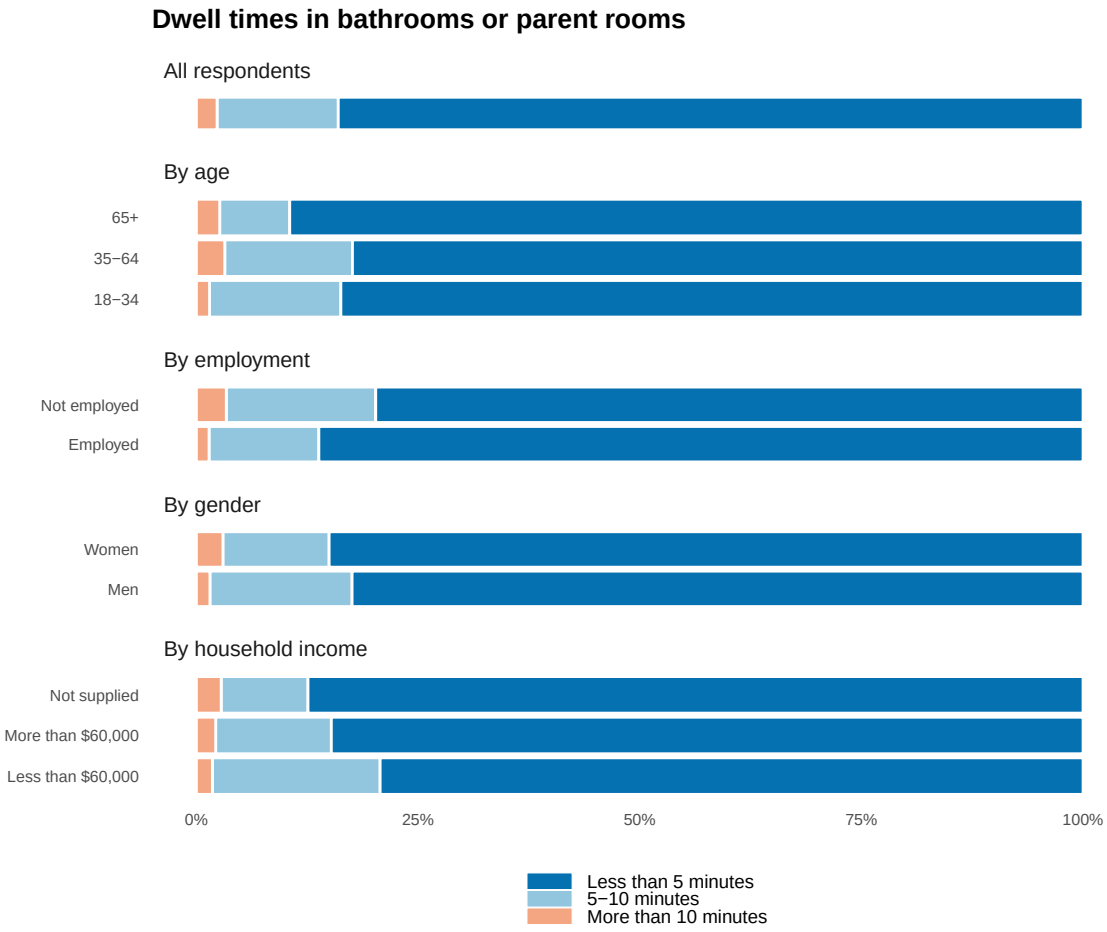

Figure 4: Average dwell time during facility visits by respondent demographic characteristics.

Campaign recall

Overall, 60 per cent of respondents said they were able to recall an advertisement on the walls or anywhere else in the room when they were in a venue bathroom (figure 5). Younger respondents, the employed, women and respondents with lower incomes were more likely to say they saw advertising while using venue facilities.

Those respondents who reported seeing an advertisement were asked to recall the content of the ads or messages without any prompt. If they recalled seeing more than one, they were provided the opportunity to do this for two different ads. Responses were unconstrained and recorded as free text. These responses were coded as being related if they included contents from the campaign, including directly mentioning DonateLife or material included in the advertising. Less direct references of the advertising campaign were coded 'partial recall' if they referred indirectly to the campaign in their answer (ie, 'purple ad - donation,' 'Blood donor,' 'Couldn't miss it… it was about saving lives'). Any other response was coded 'Other,' and those who were unable to provide a substantive response were categorised as 'Do not know.' Of those who said they saw an advertisement, 48 per cent were able to recall the content of these advertisements or messages without any prompt and 19 per cent were able to partially recall the campaign (figure 6).

There was some demographic variance in these results. Of those respondents who reported seeing the bathroom advertisements, men were more likely to fully recall the messaging than women (54 versus 45 per cent), and partially recall the advertising (20 per cent for men compared with 19 per cent for women). Those outside the labour force were more likely to correctly recall the DonateLife message than the employed (56 versus 45 per cent).

Higher income respondents who saw advertising in the venue facilities were less likely to recall the messaging of the ads (52 per cent for those with household incomes above $60,000). Those who did not report their income were more likely to be able to do so (52 per cent for those on less than $60,000). Those who did not provide their income were the less likely to be able to identify the messages of the advertisements they had seen (42 per cent).

Older respondents were less likely to recall the campaign messaging than younger respondents, with 47 per cent of respondents aged 65 and older identifying the message in the advertisements they saw as being about DonateLife (or similar). Conversely, 48 per cent of those aged 18 to 34 were able to make this observation.

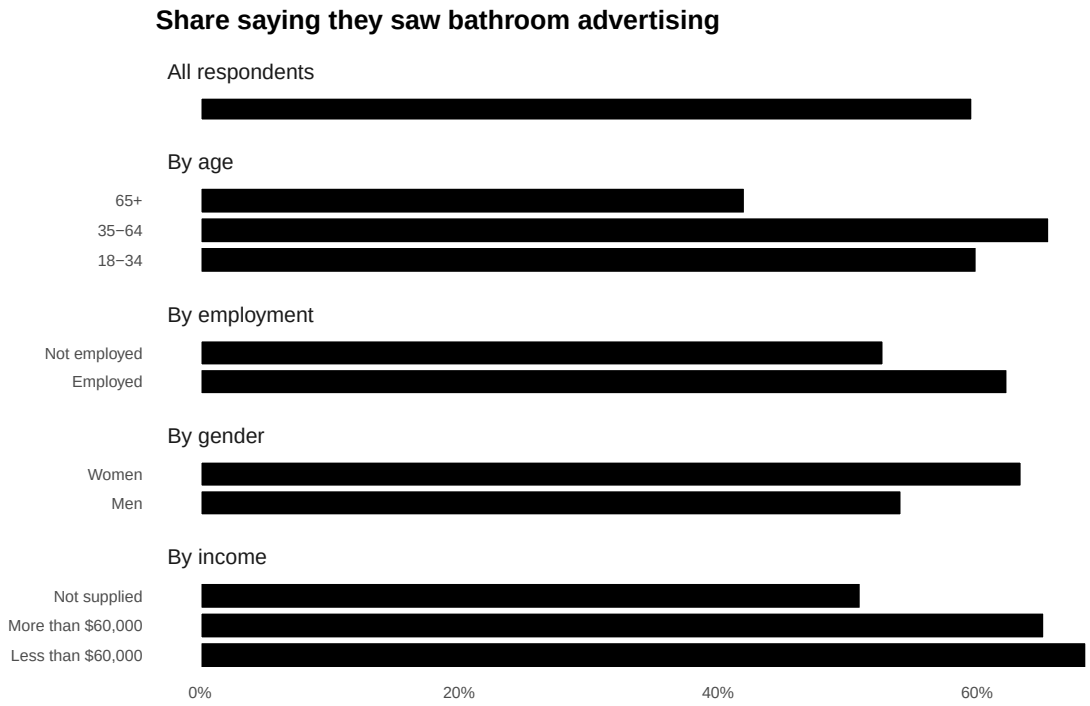

Figure 5: Share of respondents who say they observed advertising in the venue bathrooms.

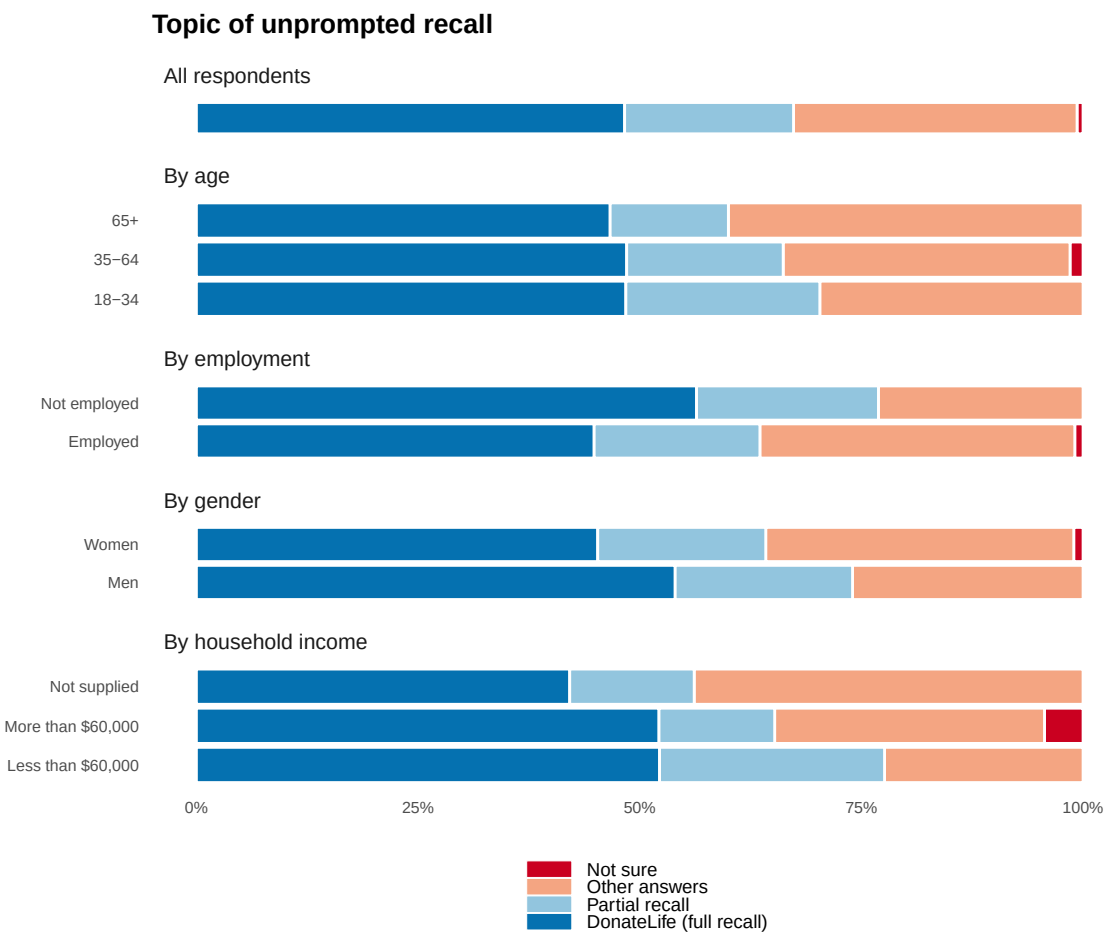

Figure 6: Share of respondents who could recall the message without prompt.

Modelling recall

A regression model was then fit to these data to test whether potential exposure to the messaging influenced recall. The model chosen was an ordinal logistic regression predicting the probability that a respondent would – unprompted – recall the DonateLife messaging in the bathrooms at the centre in which the survey was run, as a function of the average time they said that they had spent in that venue's facilities.

For this model, the outcome was a four category ordinal variable:

- DonateLife (full recall).
- Partial recall.
- Other answers (including unsure).
- No recall.

The results from this model are shown in table 3. The coefficient for 'time in facilities' indicates that there is a positive relationship between possible exposure to these ads (provided by spending longer in the facilities). In addition to providing a likelihood of unprompted recall of the messaging, these models take potentially confounding factors (frequency of visiting the centre, age, gender, household income and employment) into account, allowing us to ascertain whether the relationship between time in the facilities and recall was robust to differences in the attributes of these respondents.

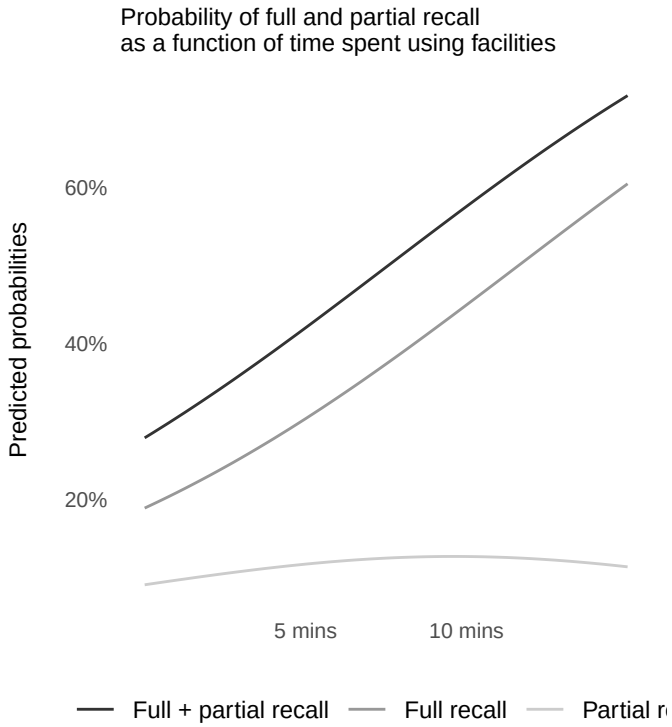

Figure 7: Predicted unprompted recall of campaign messaging as a function of time in bathrooms, controlling for respondent age, gender, income, employment and frequency of visits to centre facilities. Curves are the predicted probability that a respondent would specifically recall DonateLife messaging unprompted (full recall), or partially recall the campaign advertising, and the combined probability of both outcomes. Control variables are held at their baseline values (see regression table above).

To better understand these results, the probability of a respondent recalling the messaging without prompt is predicted as a function of the average reported time spent in the facilities at the study sites. This is shown in figure 7. This has three curves: the light curve is the predicted probability a respondent would be able to partially recall the campaign messaging, the middle curve fully recall the DonateLife advertising and the dark curve the combined probability of both partial and full recall.

Table 3: MODELS ESTIMATING UNPROMPTED RECALL OF DONATELIFE MESSAGING

	Estimate	(SE)
Time in facilities	0.13	0.05
Frequency of visits	-0.15	0.2
Age (baseline, 30 years)		
Age (in years, standardised)	-0.08	0.12
Gender (baseline, Men)		
Woman	0.67	0.23
Non-binary	1.6	1.29
Employment (baseline, in workforce)		
Not employed	-0.15	0.27
Household income (baseline, under $60,000)		
Over $60,000	-0.35	0.34
Not supplied	-0.85	0.25
Intercepts		
Partial recall < Full recall	1.46	0.36
Other < Partial recall	0.95	0.36
No recall < Other	0.21	0.35
Deviance	683.67	

[a] Estimating the likelihood for unprompted recall of DonateLife messaging by respondents as a function of reported average time spent in bathrooms at each location. The column Estimate contains the model coefficients, (SE) is standard errors. This model incorporates controls for age (baseline, 30 years), gender (baseline, men), employment (baseline, not employed) and household income (baseline, earning less than $60,000 per year).

As we can see in this figure, comparing a respondent who spent 1 minute in these facilities versus 5 minutes, and holding all controls in the model at their baseline values, the predicted probability of full messaging recall increased from 21 per cent to 30, and for either full or partial recall combined from 30 to 42 per cent. At 15 minutes, this was estimated to increase full unprompted recall to 60 per cent, and with full and partial recall combined increased to 72 per cent.

Prompted recall

Those respondents who could not recall seeing advertisements without prompts were shown a copy of the campaign material posted at that site, and were asked whether they remembered seeing that ad (figure 8). Of those who said they had not seen the ads when first asked, 59 per cent when prompted said they recalled seeing the ad they were shown.

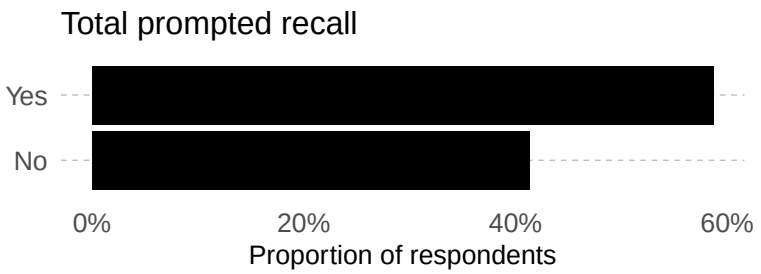

Figure 8: Prompted recall of bathroom advertising among respondents who could not recall seeing the ad unprompted. These respondents were shown a copy of the ad and asked if they remember seeing it.

The audience understanding of the messaging

Regardless of whether they recalled seeing the advertising initially, respondents were provided the campaign advertisements displayed in the bathroom of the venue where they were interviewed, and were asked what they believed the main message in the ad was. Responses were unconstrained and recorded as free text. coded as either 'full recall' or 'partial recall.' Those who provided another understanding of this messaging that did not include these interpretations were coded 'Other.' The small number of respondents who either did not answer the question or did not provide a substantive response were coded 'Do not know.'

Based on the data from this question, the vast majority of respondents understood the messaging related to organ and tissue donor registration: 72 per cent of respondents provided general answers related to organ donation, 1 per cent interpreted the messaging they were shown as providing some variation of scanning a QR code, and 12 per cent mentioned something else related to the ads. An additional 4 per cent provided some other answer (unrelated to this particular campaign), and 11 per cent were not able to say. While there was some demographic variation in the understanding of these messages, this was limited, with the full breakdown of these results shown in figure 9.

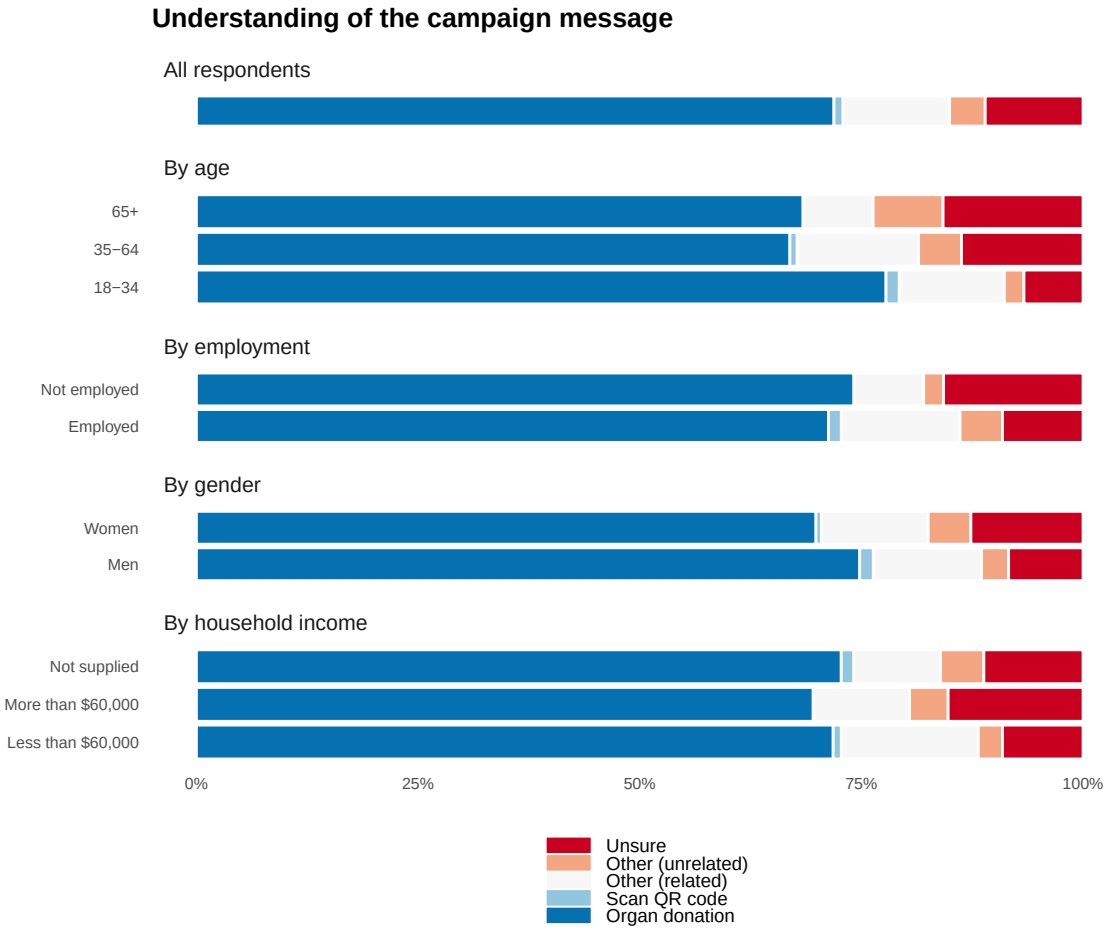

Figure 9: How respondents interpreted the main message of the advertising campaigns.

Messaging effects

The effects of the messaging campaign were then examined by asking respondents whether they took any particular actions in response to the advertising in the bathrooms of the study venues. Respondents were asked whether they scanned the QR code on the ad with their phone (which took them to the DonateLife website), sent an SMS to the number listed on the advertising for more information on organ donation, and signed up for organ donation on the DonateLife website as a response to the messaging.

As figure 10 shows, approximately 12 per cent of respondents said they scanned the QR codes included on the advertisements, 3 per cent said they sent an SMS to the number of the advertisement and 2 per cent said they registered to be an organ donor.

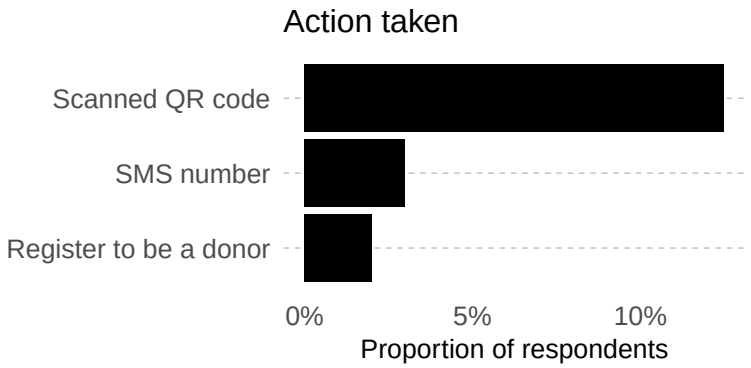

Figure 10: Self-reported action in response to messaging. Respondents who self-reported as already being registered as organ donors were excluded from this analysis.

Figure 11 shows the demographic breakdown of the number of these actions adopted by respondents, by their demographic characteristics. This demonstrates respondents aged between 18-34 years were more likely to take one or more of these actions: 19 per cent for 18-34 year olds versus 9 per cent for those 65 and older. Differences by employment and gender were small, while those who refused to state their income were also less likely to take action.

Few reasons for lack of action were given, with 96 per cent of respondents unable or unwilling to provide a reason. The most common substantive reason given (by 3 per cent) was that they did not have enough time or that they were busy. Just 1 per cent said they were not interested (see figure 12).

Due to the high volume of traffic through these venues, the 12 per cent of respondents who said they scanned the QR code resulted in a total of 11,566 visits to the DonateLife website as of 29 June 2022.

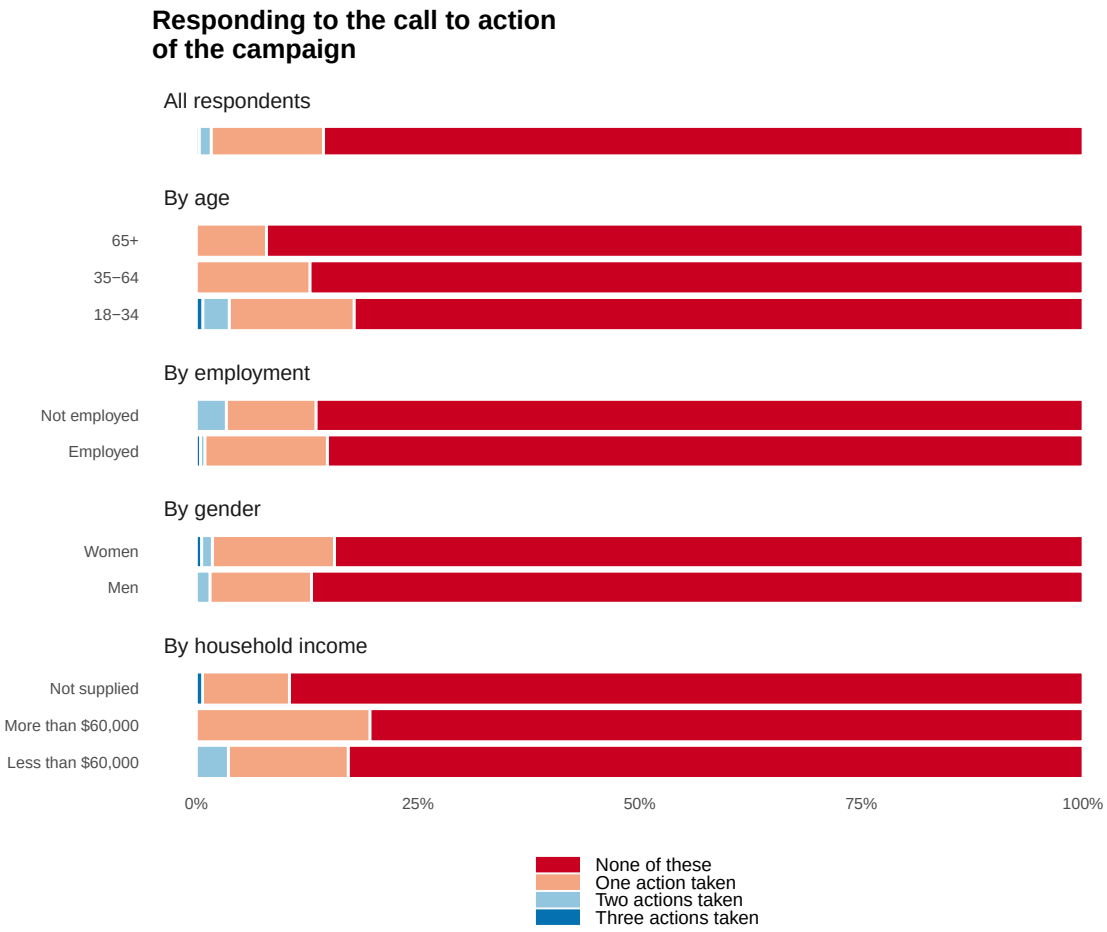

Figure 11: Self-reported action in response to messaging, for the whole sample and by demographic subgroups. Respondents who self-reported as already being registered as organ donors were excluded from this analysis.

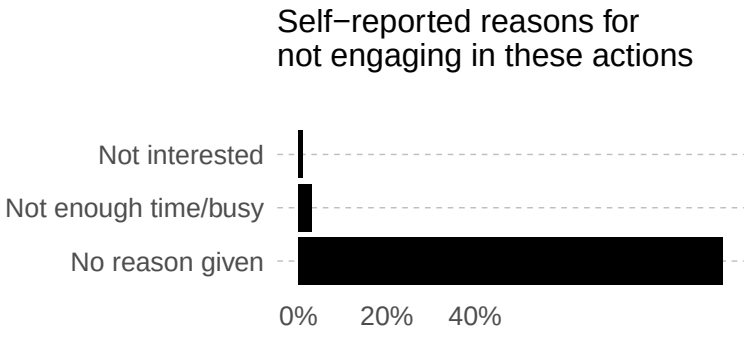

Figure 12: Self-reported action in response to messaging. Respondents who self-reported as already being registered as organ donors were excluded from this analysis.

Conclusion and recommendations

This report has assessed the impact from Year 1 of a two year messaging campaign conducted by CA in partnership with DonateLife, gauging the prompted and unprompted recall of campaign messages and impact factors on the call to action: to register as an organ and tissue donor.

The study found that the DonateLife messaging campaigns resulted in high rates of respondent recall over the seven sites, with a majority of the audience understanding the content. Listed below are some key highlights from the study, and recommendations for Year 2 of the campaign.

Sixty per cent of respondents said they were able to recall an advertisement on the walls or anywhere else in the room when they were in the venue facilities (figure 5). Although most respondents spent less than five minutes in one of these venue bathrooms, more than a quarter of those who did use these facilities spent five or more minutes in them, with 14 per cent spending 5-10 minutes, and 2 per cent spending more than 10 minutes. This dwell time is associated with greater exposure to the advertising material and unprompted recall of the campaign messaging. An increase in exposure from 1 to 5 minutes was predicted to increase full recall of the main messages of the ads by nine percentage points, from 21 per cent to 30 per cent (after controlling for demographic characteristics; see figure 7).

This exposure and recall led to follow-up on the call to action from a relatively high share of individuals. 12 per cent of respondents who were not already registered organ and tissue donors reported scanning the QR code for either further information or to register to donate.

In a promising start for the first year of the DonateLife campaign, it was found to effectively reach a younger audience. Respondents aged 18-34 years had higher rates of unprompted recall (although the difference between this group and those 35 to 64 was partial recall; and this difference largely disappeared after controlling for dwell time and other demographic characteristics), were more likely to understand the campaign messaging and more likely to adopt one of the call to actions (ie, use the QR code to access the DonateLife website).

Recommendation 1

Based on the evidence studied here, CA placement of public health messaging in bathroom locations where incidental exposure is highly likely appears to have validity. This is confirmed by the results outlined above, which showed longer dwell times in these facilities (increasing the chances of exposure to messages) was associated with higher rates of unprompted recall. This supports the continued use of this narrowcasting approach for public health campaigns, including DonateLife.

Recommendation 2

Of those respondents who were not already donors and did not take any of the calls to action, 96 per cent were unwilling or unable to provide feedback on why they did not either SMS 'DONATE' to the number provided for further information, or scan the QR code after seeing the advertisements. It is recommended that the survey instrument be reviewed when evaluating Year 2 of the messaging campaign to provide respondents with a list of structured responses options for this survey item, reducing the time and cognitive burden involved in answering the question.

Recommendation 3

The survey found that respondents who were employed were more likely than those outside the workforce to use the bathroom facilities. This may be because some of the respondents were employees at the venues surveyed, which may influence the results. If more employed individuals that are surveyed work at the study sites, it may result in employed people disproportionately being able to recall the messaging, as they have

greater exposure. It is recommended when evaluating Year 2 of the campaign that respondents are also asked if they are employed at the location where the survey is conducted, and include this information in the evaluation.

Recommendation 4

If the budget permits, an increase in the sample size for the survey would be beneficial. A sample of 300 has limited statistical power and reduces the ability to detect effects with confidence. A larger sample would allow for the desegregation of data by smaller groups (for example, by a larger number of age categories) and the analysis of smaller effects with less uncertainty. It is recommended that follow-up studies collect 500 or more respondents.

Conclusion

The results from evaluating the first year of the DonateLife campaign run by CA are encouraging. It demonstrates that there was high recall of the messaging in bathrooms across the seven sites where the surveys took place. In addition, it was interesting to note that the creative output of the DonateLife advertising was particularly effective in attracting respondent's attention.

Even where respondents were unable to recall the message, many commented on the colour of the advertising, noting "Purple sign with white writing" and similar comments about the striking appearance of the campaign materials. In their responses, the individuals who completed the survey commented that:

- '[The] Colour caught my attention'
- '[You] Couldn't miss it… it was about saving lives'
- 'My daughter liked the colour… [it was about] donating something'

The findings also provided evidence for the effectiveness of using captive markets associated with the bathroom environment for public health messaging placement. Implementing recommendations to review some components of the survey instrument and sample size will assist in a more robust evaluation of Year 2 of the DonateLife campaign.

References

Australian Government Organ and Tissue Authority. 2022. "DonateLife: National Program)." https://www.donatelife.gov.au/about-us/who-we-are/national-program.

French, Jeff. 2017. *Social Marketing and Public Health: Theory and Practice*. Oxford: Oxford University Press USA - OSO.

Gordon, Ross, Laura McDermott, Martine Stead, and Kathryn Angus. 2006. "The Effectiveness of Social Marketing Interventions for Health Improvement: What's the Evidence?" *Public Health (London)* 120 (12): 1133–39.

Kotler, P, and G Zaltman. 1971. "Social Marketing: An Approach to Planned Social Change." *Journal of Marketing* 35 (3): 3–12.