



Organ Donation message experiment Pre-Analysis Plan

1. Policy problem, trial aims

There is a large intention-action gap between the percentage of people who say they would like to be organ donors (~70%), and the percentage who are registered on the National Organ Donor Register (34%). This gap is at its widest for 16-25 year olds, where roughly 8% of the cohort are registered organ donors.

There is value to registration – the Organ & Tissue Authority (OTA) estimate that around 9 in 10 of families agree to a donation if the person had registered their intent to donate, vs around 4 in 10 agreeing when the person had not registered or spoken to their family about their decision. A clear indication of a person's wishes can also make a difficult decision easier for their family.

This experiment will test several proposed messages to encourage 16-25 year old people to sign-up as an organ donor.

2. Outcomes

Primary outcome

Registering as an organ donor on the Donate Life webform. This will be recorded by directing participants in each arm of the trial to a different URL (supplied by Donate Life).

Secondary outcomes

- Clicked on the link to the webform signup (binary)
- Stated likelihood of registering this week (binary, those that they 'definitely' will + that they 'just did a moment ago' = 1)

3. Interventions

Survey participants who state they want to register as an organ donor but have not will be randomly allocated to see one of three different messages designed to encourage registration. One message will be a control (A messaged used in a previous campaign), and two will be new messages.

Participants will be clearly informed that they can register now, if they like, but that they are not required to.

4. Hypotheses

H1. Treatment group 1 registrations > Control group registrations

H2. Treatment group 2 registrations > Control group registrations

H3. Treatment group 1 registrations \neq Treatment group 2 registrations

H1 and H2 are directional hypotheses and we be tested using one-tailed tests, H3 will be tested with a two tail test. We will use same hypotheses for the secondary measures

We will not adjust p-values for multiple hypothesis testing.

5. Sample selection

We will recruit approximately 1400 people from the survey panel provider Dynata. Participants will be eligible if they are Australian citizens between the ages of 18 and 25. They must not be already registered as an organ donor or have decided that they do not want to be an organ donor. We will exclude from analysis any responses that have taken less than 100 seconds to complete the survey. This is a conservative threshold below which we do not believe people can have actually read and engaged with the survey. We will not be implementing any other exclusion criteria.

6. Power calculations

The sample for the survey experiment will be roughly 1400 individuals. We anticipate that around half (700) will have an intention-action gap and therefore be eligible for our survey experiment. This will leave around 230 per treatment group. We performed power calculations that indicated that at an alpha of 5% we will have 80% power to detect a standardised effect of 0.261. If we assume that the control group has a registration rate of 1%, this would be equivalent to a 4.25pp increase for treatment groups 1 or 2.

7. Randomisation

Eligible participants will be randomised to one of three trial-arm within the survey platform, Qualtrics, with equal probability of assignment across the three groups.

8. Trial threats

There is a chance that some participants will fail to complete the survey and we will therefore have missing data for the primary outcomes. In that case we will exclude missing cases that did not see the intervention, but keep those that did (and record them as having not registered).

This trial is a survey experiment and will therefore have limited generalisability. While the results will be used to inform policy, the interventions may not have the same effect in real-world settings as any found in this project.

9. Analysis

The principal analysis of the effect of the intervention will be an unadjusted comparison of each of our primary outcome for our three arms. This estimate, confidence intervals and p-values will be derived from a linear regression model with the following specification:

$$y = \alpha + \tau A + \delta B + \epsilon$$

The coefficient on A and B is the impact of our two messages compared to control. We will calculate robust (HC2) standard errors for all linear models.

The same model will be used for our secondary outcomes.

11. Interpretation

Although we will use p-values to test our hypotheses, we will consider the outcome of hypothesis tests with prior evidence, effect size, outcome variability and design limitations in order to assess the strength of a finding and our recommendations.

12. Reporting

We will report the n , group means or proportions for all treatment groups on our primary and secondary outcomes. We will also report average treatment effects, 95% CIs and p-values for all comparisons and hypothesis tests that we run.

13. Pre-analysis plan commitments

- No analysis has been undertaken prior to the completion of this pre-analysis plan.
- We will be transparent about, and provide justification for, any deviations (additions or omissions) from this plan.