

Pre-analysis plan

Effective use of SMS: timely reminders to report on time

Title:	Effective use of SMS: timely reminders to report on time
Country:	Australia
Additional key words:	Government, communication, SMS, administration
JEL Code(s):	
Abstract:	<p>The aim of the study is to examine whether providing targeted, timely and behaviourally informed prompts about reporting income, via SMS, improves the number of recipients who report on time.</p> <p>Customers in receipt of Newstart Allowance and Youth Allowance (other) payments administered by the Australian Government Department of Human Services (Human Services) are required to report fortnightly any income they receive from employment. Such reporting ensures recipients receive the correct payment. Late reporters may have their payments cancelled. This can be problematic for the recipient and can increase departmental work resulting from effort required to restore recipients back onto payments and increased customer contact.</p> <p>This trial will have seven arms and will scientifically test behaviour against some key behavioural concepts such as personalisation and loss and gain framed messages.</p> <p>It is anticipated findings from this research will inform service delivery both within the lead department and across the Australian Public Service.</p>
Trial Start date:	Monday, 1 May 2017
Intervention Start date:	Monday, 1 May 2017
Trial End Date:	<p>Thursday, 4 May 2017– end of active intervention period</p> <p>Data will be collected for several months beyond the intervention end period to examine further late reporting.</p>
Outcome(End points):	<p>Primary:</p> <ul style="list-style-type: none"> • Number of recipients who report on time in each condition.

	<p>Secondary:</p> <ul style="list-style-type: none"> • Median number of days to report. • % of recipients who are cancelled from payment due to reports >13 days late • Subgroup analyses of characteristics of late reporters for whom the behavioural interventions are effective
Intervention:	SMS communication from Human Services to prompt recipients who are due to complete their fortnightly reports the next day
Experimental Design:	<p>7-arm Randomised Controlled Trial.</p> <p>This trial will test differently framed text messages, over four days of one week, to assess whether this communication improves on-time reporting by recipients who have reported late in the fortnight before trial commencement.</p> <ol style="list-style-type: none"> 1. Customer correspondence standard (loss framed message) with a consequence for late reporting 2. Personalised customer correspondence standard (loss framed message) with a consequence for late reporting 3. Short simple message without a consequence 4. Personalised short simple message without a consequence. 5. Gain framed message (details positive consequence of on-time reporting) 6. Personalised gain framed message (details positive consequence of on-time reporting) 7. No-treatment control group
Randomisation Method:	Stratification into condition based on: number of times recipients have reported late in the previous four fortnights (1, 2, or 3+), report day (Tuesday, Wednesday, Thursday or Friday), Gender (M/F) and type of payment (Newstart Allowance or Youth Allowance (other)).
Randomisation Unit:	Individual
Planned Number of Clusters:	14,994
Planned Number of Observations:	14,994

Sample size (or number of clusters) by treatment arms:	1,666 per treatment arm 4,998 in control group
Power calculation- Minimum Detectable Effect Size for Main Outcomes:	Of the 80,382 individuals who were late reporting in the fortnight ending 17 Feb 2017, 35,329 (43%) were late reporting again over the next month. A sample size of <u>1550 per group</u> , will provide 80% power at a 5% significance level to detect a 5 percentage point decrease in the late reporting rate (from 43% to 38%). With a larger control group (no SMS) and six treatment groups a total sample of 12,300+ will be required.

Outcome Tables (Hidden):	Outcome	Experimental condition						
		Control	Treatment 1	Treatment 2	Treatment 3	Treatment 4	Treatment 5	Treatment 6
	Number of recipients who report on time	% (n=)	% (n=)	% (n=)	% (n=)	% (n=)	% (n=)	% (n=)
	Median time to lodge report	# days	# days	# days	# days	# days	# days	# days
	% of recipients who are cancelled from payment due to reports >13 days late	% (n=)	% (n=)	% (n=)	% (n=)	% (n=)	% (n=)	% (n=)
<p>Note: Subgroup analyses. We will also examine whether there is evidence of differential intervention effects for subgroups within the trial participants as follows: gender, socioeconomic status of area, remoteness, change in status from Youth Allowance payment to Newstart Allowance (age-based), and number of times payment was late in the previous 2 months before 1 May (once vs multiple times). As we have not powered the trial to consider subgroups, these analyses are considered exploratory.</p> <p>If the data allows, we will also examine possible savings of staff time as a function of the number of recipients who are cancelled from payment due to late reports (>13 days), who then have to be reinstated into the system.</p>								