

# YourCall and SPILLIT:

Two studies of text message interventions aimed at reducing alcohol-related harm

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# YourCall Study

Part 1: Development of a text message intervention aimed at reducing alcohol-related harm in injured patients

Part 2: Evaluation of the effectiveness of the intervention in a randomised-controlled trial

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*Co-investigators: Ian Civil, Matthew Walker, Vanessa Thornton, Bridget Kool, Robyn Whittaker, Papaarangi Reid, Gordon Smith*

*Intervention Development Team: Sarah Sharpe, Matthew Shepherd, Bridget Kool, Robyn Whittaker, Vili Nosa, Enid Dorey, Susanna Galea, Papaarangi Reid, Shanthi Ameratunga*



THE UNIVERSITY  
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AND HEALTH SCIENCES

# Background

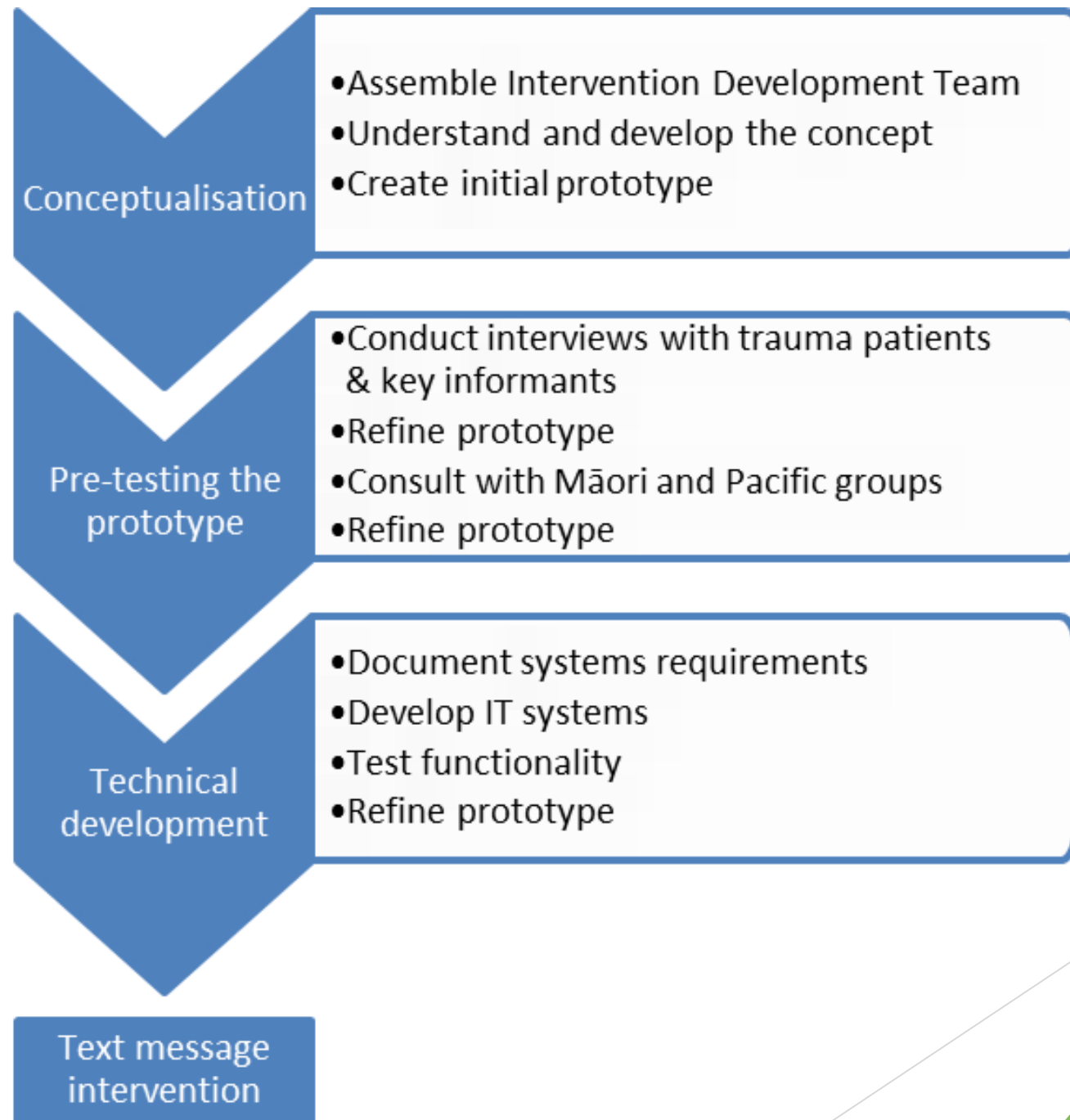
- ▶ Hazardous alcohol use - a leading risk factor for injury.
- ▶ Screening for alcohol misuse and brief intervention (SBI) in trauma care settings has been shown to reduce alcohol intake and injury recidivism, but is rarely implemented.
- ▶ Mobile phone - a highly relevant communication channel.
- ▶ The idea of a text message intervention was found to be appealing to trauma patients.

*Kool B, Smith E, Raerino K, Ameratunga S. Perceptions of adults trauma patients on the acceptability of text messaging as an aid to reduce harmful drinking behaviours. BMC Research Notes 2014, 7:4*

# Aim

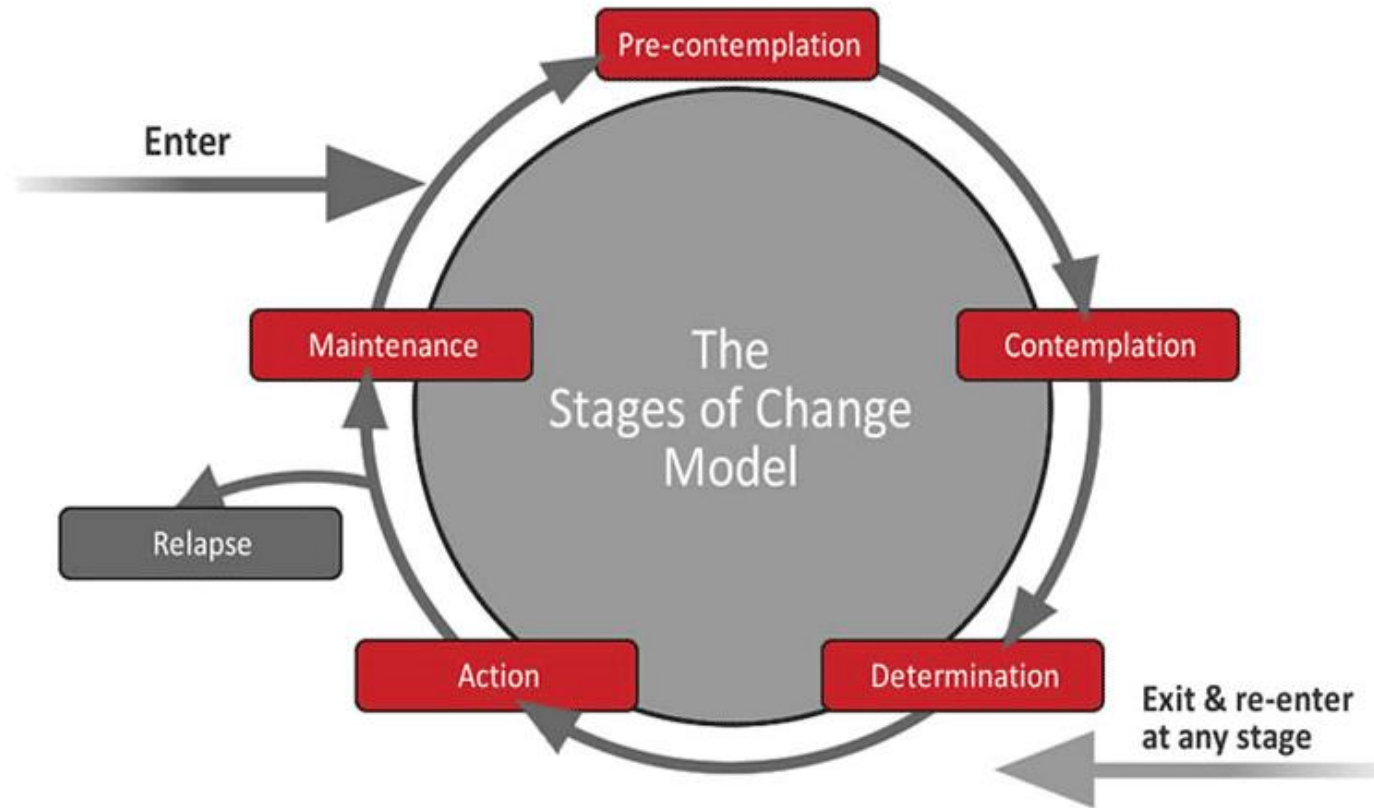
To develop a text message Brief Intervention service to support behaviour change in admitted trauma patients who screen positive for hazardous alcohol use.

# Methods



# Step 1: concept

- ▶ Intervention Development Team: Experts in mobile phone health technology, drug and alcohol clinical services, health psychology, and Māori, Pacific, and Asian Health.
- ▶ Prototype based on Brief Intervention framework & Stages of Change behaviour change model.



## Step 2: pre-testing

- ▶ Pre-testing of content for text messages
  - ▶ In-depth interviews with 14 trauma inpatients.
  - ▶ In-depth interviews with 6 key informants from the Auckland City Trauma Service, ALAC, ACC, Alcohol HealthWatch, National Hauora Coalition, and Auckland Council.
  - ▶ Consultation and focus groups with Māori and Pacific drug and alcohol counsellors, Pacific staff at the University of Auckland, and Māori researchers.
- ▶ Iterative process for developing and refining text message content.

## Step 2: pre-testing

### Findings and issues:

- 1) Complexity of text message content and pathway options.
- 2) Relevance of messages for Māori and Pacific audiences.
- 3) Interactivity.
- 4) Tone of message content.
- 5) Name of text message programme.

**YOUR CALL™**





## Step 2: examples

- ▶ Intervention regimen: 16 text messages in total over one month.
- ▶ Week 1: Welcome, feedback, linking to existing services, encourage contemplation.



## Step 2: examples

- ▶ Weeks 2 & 3:
  - ▶ Recommendation to cut down - clear yet empathetic.
  - ▶ Information and tips/strategies.

YourCall: Kia ora. We recommend u cut down or quit alcohol. Making a positive change can be hard, try small steps. Kia kaha!

YourCall: Ideas 4 cutting down: plan no-alcohol days, have water between drinks, try low alcohol drinks like light beer. Check out [easeuponthedrink.org.nz](http://easeuponthedrink.org.nz)

## Step 2: examples

- ▶ Week 4: Encouragement, key messages re-iterated.

YourCall: Kia ora.  
Remember that u can get  
confidential help from  
Alcohol Helpline [0800 787  
798](tel:0800787798) or your doctor

ToWaea: Kia ora. Kaua e  
wareware ka taea te  
awhina matatapu mai i  
Alcohol Helpline [0800 787  
798](tel:0800787798), mai i to takuta ranei

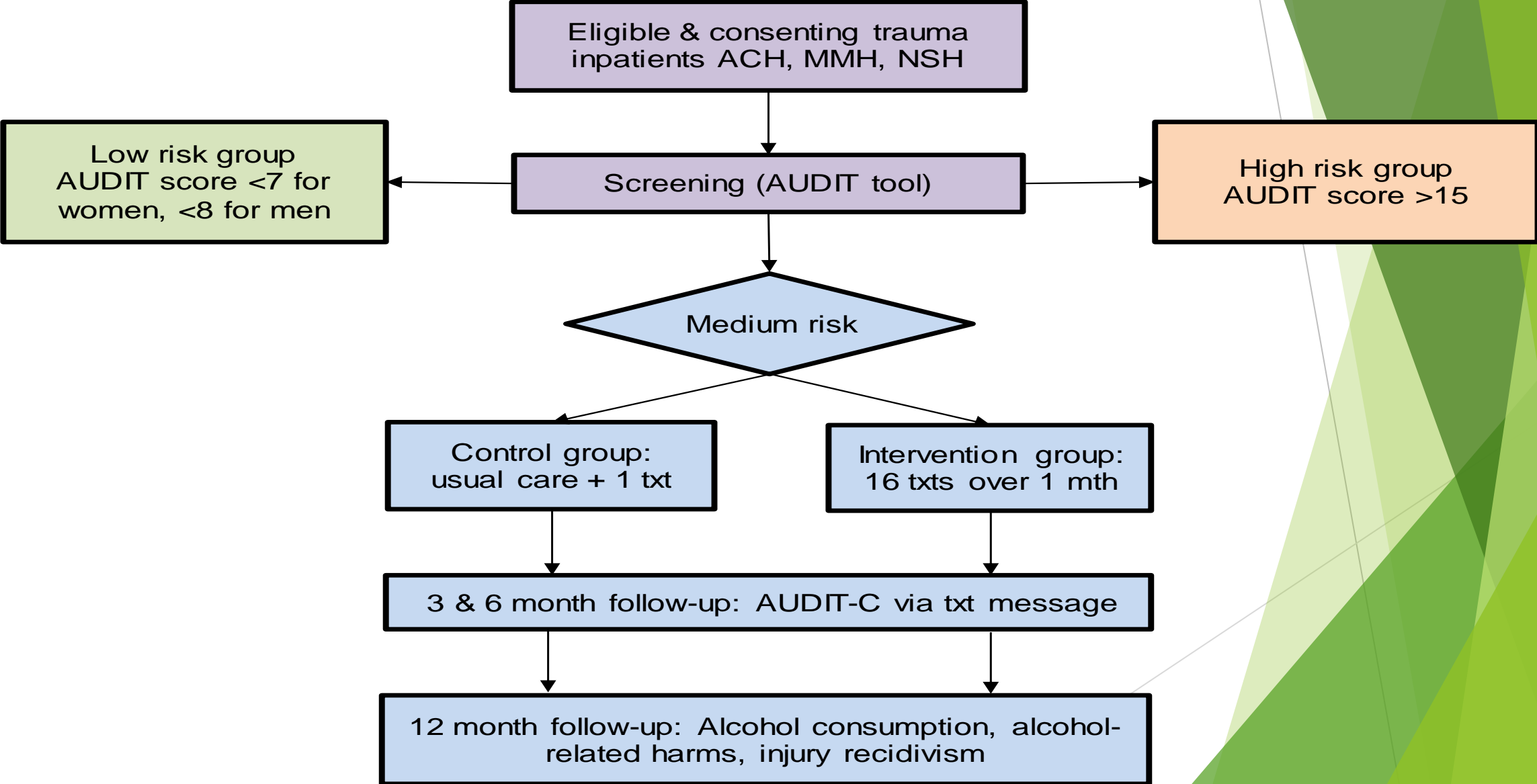
YourCall: Kia ora. Make a  
positive change - cut  
down or quit drinking  
alcohol. Thanks 4 taking  
part in the study. We'll be  
in touch in 2 months. Kia  
kaha

## Step 3: technology development

- ▶ Three main components:
  - 1) An Oracle database holding the programme content and participant details.
  - 2) A Content Delivery System which manages scheduling, delivery and processing of text messages.
  - 3) An intermediary gateway for delivery of text messages between sender and receiver.
- ▶ Final phase was testing of functionality of IT and text message systems.



# Part 2: RCT



# Discussion

Strengths	Limitations
Underpinned by theory & evidence including findings from feasibility study	Intervention is unidirectional & automated, lacks 'interactivity'
Communication via mobile phone <ul style="list-style-type: none"><li>➤ Convenient &amp; integrated into people's lives</li><li>➤ Broad reach</li><li>➤ Potential to reduce inequities</li></ul>	Limited personalisation of text message content
Stakeholder involvement	Time & cost to develop/test <ul style="list-style-type: none"><li>➤ Technology advances</li><li>➤ Change over time in way people use their mobile phones</li></ul>

# Summary

- ▶ We have developed a text message intervention underpinned by established BI evidence and behaviour change theory.
- ▶ An integral part of the development process has been refinement of text message content based on feedback and consultation.
- ▶ Currently conducting an RCT to evaluate the effectiveness of the intervention in reducing hazardous alcohol use and injuries.

# Acknowledgements

- ▶ Funding from a project grant awarded by The Health Research Council of NZ
- ▶ Intervention Development Team: Matthew Shepherd, Bridget Kool, Robyn Whittaker, Vili Nosa, Enid Dorey, Susanna Galea, Papaarangi Reid, Shanthi Ameratunga
- ▶ Study Co-investigators: Ian Civil, Matthew Walker, Vanessa Thornton, Gordon Smith
- ▶ Rhondda Paice and Lynn Tucker, Auckland City Hospital Trauma Service
- ▶ Trauma inpatients Auckland City Hospital
- ▶ Kimiora Raerino and Emily Smith
- ▶ Rebecca Williams (Alcohol Healthwatch), Laura Ager (ACC), Trina Baggett (Auckland Council), Matire Harwood (National Hauora Coalition)
- ▶ Tupu Alcohol and Drug Counsellors
- ▶ Te Ātea Marinō Alcohol and Drug Counsellors
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- ▶ RAPP Tribal staff
- ▶ Vanessa Singh & colleagues in the NIHI (formerly CTRU) IT team

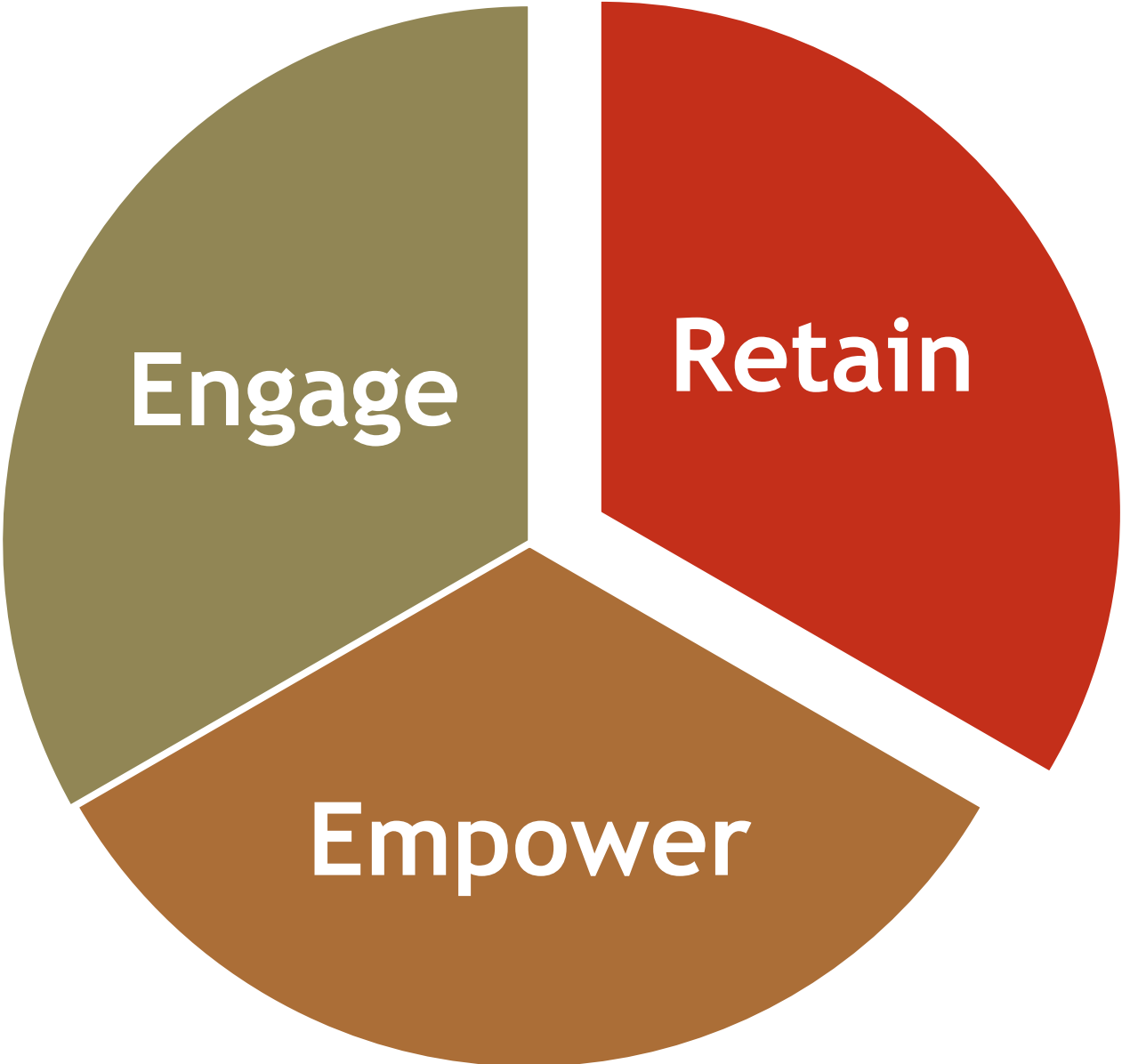


# SPILLIT Study

- ▶ Part 1: Two feasibility studies to assess whether participants would be willing to create their own self-designed safe drinking text messages to be sent at times they schedule

Part 2: Design and implementation of an appropriately powered Randomised Controlled Trial.

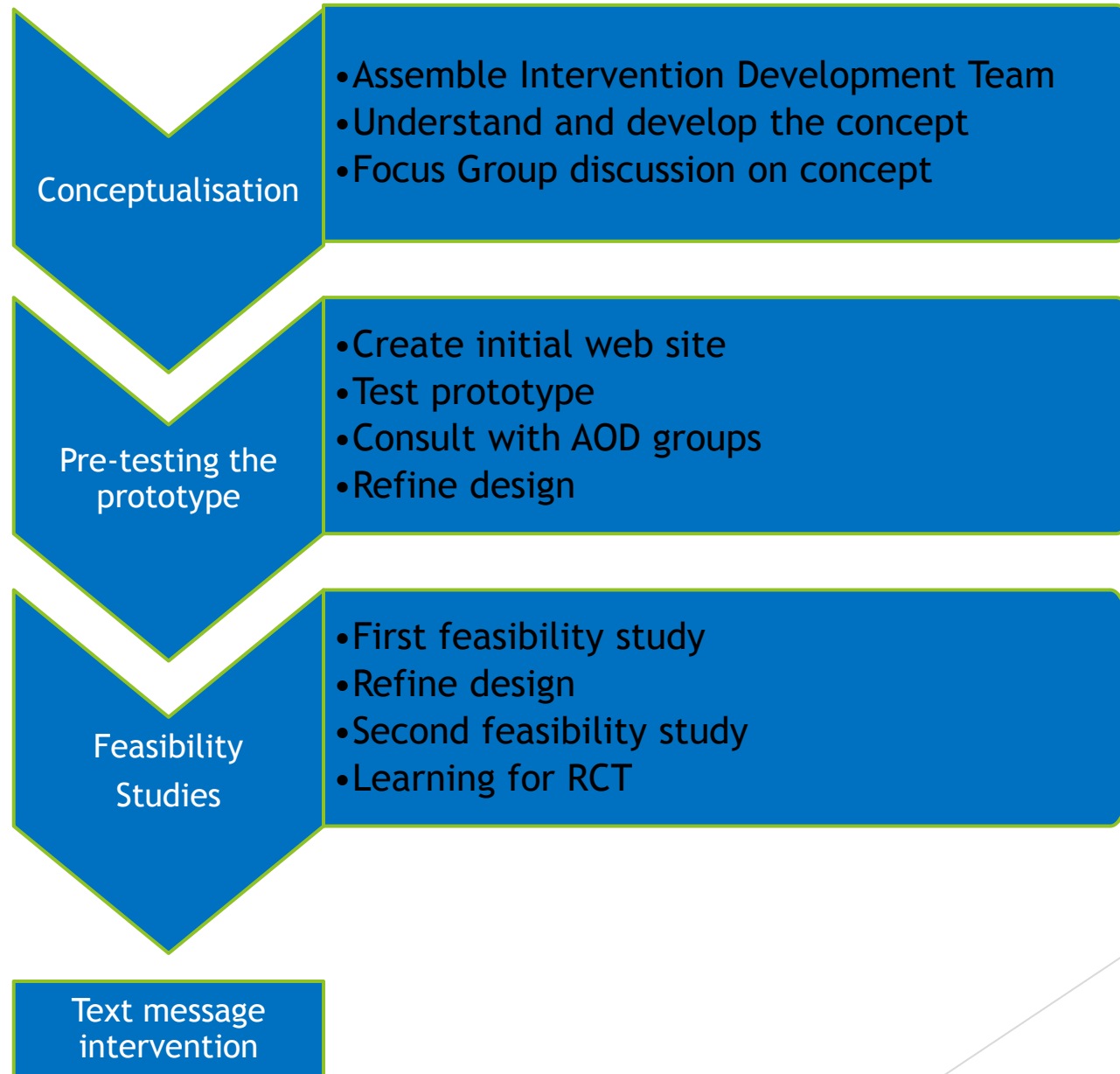
# The Challenge



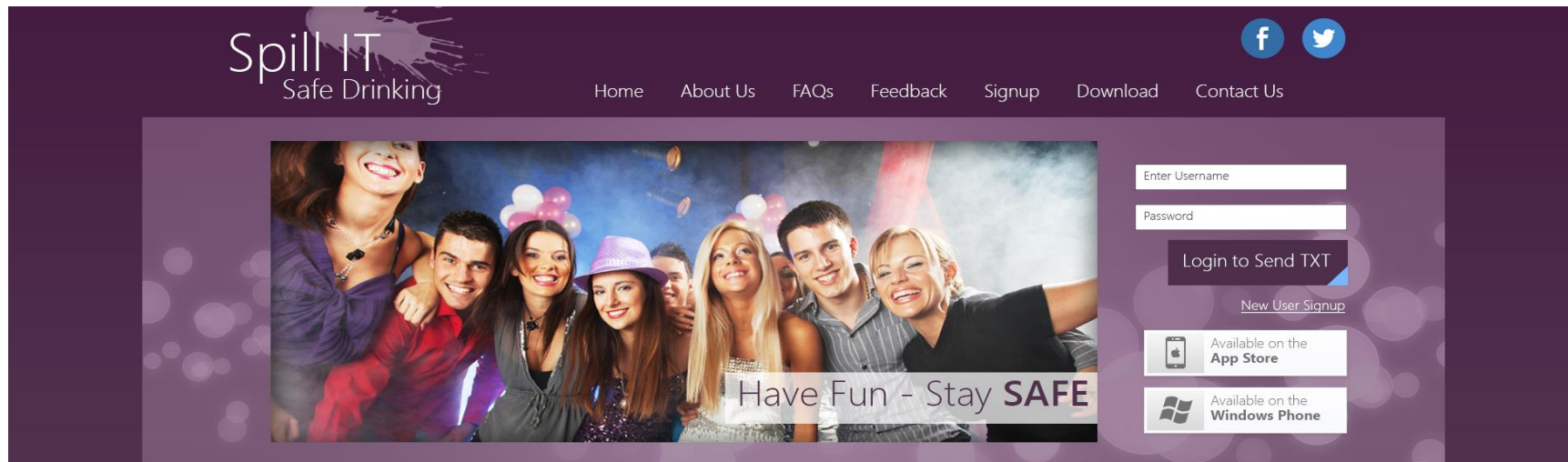
# Hypothesis

- ▶ Participants would take the opportunity to create their messages
- ▶ Self designed messages would be different from non-self designed messages

# Methods



# The Study Web Site



The header of the website features the logo "Spill IT Safe Drinking" on the left. To the right of the logo are social media icons for Facebook and Twitter. Below these is a navigation menu with the following items: Home, About Us, FAQs, Feedback, Signup, Download, and Contact Us. The main banner area contains a photograph of a group of young people at a party, with the text "Have Fun - Stay SAFE" overlaid. To the right of the photo is a login section with fields for "Enter Username" and "Password", a "Login to Send TXT" button, and a "New User Signup" link. Below the login section are two buttons: "Available on the App Store" and "Available on the Windows Phone".

## 1. Sign up / Login

Sign up for a FREE account and get started. We want to know a little about you so there will be a few questions to fill in before you start.

## 2. Write TXT Message

It only takes a minute. Instantly connect to SpillIT FREE Txt Messages when you are partying out and enjoying yourself.

## 3. Schedule Your TXT

Schedule the message for a future time and date or send it immediately

## Avoid unwanted "spills" while you are out having fun

SPILLIT is a free TXTing service which provides Safe Drinking TXT messages which are sent to your mobile phone when you are out partying and enjoying yourself.

SPILLIT is not about stopping drinking but about keeping safe while we are drinking.

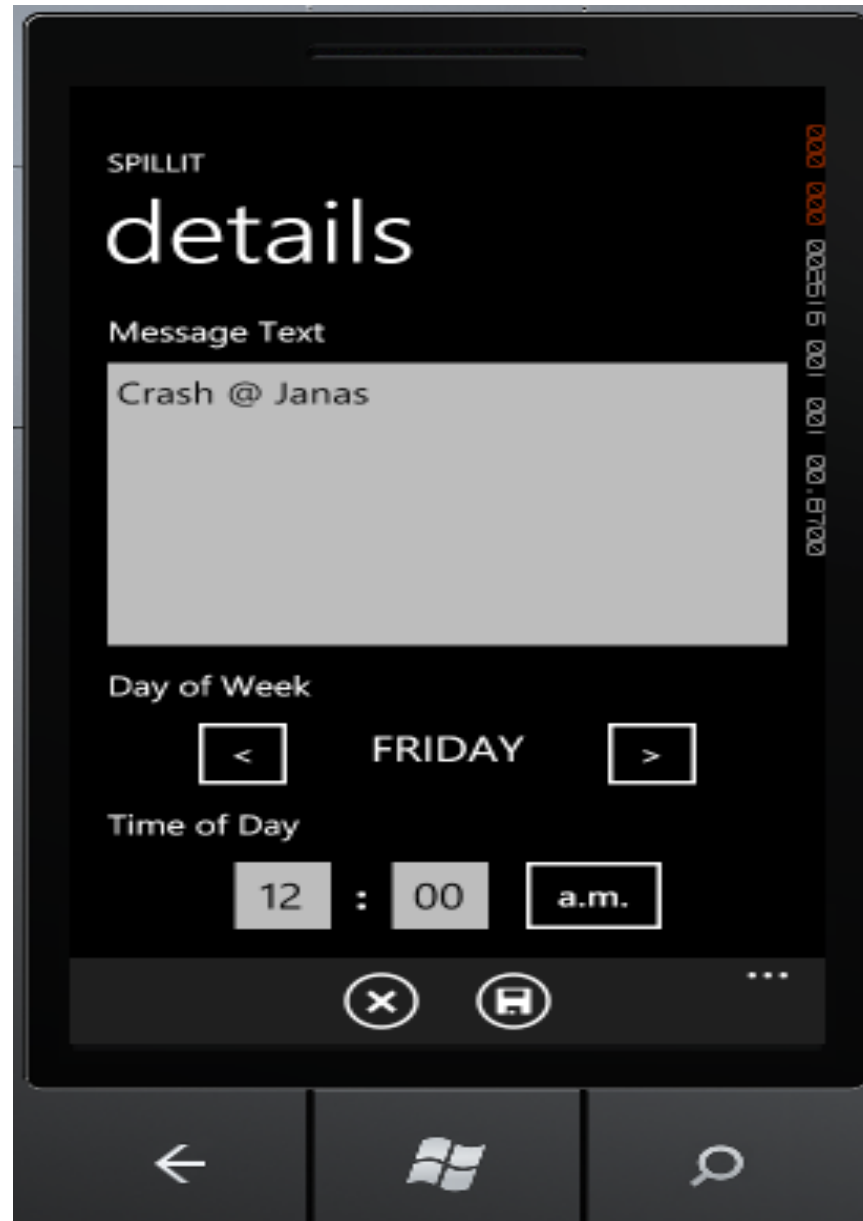
Feasibility studies have shown that Safe Drinking Text Messages can help you stay safe while you are having fun.

We invite you to be a SPILLIT participant.

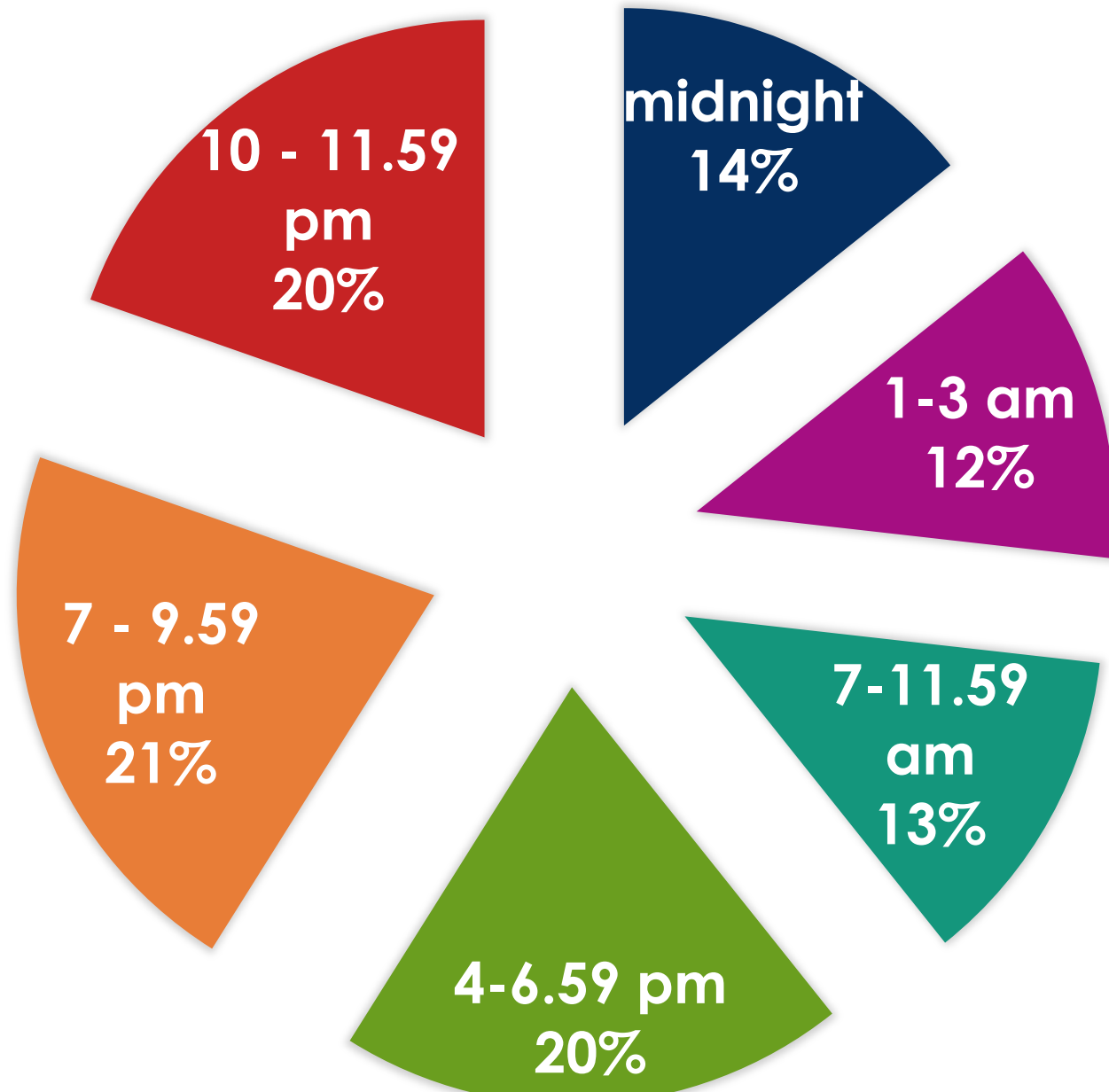
We are now recruiting for a Randomised Controlled Trial. There is no cost to you and you are in control of your messages. In participating in this research you are helping us to show the usefulness of personal safe drinking TXT messages.

[SIGN UP NOW](#)

# Smart Phone Apps



# The Intervention



What message?

What day?

What time?

Message on /off?

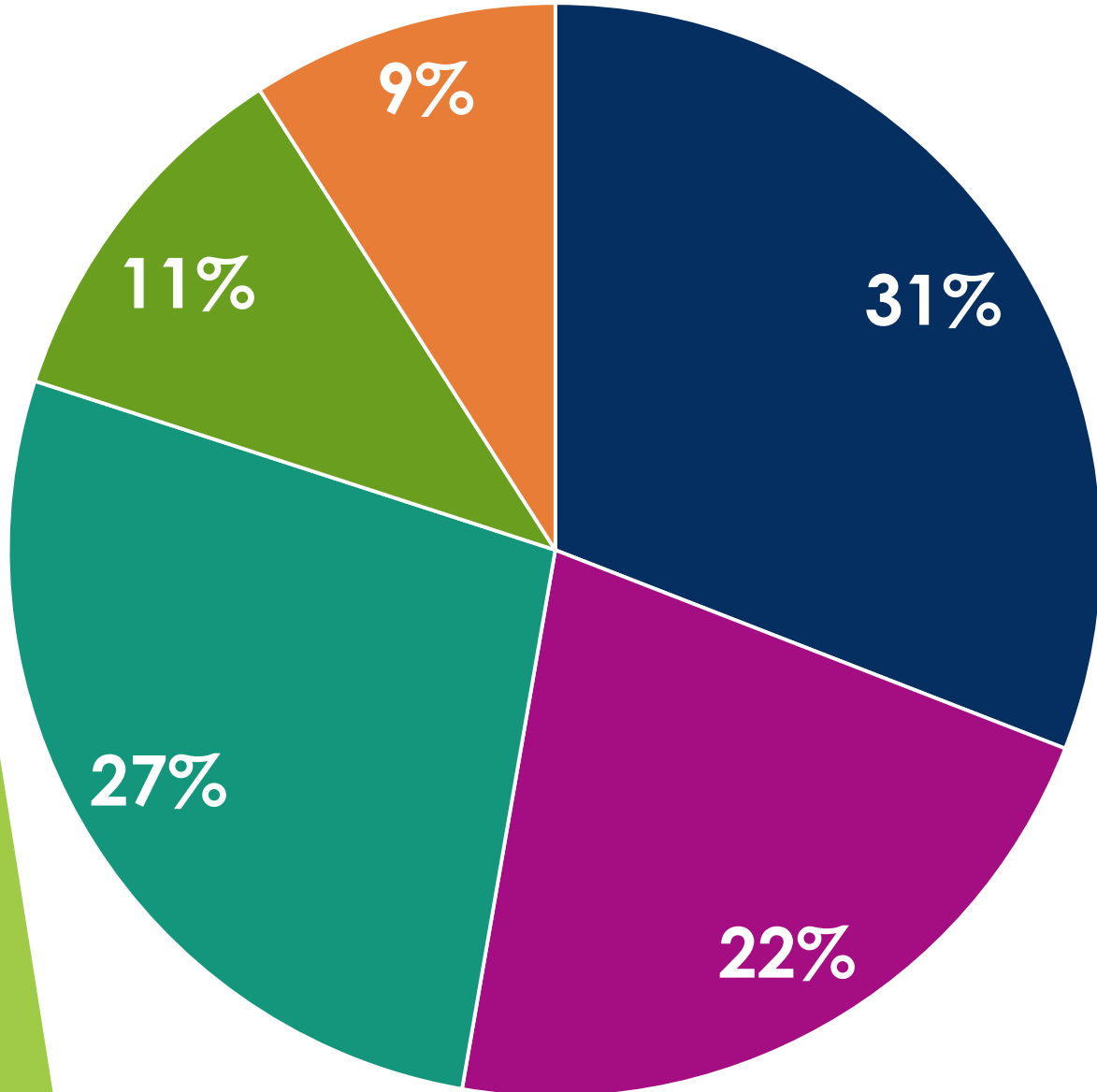
# Participants

	MESSAGE N = 24 (31%)	No MESSAGE N=53 (69%)
Age in years (mean/SD)	33 (15.5)	28 (10.6)
Age first drunk (mean/SD)	15.6 (4.0)	15.5 (2.7)
Have tried to cut down drinking	14 (58%)	40 (74%)
I think I can cut down my drinking	19 (79%)	40 (74%)

Ready to reduce alcohol?	Message	No Msg
- Sometimes think about it	14 (58%)	15(26%)
- Already trying	8 (33%)	19 (36%)
- Never think about it	----	13 (25%)



# Message Approach



- Practical
- Motivational
- Minimal
- Consequences
- Anti

# 1. Consequences

“Remember you want to enjoy tomorrow”

“make safe decisions when going owt” [repeated twice]

“Leave on a high, nothing good happens after midnight. You'll feel great about it tomorrow.”

“Do not punch Jamie”

## 2. Minimal Consumption

”ease the f\*\*\* up sluzz”

“Do you need any more?”

“JUST ONE”

“are you drunk yes? if the answer is yes then slow down, if no then still slow down lol”

“Drink light beer and water”

“noch ein Bierchen, oder zwei? ;- ) ”

“Ok slow down now!!!“

### 3. Motivations

“stop making a dick of yourself by being a bitch”

“Be Still, Stay Positive, One day at a time. You are becoming who you want to be”

“Remember your the boss, act that way”

“Time to call a taxi - Excercise/ Family time tomorrow”

“You are a daughter of God who has a purpose for you. He loves you, is proud of you and wants the best for your life.”

“You are better than this sluz”

## 4. The Practical

“STUDY-GOT EXAMS SOON! DONT EVEN THINK ABOUT IT!”

”Grab the bill, pick up takeaways - Excercise/ Quality Family time tomorrow”

“nothing good happens after 2am. GO HOME!!”

“Time for a feed and shitload of water”

“Drink some water - exercise”

“STOP DRINKING <<name>> AND EITHER GO TO BED OR IF YOU ARE OUT GO HOME! LOVE FROM YOURSELF”

# Strengths & Weaknesses

Strengths	Limitations
Underpinned by theory	
Empowering the participant Voice	Small participant numbers
Generalisable to all sectors of society	
Communication via mobile phone	Slow Recruitment
* Convenient & integrated into people's lives	Low retention among those not implementing the message service.
* Broad reach	
* Potential to reduce inequities	
	Time & cost to develop/test
	* Technology advances
Stakeholder involvement	* Change over time in way people use their mobile phones

# Currently...

- ▶ A full Randomised Controlled trial is underway
- ▶ Pre-contemplators are signing up for the intervention
- ▶ Would Self-Message work in all situations?

# Benefits of self-message

- ▶ Personal Relevance
- ▶ Facilitating peer support
- ▶ Multi-language
- ▶ Age and gender specific
  
- ▶ What about messages being generated by peers / family / support teams for an individual.
- ▶ Reminder messages could be sent to the whanau / support network
- ▶ Messages being generated out of counselling sessions



# Discussion

- ▶ Benefits/risks of mobile phone text messages as a communication channel.
- ▶ Two studies with different approaches:
  - ▶ Limited vs complete personalisation & tailoring of messages.
  - ▶ Screening for hazardous alcohol use vs no screening.
  - ▶ Different settings.
- ▶ If found to be effective interventions, what are the future implementation issues to be considered?
  - ▶ Availability of different options/choices for people?
  - ▶ Integration into clinical setting?
  - ▶ Use of social media?

# Thank you

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Conflicts of Interest:

Professor McCormick is an advisor to the Australasian Brewers Association

Mrs Renner is a director of Starsoft Ltd



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