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# ***Design of financial incentive programmes for smoking cessation: A discrete choice experiment***

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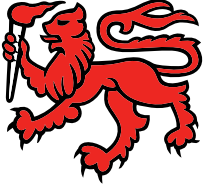
University of Tasmania, Australia

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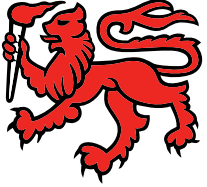


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## ***Declaration of Interests***

- SGF has consulted pharmaceutical companies on matters relating to cessation and harm minimisation. These organisations were not involved in the current study in any way.
- Other authors have nothing to disclose.
  
- This study was supported by untied research funds awarded to SGF

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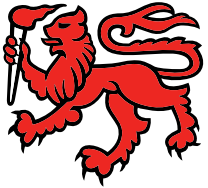


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## ***Effects of smoking***

- Largest preventable contributor to morbidity and mortality
- 8 million deaths globally per year
- Global economic cost of smoking:
  - US\$1436 billion per year (Goodchild et al., 2017)
- Yet 1.1 billion people smoke worldwide

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# ***Assisting quitting***

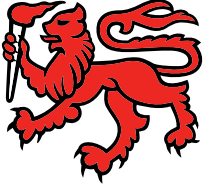
- Help is available



**Quitline**  
**13 7848**

- But:
  - Most attempt to quit unassisted
  - Success rate when unassisted ~3-5%
  - 1/3 smokers do not want to quit
- Need to motivate quitting, sustain quit attempts, and encourage use of aids

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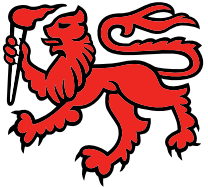


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# ***Financial incentive programmes***

- Method of motivating initiation and sustaining quit attempts by offering financial rewards
- Not intended to replace other methods
- Etter & Schmid (2016)
  - 6 sessions over 6 months
  - Incentive condition: Voucher for each session they are verified abstinent
  - Maximum amount: US\$1,650

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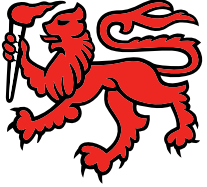
# ***Financial incentive programmes***

- Etter and Schmid (2016) cessation results:

	<b>Control Group n (%)</b>	<b>Incentive Group n (%)</b>	<b>OR (95% CI)</b>
Quit at end of programme	23 (5.7)	144 (35.9)	9.28 (5.82–14.81)
Quit 12 post intervention	19 (4.7)	39 (9.7)	2.18 (1.24–3.85)

- Cochrane review by Notley et al. (2019):
  - Effects are sustained long-term, even once incentives end

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# ***Little consistency in programme designs***

- Lots of different designs have been shown to work
- Breen et al. (2020) observed variations in:
  - Cash versus vouchers
  - Reward schedules
  - Programme location (e.g., healthcare setting, workplaces)

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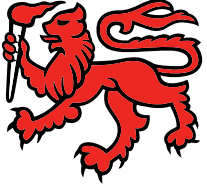
# ***Little consistency in programme designs***

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	Min.	Median	Max.
Total incentive amount (USD)	\$106.19	\$536.67	\$4,027.92
Number of sessions	2	11	52
Programme length (weeks)	3	12	52
Longest follow-up (months)	6	6	24

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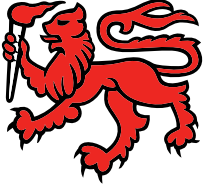


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# ***Guidance on designs in needed***

- Policy makers/providers want to know how to best design programmes
- Designs influence effectiveness (Packer et al., 2012) and costs
- Also impacts acceptability among potential providers and smokers (Hoskins et al., 2019)
- Differences by income level?

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# ***Objectives***

Evaluate current smokers':

1. Preferences for programme design
2. Influence of designs on willingness to enrol

Consider differences by income level

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# ***Example choice task***

Features	<b>PROGRAMME A</b>	<b>PROGRAMME B</b>
Type of reward	Cash	Voucher
Total reward amount	£300 over 10 weeks if you do not smoke	£200 over 10 weeks if you do not smoke
Number of sessions	3 per week	1 per week
Reward schedule	Same amount every week if you do not smoke	Same amount every week if you do not smoke
Location	Workplace	Healthcare centre

Which programme do you prefer?

Would you actually enrol in your preferred programme if it was available?

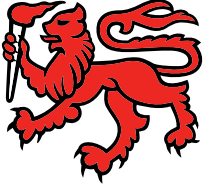


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## ***Results: what did smokers prefer?***

- All features categories were important for decisions
- Most preferred: cash, higher amounts, 1 session/week, healthcare settings, fixed reward schedules

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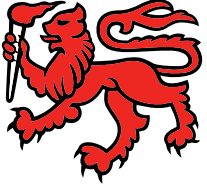


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## ***Results: what did smokers prefer?***

- All attributes were important for decisions
- Most preferred: cash, higher amounts, 1 session/week, healthcare settings, fixed reward schedules
- Middle- and high-income smokers preferred slightly higher incentive amounts

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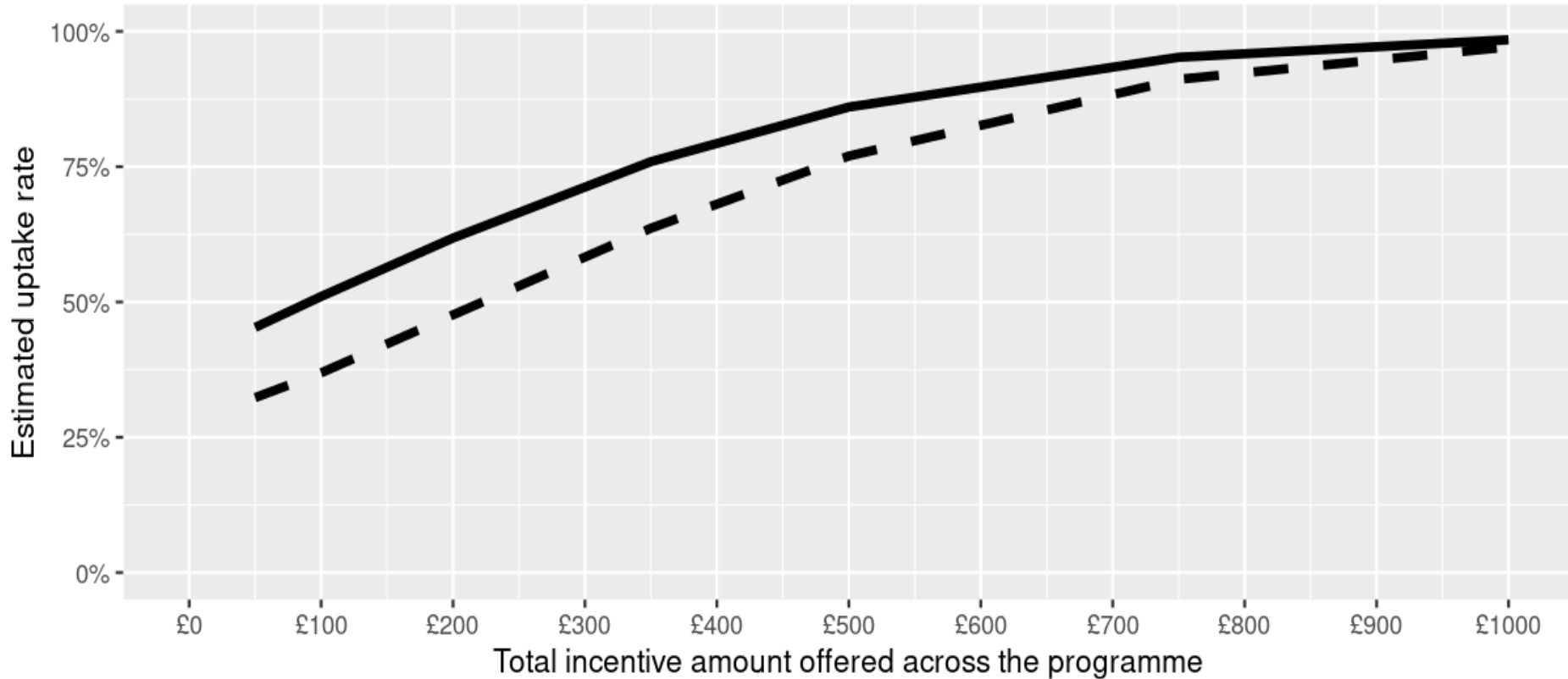
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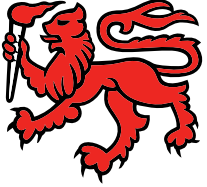
## ***Willingness to enrol was high***

- The proportion of 'would enrol' responses across all participants and choice sets was 81.22%
- No differences in 'would enrol' responses by income
- Estimated uptake was influenced by the programme design
- Shiny app:  
<https://tinyurl.com/dce-financial-incentives>

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# *Willingness to enrol varied by FI and payment type*





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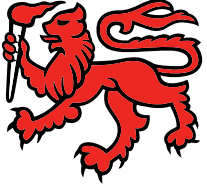
## ***Summary of findings***

- Smoker's opinions of programmes were associated with the design
- Designs highlighted could be used to encourage enrolments
- Income level may influence some perceptions, but not willingness to enrol

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## ***Future directions***

- Hypothetical questions; confirmation is needed
- Enrolment  $\neq$  cessation
- Other characteristics: length of programme, recipient characteristics beyond income

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# Thank you

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Shiny app: <https://tinyurl.com/dce-financial-incentives>

