

Financial Incentives for Smoking Cessation: Protocol for the Qualitative Evaluation of the Incentive to Quit (I2Q) Pilot

International Journal of Qualitative Methods

Volume 22: 1–5

© The Author(s) 2023

DOI: 10.1177/16094069231215185

journals.sagepub.com/home/ijq

K. J. Sharrad^{1,2} , S. Perveen^{1,2}, T. Grammatopoulos^{1,2}, D. Phillips-Chantelois^{1,2}, and K. V. Carson-Chahhoud^{1,2,3}

Abstract

Reducing tobacco usage has been identified as an urgent national health priority, being the leading cause of preventable death and disability in Australia. The Incentive to Quit (I2Q) pilot aims to reduce the harms associated with smoking and vaping by training health professionals on delivering brief smoking cessation advice, and providing eligible smokers/vapers with financial incentives, use of the Quitline counselling service, and pocket-sized resources with content tailored to help support quit attempts at different stages of the participant's journey. A qualitative evaluation of the I2Q intervention will be undertaken throughout the program period via one-on-one interviews with a subset of health professionals and participants (smokers/vapers) of the I2Q program, along with key community stakeholders, to identify how the service can be improved. Interviews of approximately 45–60 minutes will be conducted either face-to-face or via telecommunication, and a moderator guide will be used to direct the interview. Interview transcripts will be coded through both inductive and deductive thematic analyses by two independent coders.

Keywords

smoking cessation, financial incentive, behaviour change, tobacco

Background

Tobacco use is still the leading cause of preventable death and disability in Australia, and a 2015–16 estimate identified a US\$136.9 billion social cost of smoking to the country's economy (Australian Institute of Health and Welfare AIHW, 2023). In South Australia, tobacco use is decreasing, however it is still estimated to cause 1413 deaths each year (Australian Institute of Health and Welfare AIHW, 2021). Despite this general downward trend in smoking prevalence, some population groups report higher rates of smoking – in particular, Aboriginal and Torres Strait Islander people, people experiencing mental illness, and socio-economically disadvantaged communities (South Australian Health & Medical Research Institute SAHMRI, 2021). Tobacco use can also compound existing social inequalities, both through the financial stress of purchasing tobacco products and through smoking-related disease (Australian Government, 2013). Health problems from smoking can also further diminish quality of life, including through the

impact on employment (Committee on the Public Health Implications of Raising the Minimum Age for Purchasing Tobacco Products & Medicine, 2015) and productivity (Halpern et al., 2001). Furthermore, smoking-related health problems increase demands on state health services (Scollo et al., 2020). Reducing tobacco use is identified as an urgent national health priority, with high levels of public support for policies that reduce tobacco-related harms. All Australian Governments are reporting "... the need for a new sense of urgency" to prioritise a plan to end the

¹Houd Research Group, Adelaide, Australia

²Adelaide Medical School, University of Adelaide, Adelaide, Australia

³Australian Centre for Precision Health, University of South Australia, Adelaide, Australia

Corresponding Author:

K. J. Sharrad, Houd Research Group, GPO Box 1139, Adelaide SA 5001, Australia,
Email: kelsey@houdresearch.com.au



Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons

Attribution-NonCommercial 4.0 License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits non-commercial use,

reproduction and distribution of the work without further permission provided the original work is attributed as specified on the SAGE

and Open Access pages (<https://us.sagepub.com/en-us/nam/open-access-at-sage>).

tobacco epidemic. This has been emphasised across the incoming National Preventive Health Strategy 2021–2030 (Australian Government, 2021), and the National Tobacco Strategy 2022–2030 (Australian, 2023).

Providing brief, simple advice about quitting can increase the likelihood a smoker will successfully quit and remain a non-smoker 12 months later (Stead et al., 2013). However, many health professionals infrequently provide this advice, having limited knowledge and practical skills for delivering brief cessation advice and pharmacotherapy (Bobak & Raupach, 2018). Incentive-based interventions utilise contingency management – a behavioural intervention strategy that uses incentives or rewards such as cash payments or vouchers, to promote or reinforce behaviour change. Incentives are often included as part of smoking cessation programs in order to encourage participation in a program, to reward compliance, and/or to reward abstinence (Cahill et al., 2015). Evidence in Cochrane systematic reviews demonstrates that smokers receiving incentives for participating in smoking cessation services are more likely to successfully quit smoking than those in control groups (Notley et al., 2019; Sigmon & Patrick, 2012). Financial incentives have also been shown to be useful for promoting quitting among populations with a high prevalence of smoking; including people from low socio-economic backgrounds (Kendzor et al., 2015), people with substance use disorders (Shoptaw et al., 2002), and adolescent smokers (Morean et al., 2015). Furthermore, a few preliminary studies show financial incentives to be a promising intervention for vaping cessation (Palmer et al., 2022; Raiff et al., 2022). Despite the significant body of evidence in the literature supporting the use of incentives for smoking cessation, they have not been widely utilised through Government health services.

The Incentive to Quit (I2Q) pilot is a smoking cessation intervention running across Northern Adelaide Local Health Network (NALHN) throughout 2023; training health professionals on delivering brief smoking cessation advice, providing eligible smokers/vapers with financial incentives, use of the Quitline counselling service, and pocket-sized resources with content tailored to help facilitate quit attempts and provide support throughout the quitting journey. The program follows up with participants at 3 and 6-month following baseline enrolment.

This research will evaluate the I2Q intervention via one-on-one interviews with a subset of health professionals and participants (smokers/vapers) throughout the program period (before, during, and after participation), as well as key stakeholders who may have relevant insight on how to improve the I2Q program. The intended outcome of this evaluation is to identify barriers and facilitators to the program's future success for upscale and extended roll-out.

Aims

To understand the acceptability of the I2Q program, as well as facilitators and barriers to the success and upscale of the program by health professionals (HPs), I2Q participants, and

key community stakeholders. This will be achieved through one-on-one interviews.

Explanation and Justification of Method

This project utilises qualitative action research, in which researchers and patients collaborate to explore topics which may be sensitive, such as healthcare (Malterud, 2001; Pope & Mays, 2006).

Data will be analysed both via inductive thematic analysis, and deductive thematic analysis with the use of the COM-B (Capability, Opportunity, Motivation, Behaviour) framework. Deductive thematic analysis can be useful to guide coding of data, and allows for categorisation of the data which is linked to published theory (Bingham et al., 2021). In this case, the COM-B model categorises an individual's behaviours relative to capability, opportunity and motivation to engage in the intervention, and has been used to explore behaviour change with reference to smoking cessation in recent studies (Kumar et al., 2021; Mersha et al., 2020; Rahman et al., 2021). Inductive analysis allows for themes to emerge as the data is analysed, allowing for greater understanding of the data by researchers, without trying to fit the data to a pre-existing framework (Bingham et al., 2021). Utilising both methods will allow for a thorough understanding of the themes within interview transcripts, while applying methodological rigour to the analysis.

Sampling/Recruitment

Recruitment

Thirty participants in total will be recruited for this study, consisting of $n = 10$ HPs, $n = 10$ I2Q program participants, and $n = 10$ key community stakeholders. HPs and key stakeholders will be approached to participate by research staff, while smokers/vapers will be asked by their HP or by research staff if they would be willing to undertake a qualitative interview to collect more information, with their time reimbursed using an additional US\$50 Coles gift card. Key community stakeholders will be contacted via email and/or through professional networks. Smokers/vapers who do not want to participate in the I2Q program may also be asked to participate in an interview to understand why they do not want to engage, in the hope of improving the I2Q program as a standard clinical service for SA Health.

Eligibility Criteria

Health professionals and smokers/vapers who participated in the I2Q program can both be considered as participants for the qualitative evaluation, in addition to key community stakeholders. Participants will not be eligible to participate in the interviews if they are unable to provide informed consent. Eligibility for the I2Q program is as follows:

Health Professionals. HPs are described as providers “... of health care treatment and advice based on formal training and experience.” HPs meeting this description, regardless of employment type (e.g., permanent, contract, casual, temporary etc.) will be invited to participate in the I2Q program if their role carries a reasonable expectation to ask NALHN clients about smoking status.

I2Q Participants. Smokers/vapers are eligible for the I2Q program if they are:

- Attending one of the 4 participating NALHN services as an inpatient or outpatient between 01/03/2023 and 28/02/2024:
 - Aboriginal health
 - Mental health
 - Cardiac health
 - Respiratory health
- Daily smoker of at least 1 cigarette or equivalent, per day, OR 10 cigarettes per week
- OR regular electronic cigarette (e-cig) user/vaper
- At least 18 years of age
- Willing to make a genuine attempt to quit smoking within 2 weeks of first visit

Key Stakeholders. Key community stakeholders may include SA Health representatives, professionals involved in the management of health services, or Aboriginal Elders.

Justification of Sample Size

The use of “saturation” to justify sample size in qualitative research can be a problematic approach, due to the difference in saturation point between studies (Sim et al., 2018). Applying “Rules of thumb” may be a more useful approach, as these rules are based on methodological considerations and utilise the data obtained through previous research studies. Sim, 2018 report such recommendations as “a broad range of between a dozen and 60, with 30 being the mean” (Adler & Adler, 2012), “20–30 informants” (Creswell & Poth, 2016), “20–30 interviews (Marshall et al., 2013), “at least 5 one-hour interviews for theoretical saturation” (Strauss & Corbin, 1998). These rules of thumb are also similar to sample sizes used in recent qualitative studies in the same field (Budenz et al., 2022; Chellappa et al., 2021; Dieleman et al., 2021), and furthermore, is anticipated to be appropriate for the project timeline as per the extensive experience of the research team.

Data Collection Method

Interviews will be approximately 45–60 minutes in length, will take place via the participant’s preferred communication method (face-to-face at their health service clinics, video chat,

or phone call), and will be facilitated by a member of the Houd Research Group team. Potential participants will be provided with an information sheet and consent form, and will be required to provide written informed consent for the interview audio to be recorded, in order to develop interview transcripts for data analysis.

Participant interviews will be guided by a semi-structured moderator guide (Appendix A) and will include a questionnaire (Appendix B) using 7-point Likert scales for attitudes, perceptions, knowledge and behaviours for data triangulation purposes.

Data Handling/Plan of Analysis

Interviews will be transcribed via [Rev.com](#) transcription software, and will be coded in NVivo software by two independent coders. Data will be analysed both via inductive thematic analysis, and deductive thematic analysis with the use of the COM-B framework.

As stated, the COM-B model categorises an individual’s behaviours relative to capability, opportunity and motivation to engage in the intervention (Michie et al., 2011), and suggests that behaviour is the result of interactions between these 3 categories (Mersha et al., 2020). Each category is further classified to physical and psychological capability, physical and social opportunity, automatic and reflective motivation. e.g., social opportunity refers to interpersonal influences, social factors, and opportunities available. Further still, quotes will be coded as barriers or enablers to implementation of I2Q within each of these themes.

Results will be presented in tabular and narrative formats with deidentified quotes from study participants.

Ethical and Legal Aspects

Confidentiality and Security of Data

All data will be de-identified. De-identified data will not be stored in the same place as identified data (e.g. names, contact numbers). Personal or confidential data will not be disclosed unless required by law. All data collected will be stored electronically in a password-protected database, while all hard copies will be stored in a locked filing cabinet at University of Adelaide, Houd Research Group offices and/or DASSA offices; accessible only by the personnel delivering the I2Q program or study team. Records will be kept for five years in accordance with the Australian Code for Responsible Conduct of Research.

Anonymity

As sessions will be audio-recorded, participants will be able to choose a name to be used throughout the interview if they do not wish to use their real name.

Informed Consent

Participants will be required to undertake informed consenting procedures prior to contact with research staff. Participants who are unable to communicate effectively in English will be excluded from the study.

Protection of Participants' Safety, Emotional and Psychological Security and Wellbeing

All staff hold current National Police and Working With Children checks through the SA government. The study will be undertaken using a semi-structured moderator guide, co-designed with tobacco cessation experts. Participants will be made aware that they can stop participating at any time and will be able to talk with a health professional if needed during the interview.

Rigor

Credibility

To facilitate data triangulation, interviews will be supplemented with Likert scales within a questionnaire. Data from participants will be compared with the Likert scale responses, adding depth and support to the interpretation of qualitative responses during interviews (Mays & Pope, 2000).

Furthermore, the moderator guides have been developed using the COM-B framework which will facilitate data analysis.

Transferability

By using three groups of participants (HPs, smokers/vapers, and key stakeholders), the relevance and credibility of results are more likely to be more broadly reflective of the community.

Declaration of Conflicting Interests

The author(s) declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article: KVCC is the Founder and Director for Houd Research Group.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the All funding for this project is provided by the contract between Houd Research Enterprises and the Drug and Alcohol Services South Australia (DASSA) for the launch of the I2Q pilot. Unforeseeable expenses may be provided by Houd Research Group. The authors would like to acknowledge The University of Adelaide for their support in the form of research scholarships for students KJS, TG, and DP-C.

Ethical Statement

Ethics Approval

This project is conducted in accordance with the principles of the Declaration of Helsinki (World Medical Association, 2013) and has

received ethical approval by the Aboriginal Human Research Ethics Committee (Ref: 04-22-1038), and will undergo review by the Department of Health and Wellbeing Human Research Ethics Committee and the University of Adelaide Human Research Ethics Committee.

Authors Note

This study was prospectively registered with the Australia and New Zealand Clinical Trials Registry (ANZCTR): ACTRN12623000842662 (Australia and New Zealand Clinical Trials Register ANZCTR, 2023).

ORCID iD

K. J. Sharrad  <https://orcid.org/0000-0002-0301-7161>

Supplemental Material

Supplemental material for this article is available online.

References

- Adler, P. A., & Adler, P. J. (2012). Expert Voices. In *How many qualitative interviews is enough?* (pp. 8–11). UK: National Centre for Research Methods.
- Australia and New Zealand Clinical Trials Register (ANZCTR). (2023). Financial incentives for smoking cessation: Qualitative evaluation of the incentive to quit (I2Q) pilot across northern Adelaide local health networks. Retrieved from <https://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?id=386212&isReview=true>
- Australian, Government (2013). Existing interventions and programs to reduce levels of smoking among disadvantaged groups. Smoking and disadvantage brief. Retrieved from: <https://www1.health.gov.au/internet/publications/publishing.nsf/Content/smoking-disadvantage-evidence-brief~existing-interventions>
- Australian, Government. (2023). National tobacco strategy 2023-2030. Retrieved from: <https://www.health.gov.au/sites/default/files/2023-05/national-tobacco-strategy-2023-2030.pdf>
- Australian Institute of Health and Welfare (AIHW) (2021). *Australian burden of disease study: Impact and causes of illness and death in Australia 2018*. Retrieved from Canberra: <https://www.aihw.gov.au/reports/burden-of-disease/abds-impact-and-causes-of-illness-and-death-in-aus>
- Australian Institute of Health and Welfare (AIHW) (2023). Alcohol, tobacco and other drugs in Australia. Retrieved from Canberra: <https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia>
- Bingham, A. J., Witkowsky, P. J. A., & Raupach, T. (2021). Deductive and inductive approaches to qualitative data analysis. In *Analyzing and interpreting qualitative data: After the interview* (pp. 133–146). SAGE Publications.
- Bobak, A., & Raupach, T. (2018). Effect of a short smoking cessation training session on smoking cessation behavior and its determinants among general practitioner trainees in England. *Nicotine & Tobacco Research*, 20(12), 1525–1528. <https://doi.org/10.1093/ntr/ntx241>
- Budenz, A., Coa, K., Grenen, E., Keefe, B., Sanders, A., Wiseman, K. P., & Roodis, M. (2022). User experiences with an SMS text

- messaging program for smoking cessation. *Qualitative Study*, 6(3), e32342. <https://doi.org/10.2196/32342>
- Cahill, K., Hartmann-Boyce, J., & Perera, R. (2015). Incentives for smoking cessation. *Cochrane Database of Systematic Reviews*, 5, Cd004307. <https://doi.org/10.1002/14651858.CD004307.pub5>
- Chellappa, L. R., Balasubramaniam, A., Indiran, M. A., & Rathinavelu, P. K. (2021). A qualitative study on attitude towards smoking, quitting and tobacco control policies among current smokers of different socio-economic status. *J Family Med Prim Care*, 10(3), 1282–1287. https://doi.org/10.4103/jfmpc.jfmpc_1628_20
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.
- Dieleman, L. A., Peet, P. G. v., & Vos, H. M. M. (2021). Gender differences within the barriers to smoking cessation and the preferences for interventions in primary care a qualitative study using focus groups in the Hague. *The Netherlands*, 11(1), e042623.
- Government, Australian (2021). National preventive health strategy 2021–2030. In D. o. Health (Ed.), *Commonwealth of Australia Canberra*. Australian Government.
- Halpern, M. T., Shikhar, R., Rentz, A. M., & Khan, Z. M. J. T. c. (2001). Impact of smoking status on workplace absenteeism and productivity. *Tobacco control*, 10(3), 233–238.
- Kendzor, D. E., Businelle, M. S., Poonawalla, I. B., Cuate, E. L., Kesh, A., Rios, D. M., & Balis, D. S. (2015). Financial incentives for abstinence among socioeconomically disadvantaged individuals in smoking cessation treatment. *Am J Public Health*, 105(6), 1198–1205. <https://doi.org/10.2105/ajph.2014.302102>
- Kumar, R., Stevenson, L., Jobling, J., Bar-Zeev, Y., Eftekhari, P., & Gould, G. S. (2021). Health providers' and pregnant women's perspectives about smoking cessation support: A COM-B analysis of a global systematic review of qualitative studies. *BMC Pregnancy and Childbirth*, 21(1), 550. <https://doi.org/10.1186/s12884-021-03773-x>
- Malterud, K. J. T. I. (2001). *Qualitative Research: Standards, Challenges, and Guidelines*, 358(9280), 483–488.
- Marshall, B., Cardon, P., Poddar, A., & Fontenot, R. J. J. o. c. i. s. (2013). Does sample size matter in qualitative research? *A Review of Qualitative Interviews in IS Research*, 54(1), 11–22.
- Mays, N., & Pope, C. J. B. (2000). *Assessing Quality in Qualitative Research*, 320(7226), 50–52.
- Mersha, A. G., Gould, G. S., Bovill, M., & Eftekhari, P. (2020). Barriers and facilitators of adherence to nicotine replacement therapy: A systematic review and analysis using the capability, opportunity, motivation, and behaviour (com-B) model. *Int J Environ Res Public Health*, 17(23). <https://doi.org/10.3390/ijerph17238895>
- Michie, S., van Stralen, M. M., & West, R. (2011). The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*, 6(1), 42. <https://doi.org/10.1186/1748-5908-6-42>
- Morean, M. E., Kong, G., Camenga, D. R., Cavallo, D. A., Carroll, K. M., Pittman, B., & Krishnan-Sarin, S. (2015). Contingency management improves smoking cessation treatment outcomes among highly impulsive adolescent smokers relative to cognitive behavioral therapy. *Addictive Behaviors*, 42, 86–90. <https://doi.org/10.1016/j.addbeh.2014.11.009>
- Notley, C., Gentry, S., Livingstone-Banks, J., Bauld, L., Perera, R., & Hartmann-Boyce, J. (2019). Incentives for smoking cessation. *Cochrane Database of Systematic Reviews*, 7(7), Cd004307. <https://doi.org/10.1002/14651858.CD004307.pub6>
- Palmer, A. M., Tomko, R. L., Squeglia, L. M., Gray, K. M., Carpenter, M. J., Smith, T. T., & McClure, E. A. (2022). A pilot feasibility study of a behavioral intervention for nicotine vaping cessation among young adults delivered via telehealth. *Drug and Alcohol Dependence*, 232, 109311. <https://doi.org/10.1016/j.drugalcdep.2022.109311>
- Pope, C., & Mays, N. (2006). Qualitative methods in health research. In *Qualitative research in health care* (3rd ed. pp. 1–11). BMJ Books.
- Rahman, T., Foster, J., Hera Fuentes, G. L., Cameron, L., & Gould, G. S. (2021). Perspectives about smoking cessation during pregnancy and beyond of aboriginal women in Australia: A qualitative analysis using the com-B model. *International Journal of Gynaecology & Obstetrics*, 155(2), 282–289. <https://doi.org/10.1002/ijgo.13854>
- Raiff, B. R., Newman, S. T., Upton, C. R., & Burrows, C. A. (2022). The feasibility, acceptability, and initial efficacy of a remotely delivered, financial-incentive intervention to initiate vaping abstinence in young adults. *Experimental and Clinical Psychopharmacology*, 30(5), 632–641. <https://doi.org/10.1037/pha0000468>
- Scollo, M., Greenhalgh, E. J. T., & Victoria, i. M. C. C. (2020). 17.2 The costs and benefits of smoking to the Australian economy. In *Tobacco in Australia: Facts & Issues - a comprehensive online resource*. Victoria, Australia: Cancer Council Victoria. <https://www.tobaccoinustralia.org.au/chapter-17-economics/17-2-the-costs-of-smoking>
- Shoptaw, S., Rotheram-Fuller, E., Yang, X., Frosch, D., Nahom, D., Jarvik, M. E., & Ling, W. (2002). Smoking cessation in methadone maintenance. *Addiction*, 97(10), 1317–1328. <https://doi.org/10.1046/j.1360-0443.2002.00221.x>
- Signon, S. C., & Patrick, M. E. (2012). The use of financial incentives in promoting smoking cessation. *Preventive Medicine*, 55(Suppl), S24–S32. <https://doi.org/10.1016/j.ypmed.2012.04.007>
- Sim, J., Saunders, B., Waterfield, J., & Kingstone, T. (2018). Can sample size in qualitative research be determined a priori? *International Journal of Social Research Methodology*, 21(5), 619–634. <https://doi.org/10.1080/13645579.2018.1454643>
- South Australian Health, & Medical Resesarch Institute (SAHMRI) (2021). *Key smoking statistics for SA - 2020*. Retrieved from: https://sahmri.blob.core.windows.net/communications/sahmri.org/Key_Smoking_Statistics_for_SA_2020.pdf
- Stead, L. F., Buitrago, D., Preciado, N., Sanchez, G., Hartmann-Boyce, J., & Lancaster, T. (2013). Physician advice for smoking cessation. *Cochrane Database of Systematic Reviews*, 5. <https://doi.org/10.1002/14651858.CD000165.pub4>
- Strauss, A., & Corbin, J. (1998). Basics of qualitative research techniques. In *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. SAGE.
- World Medical Association, WMA. (2013). World Medical Association Declaration of Helsinki: Ethical principles for medical research involving human subjects. *The Journal of the American Medical Association*, 310(20), 2191–2194.