

Understanding Participation in the online National Diabetes Prevention Programme



Haseldine C¹, Kearney PM¹, O'Donoghue G², Riordan F¹, McHugh S¹

¹ School of Public Health, University College Cork, Ireland
² School of Public Health and Sports Science, University College Dublin, Ireland



Introduction

Lifestyle programmes have been shown to be effective at reducing the risk of developing type 2 diabetes in those at high risk¹. Participation is key for programme impact². However referral rates to and participation in the programmes have been low^{3,4}. A CDC National Health interview survey in the USA found only 4.9% of a population at risk of diabetes were invited to attend a programme and less than 40% of those attended⁵. Digital (e.g. mobile and online) diabetes prevention programmes are not as restricted by resources as face to face programmes and have the potential to reach more people however there is scant evidence either nationally or internationally on factors that affect participation in them.

In Ireland the Health Service Executive has developed an National Programme for Diabetes Prevention (NDPP). The 12-month long programme encourages physical activity and modest weight loss in those at high risk of developing diabetes. It is being piloted online due to Covid 19. It started in June 2021 and is due to be completed in September 2022. The Covid 19 pandemic forced the rapid adoption of eHealth by both clinicians and service users. There is a need to understand why people do or do not participate in digital diabetes prevention programmes and whether implementation strategies need to be tailored to improve this participation.

Aim: To understand factors affecting participation in the online National Diabetes Prevention Programme

Methods

Design: Explanatory sequential mixed methods

Quantitative

Qualitative

Interpretation

Quantitative data:

- Anonymised administrative data from the pilot programme running in 6/9 Community Health Areas (CHOs) in Ireland on programme recruitment and uptake collected by community dietitians delivering the programme
- Data on those who did not attend includes demographic information (age and gender), CHO area, referral, method of contact and reason for declining
- Questionnaire from the NHS diabetes prevention programme evaluation, adapted with the assistance of PPI and stakeholder input, targeting attenders in the NDPP, focusing on factors affecting participation.

Qualitative data:

- Focus groups and interviews with community dietitians (educators), and programme participants

Preliminary Findings

Uptake

162 people at risk invited to attend the NDPP, 73 accepted and 89 declined (figure 1). The people who attended were younger (just under 60years) than those who declined. Over 50% of those who accepted were male.

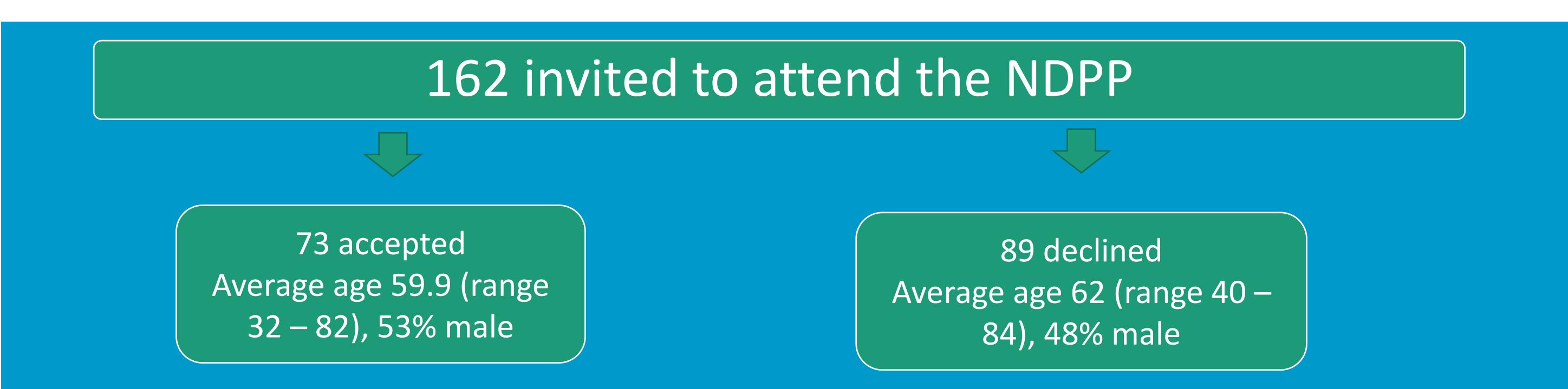


Figure 1: Uptake of the NDPP

Reasons for declining participation

Difficulty with technology was the biggest barrier cited to participation, followed by work commitments and preferring 1:1 care (figure 2).

Questionnaire

22/72 questionnaires from programme attenders returned (30% response)
16 opted in to further qualitative interviews and focus groups

Semi structured interviews and FGDs

Data collection ongoing: 5/8 educators interviewed and 12/16 programme participants attended 2 FGD and 4 interviews to date.
Most participants reported being surprised or shocked when they received the diagnosis of prediabetes. Fear of developing type 2 diabetes motivated many to take part in the NDPP. Programme participants were mostly positive about online delivery with some people reporting that they discussed issues more openly than they would in a face to face group. Support of family members and educators was important in overcoming lack of technical knowledge.

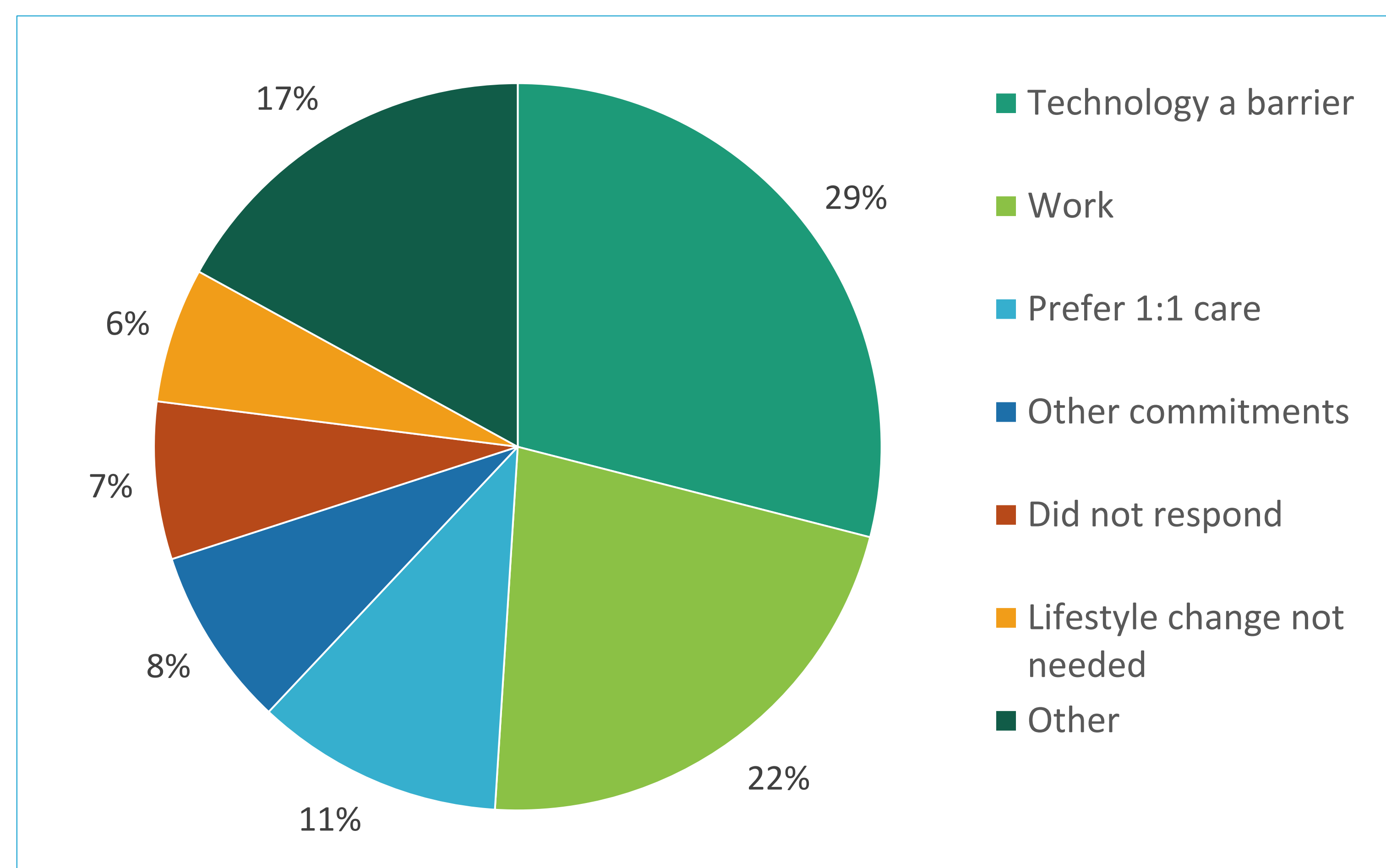


Figure 2: Reasons for declining the invitation to the DPP

Conclusions

The online National Diabetes Prevention Programme in Ireland reached men and those of working age, two groups that have historically been hard to reach in diabetes prevention programmes. The people who attended the National Diabetes Prevention Programme were largely positive about the online format, including those who described themselves as being not confident with technology. However difficulty with technology was the most cited reason not to participate among those who declined followed by work commitments and preference for one to one care. Tailored implementation strategies may be needed to increase participation further. The findings from this study will inform the roll out of the national programme and will be important internationally for other online health interventions that were forced to rapidly adapt to online delivery due to Covid 19.

References

- Galaviz KI, Weber MB, Straus A, Haw JS, Narayan KV, Ali MK. Global diabetes prevention interventions: a systematic review and network meta-analysis of the real-world impact on incidence, weight, and glucose. *Diabetes Care*. 2018 Jul 1;41(7):1526-34.
- Aziz Z, Absetz P, Oldroyd J, Pronk NP, Oldenburg B. A systematic review of real-world diabetes prevention programs: learnings from the last 15 years. *Implementation science*. 2015 Dec;10(1):1-7.
- Venkataramani M, Pollack CE, Yeh HC, Maruthur NM. Prevalence and correlates of Diabetes Prevention Program referral and participation. *American journal of preventive medicine*. 2019 Mar 1;56(3):452-7.
- Valabhji J, Barron E, Bradley D, Bakhai C, Fagg J, O'Neill S, Young B, Wareham N, Khunti K, Jebb S, Smith J. Early outcomes from the English National health service diabetes prevention programme. *Diabetes Care*. 2020 Jan 1;43(1):152-60.
- Ali MK, McKeever Bullard K, Imperatore G, Benoit S, Rolka D, Albright A, Gregg E. Reach and Use of Diabetes Prevention Services in the United States, 2016-2017. *JAMA Netw Open*. 2019;2(5):e193160

Acknowledgements



Funded by a Health Research Board (HRB) Collaborative Doctoral Award, 2019 (CDA-2019-001)

Contact Information

chaseldine@ucc.ie

@Clair Haseldine

