

# The influence of demographic, health and psychosocial factors on patient uptake of the English NHS diabetes prevention programme

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## Publications

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## Abstract

### Background

The prevention of type 2 diabetes (T2DM) is a major concern for health services around the world. The English NHS Diabetes Prevention Programme (NHS-DPP) offers a group face-to-face behaviour change intervention, based around exercise and diet, to adults with non-diabetic hyperglycaemia (NDH), referred from primary care. Previous analysis of the first 100,000 referrals revealed just over half of those referred to the NHS-DPP took up a place. This study aimed to identify the demographic, health and psychosocial factors associated with NHS-DPP uptake to help inform the development of interventions to improve uptake and address inequities between population groups.

### Methods

Drawing on the Behavioral Model of Health Services Utilization we developed a survey questionnaire to collect data on a wide range of demographic, health and psychosocial factors that might influence uptake of the NHS-DPP. We distributed this questionnaire to a cross-sectional random sample of 597 patients referred to the NHS-DPP across 17 general practices, chosen for variation. Multivariable regression analysis was used to identify factors associated with NHS-DPP uptake.

### Results

325 out of 597 questionnaires were completed (54%). Only a third of responders took up the offer of a place. The best performing model for uptake ( $AUC = 0.78$ ) consisted of four factors: older age; beliefs concerning personal vulnerability to T2DM; self-efficacy for reducing T2DM risk; and the efficacy of the NHS-DPP. After accounting for these, demographic and health-related factors played only a minor role.

### Conclusion

Unlike fixed demographic characteristics, psychosocial perceptions may be amenable to change. NHS-DPP uptake rates may be improved by targeting the beliefs of patients about their risk of developing T2DM, their ability to carry out and sustain behaviours to reduce this risk, and the efficacy of the NHS-DPP in providing the necessary understanding and skills required. The recently introduced digital version of the NHS DPP could help address the even lower uptake amongst younger adults. Such changes could facilitate proportional access from across different demographic strata.

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