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Challenges faced in Evaluating the National Health Services Diabetes Prevention Programme

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- DIPLOMA TEAM

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NHS Diabetes Prevention Programme

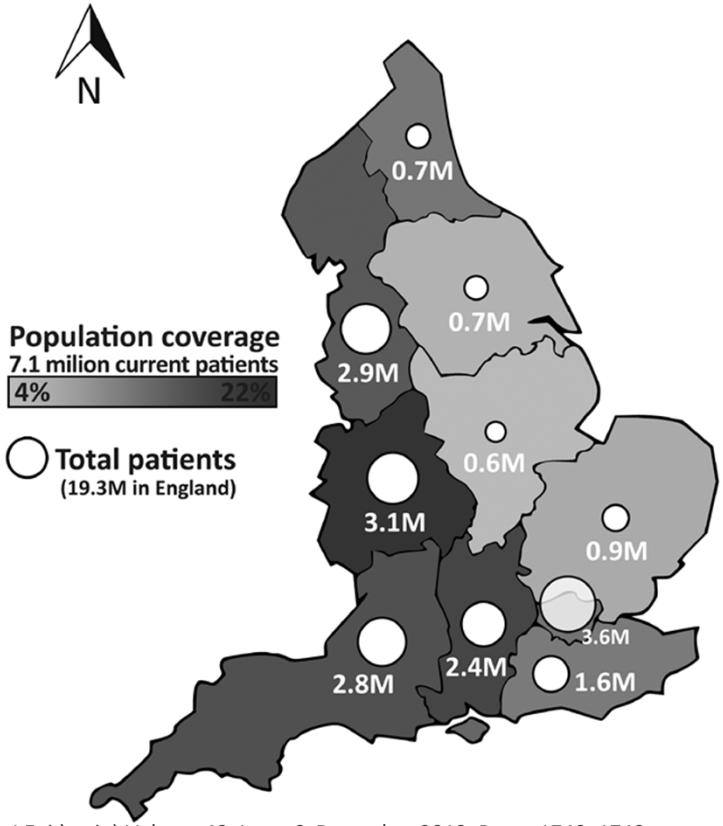
- Healthier You: NHS Diabetes Prevention Programme (NHS DPP) identifies those at high risk of T2D, (non-diabetic hyperglycaemia{NDH}) and refers them onto a behaviour change programme
- 9 months, 13 sessions, 16 hours, Face to face (and digital pilot)
- Focus on diet, physical activity and weight loss
- **Di**abetes **P**revention – **Lo**ng term **M**ultimethod **A**ssessment DIPLOMA (NIHR funded)
- Multi-disciplinary team at University of Manchester
- Mixed methods research programme, 2017 to 2021
- **AIMS OF WORK PACKAGE 5**
- To assess whether NHS DPP is more effective than usual care in reducing conversion of NDH to diabetes, eventually reducing diabetes prevalence in England
- The roll-out of the programme makes formal RCT problematic
- WP5 uses routine data and statistical techniques to provide a rigorous estimate of the success of the programme in:
- reducing conversion of non-diabetic hyperglycaemia (incidence)
- reducing the overall numbers of cases of diabetes (prevalence)

Image: www.clahrc-gm.nihr.ac.uk/projects/diploma-evaluation-national-nhs-diabetes-prevention-programme

The Clinical Practice Research Datalink (CPRD)

- Active since the 1980s with high quality data becoming available post 2000 with the introduction of the QOF
- Aurum and GOLD
- Complete data on all aspects of care for ≈500 practices each year, covering approximately 7%(GOLD) 13%(Aurum) of the UK population
- Generally representative of the UK population, especially in terms of practice and patient deprivation
- Can be linked to Hospital Episode Statistics (HES) and ONS data, allowing the construction of a more complete patient journey through primary and secondary care
- Complete data on all aspects of care (diagnoses, referrals, treatments, tests) for hundreds of practices

Figure 1. CPRD Aurum population coverage and total patients by English region, September 2018.



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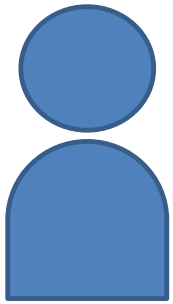
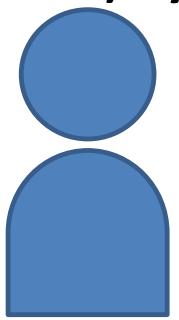
Analytical Challenges

Identified as at risk of diabetes (NDH) by GP



Usual Care at GP (Controls)



Referred to the NHS DPP (Cases)

- Readcodes were used in Electronic Health Records (EHR) to identify NDH and referral to the NHSDPP
- Individuals also referred to programme not through the GP, hence it might be possible that some controls will have attended the programme
- NDH identified by readcodes in EHR, the definition of which is inconsistent and has changed over the years
- Some individuals who were referred to the programme did not have a NDH code
- Individuals Identified as referred to the programme also has referred decline code(CPRD Aurum: n=3620: CPRD Gold: n= 327)
- Although the NHS DPP is based on a strong international evidence base, justifying the commissioning of such a large and complex programme requires rigorous scientific evidence that the programme is achieving benefits beyond those delivered by current prevention services.
- The roll-out of the programme makes formal randomised evaluation problematic
- Analysis need to be adapted as needed.

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- **Thank you for listening**
  If you have any questions or comments on this presentation please leave them as a comment below the video- and we will read and respond.
- More information also available at: https://www.arc-gm.nihr.ac.uk/projects/diploma-evaluation-national-nhs-diabetes-prevention-programme/

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