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Evaluating the NHS Diabetes Prevention Programme - research challenges

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Session plan

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- Salford NDPP & CLAHRC GM evaluation
- Four challenges:
  1. “Case finding”
  2. Variability in services
  3. Data collection
  4. Effectiveness

Salford

- NDPP Demonstrator site
- IGR Care Call – telephone (& web)
- IGR Exercise
- Support for GP referrals
- Community focussed approach

CLAHRC GM evaluation

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1. Assess evidence for Salford Care Call telephone service – May 2016
2. Case finding and referral – July 2016
   - Community
   - GPs
3. IGR programme – attendance and outcomes – early 2017

CLAHRC GM evaluation

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- Sarah Cotterill
- Sarah Knowles
- John Humphreys
- Michael Spence
- Nia Coupe
- Aneela McAvoy

Challenge 1
‘Case finding’

Impaired Glucose Regulation

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- Risk Score – brief questions
- Diagnosis - blood test – HbA1c & others
- No symptoms
- 5 -10% will develop T2 diabetes if untreated[1]

[1.] Diabetes UK. http://www.diabetes.co.uk/pre-diabetes.html. 14.4.2016]

Salford – estimated IGR risk

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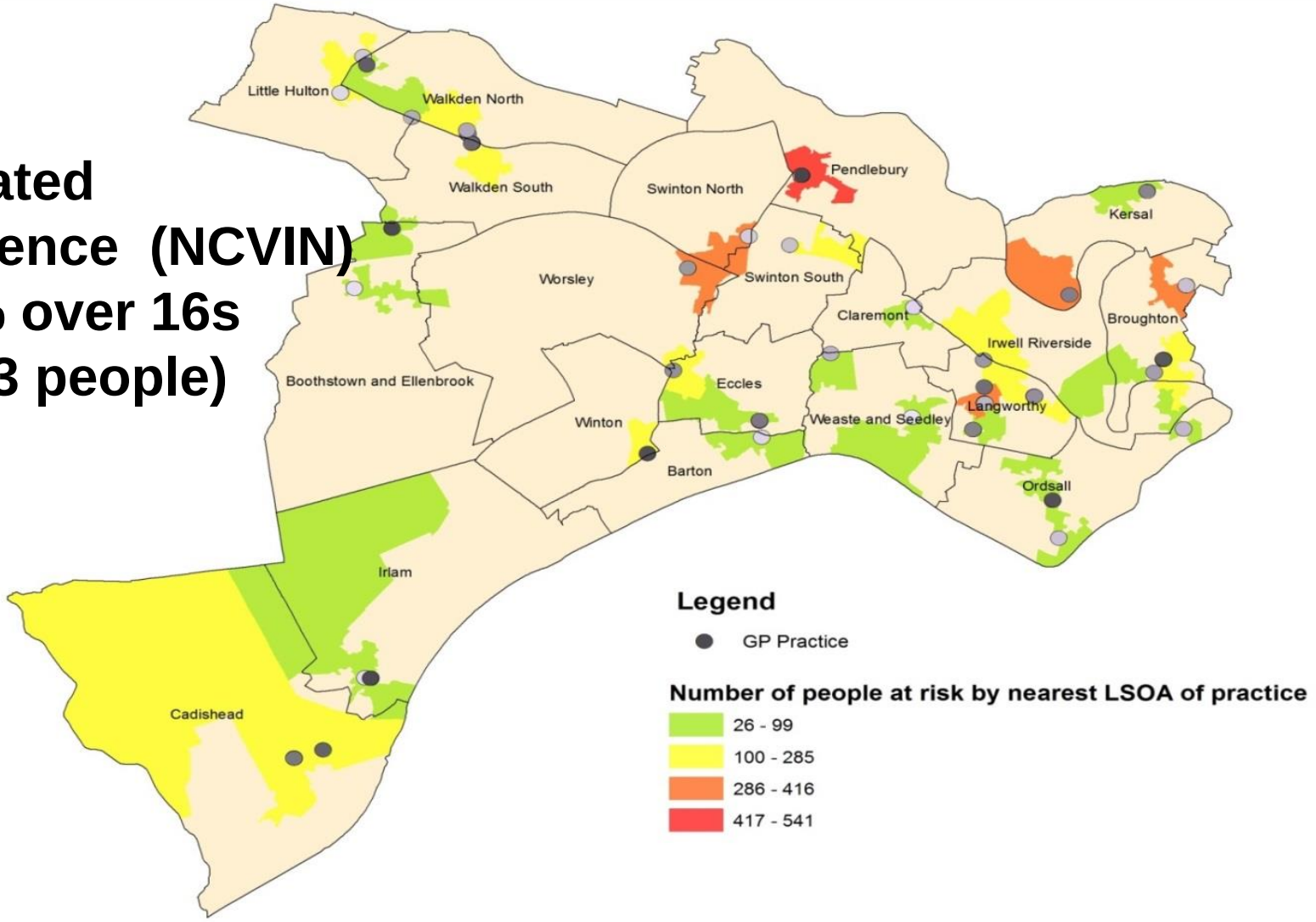
Estimated prevalence (NCVIN) = 10% over 16s (19,693 people)



GP case finding

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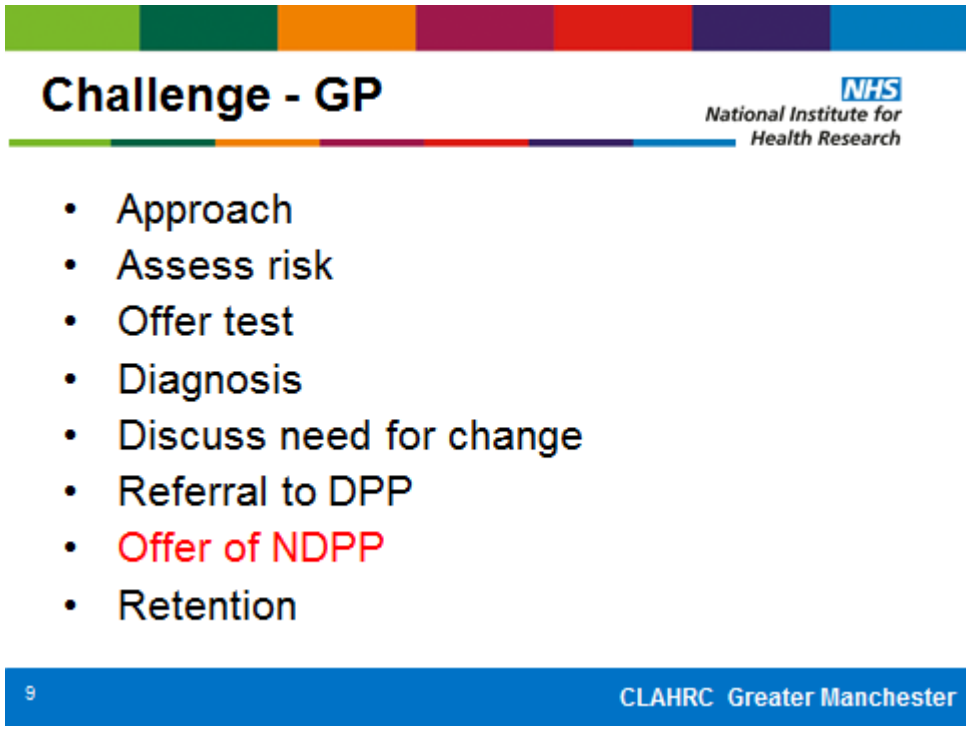
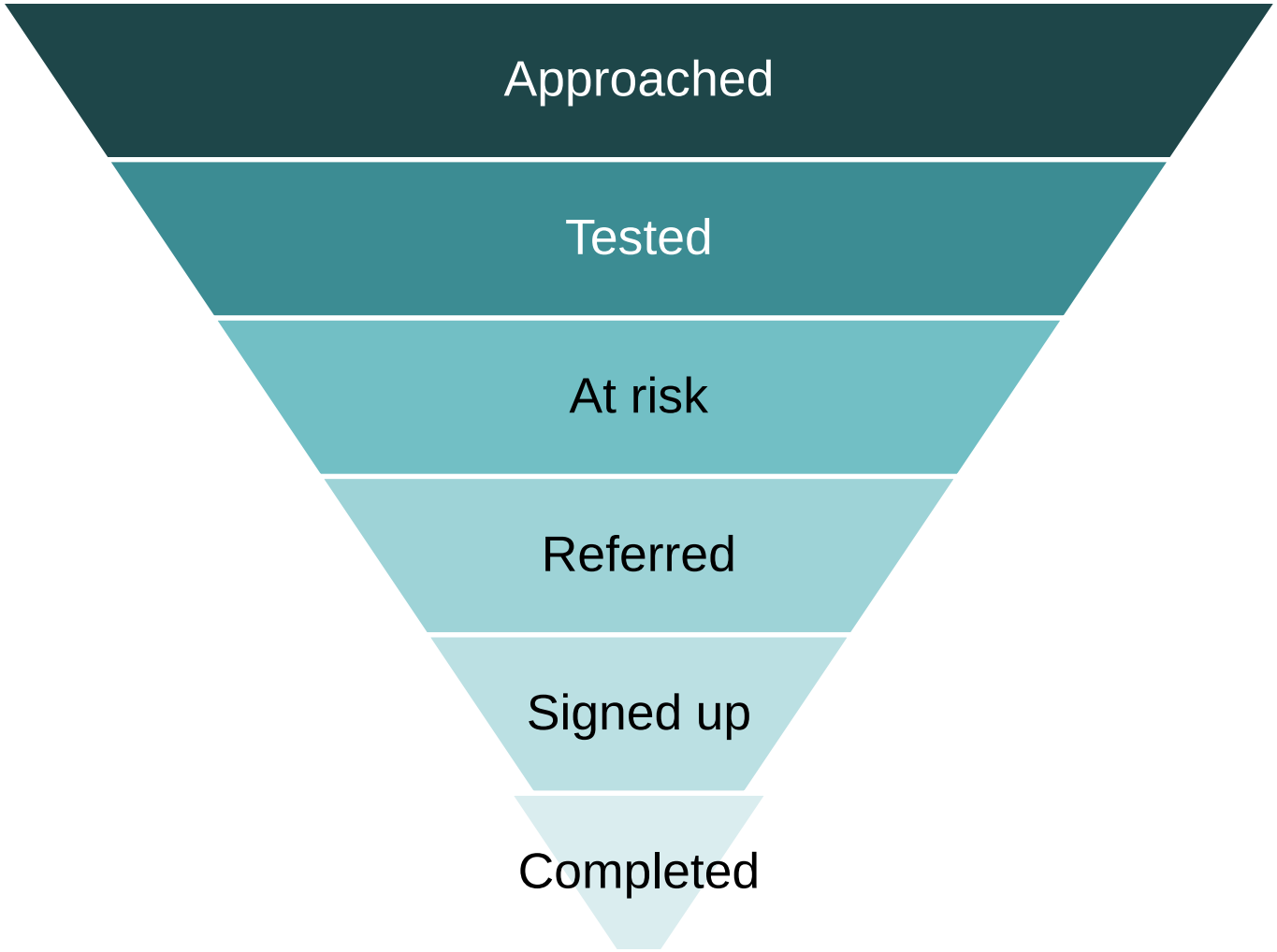
- Approach
- Assess risk
- Offer test
- Diagnosis & recording – Read codes
- Discuss need for change
- Referral to DPP
- Offer of NDPP
- Retention

Community case finding

- Same challenges ….



- … and:
- New ways of working.
- New partnerships.
- Acceptability.


Approached
Tested
At risk
Referred
Signed up
Completed

Research topics

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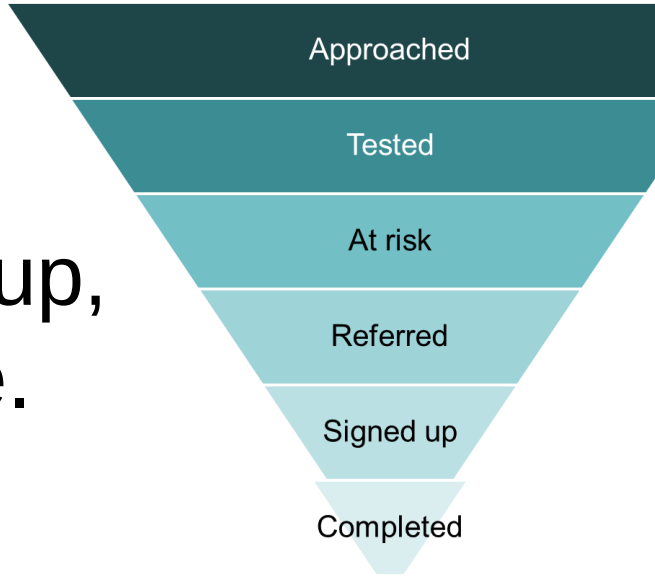
- How is case finding and referral done?
- How many people? – each stage
- Who is being reached?
- New diagnoses?
- Relationship between take-up, outcomes and referral route.



Challenge 2
Variability in services

Variability

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- NDPP is a complex intervention
  - Behaviour change theory
  - Behaviour change techniques
  - Who delivers
  - Frequency and duration
  - Links to other services

TIDieR

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TIDieR Template for Intervention Description and Replication

The TIDieR (Template for Intervention Description and Replication) Checklist*:

Information to include when describing an intervention and the location of the information

Item number	Item	Where located **	
		Primary paper (page or appendix number)	Other † (details)
	BRIEF NAME		
1.	Provide the name or a phrase that describes the intervention.	_____	_____
	WHY		
2.	Describe any rationale, theory, or goal of the elements essential to the intervention.	_____	_____
	WHAT		
3.	Materials: Describe any physical or informational materials used in the intervention, including those provided to participants or used in intervention delivery or in training of intervention providers. Provide information on where the materials can be accessed (e.g. online appendix, URL).	_____	_____
4.	Procedures: Describe each of the procedures, activities, and/or processes used in the intervention, including any enabling or support activities.	_____	_____
	WHO PROVIDED		
5.	For each category of intervention provider (e.g. psychologist, nursing assistant), describe their expertise, background and any specific training given.	_____	_____

Hoffmann et al. Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. BMJ. 2014; 7

Challenge 3
Data collection

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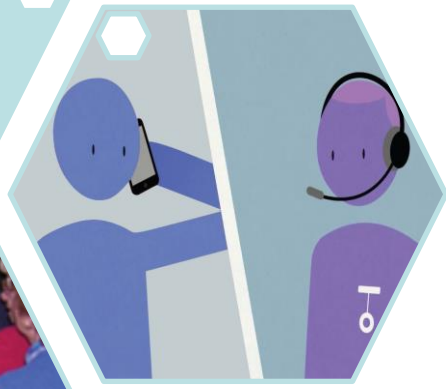
Tests & Referrals

Outcomes

NDPP Participation



Approaches

Data collection

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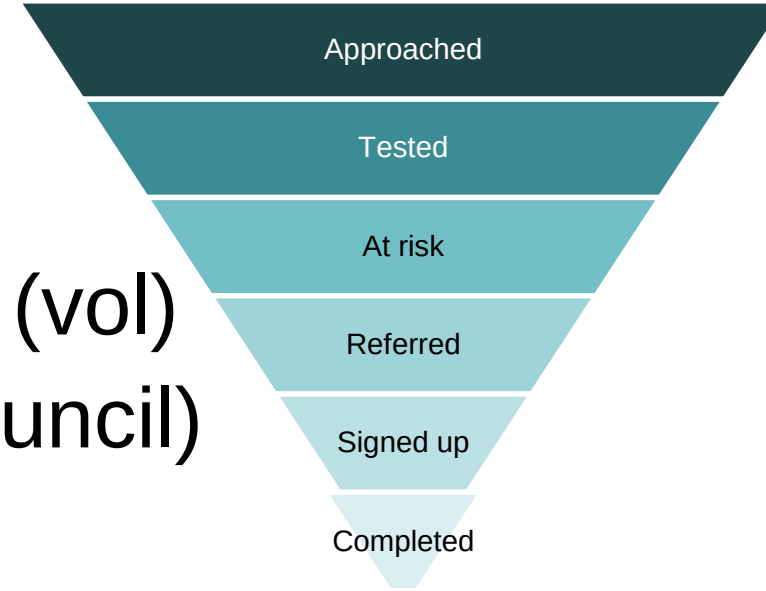
- Individual level data vs summary data
- Multiple service providers:
  - Care Call (hospital)
  - IGR Exercise (leisure)
  - Unique Improvements (vol)
  - Public health team (council)
  - GP referrals
- Unique identifier



Data collection - Salford

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- Senior level engagement
- Front-line commitment
- Operational meetings
- Contiguous boundaries; some history of working together
- Strong links with CLAHRC GM

Core data items

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- Characteristics
- Approaches
- Tests
- Referrals – acceptable?
- Participation & take-up
- Calculate ‘Conversion rates’
- Baseline and Outcome measures

Challenge 4
Effectiveness

Effectiveness

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- £££££s spent by NHS on NDPP
- £££££s spent by HS&DR on evaluation
- We will have failed if we can't answer a big question:
- In people at risk of diabetes, does NDPP: prevent diabetes? reduce CVD death?

Evidence of Effect

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- PHE meta-analysis (18 RCTs)[1]:
  - Diabetes incidence down by **26%** (95% CI 7,42%)
  - HbA1c reduction of **0.04** (95% CI .01,.07)
  - 2 hour glucose reduction of **0.28** (95% CI .00,.57)
  - weight reduction of **1.57** kg (95% CI .86, 2.28)
- Clinically important? Variable.
- Sub-group analysis[3]
- 9 mths, 13 sessions, 16 hrs, face to face, diet & exercise.

[1] Ashra et al. Public Health England 2015
[2] Barry et al BMJ 2015;351:h4717 doi: 10.1136/bmj.h4717

Effectiveness

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- Study design:
  - Comparison of NDPP with usual care
  - Ideally a randomised controlled trial
  - Failing that, a carefully designed experiment
- Measurement:
  - Need high quality routine measures across population.

Research Design Service

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Intending to apply for research funding in applied health or social care?

This **free** service can offer you advice and support* in areas such as:

- formulating your research question
- designing your research proposal
- getting the right research methodology
- public involvement in research
- finding collaborators
- finding suitable funding.

For more information visit **www.rds.nihr.ac.uk**

*Eligibility conditions apply, see www.rds.nihr.ac.uk/about-us/eligibility-2/

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Thank you

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CLAHRC – Salford NDPP evaluation:
http://clahrc-gm.nihr.ac.uk/our-work/exploiting-technologies/national-diabetes-prevention-programme/