

Public Health Practice Evaluation Scheme

Addressing the challenges faced by 'front line' practitioners

Community-based Prevention of Diabetes (ComPoD) study: A randomised, waiting list controlled trial of the voluntary sector led *Living Well, Taking Control* programme

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Background

- The NHS Diabetes Prevention Programme (NHS DPP)¹ was launched in 2016 to curb a growing health crisis².
- This is despite a lack of robust evidence on whether impacts of intensive lifestyle interventions targeting people at high risk of Type 2 diabetes in other countries will translate into UK 'real-world' settings³.

Aim

The ComPoD trial (ISRCTN70221670) evaluated the effectiveness of an existing community-based diabetes prevention programme being delivered by voluntary sector providers now involved in the NHS DPP.

Living Well, Taking Control (LWTC)

www.westbank.org.uk, Exeter



www.healthexchange.org.uk
Birmingham



- Big Lottery-funded.
- Programme structure, content and delivery designed to be **adherent with NICE guidance**³.
- Initial **four 2-hour group sessions** held weekly in local venues, led by trained lifestyle coaches.
- 3-monthly individual contacts plus attendance at **5+ chosen classes or activities** up to 12m.



A Table of baseline participant characteristics

		Control n=157	Intervention n=157	Combined n=314
Site		Exeter	B'ham	
Male		45%	46%	46%
Age (yrs)	Mean (SD)	61 (9)	61 (10)	61 (10)
White British		68%	79%	74% ^a
Deprivation (IMD)	Mdn (IQR)	20 (21)	19 (22)	20 (21) ^b
BMI (kg/m ²)	Mean (SD)	32 (4)	32 (5)	32 (5)
HbA1c (mmol/mol)	Mean (SD)	40 (3)	40 (3)	40 (3) ^c
Long term condition		75%	77%	76%

^aRepresentative of local populations; ^bEngland median = 17.4; ^c28% in pre-diabetes range on point-of-care test

Methods

Design:

- 6m individually randomised, waiting list controlled trial across 2 sites (Exeter, Birmingham areas).
- 12m observational follow up of intervention group participants only.

Sample:

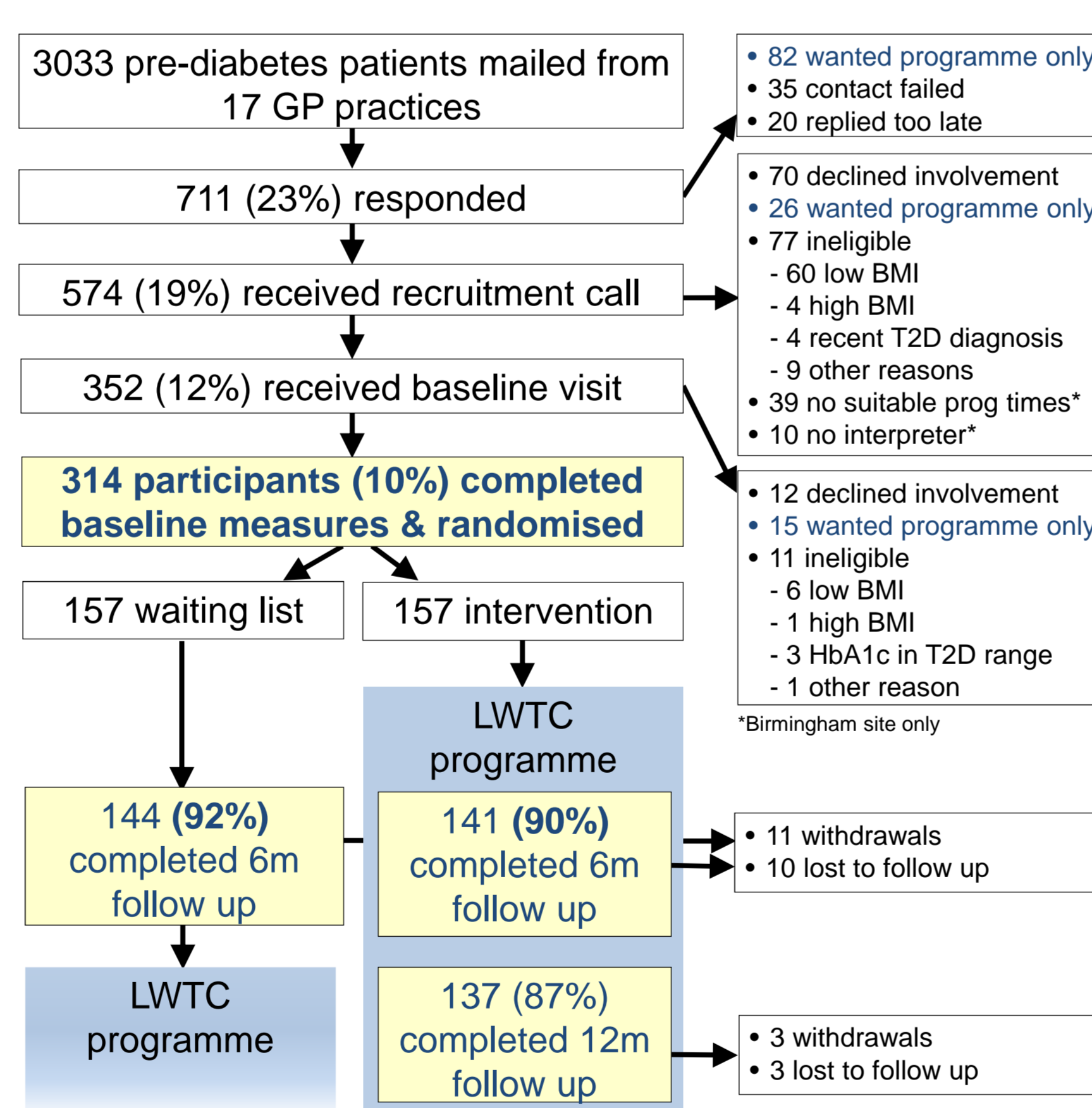
- Target of 312 adults aged ≤75y recruited via GPs.
- At high risk of Type 2 diabetes due to GP record of recent blood glucose test in 'pre-diabetes' range and BMI >25kg/m².

Outcomes:

- Changes in objectively-measured weight (primary outcome), physical activity (via accelerometers), blood glucose (HbA1c), blood pressure, & self-reported diet, health, well-being.



B Study overview & participant flow



C Table showing key outcomes at 6 months

		Control n=144	Intervention n=142	Adjusted difference*	p value
Weight loss (kg)	Mean	0.1	1.9	-1.7	<0.001
	SD	3.0	4.5	CI -2.6 to -0.9	
>5% weight loss	N	12	29	OR = 2.9	0.008
	%	8%	20%	CI 1.4 to 6.1	
Waist (cm)	Mean	104.1	102.4	-1.4	0.004
	SD	11.5	12.5	CI -2.4 to -0.4	
HbA1c (mmol/mol)	Mean	40.2	39.7	-0.8	0.122
	SD	3.2	5.7	CI -1.7 to 0.2	
Diet: fat intake	Mean	1.9	1.8	-0.11	0.001
	SD	0.3	0.3	-0.2 to -0.04	
Diet: fibre intake	Mean	2.2	2.3	0.12	0.001
	SD	0.4	0.4	0.05 to 0.2	
Health status	Mean	73.7	77.2	4.4	0.018
	SD	18.5	16.7	0.8 to 8.0	
Psych well-being	Mean	24.1	25.0	0.04	0.748
	SD	5.0	4.9	-0.2 to 0.3	

*Regression analyses adjusted for site, age, gender, baseline BMI & baseline value

Findings & conclusions

- 10% of target population were recruited, a further 4% requested referral to programme outside of trial^B.
- Good representation of men and ethnic minorities in sample of mainly older, obese adults with long term conditions from areas with above average deprivation^A.
- Only 28% had baseline HbA1c in pre-diabetes range^A.
- Some issues with programme delivery, attendance^B.
- Programme had positive but modest effects on weight-related outcomes, diet & health status at 6m^C.
- Limited effects on other risk factors (HbA1c^C, activity^{not shown}).
- Effects largely consistent across population subgroups and maintained but not improved at 12m (not shown).
- Final analyses, modelling cost-effectiveness ongoing.
- Study has implications for targeting participants, implementation & areas for improvement in NHS DPP.

References

1. NHS Diabetes Prevention Programme: <http://www.england.nhs.uk/ourwork/qual-clin-lead/action-for-diabetes/diabetes-prevention/>
2. International Diabetes Federation. IDF diabetes Atlas 2015, 7th edition. <http://www.diabetesatlas.org/>
3. NICE. Preventing type 2 diabetes: Risk identification and interventions for individuals at high risk (PH38). London: NICE; 2012. <http://www.nice.org.uk/PH38>



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