An innovative approach to providing lifestyle and behaviour change to prevent type 2 diabetes: The IGT Care Call Project

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Introduction

Collaboration
for
Leadership in
Applied
Health
Research and
Care

Collaboration between a university and its local NHS trusts that will…

Conduct high quality health services research

Ensure knowledge gained from the research is translated into improved health care in the NHS

PACCTS (pro active call centre treatment support) randomised controlled trial conducted in Salford[1]

Results demonstrated significant improvement in glycaemic control in people with T2D

Knowledge gained from RCT translated into practice by extending the service with the aim of preventing or delaying the onset of T2D.

1) Young, R.J.; Taylor,J.; Friede, T. et al (2005) Pro-active call centre treatment support (PACCTS) to improve Glucose Control in Type 2 diabetes. A randomised controlled trial. Diabetes Care 28: 278-282.

Impaired Glucose Tolerance

		OGTT mmol/l		
		<=7.7	7.8-11	>11
Fasting mmol/l	<=6	Normal	IGT	Type 2 diabetes
	6.1-6.9	IFG	IGT	Type 2 diabetes
	>=7	Type 2 diabetes	Type 2 diabetes	Type 2 diabetes

Why should the Salford population worry about IGT?

- In 2011 NHS spending on diabetes was almost £10 billion, or £1 million per hour or £286 a second[2].
  - In 2010/11 in Salford there were 10392 people age 17 and older diagnosed with diabetes[3].
  - Estimated 2573 adults in Salford with undiagnosed T2D[4].
  - Estimated 6942 people in Salford with impaired glucose regulation.
    - without any intervention 50% will develop T2D over the next 5-10 years[3].

T2D can be prevented or delayed by positive lifestyle changes[5].

2) Hex, Barlett n, Wright c et al (2012) Estimating the current and future costs of type 1 and type 2 diabetes in the united kingdom, including direct health costs and indirect societal and productivity costs, York Health Economics Consortium Ltd.,
3)Yorkshire and Humber Public Health Observatory. Diabetes Community Health Profile – An Overview of NHS Salford, February 2012
4) Population data provided by information centre
5) Diabetes Prevention Programme Group (2009) 10 year follow up of diabetes incidence and weight loss in the Diabetes Prevention Programme Outcomes Study . The Lancet. Published online D0I: 10.1016/S01406736(09)61457-4.

Risk factors for IGT/type 2 diabetes[6,7]

Non-modifiable risk factors

- Ethnicity
- Family history of type 2 diabetes
- Age
- Gender
- History of gestational diabetes
- Polycystic ovarian syndrome

Modifiable risk factors

- Overweight/obesity
- Sedentary lifestyle
- Metabolic syndrome:
  - Hypertension
  - Decreased HDL cholesterol
  - Increased triglycerides
- Dietary factors

6) Diabetes UK Position Statement (2009) Impaired glucose regulation/non-diabetic hyperglycaemia NDH/Prediabetes.
7) Evans (2009) Clinical presentations, diagnosis and prevention of diabetes. Diabetes and Primary Care 12 (6): 326-370.

IGT Care-Call pathway

IGT identified in General Practice [n = 61]
Initial assessment (FBG, OGTT, FINDRISC, weight/BMI) → referred to care call

Introduction call (HA) [6 withdrawals]
Action planning call (HCP) [n=55]
5 x monthly calls (HA)

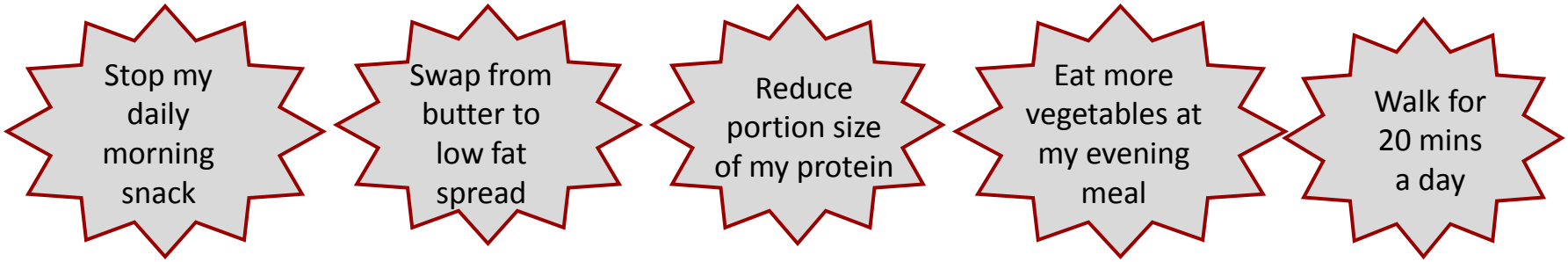
GP practice advised on completion [n=55]
Final assessment request (FBG, OGTT, FINDRISC, weight/BMI)
Final results → care call

Results collected by CLAHRC for evaluation

Results of 6 month lifestyle goal

76% fully achieved
13% partially achieved
11% not achieved

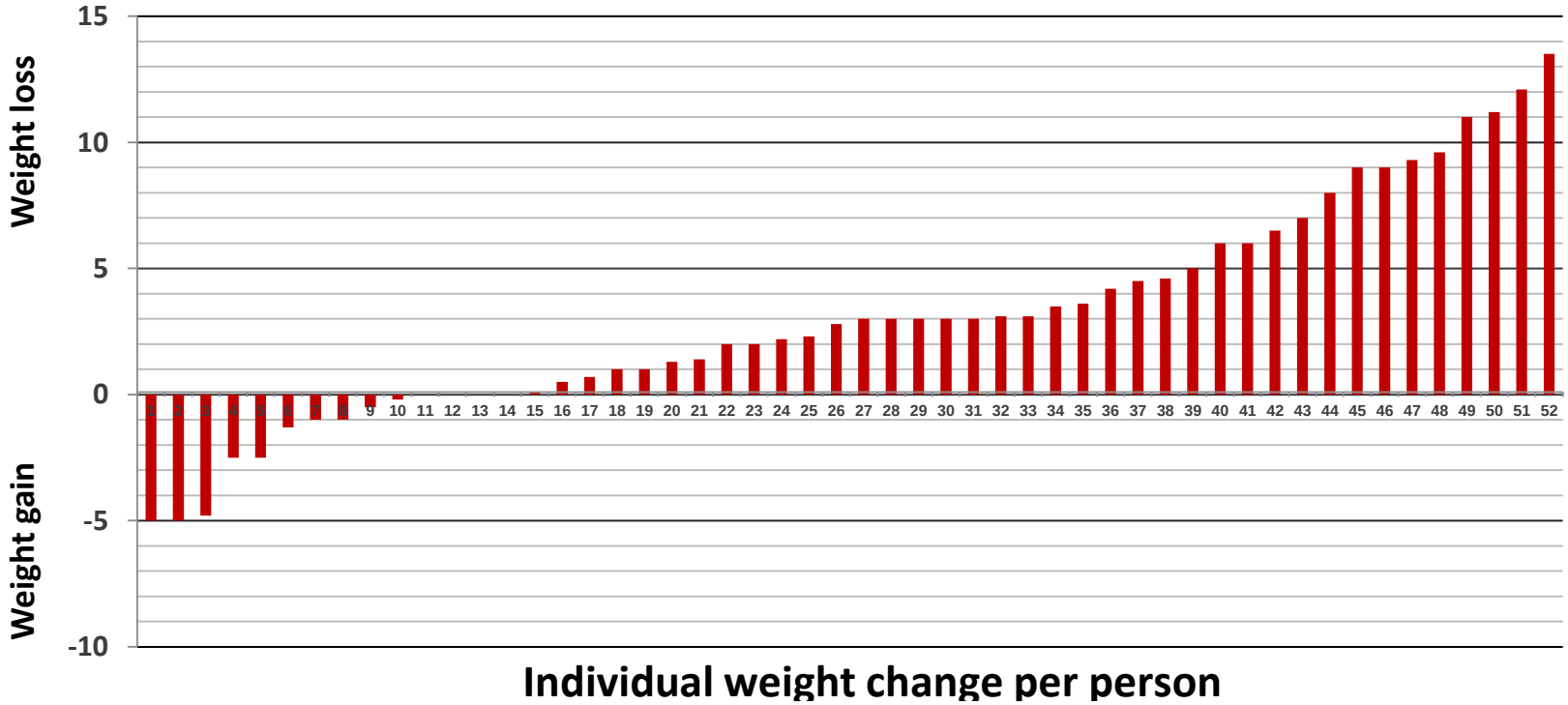
Overall six month lifestyle goal
"Lose 7lbs and reduce my risk of developing type 2 diabetes"



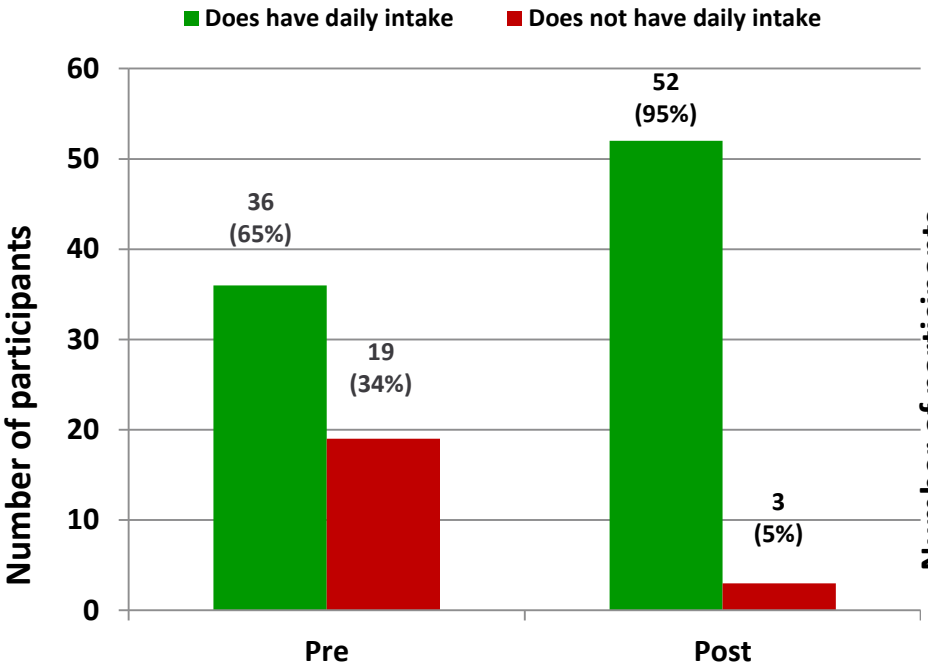
Goal 1 Month 1 | **Goal 2 Month 2** | **Goal 3 Month 3** | **Goal 4 Month 4** | **Goal 5 Month 5**

91% (n=250) mini goals were totally or partially achieved

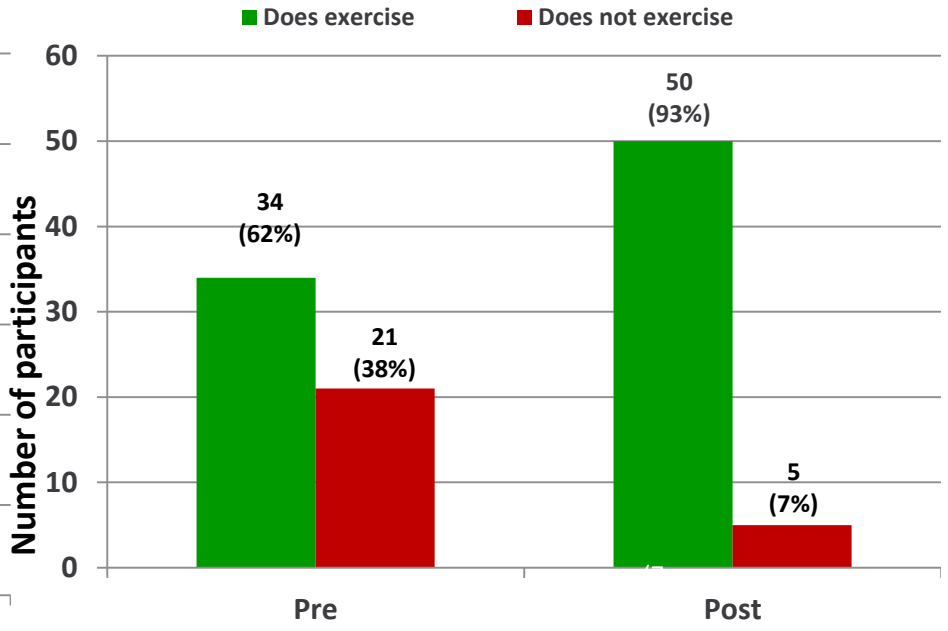
Ordered difference of weight change



Healthy Eating

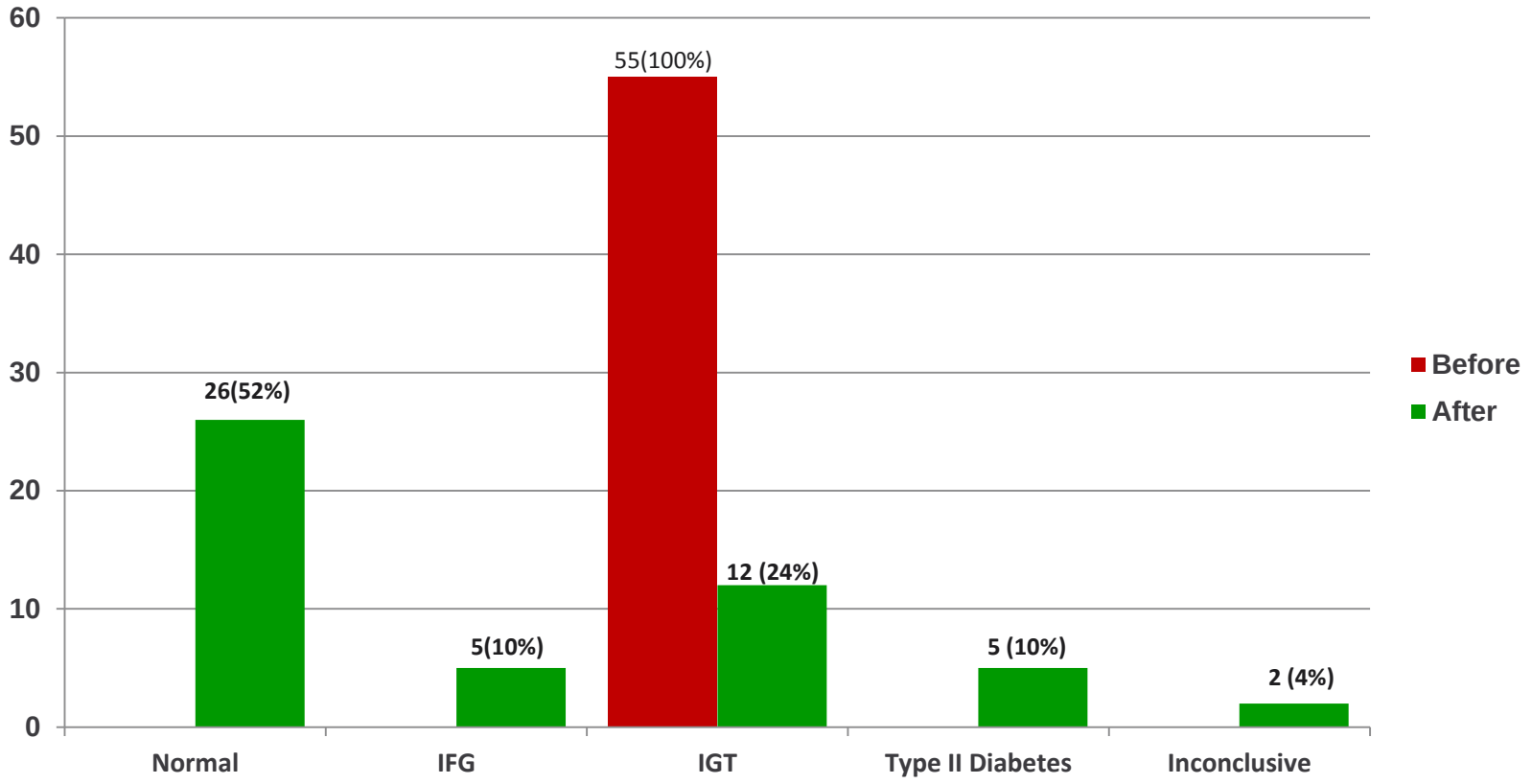


Activity



Change in blood glucose results (n=50)

80% (n=40) reduced OGTT, average 2.4mmol/person



Service user feedback:

Motivational

- 93% (n=38) discussed goals regularly with their health advisor, stating this helped achievement of their overall goal.

Educational

- 90% (n=37) felt their health advisor definitely gave relevant, up to date advice on how to reduce their risk of developing T2D.

Successful in changing behaviour.

- 78% (n=32) definitely felt more confident in reducing their own risk of developing T2D as a result of participating in the programme.

Accessible

- " It really helped to fit my telephone appointment around my work shifts. It fits in great with my lifestyle".

Practice feedback

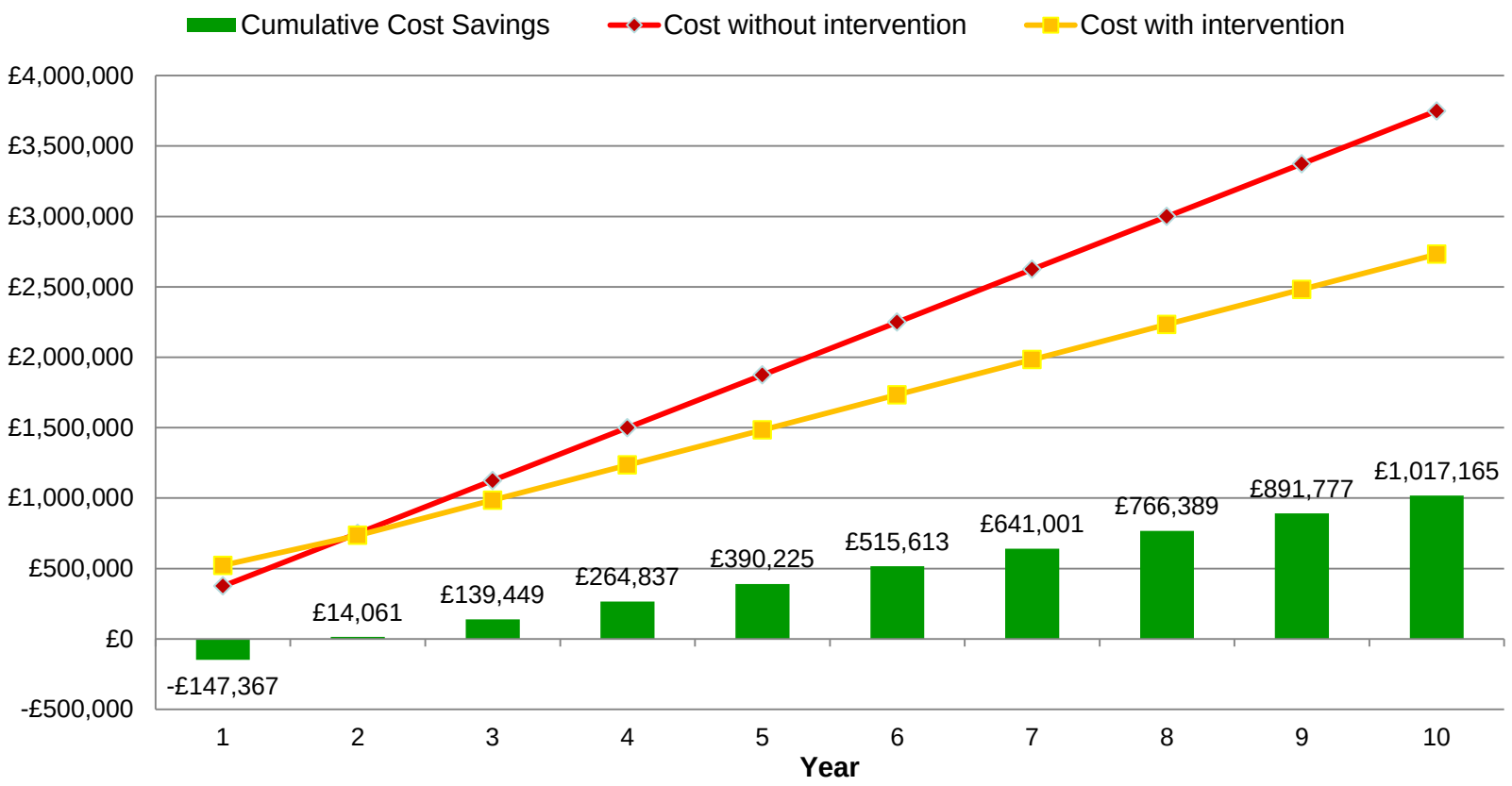
- Information and resources used:
  - **HIGH** satisfaction (9.2 out of 10)
- Provided evidence based advice
  - **HIGH** confidence (9.2 out of 10)
- Ability of Care-Call to motivate
  - **HIGH** confidence (8.6 out of 10)

A very useful service to have available. It offers a far greater level of advice an support than we are able to offer due to time constraints

Patients receive more education and input than they would have had from us alone

Care-Call offers more long term support which is better for us and the patient as sometimes messages need re-enforcing to be effective

Potential Cost Savings: Estimated Salford IGR population – primary care costs

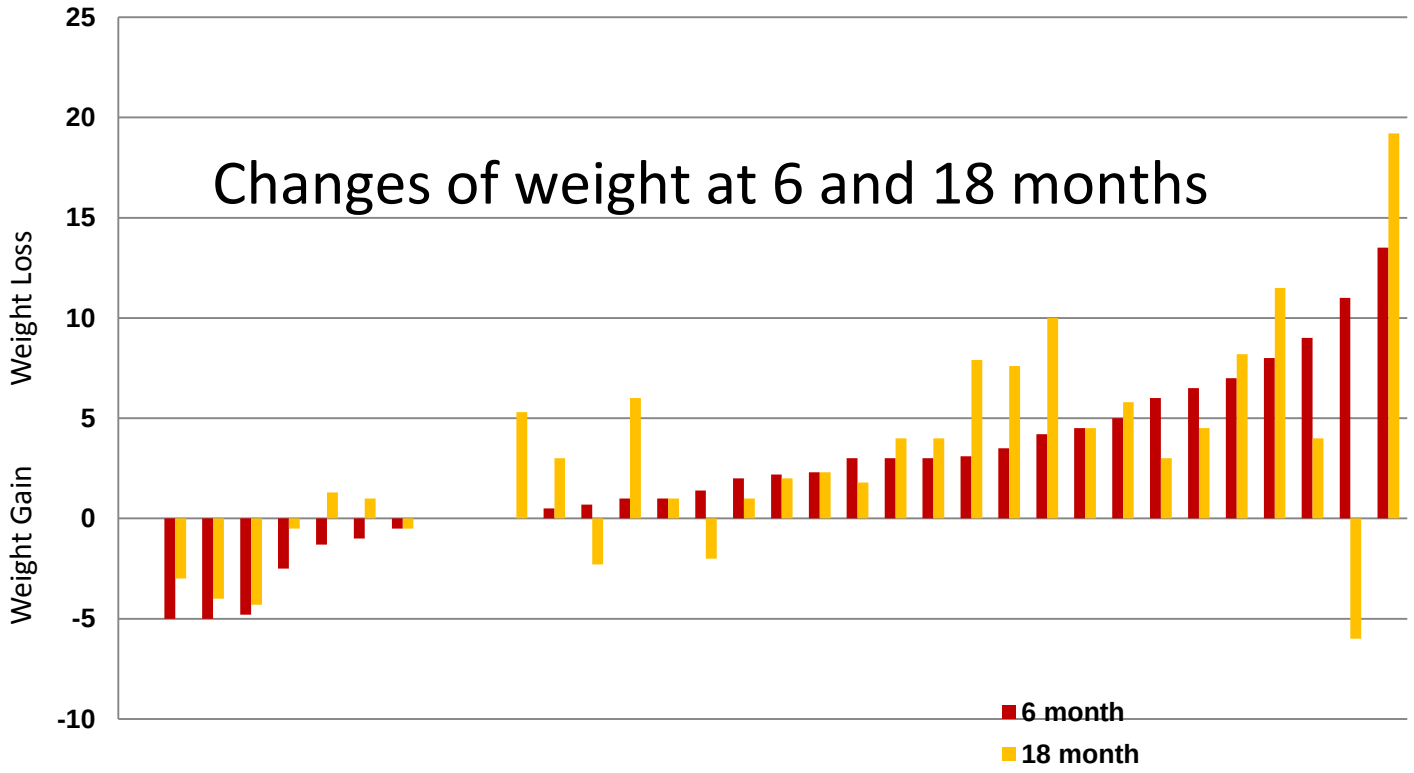


Where are we now?

Results presented to NHS Salford Commissioning and attracted additional funding. Project roll out commenced April 2012:

- Available to all Salford GP practices
- Available to any person with IGR
- Pathway amended to incorporate HCP and service user feedback
- Scoping exercise to promote consistent IGR management in general practice
- Follow up of original project participants

Follow up



The principles of Care-Call have generated interest from within SRFT and other PCTs.