The IGT Care Call project:

An innovative approach to providing lifestyle and behaviour change to prevent type 2 diabetes

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Introduction

Collaboration for **L**eadership in **A**pplied **H**ealth **R**esearch and **C**are

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

DIAGNOSIS:		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

- With no intervention, approximately 50% of people with IGT will develop type 2 diabetes in 5 – 10 years[2]

[2.] Lindstroem et al (2008) Determinants for the effectiveness of lifestyle intervention in the Finnish Diabetes prevention study. Diabetes Care 31(5):857-862

Costs associated with type 2 diabetes[3]

- 10% of the total NHS budget is spent on diabetes care (DUK)
- Diabetes prescribing accounts for 7% of all prescription costs
- Managing type 2 diabetes in primary care (consultation+ prescribing) estimated £1080 per patient/year (2007)[4]
- 80,000 hospital bed days per year due to prolonged stay by people with diabetes

3 Diabetes UK(2009) Diabetes in the UK 2009: Key statistics on diabetes

4 Currie et al (2010). Estimation of primary care treatment costs and treatment efficacy for people with type 1 and type 2 diabetes in the United Kingdom from 1997 -2007

Risk factors for IGT/type 2 diabetes [5,6]

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

5. Diabetes UK Position Statement (2009) Impaired glucose regulation/non-diabetic hyperglycaemia NDH/Prediabetes.
6. 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)

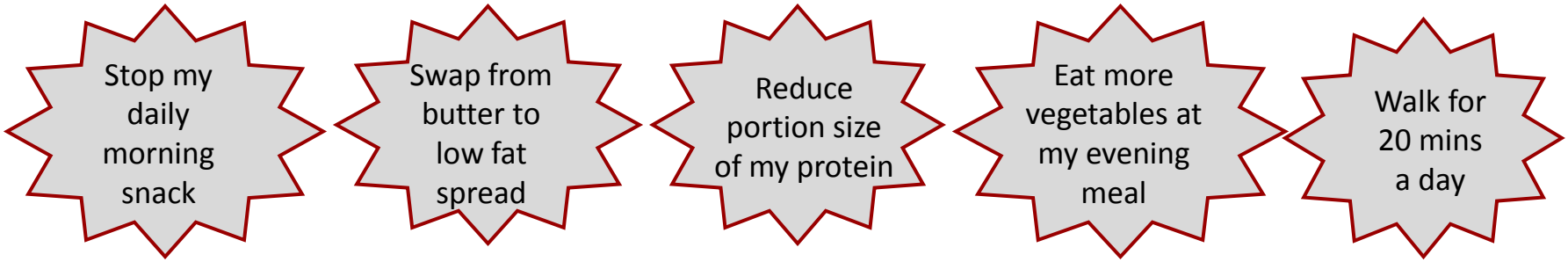
GP practice advised on completion [n=55]
Final assessment request (FBG, OGTT, FINDRISC, weight/BMI)
Final results → care call

Results collected by CLAHRC for evaluation

Results of 6 month lifestyle goal

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

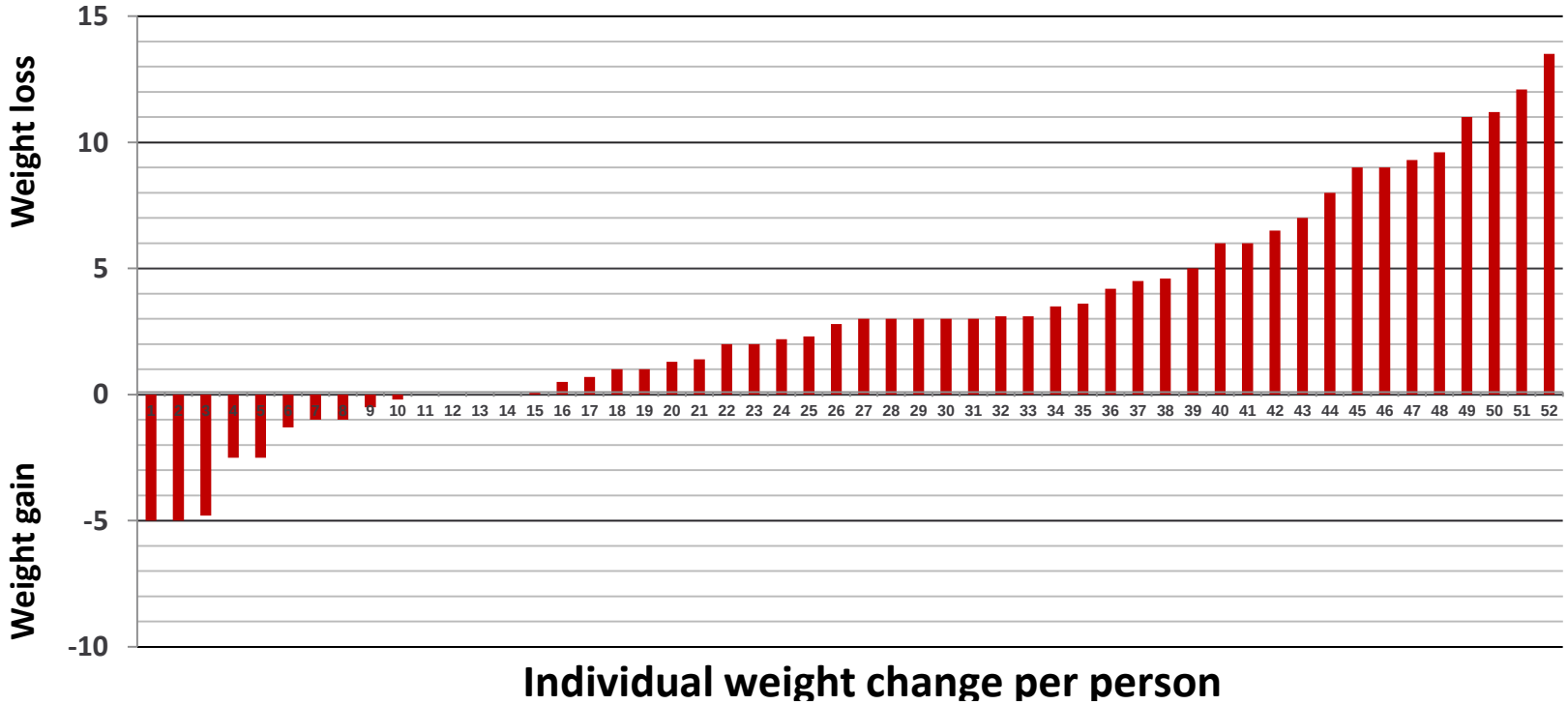
Overall six month lifestyle goal
"Lose 7lbs and reduce my risk of developing type 2 diabetes"



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



Change in BMI (n=52)

- 71% (n=37) reduced BMI
  - average 1.7 points per person
- 10% (n=5) no change BMI
- 19% (n=10) increased BMI
  - average 0.9 points per person

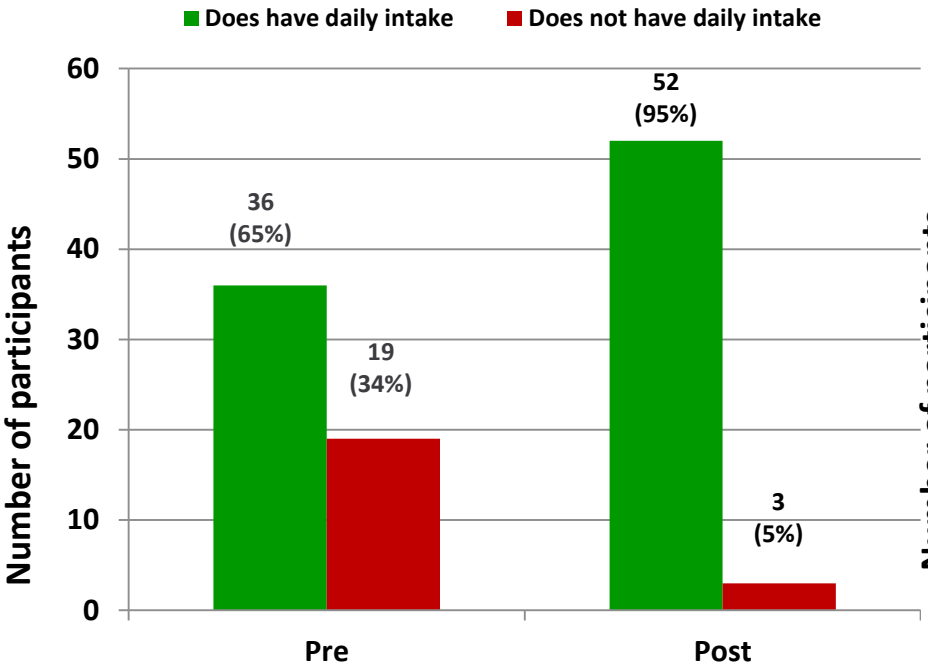
BMI >30 (obese)

Pre-intervention results: n= 33 (60%)

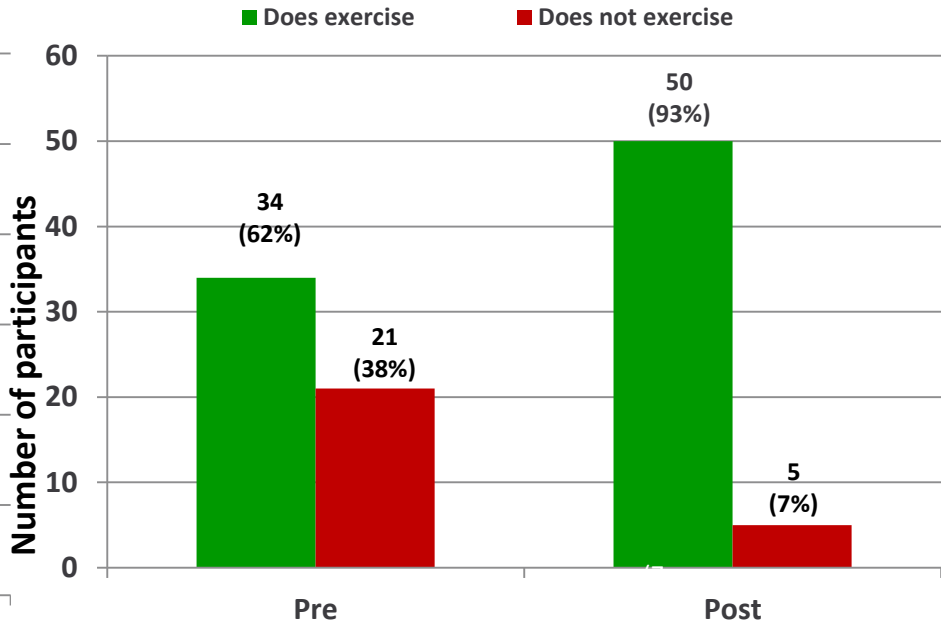
Post-intervention results: n=31

- 70% (n=23) reduced BMI
  - average 2.1 points per person
- 3% (n=1) no change
- 21% (n=7) increased BMI
  - average 1.1 points per person

Healthy Eating



Activity



FINDRISC (Finnish Diabetes Risk Score)

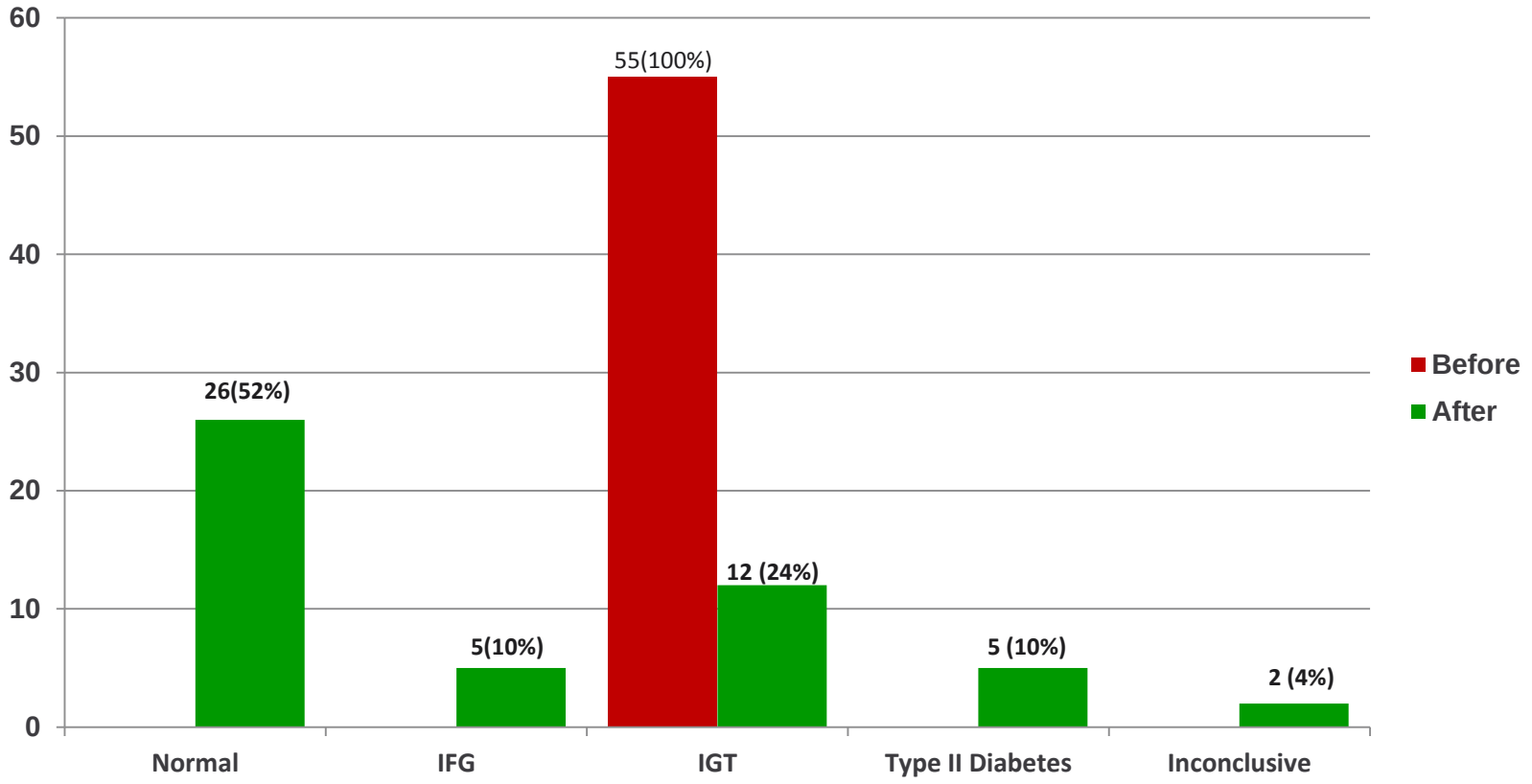
Risk Score (points)	Risk of developing type 2 diabetes within 10 years is:	
0 - 6	Low	estimated 1 in 100
7 - 11	Slightly elevated	estimated 1 in 25
12 – 14	Moderate	estimated 1 in 6
15 – 20	High	estimated 1 in 3
> 20	Very high	estimated 1 in 2

Change in FINDRISC score (n=51)

- 61% (n=31) reduced FINDRISC score
  - average 2.1 points per person
- 35% (n=18) no change
- 4% (n=2) increased FINDRISC score
  - average 1.5 points per person

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 participation in 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:
  - **HIGH** satisfaction (9.2 out of 10)
- Provide 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.

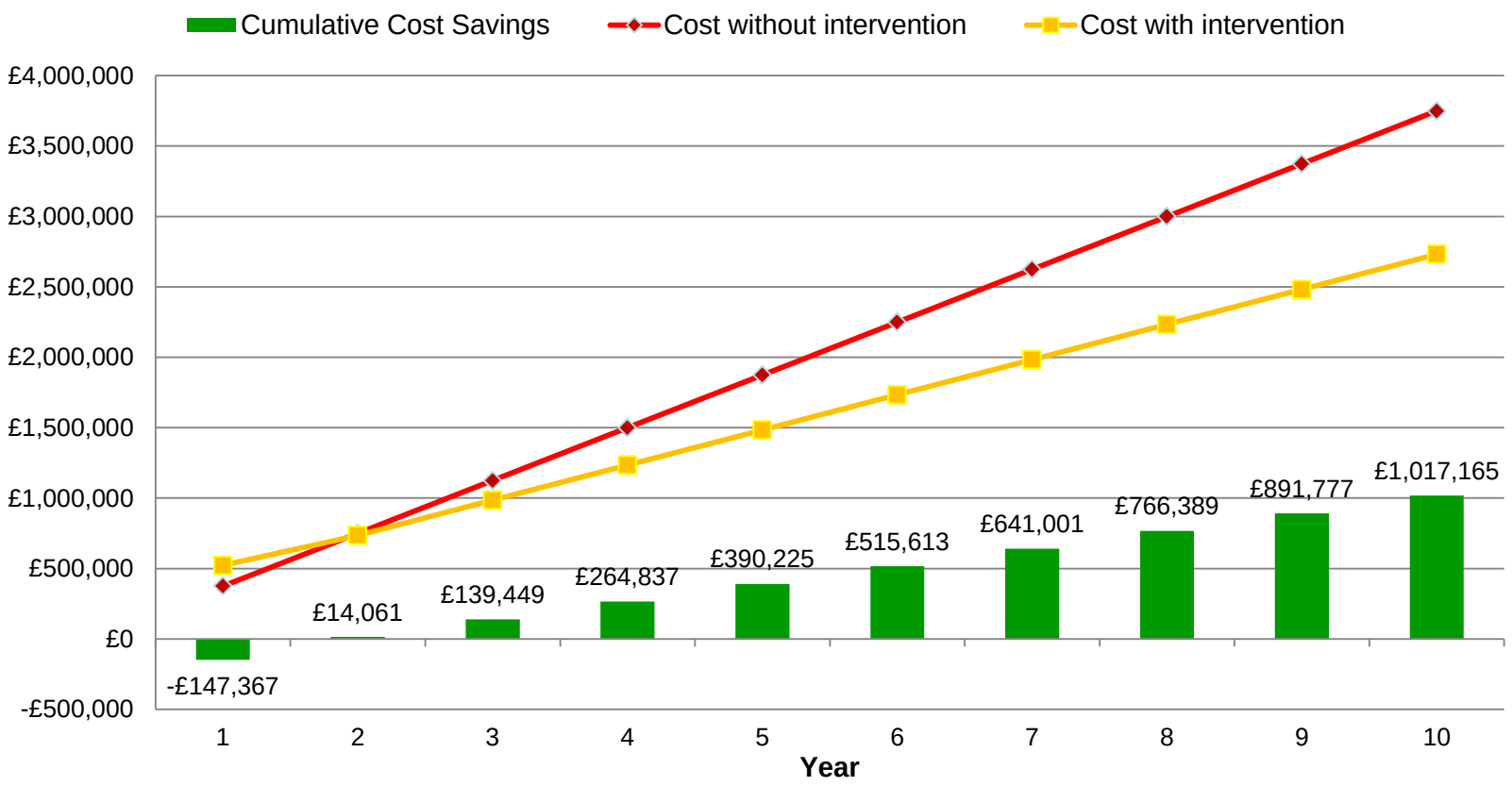
Care Call offers more long term support which is better for us and the patient as sometimes messages need re-enforcing to be effective

Cost of providing the service (n=55)

Staff (including 50% overheads)			
Band 4 Health advisor	lifestyle support	£82.45	per patient
Band 7 Health professional	initial assessment and goal setting	£41.58	per patient
Telephone calls		£11.52	per patient
TOTAL		**£135.55**	**per patient for 6 month programme**

NOTE: as the service was already established and staff trained in the relevant motivational interviewing approaches, cost of training has not been included.

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



Learning and considerations for the future

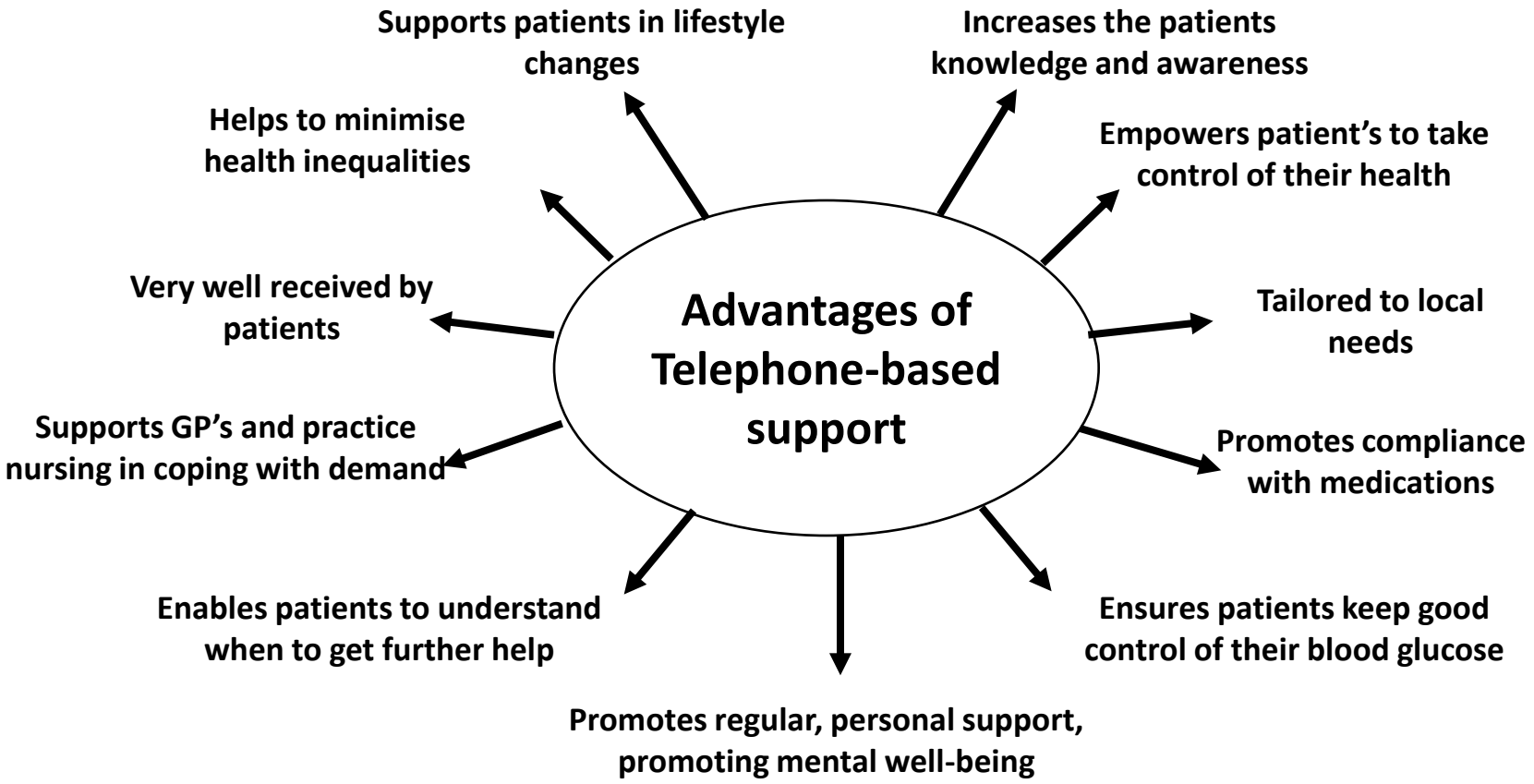
- Dissemination workshop shows project well received with support for roll out.
- Inconsistency in IG registers/ recall systems in Salford.
- FINDRISC time consuming and limited value in GP.
- ? ideal length of programme.
- Opportunity to work alongside NHS health check.
- Non recurrent funding awarded for further development

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 incorporates HCP and service user feedback
- Scoping to promote consistent IGR management in GP
- Follow up of original project participants

Telephone support – the advantages



Thank You
Questions / Discussion

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Full evaluation report available at:

http://clahrc-gm.nihr.ac.uk/resources/igt-care-call/