

Brief interventions for weight management in primary care

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**Collaboration for Leadership
for Applied Health Research
and Care Oxford**

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Health Research



Declaration of Interests

I receive no personal remuneration from any private company.

I am the Chief Investigator for a weight loss study funded by Cambridge Weight Plan through a grant to the University of Oxford.

Some of the interventions used in the trials reported in this presentation have been provided free to the NHS by weight management companies.

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Summary of Recommendation and Evidence

Population	Recommendation	Grade (What's This?)
All Adults	The USPSTF recommends screening all adults for obesity. Clinicians should offer or refer patients with a body mass index (BMI) of 30 kg/m ² or higher to intensive, multicomponent behavioral interventions.	B



GPs and other health or social care professionals should:

- Raise the issue of [weight loss](#) in a respectful and non-judgemental way. Recognise that this may have been raised on numerous occasions and respect someone's choice not to discuss it further on this occasion.
- Identify people eligible for referral to lifestyle weight management services.

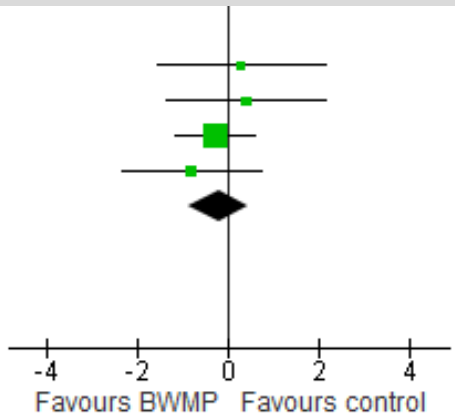
Effectiveness of treatment in primary care or in community weight loss groups

1.9.5 General practice

Jolly 2011 (GP)	-0.8	5.1	70	-1.1	5.1	50	12.6%	0.30 [-1.55, 2.15]
Jolly 2011 (pharmacist)	-0.7	4.5	70	-1.1	5.1	50	13.9%	0.40 [-1.36, 2.16]
Nanchahal 2011	-1.3	4.3	191	-1	4.5	190	55.5%	-0.30 [-1.18, 0.58]
Wadden 2011	-2.8	6.4	131	-2	6.4	130	18.0%	-0.80 [-2.35, 0.75]
Subtotal (95% CI)			462			420	100.0%	-0.22 [-0.87, 0.44]

Heterogeneity: Chi² = 1.35, df = 3 (P = 0.72); I² = 0%

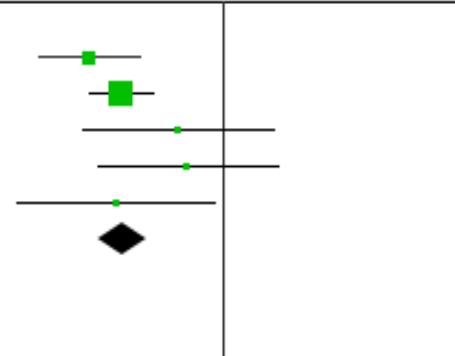
Primary care vs control: -0.22 kg (95% CI: -0.87, 0.44); p = 0.52



Study or Subgroup	BWMP			Control			Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% CI
	Mean	SD	Total	Mean	SD	Total			
1.9.4 Commercial									
Heshka 2006	-4.1	6.5	221	-1.1	5.4	212	23.1%	-3.00 [-4.12, -1.88]	
Jebb 2011	-4.06	6.02	377	-1.77	3.78	395	57.3%	-2.29 [-3.00, -1.58]	
Jolly 2011 (RC)	-2.1	6.4	100	-1.1	5.1	33	6.3%	-1.00 [-3.15, 1.15]	
Jolly 2011 (SW)	-1.9	5.1	100	-1.1	5.1	33	7.2%	-0.80 [-2.81, 1.21]	
Jolly 2011 (WW)	-3.5	6.9	100	-1.1	5.1	33	6.0%	-2.40 [-4.60, -0.20]	
Subtotal (95% CI)			898			706	100.0%	-2.27 [-2.81, -1.73]	

Heterogeneity: Chi² = 5.05, df = 4 (P = 0.28); I² = 21%

Community weight-loss groups vs control: -2.27 kg (95% CI: -2.81, -1.73); p<0.00001



The WRAP trial: Weight-loss Referrals for Adults in Primary care (n = 1267, 23 practices)



Aims

To evaluate the clinical and cost effectiveness of three weight loss interventions that can be delivered in primary care:

- CP52; referral to a commercial provider for 52 weeks (£190)
- CP12; referral for 12 weeks (£48.50)
- BI; a brief intervention

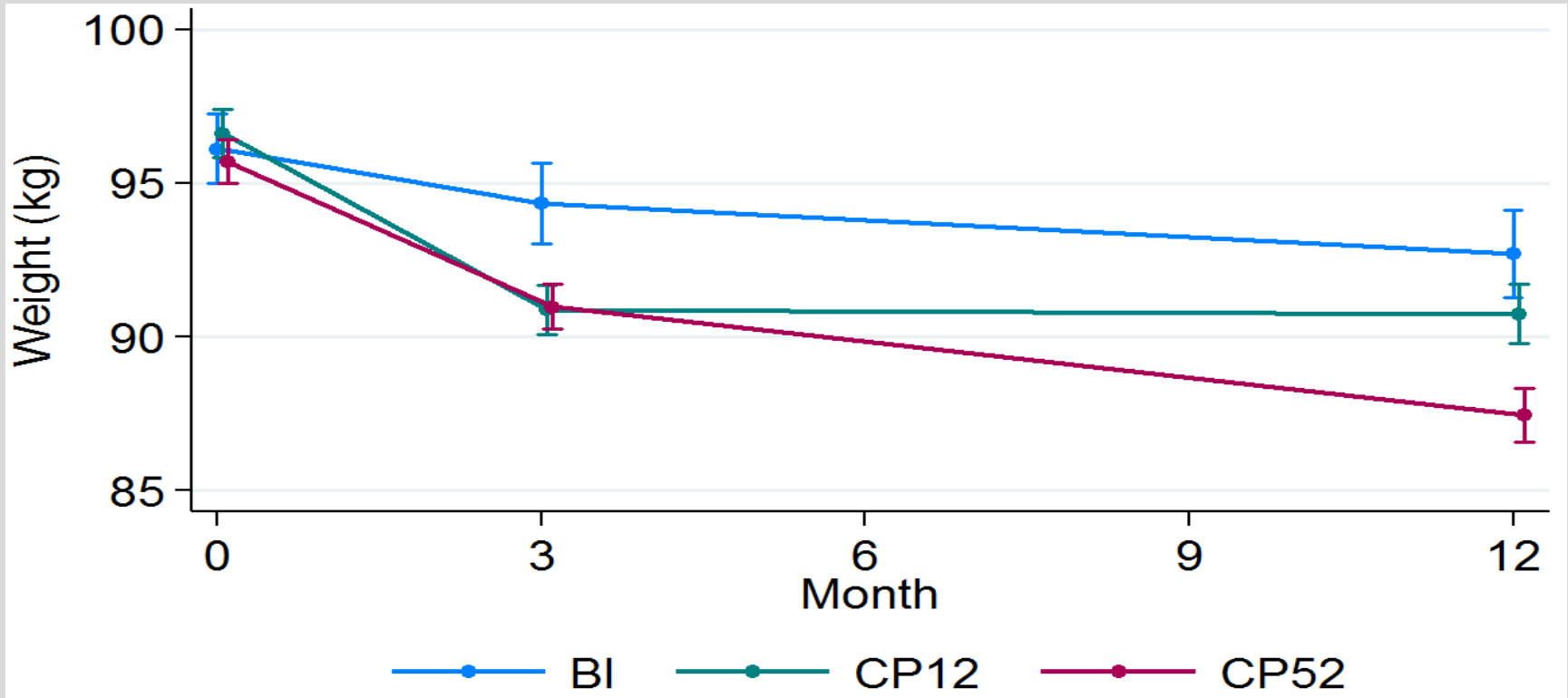
Participants

- 68% female,
- Mean age = 53
- Mean BMI = 34.5
- HbA1c = 42 mmol/mol

Recruitment

- Letter from GP to people with BMI > 28
- Approx. 10% responded and entered trial

Weight change over 1y



	BI	CP12	CP52	CP vs BI	CP52 vs CP12
MAR	-3.26	-4.75	-6.76	-2.71* (-3.86, -1.55)	-2.14* (-3.05, -1.22)

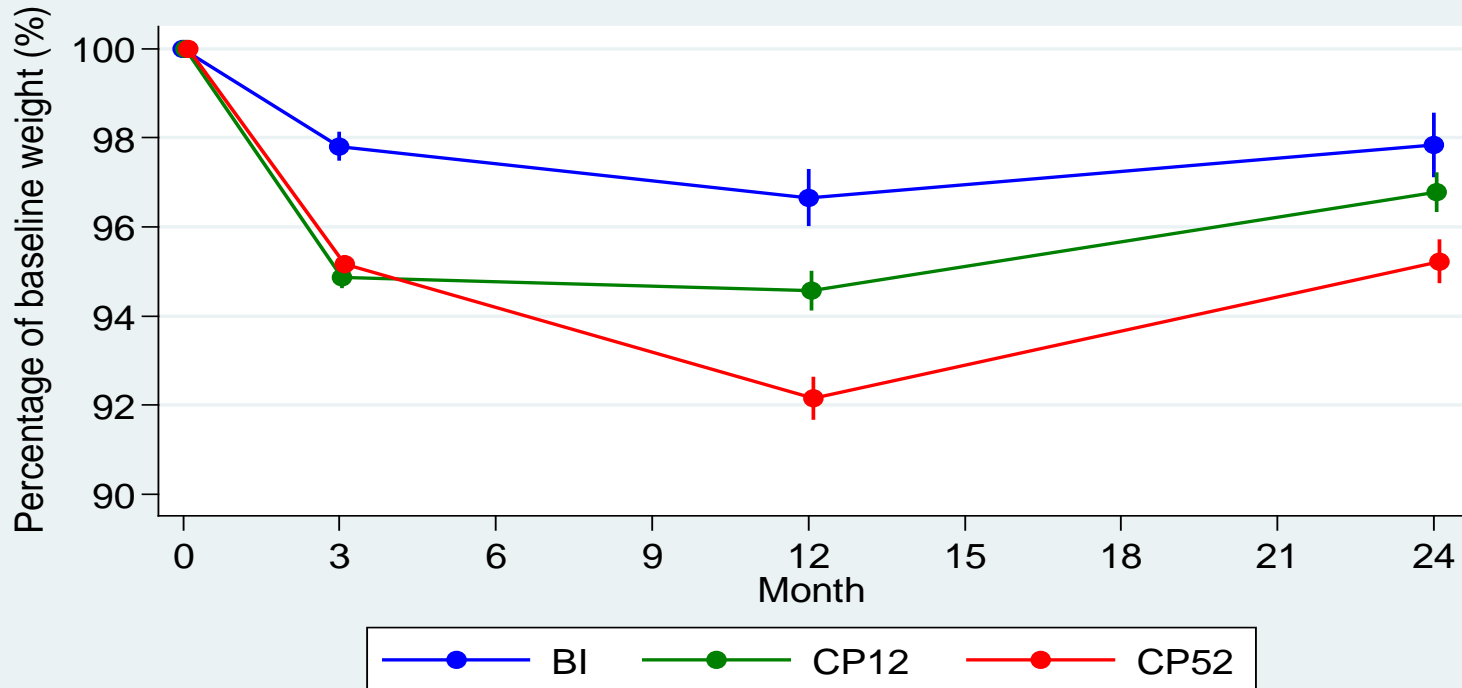
Change in cardiovascular risk factors

	Mean (SE) Change			Adj Difference (95%CI)	
	BI	CP12	CP52	CP52vs BI	CP52vsCP12
Glucose (mmol/L)	-0.11 (0.20)	-0.27 (0.10)	-0.54 (0.08)	-0.46 (-0.88,-0.03)	-0.29 (-0.58,-0.00)
HbA1c (mmol/mol)	0.15 (0.69)	-1.49 (0.37)	-2.77 (0.47)	-2.65 (-4.28,-1.01)	-1.31 (-2.47,-0.15)
Triglycerides (mmol/L)	-0.14 (0.07)	-0.23 (0.05)	-0.26 (0.03)	-0.09 (-0.25, 0.07)	-0.03 (-0.14, 0.09)
Systolic blood pressure (mmol/L)	-2.77 (1.16)	-3.36 (0.73)	-3.74 (0.87)	-1.04 (-3.64, 1.56)	-0.45 (-2.49, 1.59)
HDL Cholesterol	0.01 (0.10)	0.02 (0.05)	0.02 (0.05)	0.00 (-0.19, 0.19)	0.00 (-0.13, 0.14)
LDL Cholesterol	-0.27 (0.04)	-0.24 (0.03)	-0.24 (0.03)	0.01 (-0.12, 0.13)	-0.02 (-0.11, 0.07)

Weight change over 2 years

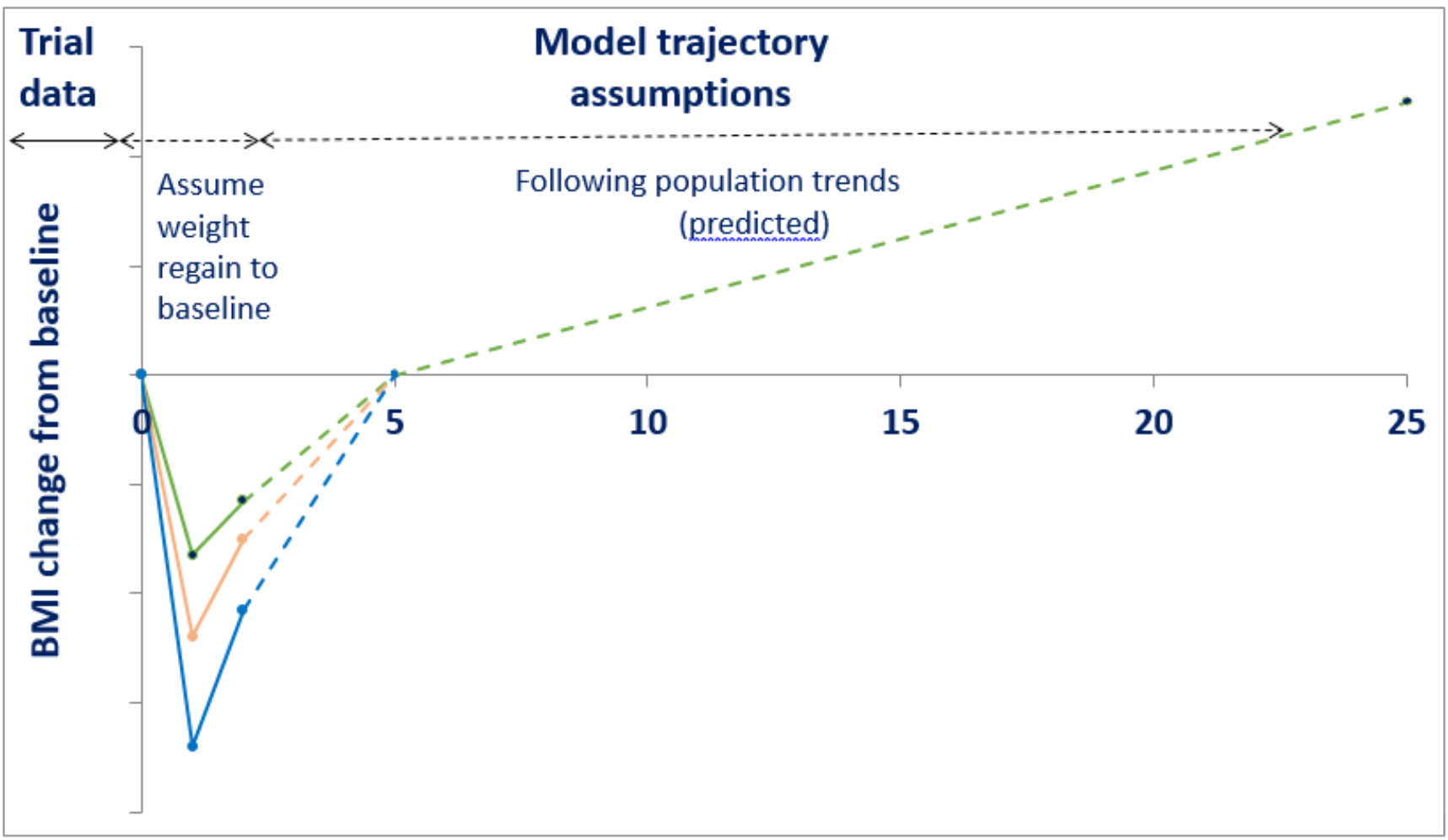
No. Participants

BI	211	144	124	133
CP12	528	405	339	355
CP52	528	455	360	368



Standard error bars shown around mean estimates

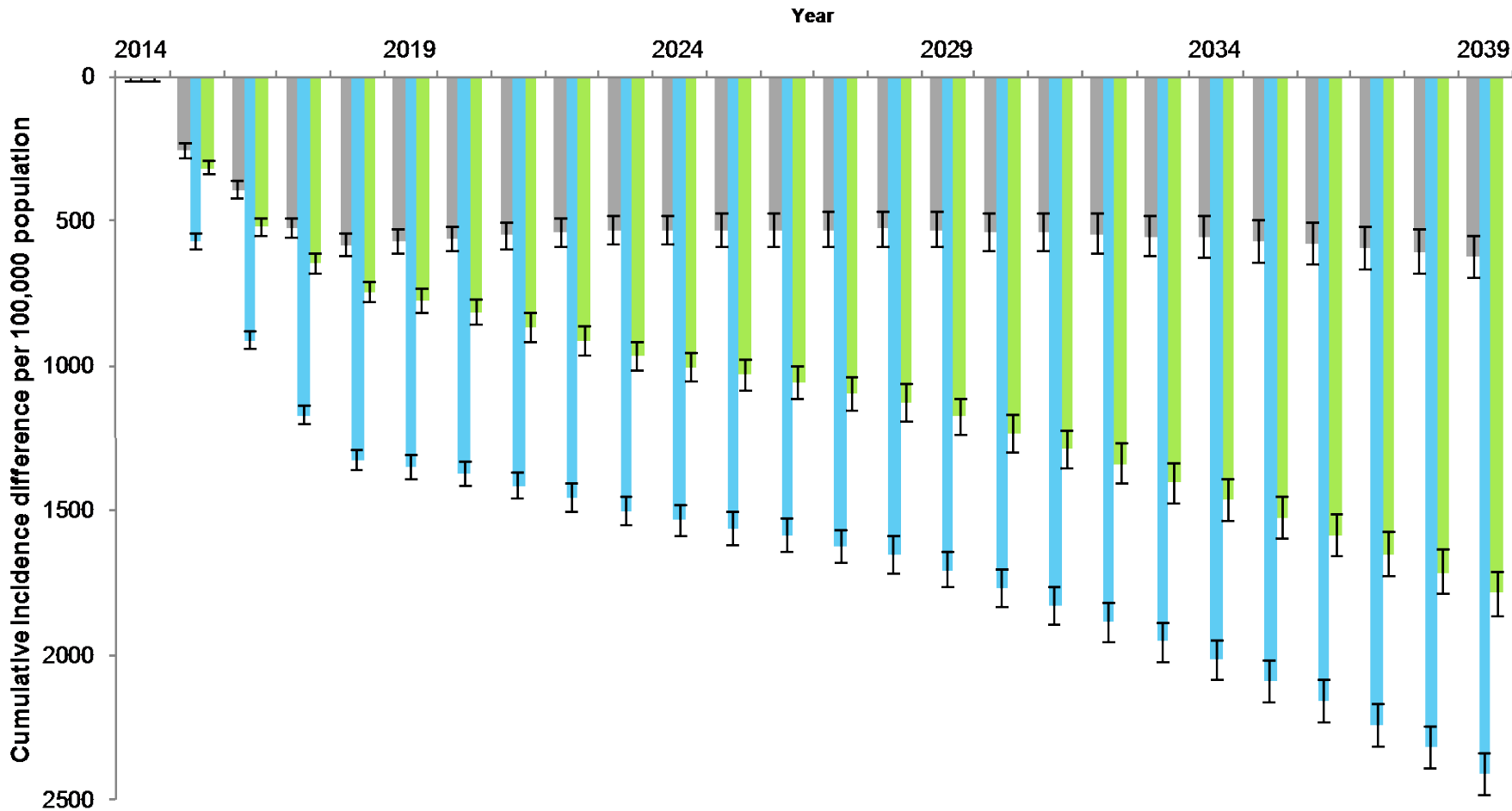
Extending the results using microsimulation modelling



New cases of disease* avoided over 25 years

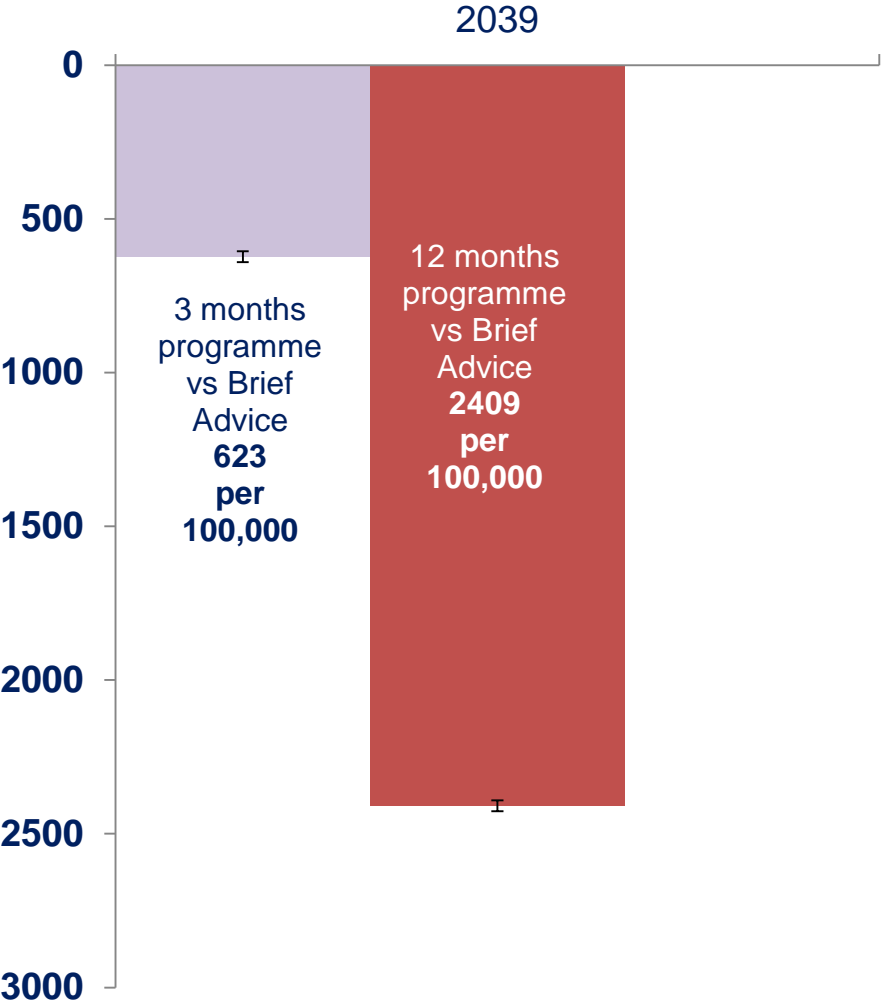
coronary heart disease, stroke, pre-diabetes, diabetes, hypertension, knee osteoarthritis and 7 BMI-related cancers

- 3 months programme vs Brief Advice
- 12 months programme vs Brief Advice
- 12 months programme vs 3 months programme

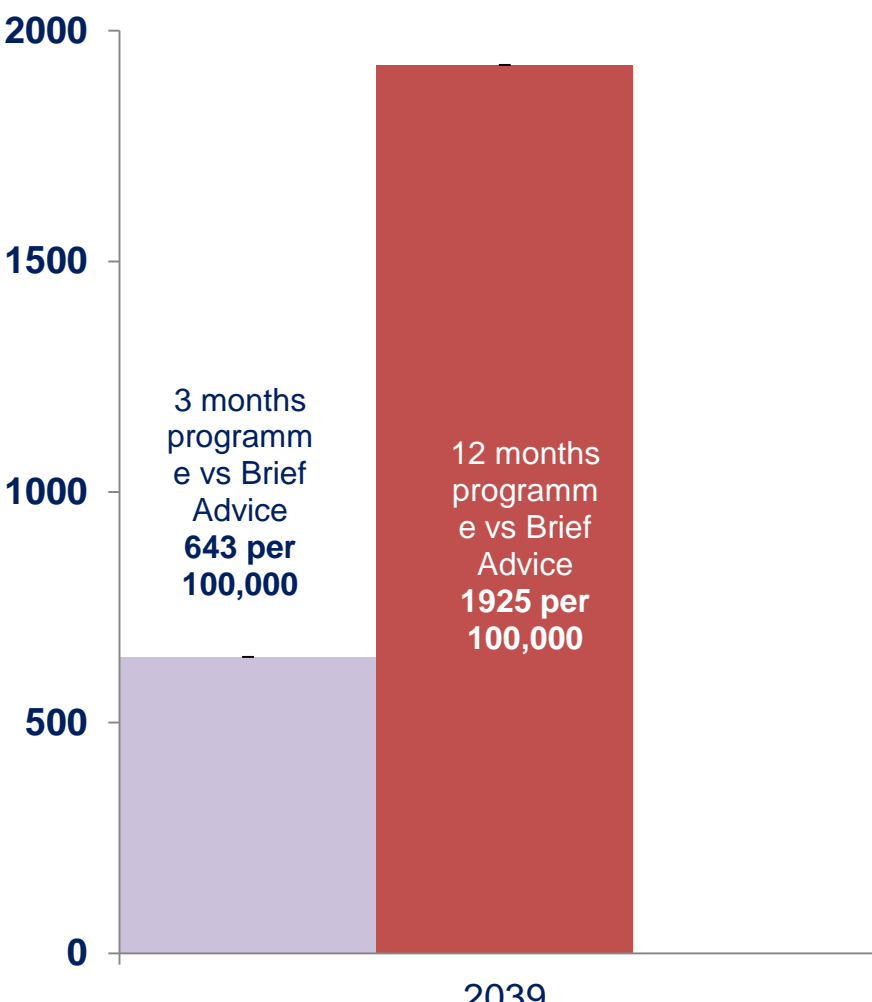


Long term impact of 12 or 52 week referral

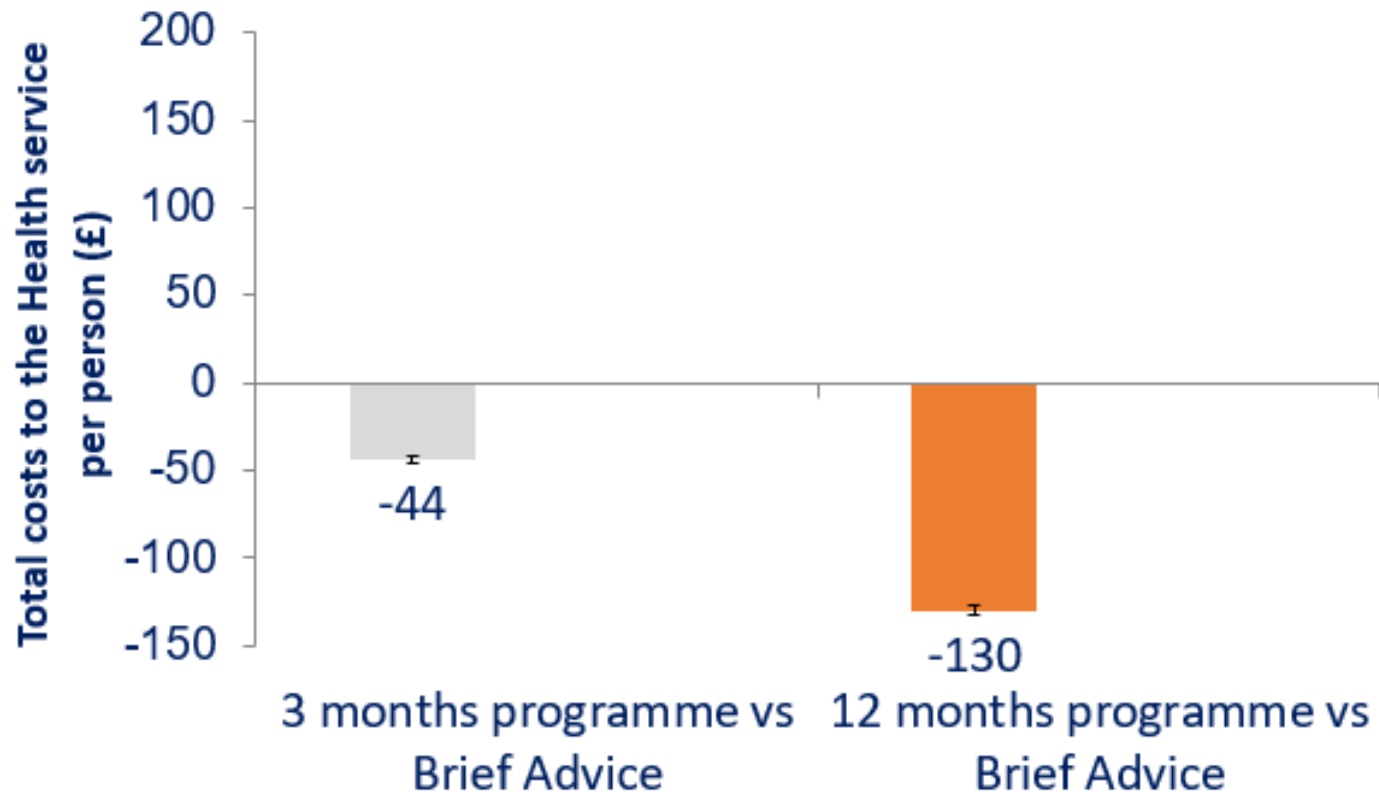
New cases of disease avoided
Per 100,000



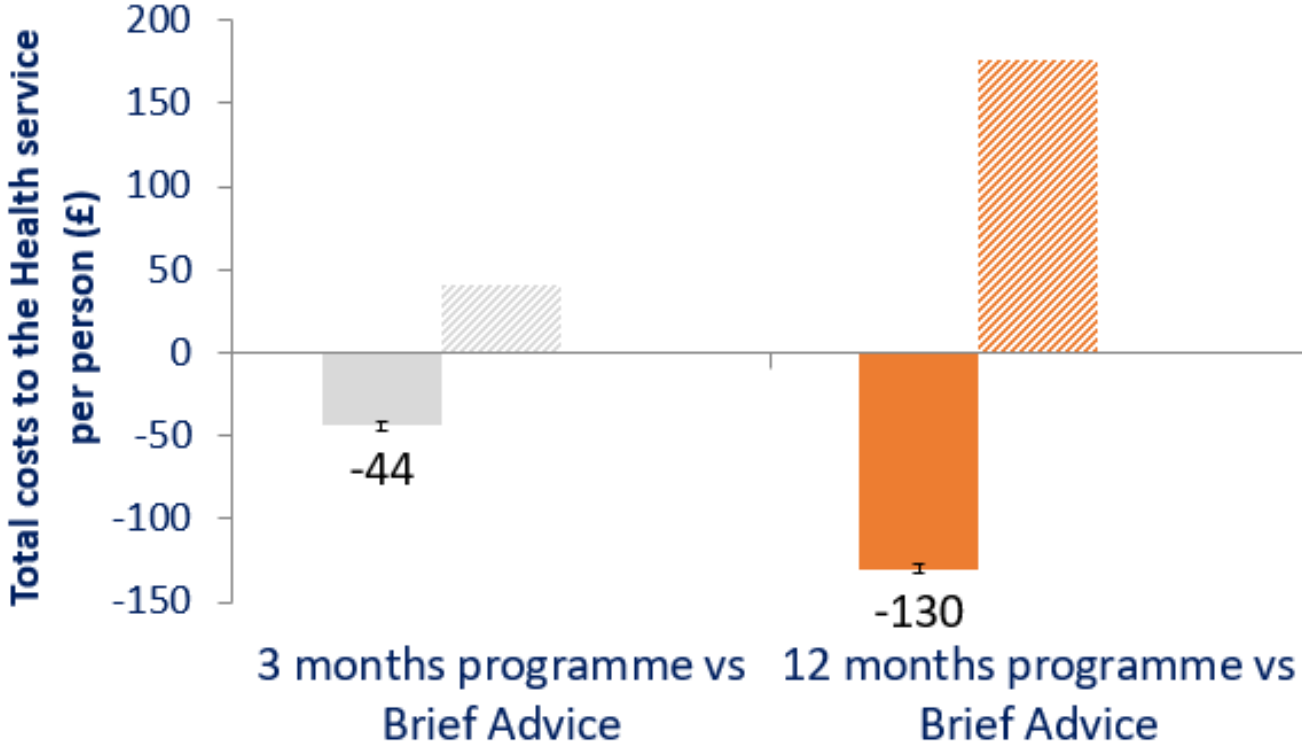
QALY (healthy life years) gained
Per 100,000



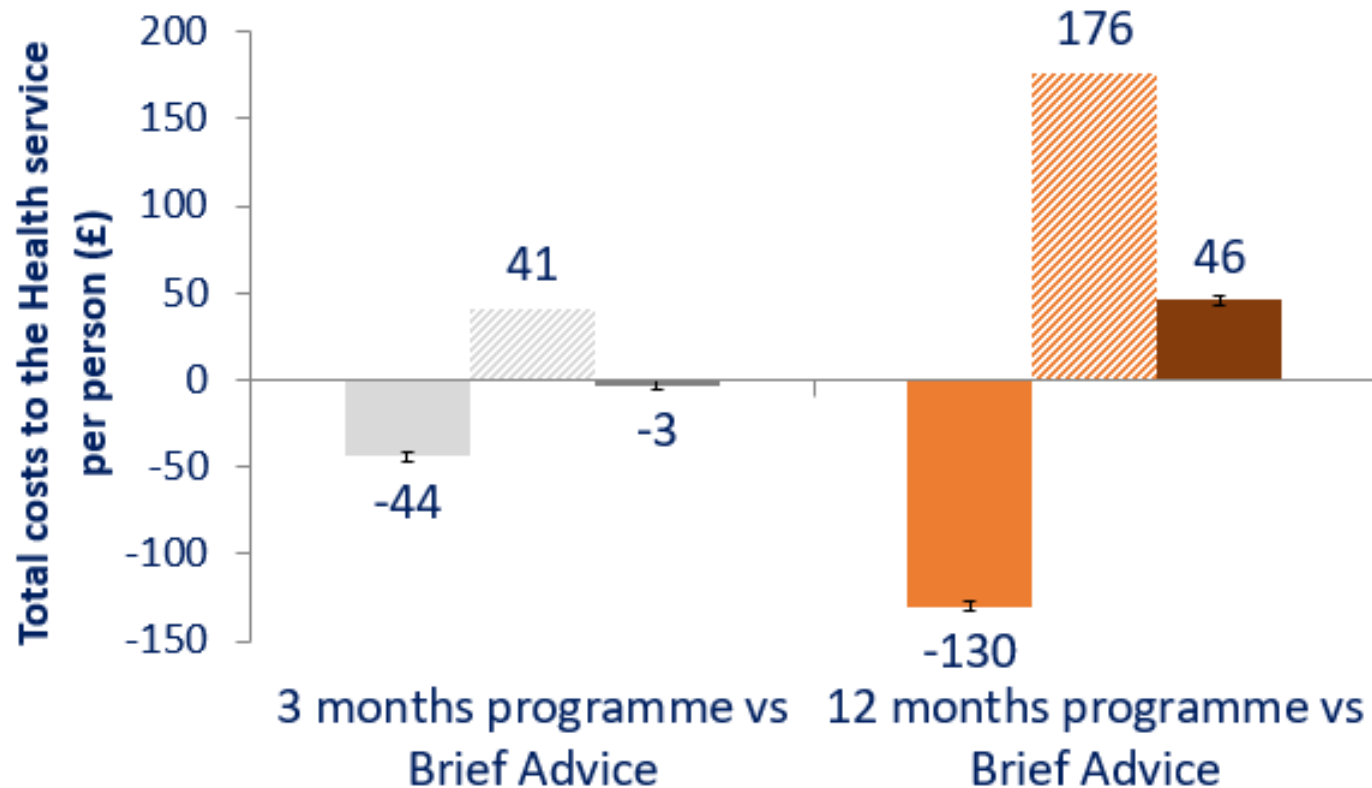
Net difference in costs to the health service per person (over 25 years)



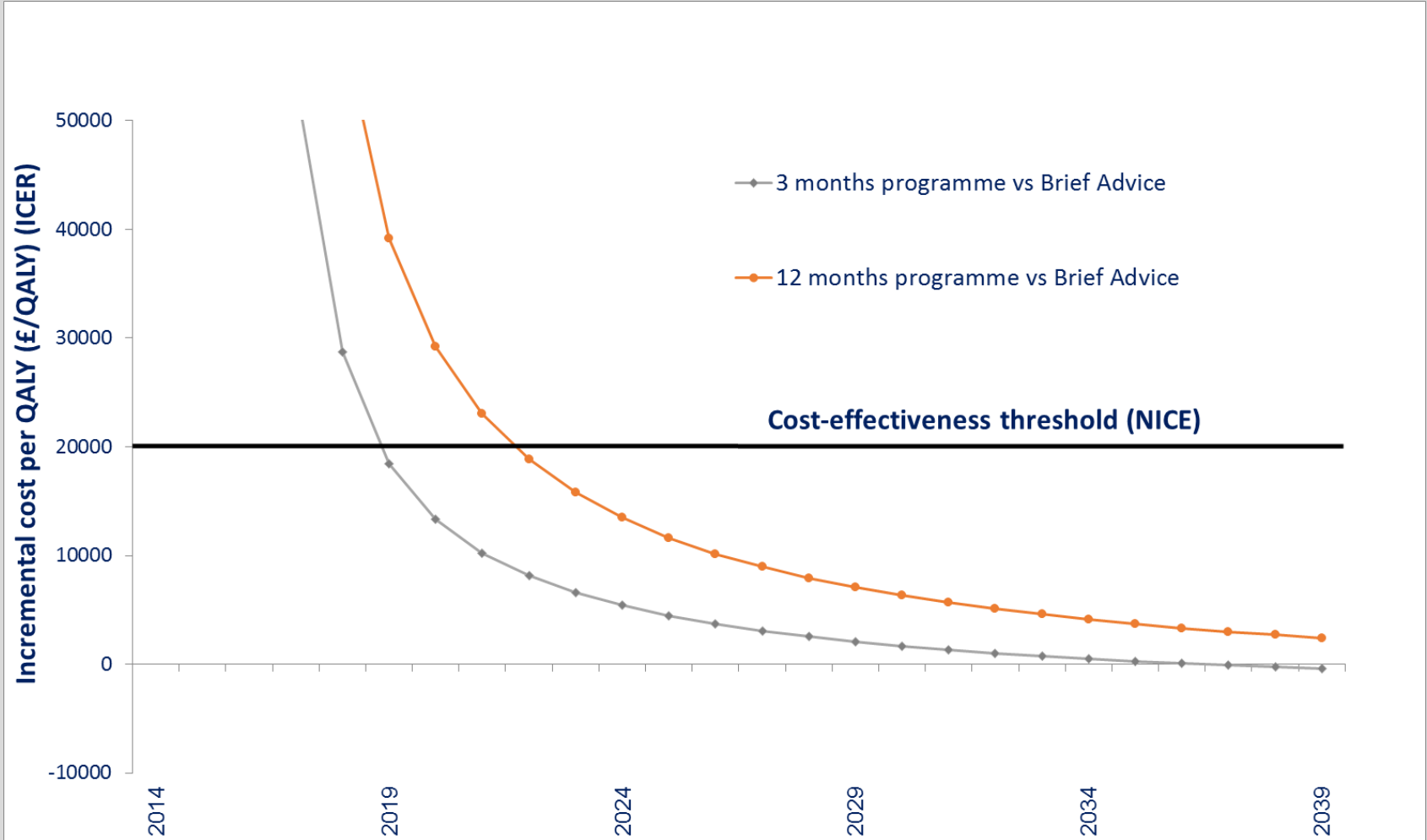
Net difference in costs to the health service per person (over 25 years)



Net difference in costs to the health service per person (over 25 years)



The additional cost for one additional QALY (Incremental cost-effectiveness ratio) between arms



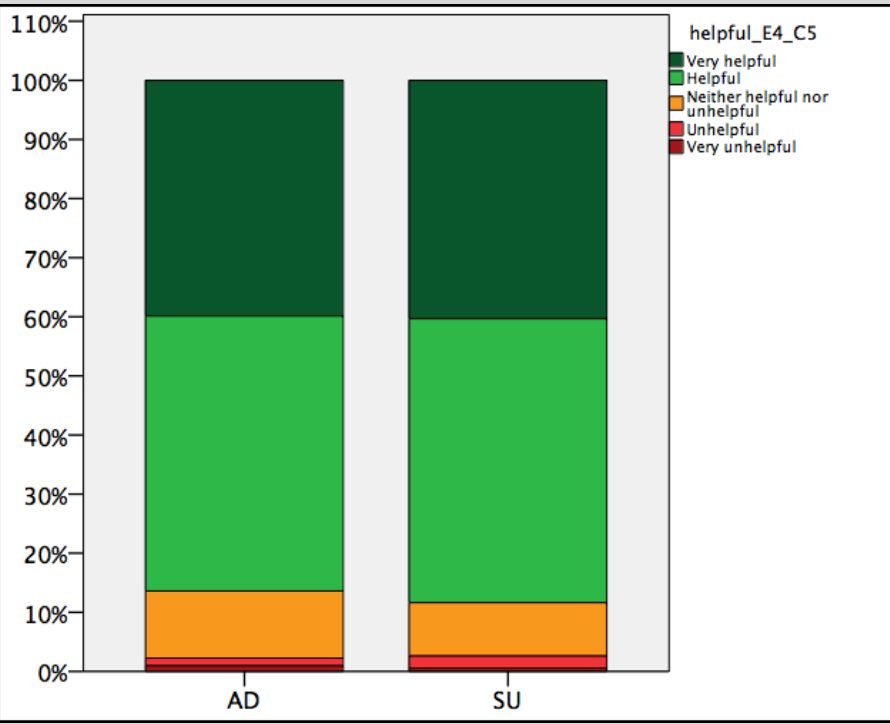
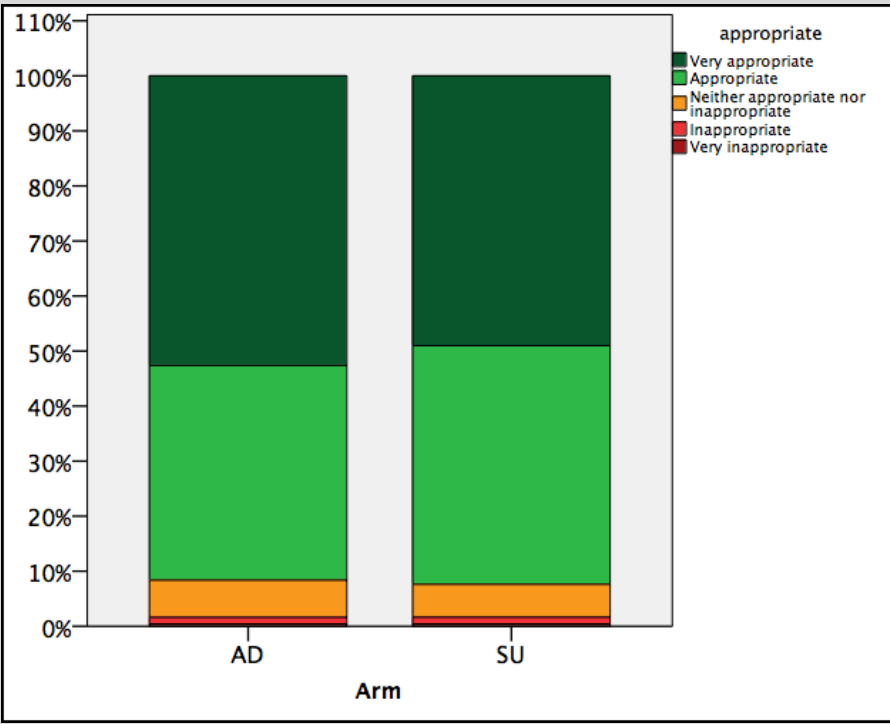
Making opportunistic brief interventions: The BWeL Trial

- Offer help
- Book them in
- Create accountability
- To create momentary motivation
- To capitalise on the moment
- To create lasting motivation

Patient ratings of the consultation

How appropriate

How helpful

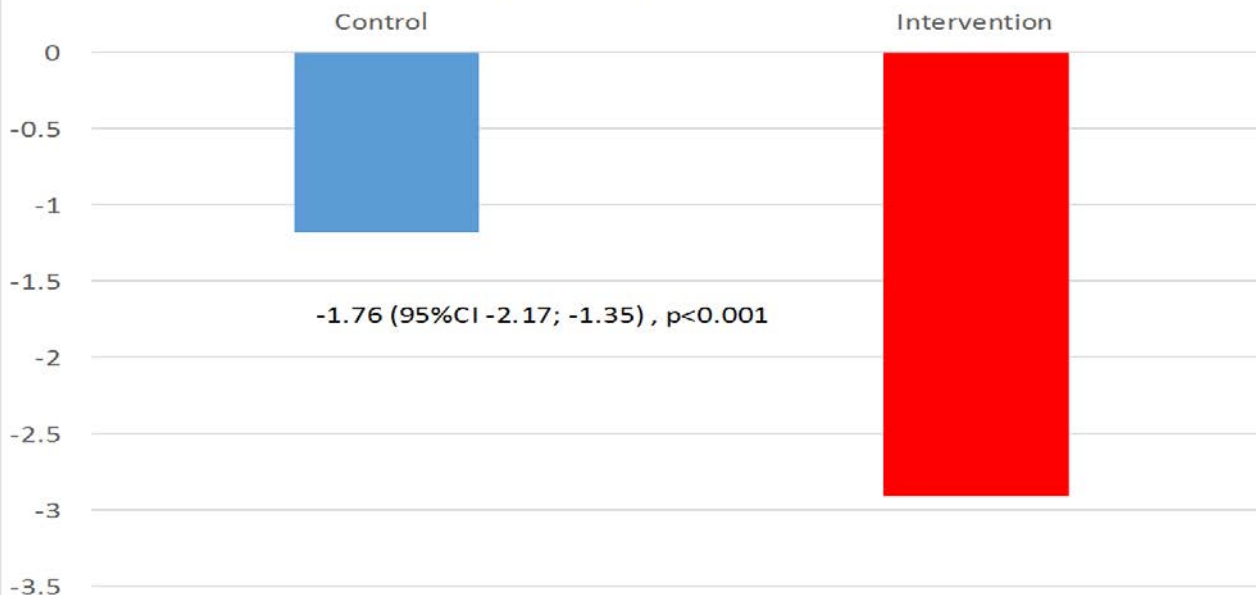


Only 1 in 500 patients who were obese considered it inappropriate and unhelpful for their GP to talk to them about their weight

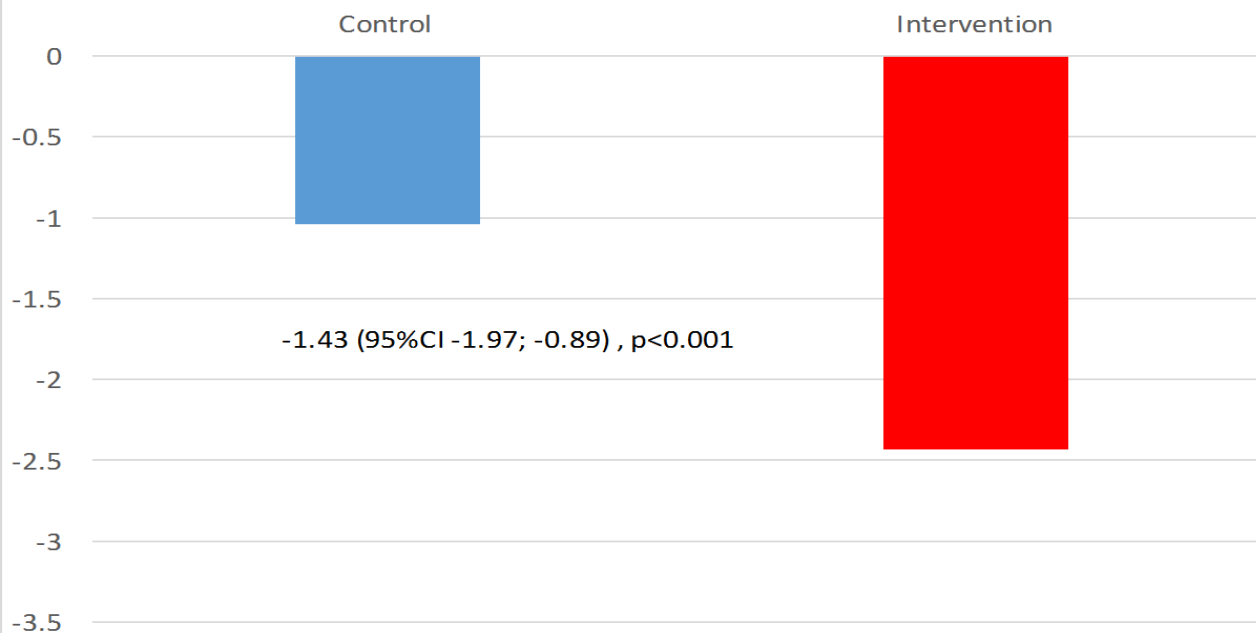
What happened next?

- 83% of people who were obese were eligible for the trial (main reason for exclusion was already taking action to lose weight)
- 1882 people enrolled and included in an intention-to-treat analysis
- Randomised to advice only or support to lose weight
- 77% people in the 'support' group accepted the referral to a programme (n=772)
- 43% attended the programme (n=379)
- 24% completed the 12-week course

Weight change at 3 months



Weight change at 12 months



Opportunistic interventions can increase weight lost at 1 y compared to advice only

“While you’re here, I just wanted to talk about your weight...”

said the doctor to their patient.

The BWEL (Testing a Brief intervention for WEight Loss in primary care) trial tested the effect of GPs advising people who are overweight about losing weight. At the end of a consultation about another health problem, GPs spent just 30 seconds advising their patient that the best way to lose weight was to attend a weight loss programme and offered an NHS referral to a weight-loss group in their local community.



SECONDS

to carry out this brief opportunistic intervention.



ATTENDED

the weight management programme they were referred to.



WEIGHT LOSS

on average after 1 year compared with 1.04kg in the control group.



LOST 5%

of their bodyweight over 12 months.



PATIENTS AGREED

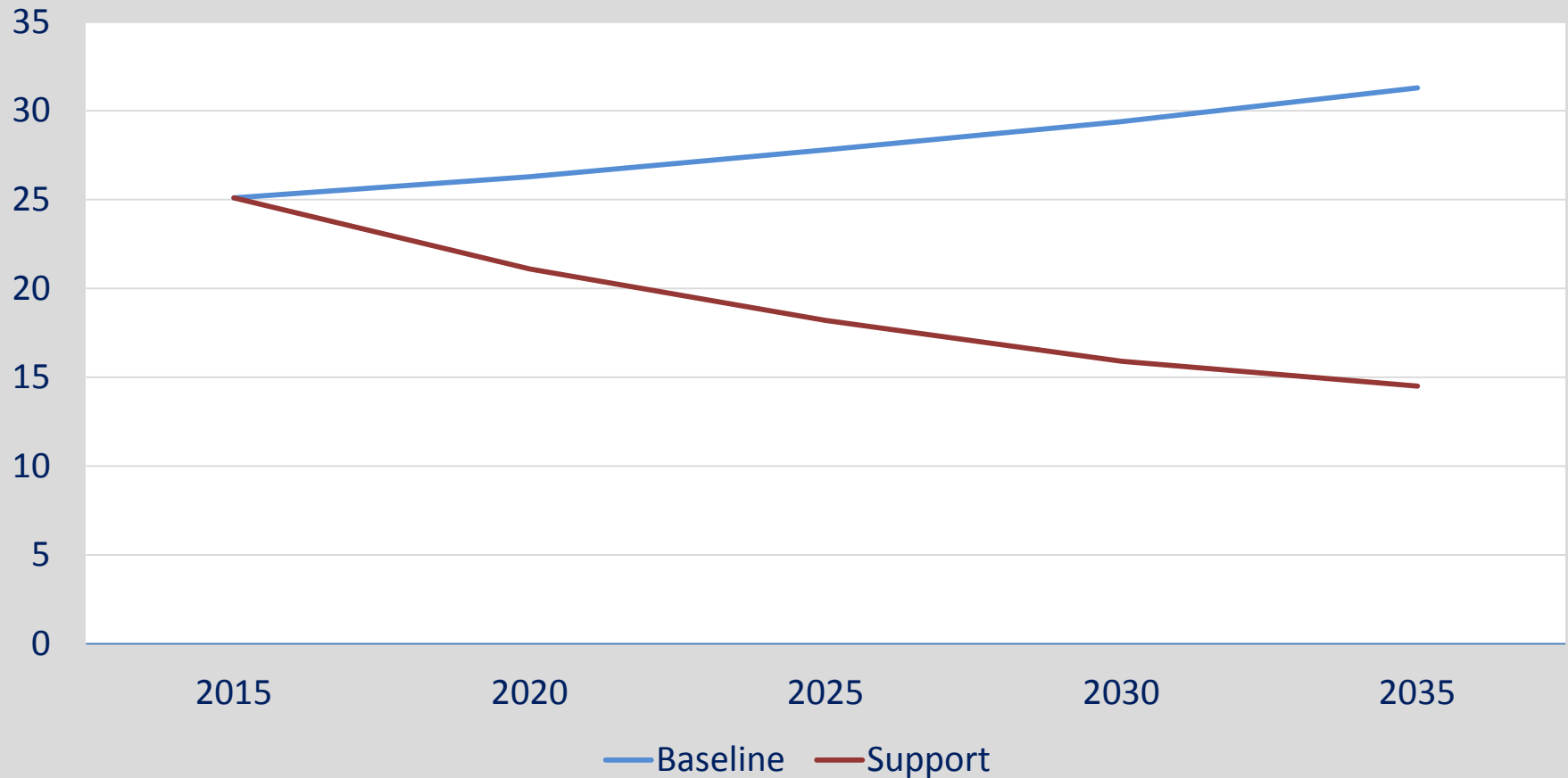
that the conversation with their doctor was appropriate and helpful.



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Screening and brief intervention for obesity in primary care: a parallel, two-arm randomised trial. Aveyard P *et al.* *Lancet* 2016; DOI: 10.1016/S0140-6736(16)31893-1

Modelled change in proportion with BMI>30 to 2035 if brief interventions were given once per year



Weight management in primary care

- A brief opportunistic interventions from a doctor to encourage weight loss is acceptable to patients
- Referral to a commercial provider is generally more effective than routine interventions delivered by primary care practitioners
- Referral to a 12 week group programme is cost effective within 5 years and cost-saving over 25y relative to advice to lose weight
- Increased duration of support significantly increases weight loss and health benefits. It is more expensive but still cost effective by 8 years
- Size matters: need to scale-up to achieve population-level impact

A brief intervention, resulting in 1.5 kg weight loss, delivered once a year to all eligible people visiting their GP, could halve the prevalence of obesity by 2035