



Professor Iain Broom
 Professor of Clinical Biochemistry
 Robert Gordon University
 Professor of Metabolic Medicine
 University of Aberdeen

 National Chairman
 Counterweight Board


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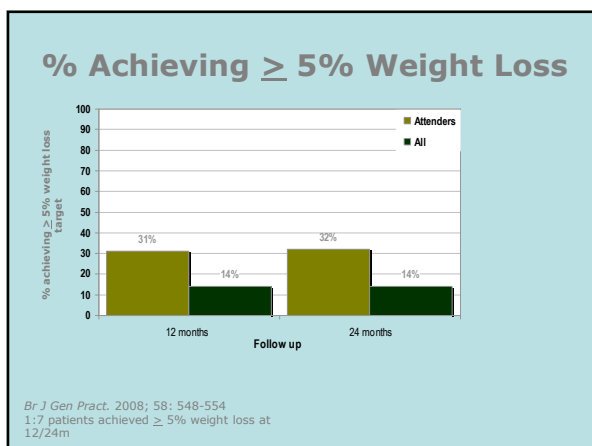
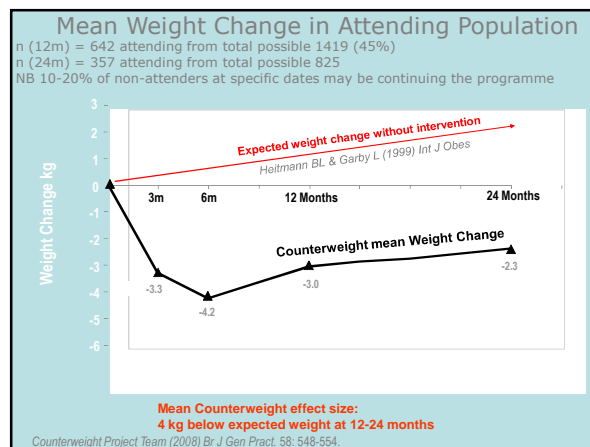
The Counterweight Programme

An evidence-based model for managing obesity in UK general practice



The Counterweight Programme

- Project board includes national key opinion leaders on obesity
- Specialist team of Weight Management Advisers (dietitians & nutritionists) train and mentor Practice Nurses in weight management, to competency
- Weight management "In the Wild"
- Central data collection, analysis and feedback
- Ongoing programme enhancement using Continuous Improvement Methodology (includes RCTs, audit, qualitative research etc)



Counterweight: projected cost of delivery nationally for 5 years

- Theoretical model assuming available in **all practices** in UK
- Initial staff recruitment/ training = **£2m**
- WMA team (n= 160) and support staff = **£8.5m/year**
- Assumes 20% of eligible obese patients will enter programme
 - 3.5 million attend over 5 years
 - Average total PN time per patient = 120 minutes
- Costs for resources and Practice staff time for meetings, GP discussion, intervention, equipment, medication (AOM), exercise referral, secondary care referral ~ **£16m/year**
- After initial year, each cohort assumed to require 50% of year-1 costs
- **Total 5 year UK cost: ~ £200m, for ~3.3m patients = £60 per patient**

Breakdown of cost

- Practice Nurse time = 45% total
- WMA team = 22% total
- AOM = 23% total
- Other = 10% total

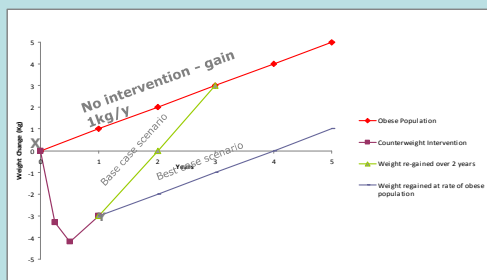
*Journal of Health Services Research & Policy, Vol.13 No. 3, 2008: 158-16

Counterweight: Effectiveness data

- Model considers impact of the 12 month observed outcomes of the Counterweight Programme
 - 45% follow up attendance at 12 months
 - Mean weight loss of 3kg
 - Assume no impact on the non-attending 55%
 - Weight gain 1 kg/year as in non-intervened obese population
 - Scenarios considered:
 - Base case: weight lost is regained over the next two years
 - Best case: weight loss is maintained over the individual's life
- Both of these – then revert to 1 kg/year weight gain

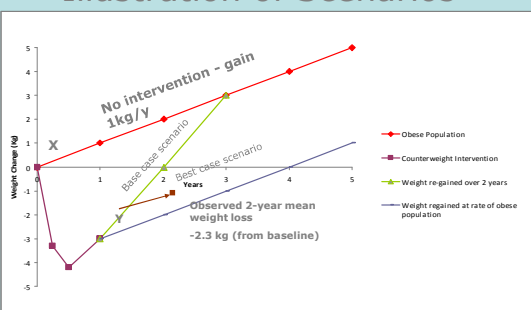
The Counterweight Project Team (2009) Obesity Facts 2 S2: 47

Illustration of Scenarios



X = Baseline. Y= 12 months with Counterweight intervention
 Base case scenario = Regain all 4 kg weight difference effect in 2 yrs
 Best case scenario = Life-long maintenance of 4 kg weight difference

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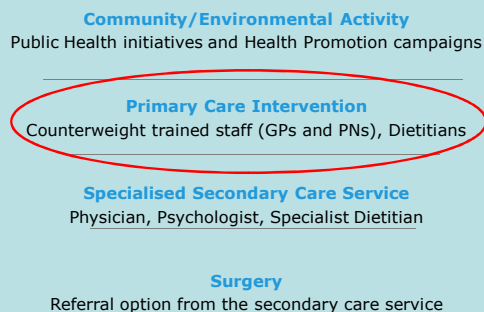
Approx. cost per QALY of obesity treatments for comparison (NICE 2006)

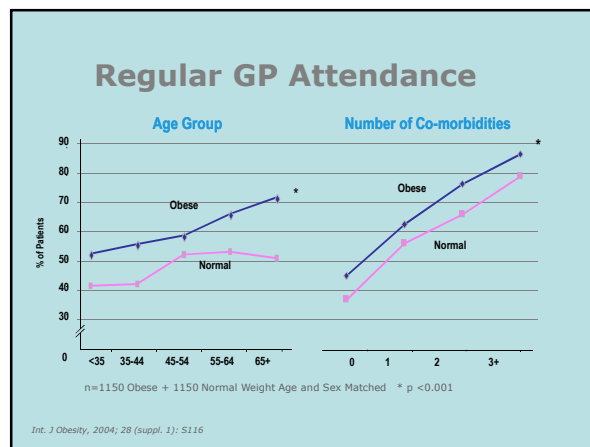
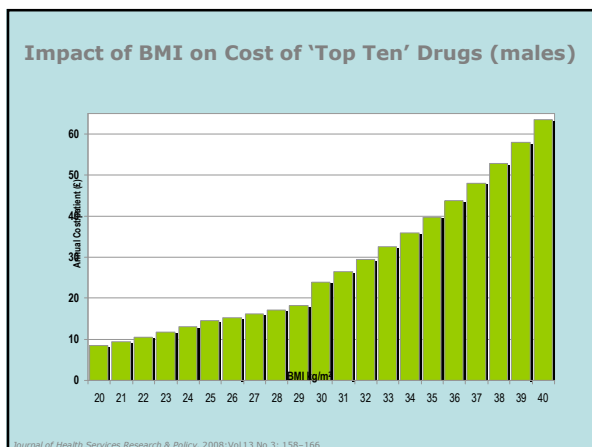
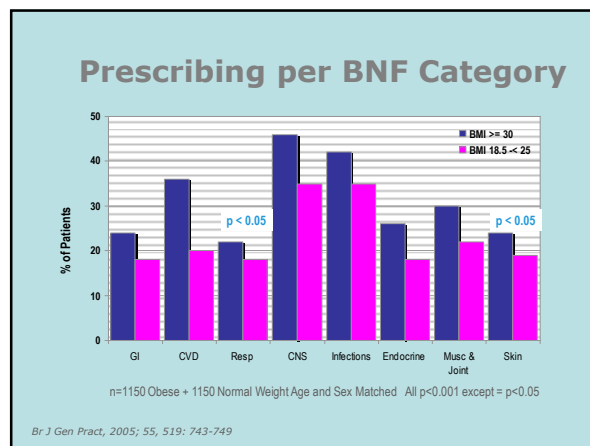
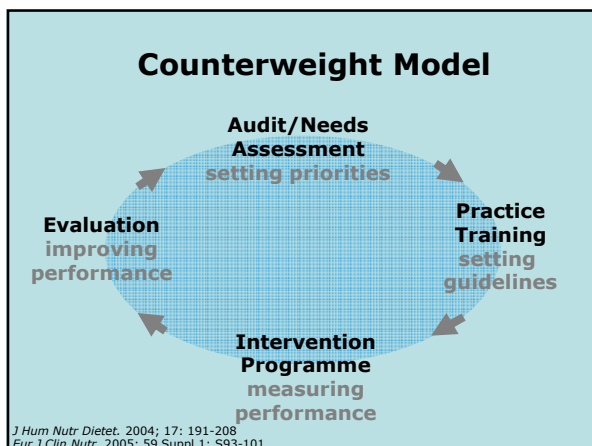
- UK Accepted benchmark for cost effectiveness £20,000 - £30,000
- Bariatric surgery £6289 - £8527
- Pharmacological intervention £6349 - £24431
- Non-pharma interventions £174 - £9971
- Public health interventions £265 - £3018
- Counterweight (Base case) **'Dominant' (-£473)**

Reductions in costs are greater than costs of implementing the programme
Patients live longer and healthier

- Even based on **very limited estimates of the costs of obesity**, the Counterweight Programme is highly cost-effective for UK NHS
- In the medium-long term, providing Counterweight in routine Primary Care will lead to **cost savings** from reduced medical consequences of obesity

Obesity Management Strategy





- ### Counterweight Process
- ❑ Centralised nurse training
 - ❑ Whole practice meeting
 - ❑ Recruit appropriate patients
 - ❑ 6 months of support and mentoring in practice
 - ❑ Consolidation session
 - ❑ Training of a buddy dietitian

- ### Training for Clinicians
- ❑ Causes of obesity
 - ❑ Healthy eating and physical activity
 - ❑ Energy Balance
 - ❑ Weight loss expectations
 - ❑ Behaviour change strategies
 - ❑ Pharmacotherapy
 - ❑ Weight loss maintenance

Patient Intervention

- ❑ Aim to achieve \geq 5-10% weight loss
- ❑ Educational programme using behaviour change strategies
- ❑ 6 appointments or group sessions over 3 months
- ❑ Weight loss maintenance
- ❑ Quarterly follow up for 1 year
- ❑ Annual reviews

Practice Commitment

- ❑ Offer nurse-led weight management (approx 3 hours per week, 150 hours per year)
- ❑ Recruit 25 patients per trained staff per year
- ❑ Offer each patient 6 appointments over 3 months, then follow up quarterly for 12 months
- ❑ Offer individual appointments of 10-30 minutes duration, group appointments 1 – 2 hours duration
- ❑ Collect data on obesity template

Evaluation

- ❑ Height, weight, BMI, waist circumference
- ❑ Number of patients offered weight management intervention
- ❑ Number of patients attending Counterweight service
- ❑ Proportion of patients attending agreed number of appointments
- ❑ Number and proportion achieving weight loss target of \geq 5%

Continuous Improvement

- ❑ Incentives are offered in some areas to assist general practice buy-in
- ❑ Evaluation in different community settings and pharmacies
- ❑ Training programme refined after initial research phase
- ❑ All training materials refined after qualitative research
- ❑ Tracking of process of Counterweight implementation
- ❑ New process for evaluation developed

National Aggregate Data: Patient Numbers Enrolled in Counterweight

Wave 1								
Health Boards	Oct -06	Jul -07	Jan -08	Jun -08	Oct -08	Feb -09	May -09	Sept -09
Lanarkshire		333	596	659	880	1112	1352	1407
Lothian		126	337	514	765	808	938	992
Tayside		0	67	121	171	210	246	302

National Aggregate Data: Patient Numbers Enrolled in Counterweight

Wave 2								
Health Boards	Oct -06	Jul -07	Jan -08	Jun -08	Oct -08	Feb -09	May -09	Sept -09
Ayrshire & Arran					22	23	69	85
Grampian							5	5
Fife							32	112

National Aggregate Data: Patient Numbers Enrolled in Counterweight

Wave 3								
Health Boards	Oct -06	Jul -07	Jan -08	Jun -08	Oct -08	Feb -09	May -09	Sept -09
Forth Valley					5	24	57	73
Shetland					15	25	95	109
Dumfries & Galloway							4	4
Highland							31	64
Western Isles								3
Borders								
Orkney								
Total		459	1000	1294	1858	2202	2829	3156
Waves 1,2 & 3								

National Aggregate Data: Baseline Characteristics

	National Aggregate
Total Numbers	3156
% Females	74
% Males	26
Mean age	54
Mean BMI (range)	37 kg/m ² (28-68)kg/m ²
% with BMI>40 kg/m ²	24
% with BMI>50 kg/m ²	3.9

National Aggregate Data: Attendance and Weight Change Outcomes

3 months	6 months	12 months
Enrolled >3m prior n = 2320 Attended 3m appt n = 1355 (58%)	Enrolled >6m prior n = 1989 Attended 6m appt n = 665 (33%)	Enrolled >12m prior n = 1402 Attended 12m appt n = 342 (25%)
Wt change in patients attended mean loss (kg) = 2.5 ≥ 5% loss = 19%	Wt change in patients attended mean loss (kg) = 3.7 ≥ 5% loss = 35%	Wt change in patients attended mean loss (kg) = 4.0 ≥ 5% loss = 35%
Wt change in all at time point ≥ 5% loss = 11%	Wt change in all at time point ≥ 5% loss = 12%	Wt change in all at time point ≥ 5% loss = 9%

Regional Data: Baseline Characteristics

	Lanark	Lothian	Tayside	Ayrshire & Arran	Fife	Grampian	Shetland	Forth Valley	Dumfries & Galloway	Western Isles	Highland
Patients enrolled	1407	992	302	85	112	5	109	73	4	3	64
% Female	70	75	79	78	81	80	78	86	75	100	80
% Male	30	25	21	22	19	20	22	14	25	0	20
Mean age	54	54	51	54	55	51	48	49	55	61	54
Mean Baseline BMI (range) kg/m²	36 (28-68)	37 (28-68)	36 (28-53)	37 (29-57)	37 (29-58)	39 (29-45)	33 (30-37)	38 (28-63)	43 (37-49)	37 (28-59)	36 (28-56)

Regional Data: 3 month weight change outcomes & attendance rates

	Lanark	Lothian	Tayside	Ayrshire & Arran	Fife	Shetland	Forth Valley	Highland
Attenders Started >3m prior	665 1132	454 818	111 174	25 35	6 17	46 63	21 34	6 6
% Attendance	58	56	64	69	35	73	62	100
Attenders Mean weight loss (kg)	2.2 15	2.2 25	2.5 22	3.7 32	2.1 0	1.0 6.5	3.2 33	4.8 33
% >5% loss								
Started >3m prior % >5% loss	9	14	14	22	0	4.7	21	33

Regional Data: 6 month weight change outcomes & attendance rates

	Lanark	Lothian	Tayside	Ayrshire & Arran	Shetland	Forth Valley
Started >6m prior Attenders	1031 409	752 184	130 44	5 3	15 9	9 2
% Attendance	40	25	34	60	60	22
Attenders Mean weight change (kg)	3.53 33	4.32 25	3.6 41	3.0 67	2.08 44	-0.15 0
% >5% loss						
Started >6m prior % >5% loss	13	9.3	14	40	27	0

Regional Data: 12 month weight change outcomes & attendance rates

	Lanark	Lothian	Tayside
Started >6m prior	770	524	76
Attendees	174	170	16
% Attendance	23	21	21
Attendees			
Mean weight change (kg)	4.54	3.34	3.32
% >5% loss	41	34	31
Started >6m prior			
% >5% loss	9.3	9.3	6.5

Summary

This is the first large scale primary care weight management programme in the UK to show clinically effective weight reduction using a structured approach to care

www.counterweight.org

