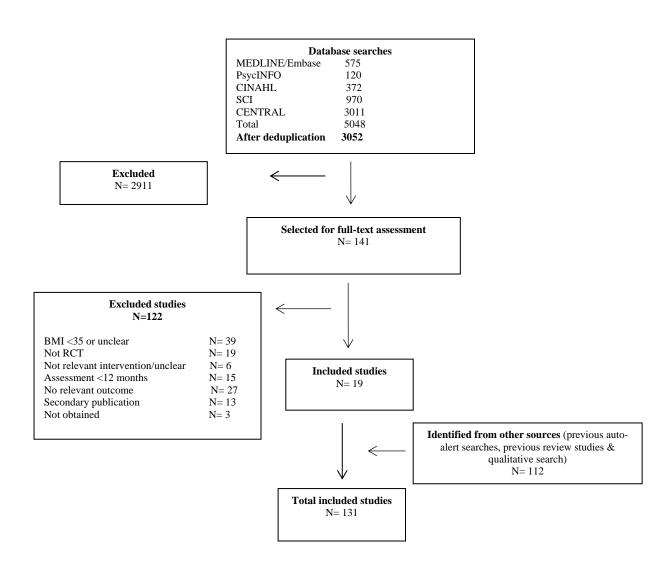
## **Supplementary File 4 - eFigures**

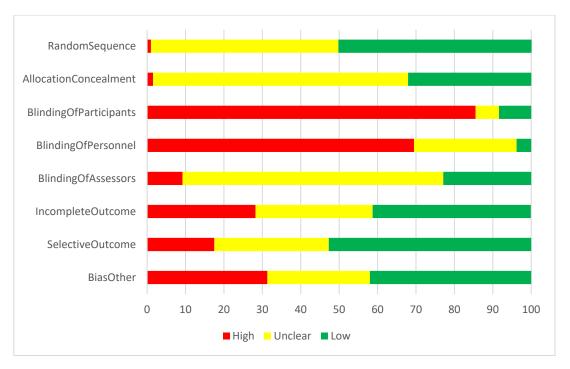
<b>E1</b>	PRISMA Flow chart	4
<b>E2</b>	Risk of bias assessment for all RCTs	5
E3	Equity assessment for all RCTs	5
<b>E4</b>	E4 Risk of bias for all VLCD RCTs	6
E5	Equity assessment for all VLCD RCTs	6
<b>E6</b>	Risk of bias assessment for randomised controlled trials of	7
	VLCD and dietary intervention versus dietary intervention	
<b>E7</b>	Equity assessments for randomised controlled trials of VLCD	7
	and dietary intervention versus dietary intervention	
E8	Risk of bias assessment of bariatric surgery RCTs	8
<b>E9</b>	Equity assessment for bariatric surgery RCTs	8
E10	Risk of bias assessment for the low CHO versus other diet	9
	RCTS	
E11	Equity assessment for the low CHO versus other diet RCTS	9
E12	Risk of bias assessment for higher protein versus lower protein	10
	RCTs	
E13	Equity assessment for higher protein versus lower protein RCTs	10
E14	Risk of bias assessment for orlistat RCTs	11
E15	Equity assessment for orlistat RCTs	11
E16	PRISMA diagram	12
E17	Risk of bias assessment for RCTs	13
E18	Risk of bias assessment for non-randomised studies. NA = not	13
	applicable	
E19	Equity assessment for all UK studies	14
E20	Flow chart of included studies	15
E21	E21 Flow chart for identification of studies	16
E22	The UKHF micro-simulation model	17

E23	Proportion of individuals with BMI ≥35 kg/m² in the simulated population, 2016-2046	18
E24	Look AHEAD cumulative disease cases avoided per 100,000	18
	individuals with BMI≥35 kg/m² over time	
E25	Look AHEAD cumulative cases avoided per 100,000 of	19
	individuals with BMI ≥35 kg/m <sup>2</sup> per disease in 2046	
E26	Look AHEAD direct healthcare costs avoided per 100,000 of	19
	individuals with a BMI ≥35 kg/m² per year (in millions)	
E27	Look AHEAD QALYs gained per 100,000 of individuals with a	20
	BMI ≥35 kg/m² per year	
E28	Proportion of individuals with BMI≥35 kg/m² in the simulated	20
	population, 2016-2046	
E29	Cumulative total disease cases avoided per 100,000 of	21
	individuals with a BMI ≥35 kg/m² over time for WMP1 and	
	VLCD added to WMP1	
E30	Cumulative cases avoided per 100,000 of individuals with a BMI	22
	≥35 kg/m² per disease in 2046 for both WMP1 and VLCD added	
	to WMP1 in the VLCD comparison	
E31	Direct healthcare costs avoided per 100,000 of individuals with a	22
	BMI $\geq$ 35 kg/m <sup>2</sup> per year for WMP1 (control) and VLCD +	
	WMP1 (intervention) compared to baseline	
E32	Cumulative QALYs gained per 100,000 of individuals with a	23
	BMI≥35 kg/m² per year for WMP1 (control) and VLCD +	
	WMP1 (intervention) compared to baseline	
E33	Proportion of individuals with BMI≥35 kg/m² in the simulated	23
	population, 2016-2046	
E34	Cumulative total disease cases avoided per 100,000 of	24
	individuals with a BMI ≥35 kg/m <sup>2</sup> over time for both WMP2	
	and the RYGB	
E35	Cumulative cases avoided per 100,000 of individuals with a BMI	25
	>35 kg/m <sup>2</sup> per disease in 2046 for both WMP2 and the RYGB	

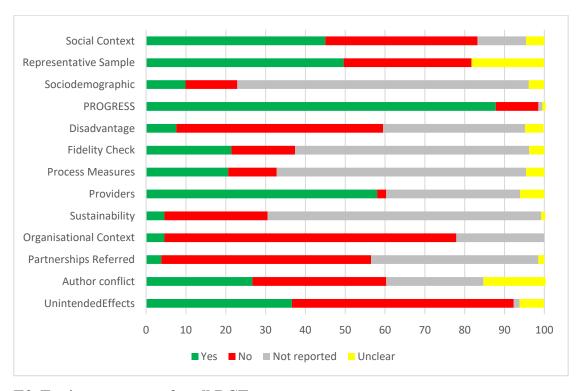
E36	Cumulative direct healthcare costs avoided per 100,000	26
	individuals with a BMI $\geq$ 35 kg/m² by year for WMPs and Roux-	
	en-Y surgery	
E37	Cumulative QALYs gained per 100,000 individuals with a	26
	BMI≥35 kg/m² per year	



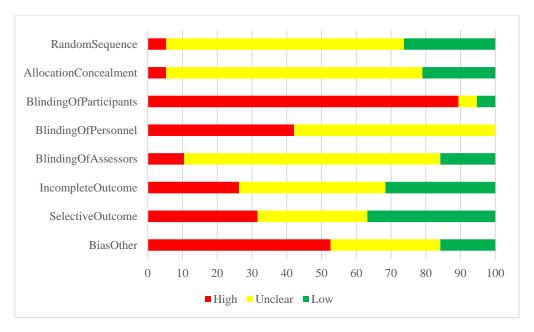
E1 PRISMA Flow chart



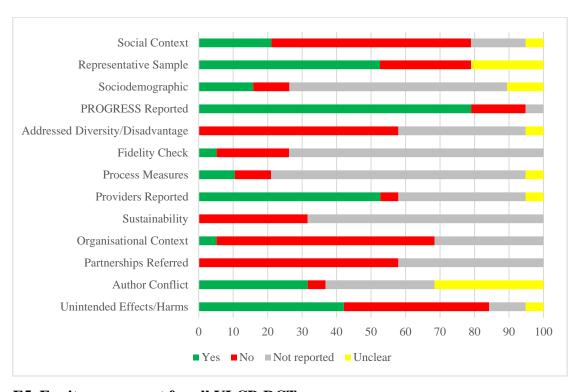
E2 Risk of bias assessment for all RCTs



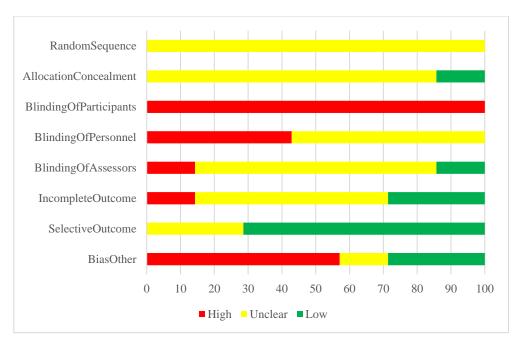
E3 Equity assessment for all RCTs



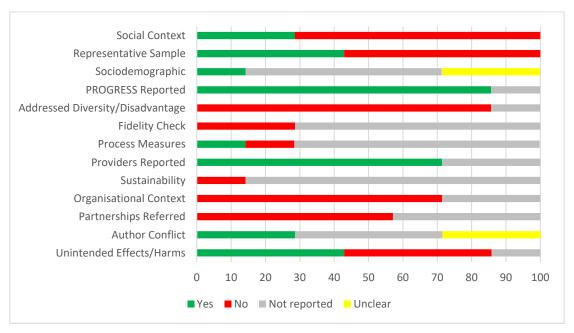
E4 Risk of bias for all VLCD RCTs



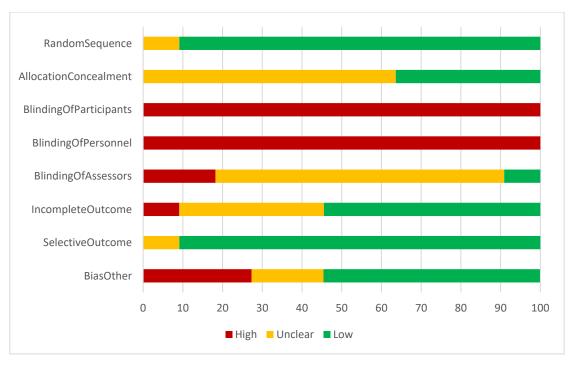
E5 Equity assessment for all VLCD RCTs



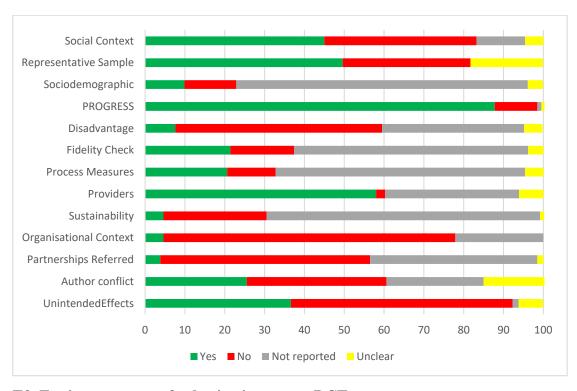
E6 Risk of bias assessment for randomised controlled trials of VLCD and dietary intervention versus dietary intervention



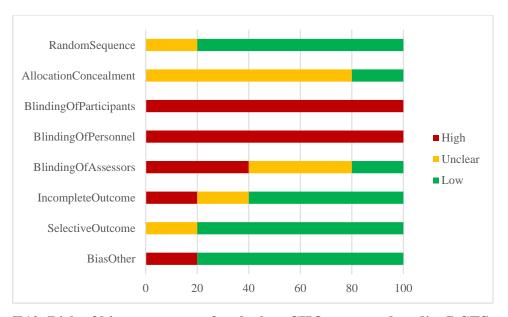
E7 Equity assessments for randomised controlled trials of VLCD and dietary intervention versus dietary intervention



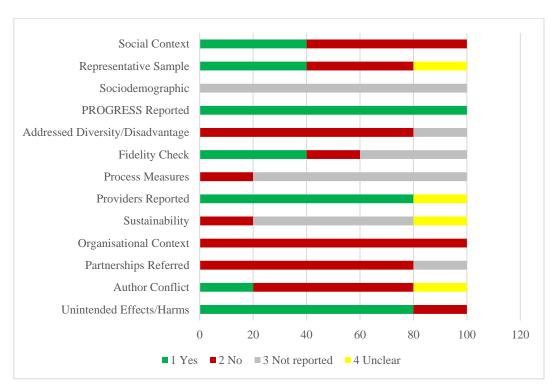
E8 Risk of bias assessment of bariatric surgery RCTs



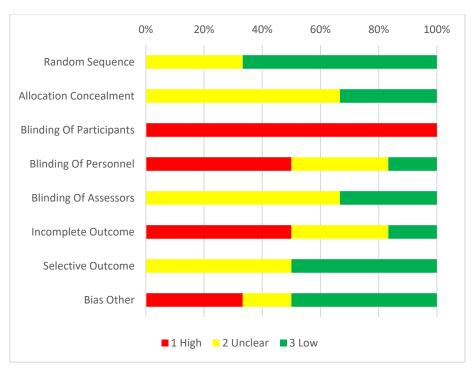
E9 Equity assessment for bariatric surgery RCTs



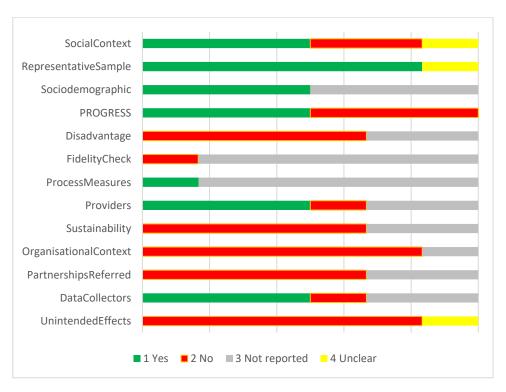
E10 Risk of bias assessment for the low CHO versus other diet RCTS



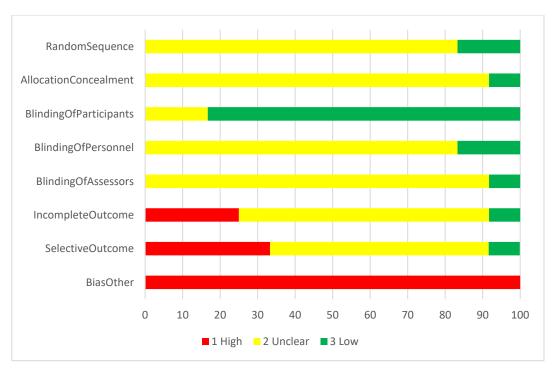
E11 Equity assessment for the low CHO versus other diet RCTS



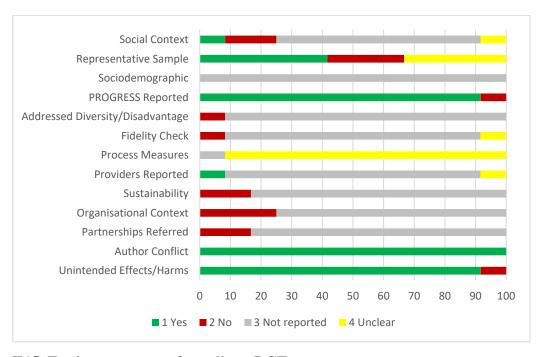
E12 Risk of bias assessment for higher protein versus lower protein RCTs



E13 Equity assessment for higher protein versus lower protein RCTs

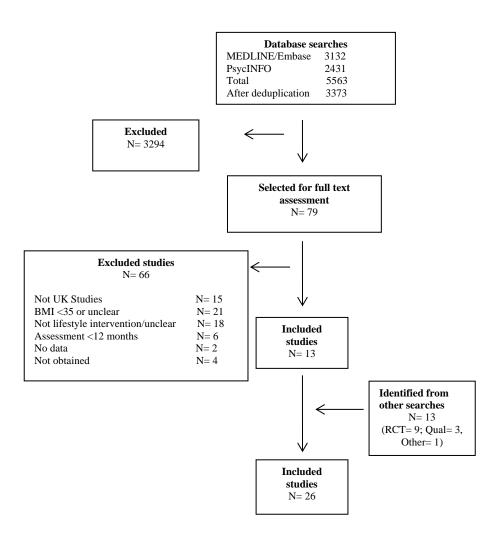


E14 Risk of bias assessment for orlistat RCTs

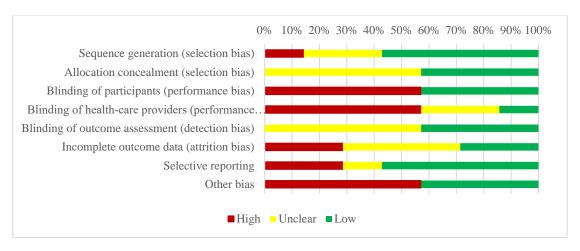


E15 Equity assessment for orlistat RCTs

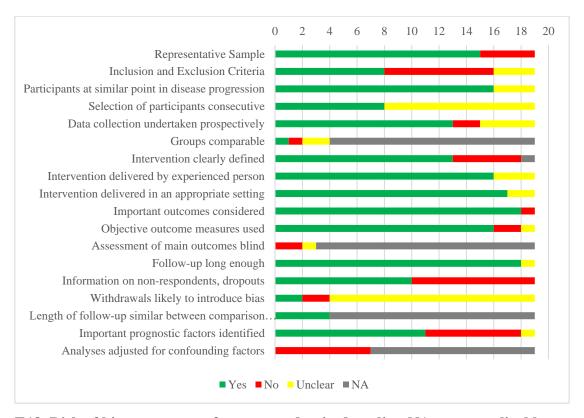
11



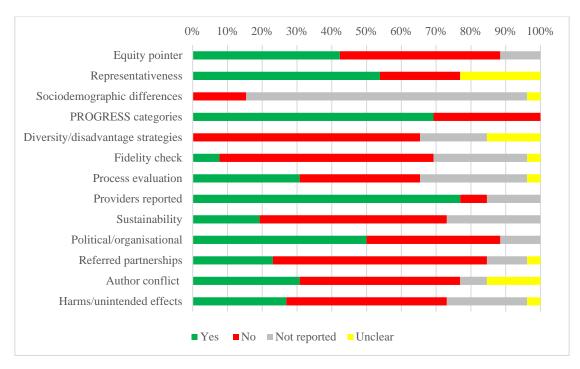
E16 PRISMA diagram



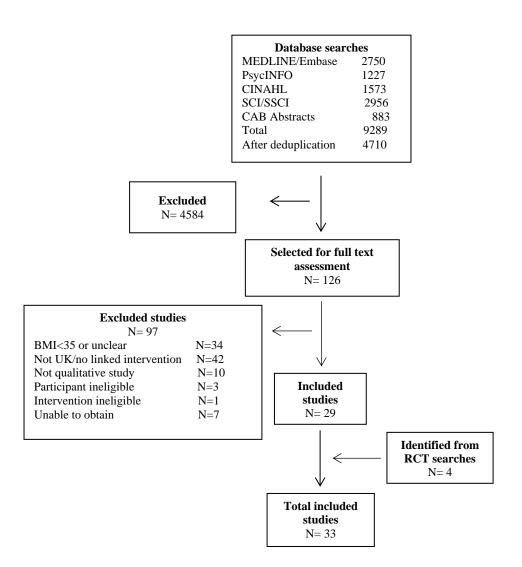
E17 Risk of bias assessment for RCTs



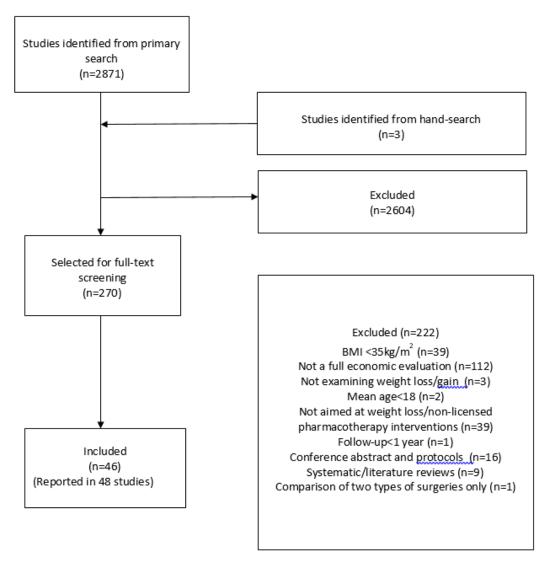
E18 Risk of bias assessment for non-randomised studies. NA = not applicable



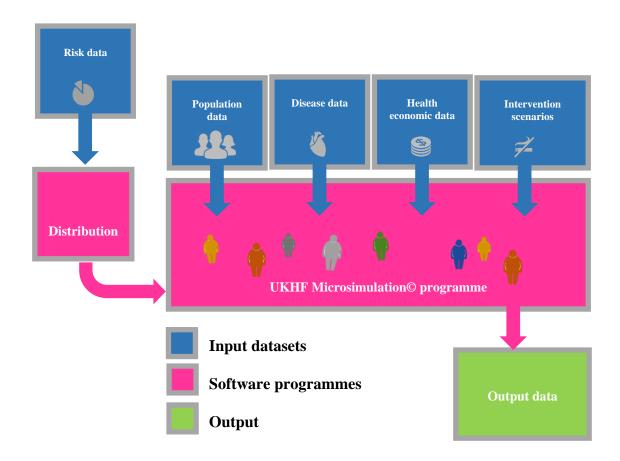
E19 Equity assessment for all UK studies



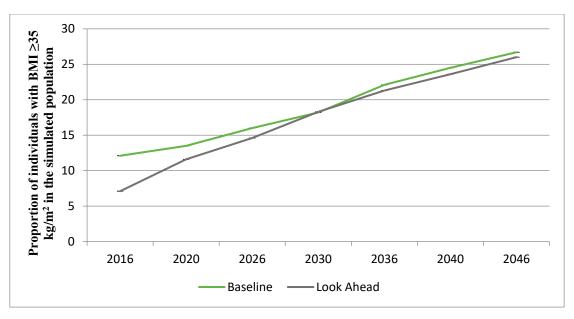
E20 Flow chart of included studies



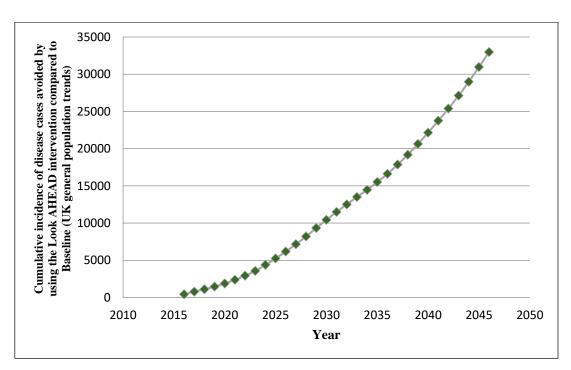
**E21** Flow chart for identification of studies



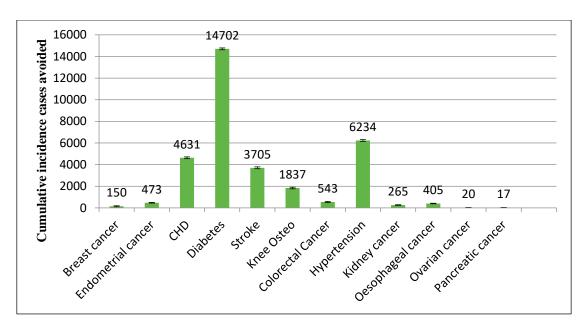
**E22** The UKHF micro-simulation model



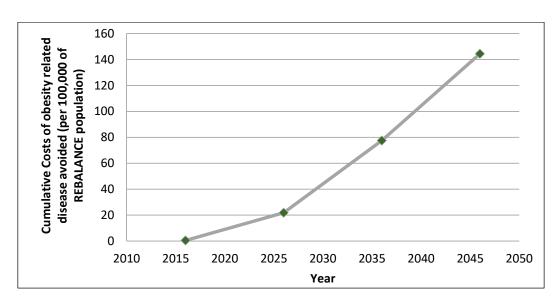
E23 Proportion of individuals with BMI  $\geq$ 35 kg/m² in the simulated population, 2016-2046



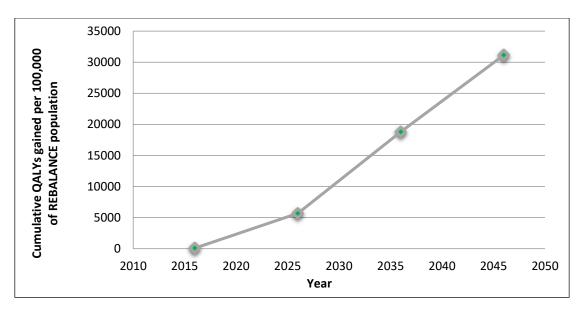
E24 Look AHEAD cumulative disease cases avoided per 100,000 individuals with BMI≥35 kg/m² over time



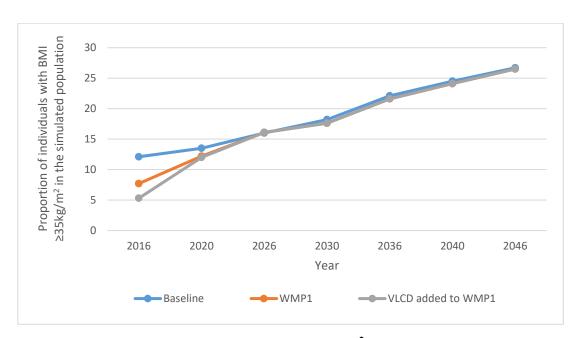
E25 Look AHEAD cumulative cases avoided per 100,000 of individuals with BMI ≥35 kg/m² per disease in 2046



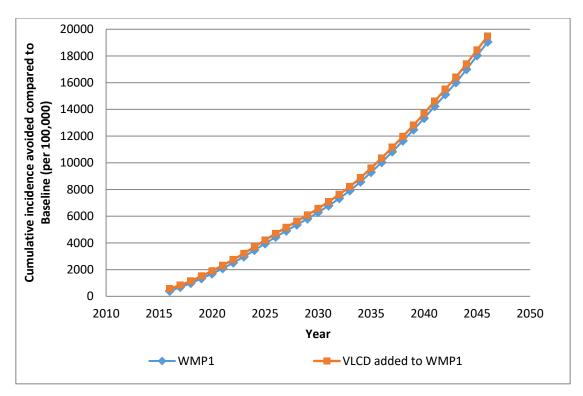
E26 Look AHEAD direct healthcare costs avoided per 100,000 of individuals with a BMI  $\geq$ 35 kg/m<sup>2</sup> per year (in millions)



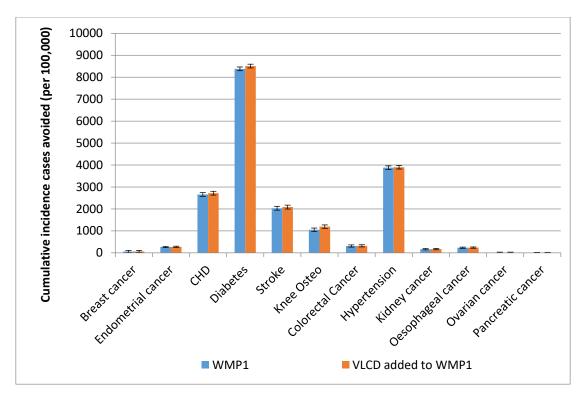
E27 Look AHEAD QALYs gained per 100,000 of individuals with a BMI  $\geq$ 35 kg/m<sup>2</sup> per year



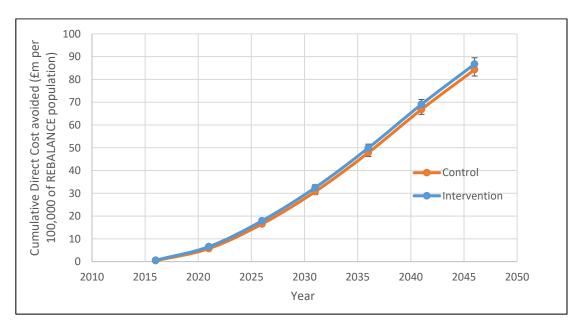
E28 Proportion of individuals with BMI $\geq$ 35 kg/m² in the simulated population, 2016-2046



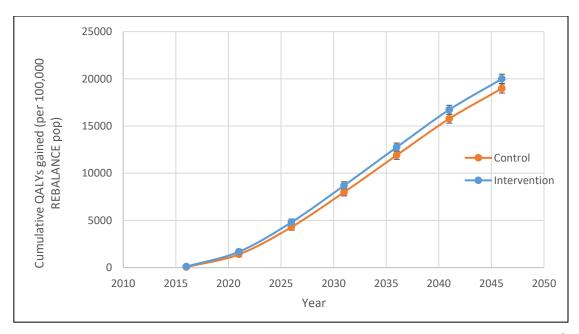
E29 Cumulative total disease cases avoided per 100,000 of individuals with a BMI  $\geq$ 35 kg/m² over time for WMP1 and VLCD added to WMP1



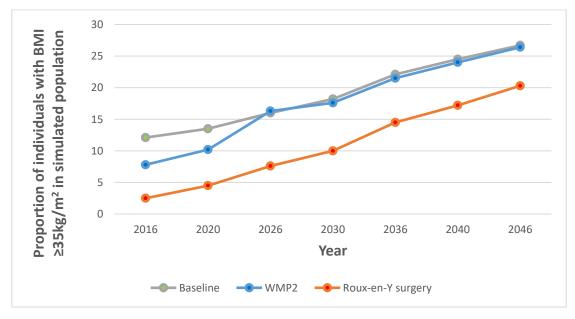
E30 Cumulative cases avoided per 100,000 of individuals with a BMI  $\geq$ 35 kg/m<sup>2</sup> per disease in 2046 for both WMP1 and VLCD added to WMP1 in the VLCD comparison



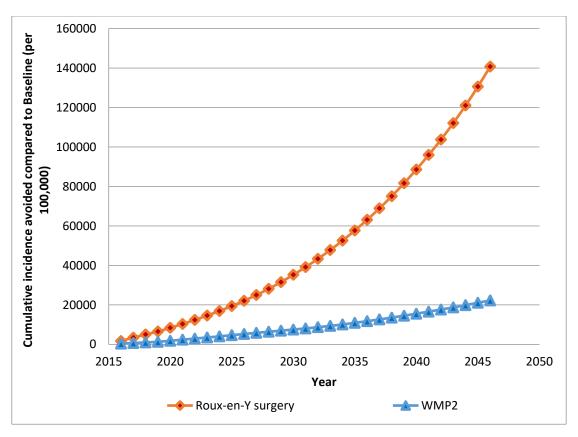
E31 Direct healthcare costs avoided per 100,000 of individuals with a BMI  $\geq$ 35 kg/m² per year for WMP1 (control) and VLCD + WMP1 (intervention) compared to baseline



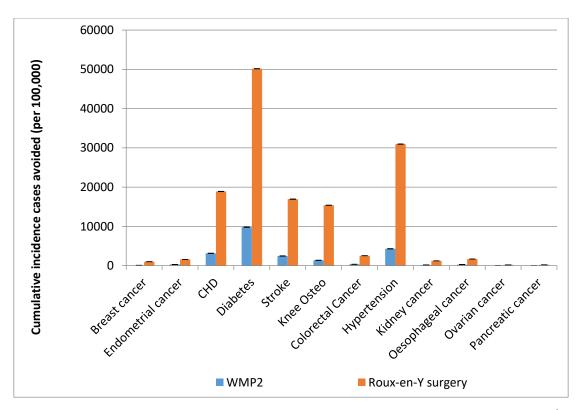
E32 Cumulative QALYs gained per 100,000 of individuals with a BMI≥35 kg/m² per year for WMP1 (control) and VLCD + WMP1 (intervention) compared to baseline



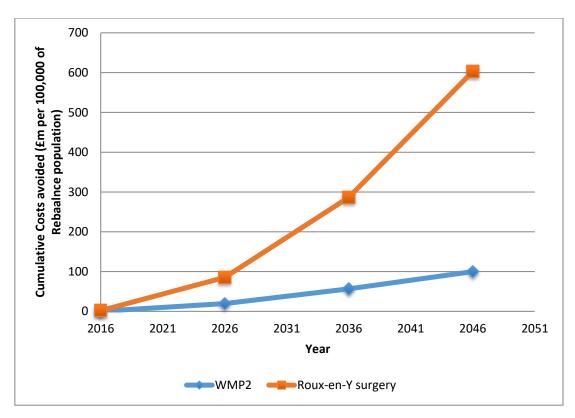
E33 Proportion of individuals with BMI≥35 kg/m² in the simulated population, 2016-2046



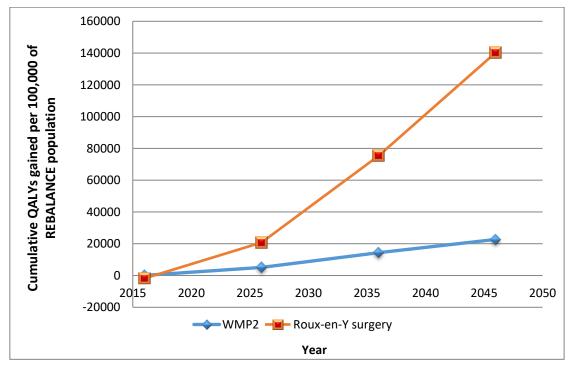
E34 Cumulative total disease cases avoided per 100,000 of individuals with a BMI  $\geq$ 35 kg/m<sup>2</sup> over time for both WMP2 and the RYGB



E35 Cumulative cases avoided per 100,000 of individuals with a BMI  $\geq$ 35 kg/m² per disease in 2046 for both WMP2 and the RYGB



E36 Cumulative direct healthcare costs avoided per 100,000 individuals with a BMI  $\geq$ 35 kg/m² by year for WMPs and Roux-en-Y surgery



E37 Cumulative QALYs gained per 100,000 individuals with a BMI≥35 kg/m² per year