

**Table 3 (Supplementary File): Impact of changing assumptions (one-way sensitivity analyses) on cost effectiveness of brief advice**

<b>Parameter</b>	<b>Incremental cost (£)</b>	<b>Incremental effect (QALY)</b>	<b>ICER (£)</b>
Base case result	£806,809	466	£1,730
<i>Effectiveness of brief advice-RR (base case=1.42 ) [11]</i>			
1.10	£914,869	115	£7,960
1.20	£880,294	227	£3,871
1.26	£859,905	294	£2,928
1.30	£846,458	337	£2,508
1.50	£780,942	551	£1,418
1.71	£715,133	765	£935
1.75	£702,933	804	£874
2.00	£629,029	1045	£602
2.2	£572,715	1228	£466
<i>RR for developing disease conditions (base case=protective effects persists up to 10 years) [16-18]</i>			
Protective effects persist over lifetime (applying the same RR used for the 10 years for the rest of the years)	-£420,700	731	dominant
Protective effects persist just for a year (apply RR to first year( rather than 10 years) and the remaining years take RR =1)	£942,129	439	£2147
<i>Start-up age for the cohort (base case=33 years)[11]</i>			

<b>Parameter</b>	<b>Incremental cost (£)</b>	<b>Incremental effect (QALY)</b>	<b>ICER (£)</b>
50 years	£243,117	583	£417
53 years	£60,458	629	£96
54 years	-£2,153	644	dominant
60 years	-£257,983	681	dominant
<i>Discount rate at 1.5% for both QALYs and costs (Base case=3.5%) [23]</i>	£747,345	491	£1,522
<i>Cost of intervention (base case=£9.50 per person) [15]</i>			
Recruitment to brief advice via disease register (i.e. cost of intervention is £57.45 per person)	£5,602,005	466	£12,010
Brief advice delivered by health care assistants (i.e. cost of intervention is £8.03 per person)	£743,831	466	£1,595
Brief advice lasting 5 mins and delivered by nurse (i.e. cost of intervention is £3.58 per person)*	£214,609	466	£406
Brief advice lasting 20 mins and delivered by GP (i.e. cost of intervention is £51 per person)*	£4,956,609	466	£10,627
<i>Short-term mental health gain [22]</i>			
<i>If mental health gain was reduced from 0.07 to:</i>			
0.06	£806,809	394	£2,050
0.04	£806,809	272	£2,966

<b>Parameter</b>	<b>Incremental cost (£)</b>	<b>Incremental effect (QALY)</b>	<b>ICER (£)</b>
0.02	£806,809	150	£5,363
0.01	£806,809	90	£8,997
0	£806,809	20	£27,913
<i>If the period that mental health gain lasted for is increased from 1 year to:</i>			
2 years	£806,809	889	£908
5 years	£806,809	2,070	£390

\*Data was based on Personal Social Services Research Unit [24]