

# UNIVERSITY OF BIRMINGHAM AND YORK HEALTH ECONOMICS CONSORTIUM

(National Collaborating Centre for Indicator Development)

## Health economic report on piloted indicators

**Pilot QOF indicator:** The percentage of patients with a new diagnosis of anxiety in the preceding QOF year whose notes record an offer of referral for psychological treatment within three months of the diagnosis.

**Potential output:** Recommendations for NICE Menu

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## Introduction and economic rationale for the indicator

This briefing paper presents a cost-effectiveness analysis for the following potential indicator from pilot 9 of the NICE Quality and Outcomes Framework (QOF) indicator development programme:

***The percentage of patients with a new diagnosis of anxiety in the preceding QOF year whose notes record an offer of referral for psychological treatment within three months of the diagnosis.***

A very similar indicator has also been piloted in relation to depression. The cost-effectiveness evidence is being presented separately so that the NICE Advisory Committee on Indicator Development can consider each indicator at face value.

The economic analysis is based on evidence of delivery costs and evidence of benefits expressed as quality-adjusted life years (QALYs). Additionally, the economic analysis takes account of potential QOF payments based on a range of available QOF points and a range of levels of achievement.

The possible range of QOF points for this analysis was agreed with the economic subgroup of the NICE Advisory Committee on Indicator Development prior to the analysis being undertaken.

A net benefit approach is used whereby an indicator is considered cost-effective when net benefit is greater than zero for any given level of achievement and available QOF points:

$$\text{Net benefit} = \text{monetised benefit} - \text{delivery cost} - \text{QOF payment}.$$

The benefits and costs are reported per patient and the QOF payments per practice in the report, but for analysis purposes, these are all aggregated to the national (England) level to ensure consistency.

For this indicator, the net benefit analysis is applied with a five year horizon at baseline.

The objective is to evaluate whether the proposed indicator represents a cost-effective use of NHS resources. This report provides the Advisory Committee with information on whether the indicator is economically justifiable, and will inform the Committee's decision making on recommendations about the indicator.

The indicator is not specific on the nature of anxiety disorders, so the analysis presented here assumes that it refers to patients with the following disorders specifically mentioned in the NICE Quality Standard on anxiety disorders and based on the NICE Guideline on generalised anxiety disorder and panic disorder (CG113) [1,2]:

- Generalised anxiety disorder (GAD);
- Post-traumatic stress disorder (PTSD);
- Panic disorder;
- Obsessive-compulsive disorder (OCD);
- Social anxiety disorder.

Whilst there is limited data available in the UK, across Europe the total cost of anxiety disorders in terms of healthcare resource utilisation and lost productivity was estimated to be €41 billion in 2004 [3]

The NICE guidelines for each of the above conditions recommends psychological therapies as cost effective treatments that should be offered to patients, although the treatments offered can vary by condition and they do not all necessarily have to be offered within three months.

This potential QOF indicator would incentivise referrals for psychological treatment within 3 months of anxiety being diagnosed. While psychological treatment is recommended by the NICE guidelines (and therefore cost-effectiveness will have been taken into account), this report considers the cost-effectiveness of this intervention when QOF achievement payments are also taken into account.

Summary of assumptions:

- Three-quarters of people with newly diagnosed anxiety who are referred for psychological treatment accept the referral;
- All patients accepting a referral receive individual cognitive therapy which is amongst the most expensive of the initial psychological therapies recommended for anxiety;
- Patient benefit is only assumed for those with social anxiety disorder. 37.5% of patients with anxiety have social anxiety disorder.

## **Evidence on Delivery Cost of Indicator**

In establishing the cost of the indicator consideration needs to be given to the costs of psychological treatment that is recommended as first line treatment for each of the separate anxiety conditions. To carry out a thorough costing the costs would then need to be weighted by the proportion of patients with anxiety with each condition to give a total per patient cost for the indicator.

The weightings for each condition are drawn from the breakdown of total numbers of people with anxiety disorder, by type, given in the NICE guideline on social anxiety disorder [4]:

- Social anxiety disorder: 37.5%;
- GAD: 18.8%;
- PTSD 21.9%;
- Panic disorder 15.5%;
- OCD 6.3%.

It is recognised that there is overlap in patients with these conditions. However, the complexity in adjusting proportions to reflect this is beyond the scope of this analysis.

Recognising that social anxiety disorder is the most common disorder, a conservative approach has been assumed that different psychological treatments offered for all types of anxiety are consistent with the costs of treatment for social anxiety. The initial treatment offered for social anxiety disorder is individual cognitive therapy (CT), which is expensive compared with recommended therapies for other types of anxiety disorder [4].

The NICE guideline on social anxiety disorder (CG159) [4] provides an economic model of a range of psychological and pharmacological therapies. The recommendation in the social anxiety disorder guideline is for individual cognitive therapy using the Clark and Wells model. The mean cost of this therapy was £2,172 per patient, including a GP appointment. This ignores reductions in health and social care costs generated through the treatment being effective and so is a conservative estimate of the true net cost of this intervention. The costs are from 2012 and so have been inflated by 10%, a conservative assumption, to reflect current costs. This gives a cost per patient for psychological intervention in those patients treated for anxiety of £2,389. It has been assumed that 75% of all patients offered treatment will accept a referral giving a cost per patient of £1,791. It is recognised that this is a conservative approach to costing the intervention as it is assumed that all people diagnosed with anxiety would be referred to the more expensive form of treatment.

Sensitivity analysis examined the impact of the costs of the indicator per patient being 50% higher and lower than assumed at baseline.

Baseline costs

- The baseline cost of the indicator is £1,791;
- This cost is based upon 75% of patients accepting a referral and represents the cost of individual cognitive therapy (i.e. £2,389 x 75%);
- The cost is significantly higher than the costs of average first line therapy across patients with other forms of anxiety, where group or computerised CBT is recommended as first line therapy.

**Evidence on the Benefits of the Indicator**

In terms of the benefits of the indicator, the focus was on patients with social anxiety disorder receiving individual CT.

The model in the NICE guideline on social anxiety disorder [4] suggests the QALY gain over doing nothing for individual cognitive therapy using the Clark and Wills model is 0.381 over a five year time horizon. To produce a conservative analysis it has been assumed that the benefit to patients with other anxiety disorders is zero. As 37.5% of patients have social anxiety disorder this means the QALY gain per patient with any form of anxiety is assumed to be 0.143. Assuming that 75% of patients accept a referral, the QALY gain per patient is reduced to 0.107.

This is a conservative estimate as benefits from other therapies for other conditions have been excluded. For example, computerised CBT for generalised anxiety disorder (GAD) was found to generate a QALY gain of 0.04 per patient in NICE model for the guideline for GAD. [2]

Sensitivity analysis examined QALY gains 50% higher and lower than those assumed in the base case.

Baseline benefits

- The baseline QALY gain for the indicator was 0.107;
- The benefits arise from QALY gains from the effectiveness of individual CT for social anxiety disorder only but ignore any benefits from psychological treatment for any other anxiety conditions.

## **Eligible Population**

The eligible population (i.e. people who would make up the indicator denominator) are all patients 18 and over, with a new diagnosis of anxiety in the preceding QOF year, less any patients that for clinical reasons have been exception reported from the indicator denominator.

Data aggregated across 25 pilot practices showed the denominator, after exception reporting, equalled 0.97% of the total population in those 25 practices. As a sample of the total population in the UK this figure was used in the baseline analysis.

Sensitivity analysis examined a value 0.25% high and lower than this value i.e. 0.72% and 1.22%.

## **Baseline Level of Achievement**

Pilot 9 data showed the indicator was achieved on average for 4.0% of eligible patients at the beginning of the pilot. Pilot achievement may not reflect a 12 month level of achievement as the pilot only examines activity over a short time period (three months).



## Population

In the base case, the economic analysis was based on the total practice population registered with practices in England, that is, 7,962 practices with an average practice size of 7,034 [5].

Table 1: Practice information for UK countries, 2013

Country	Number of practices	Number of patients
England	7,962	7,034
Scotland	988	5,622
Wales	470	6,762
Northern Ireland	351	5,467

## QOF Payments

Each QOF point is assumed to result in a payment of £160.12. This is value per point in England during 2015/16 (source: NHS Employers).

## Value of a QALY

The expected QALY gain from implementing this indicator was costed at £20,000 per QALY. This is based on the bottom of the range £20,000 to £30,000, below which NICE generally considers an intervention to be cost-effective.

So if we assume a QALY gain of 0.107 per new diagnosis over an 18 month period, the value of this QALY gain is £2,140 (0.107 x £20,000).

## **QOF Points**

The economic analysis considers the cost-effectiveness of incentivising the proposed activity over a range of QOF points.

In the base case analysis, for the proposed indicator 5 points were allocated. There are no similar indicators in the QOF menu so 5 points is an assumption. This is in line with the similar pilot indicator for depression.

Sensitivity analysis explored the agreed lower and upper bounds of 2 and 10 points respectively, as agreed with the economic subgroup of the Advisory Committee on Indicator Development.

## **Thresholds**

Although piloting indicated that achieving the indicator is difficult with a low level of achievement at baseline, a threshold range of 45% to 80% was used, as this is consistent with other indicators in the QOF.

## **Results (assuming a value per QALY of £20,000)**

Under the baseline assumptions of incremental delivery cost (£1,791), incremental benefit (0.107 QALYs with a value of £20,000 per QALY) and eligible population (0.97%), the net benefit analysis suggests that the indicator is highly cost-effective, with QOF payments at the base case of 5 points justifiable on economic grounds (Appendix A). Under the conservative modelling assumptions in the base case, the value of the increase in quality of life and reduction in healthcare use offered by referral for psychosocial or psychological treatment for people with anxiety outweighs the additional costs of referral and treatment.

This result is sensitive to 50% increases in cost (Appendix B) and a 50% reduction in QALY gains per patient (Appendix C) where in both cases the indicator ceases to be justifiable even at 2 points. The results are insensitive to changes to the eligible population (Appendix D).

The indicator continues to be cost effective at the base case at 85% achievement up to 120 points, or at 5 points if:

- The value per QALY is reduced 15.6% to £16,874;
- Intervention costs per patient increased by 18.6% to £2,125;
- The QALY gain per patient reduces by 15.8% to 0.09;
- The eligible population reduces by 97.0% to 0.04%.

In addition, the indicator stopped being cost effective at 5 points if the percentage who accepted referral fell from 75% to 3%.

## **Discussion and issues for consideration by the Committee**

Under the baseline assumptions in this analysis there is economic evidence that the 5 points suggested for the indicator are cost-effective. This still holds true even if only just over 3% of patients offered referral for treatment accept it.

The assumptions underpinning this conclusion were highly conservative:

- Costs used were for the most expensive first line psychological therapy that is recommended by NICE for anxiety disorders;
- Cost savings from reduced demand on health and social care resources through more effective treatment were ignored;
- Benefits from therapy were only assumed to accrue to the 37.5% of patients with social anxiety disorder.

Given these conservative assumptions there are strong grounds to recommend the indicator at 5 points. There is scope within the economic evidence to offer more than 5 points if the incentive at this points level is thought to be too low.

This report sets out some issues for consideration by the Committee:

- The costs of the indicator are presented conservatively in that a high cost has been used for individual cognitive therapy. Sensitivity analysis was used to explore changes in the costs.
- The benefits have been understated as they only relate to people with social anxiety disorder. The overstatement of costs and understatement of benefits tests the cost-effectiveness of the indicator incentive and implies that the indicator would be even more cost-effective with less conservative assumptions.
- The indicator only incentivises the offer of a referral rather than the acceptance of a referral. There may be a question as to whether the indicator would incentivise the diagnosis of anxiety, or whether there would be a disincentive, if there is limited access to CBT in particular areas.

## **References**

- [1] National Institute for Health and Care Excellence. Quality Standard 53: Anxiety Disorders. 2014
- [2] National Institute for Health and Care Excellence. Clinical Guideline 113: Generalised anxiety disorder and panic disorder (with or without agoraphobia) in adults: Management in primary, secondary and community care. 2011
- [3] Andlin-Sobocki, P. & Wittchen, H.-U. (2005) Cost of anxiety disorders in Europe. *European Journal of Neurology*, 12 (Suppl. 1), 39–44.

[4] National Institute for Health and Care Excellence. Clinical Guideline 159: Social anxiety disorder: recognition, assessment and treatment. 2013

[5] General practice trends in the UK. NHS Information Centre. Published 31 October 2014.

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## Appendix A: Net benefit analysis - Base case analysis

### Pilot 2023 Referral for psychological intervention 2023 Anxiety

Value per point achieved	£160.12	Societal value of a QALY	£20,000
Number of practices	7,962		
Mean practice population	7,034		
Minimum threshold	45%	Baseline achievement	
Maximum threshold	80%	Eligible population (mean % of practice population)	0.97%
		Baseline achievement (mean % of eligible patients)	4.0%
		Cost-effectiveness estimates	
		Incremental cost (£ per patient)	£1,791.00
		Incremental effect (QALYs per patient)	0.1070

Points	2	3	4	5	6	7	8	9	10
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National totals											
Expected Achievement	QOF payments (£000s)										Change in treatment cost (£)
30%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£252,967,778
35%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£301,615,427
40%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£350,263,077
45%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£398,910,726
50%	£364	£546	£729	£911	£1,093	£1,275	£1,457	£1,639	£1,821	£1,821	£447,558,376
55%	£729	£1,093	£1,457	£1,821	£2,186	£2,550	£2,914	£3,278	£3,643	£3,643	£496,206,025
60%	£1,093	£1,639	£2,186	£2,732	£3,278	£3,825	£4,371	£4,917	£5,464	£5,464	£544,853,675
65%	£1,457	£2,186	£2,914	£3,643	£4,371	£5,100	£5,828	£6,557	£7,285	£7,285	£593,501,324
70%	£1,821	£2,732	£3,643	£4,553	£5,464	£6,374	£7,285	£8,196	£9,106	£9,106	£642,148,974
75%	£2,186	£3,278	£4,371	£5,464	£6,557	£7,649	£8,742	£9,835	£10,928	£10,928	£690,796,623
80%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£12,749	£739,444,273
85%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£12,749	£788,091,922
90%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£12,749	£836,739,572
95%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£12,749	£885,387,222
100%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£12,749	£934,034,871
Net Benefit (£000s)											
30%	£49,294	£49,294	£49,294	£49,294	£49,294	£49,294	£49,294	£49,294	£49,294	£49,294	
35%	£58,774	£58,774	£58,774	£58,774	£58,774	£58,774	£58,774	£58,774	£58,774	£58,774	
40%	£68,253	£68,253	£68,253	£68,253	£68,253	£68,253	£68,253	£68,253	£68,253	£68,253	
45%	£77,733	£77,733	£77,733	£77,733	£77,733	£77,733	£77,733	£77,733	£77,733	£77,733	
50%	£86,848	£86,666	£86,484	£86,302	£86,120	£85,938	£85,756	£85,574	£85,391	£85,391	
55%	£95,964	£95,600	£95,235	£94,871	£94,507	£94,143	£93,778	£93,414	£93,050	£93,050	
60%	£105,079	£104,533	£103,986	£103,440	£102,894	£102,347	£101,801	£101,255	£100,708	£100,708	
65%	£114,195	£113,466	£112,738	£112,009	£111,281	£110,552	£109,824	£109,095	£108,367	£108,367	
70%	£123,310	£122,399	£121,489	£120,578	£119,667	£118,757	£117,846	£116,936	£116,025	£116,025	
75%	£132,425	£131,333	£130,240	£129,147	£128,054	£126,962	£125,869	£124,776	£123,683	£123,683	
80%	£141,541	£140,266	£138,991	£137,716	£136,441	£135,166	£133,891	£132,617	£131,342	£131,342	
85%	£151,020	£149,745	£148,471	£147,196	£145,921	£144,646	£143,371	£142,096	£140,821	£140,821	
90%	£160,500	£159,225	£157,950	£156,675	£155,401	£154,126	£152,851	£151,576	£150,301	£150,301	
95%	£169,980	£168,705	£167,430	£166,155	£164,880	£163,605	£162,330	£161,056	£159,781	£159,781	
100%	£179,459	£178,184	£176,910	£175,635	£174,360	£173,085	£171,810	£170,535	£169,260	£169,260	

Where the net benefit produces a non-negative outcome then it is cost effective for the NHS to adopt the indicator.

When this is the case, the cells are highlighted with a yellow background.

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## Appendix B: Net benefit analysis - Costs increased by 50%

### Pilot 2021 Referral for psychological intervention 2021 Anxiety

Value per point achieved	£160.12	Societal value of a QALY	£20,000
Number of practices	7,962		
Mean practice population	7,034		
Minimum threshold	45%	Baseline achievement	
Maximum threshold	80%	Eligible population (mean % of practice population)	0.97%
		Baseline achievement (mean % of eligible patients)	4.0%
		Cost-effectiveness estimates	
		Incremental cost (£ per patient)	£2,686.50
		Incremental effect (QALYs per patient)	0.1070

Points	2	3	4	5	6	7	8	9	10		
National totals											
Expected Achievement	QOF payments (£000s)									Change in treatment cost (£)	Change in QALYs
30%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£379,451,666	15113
35%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£452,423,141	18019
40%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£525,394,615	20926
45%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£598,366,089	23832
50%	£364	£546	£729	£911	£1,093	£1,275	£1,457	£1,639	£1,821	£671,337,564	26739
55%	£729	£1,093	£1,457	£1,821	£2,186	£2,550	£2,914	£3,278	£3,643	£744,309,038	29645
60%	£1,093	£1,639	£2,186	£2,732	£3,278	£3,825	£4,371	£4,917	£5,464	£817,280,512	32551
65%	£1,457	£2,186	£2,914	£3,643	£4,371	£5,100	£5,828	£6,557	£7,285	£890,251,986	35458
70%	£1,821	£2,732	£3,643	£4,553	£5,464	£6,374	£7,285	£8,196	£9,106	£963,223,461	38364
75%	£2,186	£3,278	£4,371	£5,464	£6,557	£7,649	£8,742	£9,835	£10,928	£1,036,194,935	41270
80%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£1,109,166,409	44177
85%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£1,182,137,884	47083
90%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£1,255,109,358	49989
95%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£1,328,080,832	52896
100%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£1,401,052,307	55802
Net Benefit (£000s)											
30%	£-77,190	£-77,190	£-77,190	£-77,190	£-77,190	£-77,190	£-77,190	£-77,190	£-77,190		
35%	£-92,034	£-92,034	£-92,034	£-92,034	£-92,034	£-92,034	£-92,034	£-92,034	£-92,034		
40%	£-106,878	£-106,878	£-106,878	£-106,878	£-106,878	£-106,878	£-106,878	£-106,878	£-106,878		
45%	£-121,722	£-121,722	£-121,722	£-121,722	£-121,722	£-121,722	£-121,722	£-121,722	£-121,722		
50%	£-136,931	£-137,113	£-137,295	£-137,477	£-137,659	£-137,841	£-138,024	£-138,206	£-138,388		
55%	£-152,139	£-152,503	£-152,868	£-153,232	£-153,596	£-153,960	£-154,325	£-154,689	£-155,053		
60%	£-167,348	£-167,894	£-168,440	£-168,987	£-169,533	£-170,080	£-170,626	£-171,172	£-171,719		
65%	£-182,556	£-183,285	£-184,013	£-184,742	£-185,470	£-186,199	£-186,927	£-187,656	£-188,384		
70%	£-197,765	£-198,675	£-199,586	£-200,496	£-201,407	£-202,318	£-203,228	£-204,139	£-205,050		
75%	£-212,973	£-214,066	£-215,158	£-216,251	£-217,344	£-218,437	£-219,529	£-220,622	£-221,715		
80%	£-228,181	£-229,456	£-230,731	£-232,006	£-233,281	£-234,556	£-235,831	£-237,106	£-238,380		
85%	£-243,026	£-244,300	£-245,575	£-246,850	£-248,125	£-249,400	£-250,675	£-251,950	£-253,225		
90%	£-257,870	£-259,145	£-260,420	£-261,694	£-262,969	£-264,244	£-265,519	£-266,794	£-268,069		
95%	£-272,714	£-273,989	£-275,264	£-276,539	£-277,813	£-279,088	£-280,363	£-281,638	£-282,913		
100%	£-287,558	£-288,833	£-290,108	£-291,383	£-292,658	£-293,933	£-295,207	£-296,482	£-297,757		

Where the net benefit produces a non-negative outcome then it is cost effective for the NHS to adopt the indicator.

When this is the case, the cells are highlighted with a yellow background.

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## Appendix C: Net benefit analysis – QALY benefit decreased by 50%

### Pilot 2023 Referral for psychological intervention 2023 Anxiety

Value per point achieved	£160.12	Societal value of a QALY	£20,000
Number of practices	7,962		
Mean practice population	7,034		
Minimum threshold	45%	Baseline achievement	
Maximum threshold	80%	Eligible population (mean % of practice population)	0.97%
		Baseline achievement (mean % of eligible patients)	4.0%
		Cost-effectiveness estimates	
		Incremental cost (£ per patient)	£1,791.00
		Incremental effect (QALYs per patient)	0.0535

Points	2	3	4	5	6	7	8	9	10		
National totals											
Expected Achievement	QOF payments (£000s)									Change in treatment cost (£)	Change in QALYs
30%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£252,967,778	7557
35%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£301,615,427	9010
40%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£350,263,077	10463
45%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£398,910,726	11916
50%	£364	£546	£729	£911	£1,093	£1,275	£1,457	£1,639	£1,821	£447,558,376	13369
55%	£729	£1,093	£1,457	£1,821	£2,186	£2,550	£2,914	£3,278	£3,643	£496,206,025	14822
60%	£1,093	£1,639	£2,186	£2,732	£3,278	£3,825	£4,371	£4,917	£5,464	£544,853,675	16276
65%	£1,457	£2,186	£2,914	£3,643	£4,371	£5,100	£5,828	£6,557	£7,285	£593,501,324	17729
70%	£1,821	£2,732	£3,643	£4,553	£5,464	£6,374	£7,285	£8,196	£9,106	£642,148,974	19182
75%	£2,186	£3,278	£4,371	£5,464	£6,557	£7,649	£8,742	£9,835	£10,928	£690,796,623	20635
80%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£739,444,273	22088
85%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£788,091,922	23542
90%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£836,739,572	24995
95%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£885,387,222	26448
100%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£934,034,871	27901
Net Benefit (£000s)											
30%	£-101,837	£-101,837	£-101,837	£-101,837	£-101,837	£-101,837	£-101,837	£-101,837	£-101,837		
35%	£-121,421	£-121,421	£-121,421	£-121,421	£-121,421	£-121,421	£-121,421	£-121,421	£-121,421		
40%	£-141,005	£-141,005	£-141,005	£-141,005	£-141,005	£-141,005	£-141,005	£-141,005	£-141,005		
45%	£-160,589	£-160,589	£-160,589	£-160,589	£-160,589	£-160,589	£-160,589	£-160,589	£-160,589		
50%	£-180,537	£-180,719	£-180,901	£-181,083	£-181,266	£-181,448	£-181,630	£-181,812	£-181,994		
55%	£-200,485	£-200,850	£-201,214	£-201,578	£-201,942	£-202,307	£-202,671	£-203,035	£-203,399		
60%	£-220,434	£-220,980	£-221,526	£-222,073	£-222,619	£-223,165	£-223,712	£-224,258	£-224,805		
65%	£-240,382	£-241,110	£-241,839	£-242,567	£-243,296	£-244,024	£-244,753	£-245,481	£-246,210		
70%	£-260,330	£-261,241	£-262,151	£-263,062	£-263,973	£-264,883	£-265,794	£-266,705	£-267,615		
75%	£-280,278	£-281,371	£-282,464	£-283,557	£-284,649	£-285,742	£-286,835	£-287,928	£-289,020		
80%	£-300,227	£-301,502	£-302,776	£-304,051	£-305,326	£-306,601	£-307,876	£-309,151	£-310,426		
85%	£-319,811	£-321,086	£-322,360	£-323,635	£-324,910	£-326,185	£-327,460	£-328,735	£-330,010		
90%	£-339,395	£-340,670	£-341,944	£-343,219	£-344,494	£-345,769	£-347,044	£-348,319	£-349,594		
95%	£-358,979	£-360,254	£-361,528	£-362,803	£-364,078	£-365,353	£-366,628	£-367,903	£-369,178		
100%	£-378,563	£-379,838	£-381,112	£-382,387	£-383,662	£-384,937	£-386,212	£-387,487	£-388,762		

Where the net benefit produces a non-negative outcome then it is cost effective for the NHS to adopt the indicator.

When this is the case, the cells are highlighted with a yellow background.



# CONFIDENTIAL

## Appendix D: Net benefit analysis – Lower eligible population (0.72%)

### Pilot 2021 Referral for psychological intervention 2021 Anxiety

Value per point achieved	£160.12	Societal value of a QALY	£20,000
Number of practices	7,962		
Mean practice population	7,034		
Minimum threshold	45%	Baseline achievement	
Maximum threshold	80%	Eligible population (mean % of practice population)	0.72%
		Baseline achievement (mean % of eligible patients)	4.0%
		Cost-effectiveness estimates	
		Incremental cost (£ per patient)	£1,791.00
		Incremental effect (QALYs per patient)	0.1070

Points	2	3	4	5	6	7	8	9	10
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National totals											
Expected Achievement	QOF payments (£000s)									Change in treatment cost (£)	Change in QALYs
30%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£187,769,897	11218
35%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£223,879,492	13375
40%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£259,989,088	15533
45%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£296,098,683	17690
50%	£364	£546	£729	£911	£1,093	£1,275	£1,457	£1,639	£1,821	£332,208,279	19847
55%	£729	£1,093	£1,457	£1,821	£2,186	£2,550	£2,914	£3,278	£3,643	£368,317,874	22004
60%	£1,093	£1,639	£2,186	£2,732	£3,278	£3,825	£4,371	£4,917	£5,464	£404,427,470	24162
65%	£1,457	£2,186	£2,914	£3,643	£4,371	£5,100	£5,828	£6,557	£7,285	£440,537,065	26319
70%	£1,821	£2,732	£3,643	£4,553	£5,464	£6,374	£7,285	£8,196	£9,106	£476,646,661	28476
75%	£2,186	£3,278	£4,371	£5,464	£6,557	£7,649	£8,742	£9,835	£10,928	£512,756,257	30634
80%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£548,865,852	32791
85%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£584,975,448	34948
90%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£621,085,043	37106
95%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£657,194,639	39263
100%	£2,550	£3,825	£5,100	£6,374	£7,649	£8,924	£10,199	£11,474	£12,749	£693,304,234	41420

Net Benefit (£000s)										
30%	£36,589	£36,589	£36,589	£36,589	£36,589	£36,589	£36,589	£36,589	£36,589	£36,589
35%	£43,626	£43,626	£43,626	£43,626	£43,626	£43,626	£43,626	£43,626	£43,626	£43,626
40%	£50,662	£50,662	£50,662	£50,662	£50,662	£50,662	£50,662	£50,662	£50,662	£50,662
45%	£57,699	£57,699	£57,699	£57,699	£57,699	£57,699	£57,699	£57,699	£57,699	£57,699
50%	£64,371	£64,189	£64,007	£63,825	£63,642	£63,460	£63,278	£63,096	£62,914	£62,914
55%	£71,043	£70,679	£70,315	£69,950	£69,586	£69,222	£68,858	£68,493	£68,129	£68,129
60%	£77,715	£77,169	£76,623	£76,076	£75,530	£74,983	£74,437	£73,891	£73,344	£73,344
65%	£84,387	£83,659	£82,930	£82,202	£81,473	£80,745	£80,016	£79,288	£78,559	£78,559
70%	£91,060	£90,149	£89,238	£88,328	£87,417	£86,507	£85,596	£84,685	£83,775	£83,775
75%	£97,732	£96,639	£95,546	£94,454	£93,361	£92,268	£91,175	£90,083	£88,990	£88,990
80%	£104,404	£103,129	£101,854	£100,579	£99,305	£98,030	£96,755	£95,480	£94,205	£94,205
85%	£111,440	£110,166	£108,891	£107,616	£106,341	£105,066	£103,791	£102,516	£101,241	£101,241
90%	£118,477	£117,202	£115,927	£114,652	£113,377	£112,102	£110,828	£109,553	£108,278	£108,278
95%	£125,513	£124,238	£122,964	£121,689	£120,414	£119,139	£117,864	£116,589	£115,314	£115,314
100%	£132,550	£131,275	£130,000	£128,725	£127,450	£126,175	£124,900	£123,626	£122,351	£122,351

Where the net benefit produces a non-negative outcome then it is cost effective for the NHS to adopt the indicator.

When this is the case, the cells are highlighted with a yellow background.