

**UNIVERSITY OF BIRMINGHAM AND YORK HEALTH
ECONOMICS CONSORTIUM**

(NICE EXTERNAL CONTRACTOR)

Health economic report on piloted indicator

Pilot QOF indicator: The percentage of patients with a new diagnosis of hypertension in the preceding 1st April to 31st March who have a record of a 12 lead ECG performed in the three months before or after the date of entry to the hypertension register.

Potential output: Recommendations for NICE Menu

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Introduction

This briefing paper presents a cost-effectiveness analysis for a potential indicator from pilot 8 of the NICE Quality and Outcomes Framework (QOF) indicator development programme:

The percentage of patients with a new diagnosis of hypertension in the preceding 1st April to 31st March who have a record of a 12 lead ECG performed in the three months before or after the date of entry to the hypertension register.

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 QOF Advisory Committee 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:

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

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

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

Economic Rationale for the Indicator

People with blood pressure persistently over 140/90 are defined as being hypertensive. High blood pressure can be caused by, or causal to, a number of other health conditions, notably organ damage through chronic kidney disease, coronary heart disease/failure and urological cancer [1]. Testing newly diagnosed hypertensive patients for target organ damage linked to hypertension could detect heart damage at a stage where treatment could be more effective and cost-effective than treating the hypertension alone.

Summary of assumptions

- The indicator is designed to identify potential heart damage in people newly diagnosed with hypertension;
- The identification of heart damage would lead to some form of treatment.

Evidence on Delivery Cost of the Indicator

The NICE guideline on hypertension does not incorporate an economic model that specifically assesses the cost-effectiveness of electrocardiogram (ECG) testing for heart disease [1]. However, an economic model of ECG screening for atrial fibrillation (AF) was produced as part of a Health Technology Assessment (HTA) Programme report into screening for AF [2]. The report examined universal or opportunistic screening in patients aged over 65 using a range of different testing methods. Opportunistic screening was defined as the screening of a targeted population who are at a higher risk of AF, but only when a suitable opportunity arose.

Although this only considers screening for AF, the model can be seen as transferable to this indicator, as an ECG would pick up other heart conditions, as well as AF. In addition, those with hypertension are likely to be at a higher risk of AF or already have the condition [3]. The model incorporated all costs including testing for and potentially treatment for AF. The study reported a screening cost of £14.20 per patient for GP screening using a 12 lead ECG (including equipment costs) and a net

saving from opportunistic screening (primarily due to averted strokes) of £39 for a 65 year old male. The study uses prices from 2003.

The screening cost in the study incorporates the cost of buying a 12-lead ECG machine (around £1,500-£2,500 at current prices).

The study population (people aged over 65 who are screened for AF) does not exactly match that of the QOF indicator (people of all ages who are newly diagnosed with hypertension), and the indicator would result in treatment for those under the age of 65. Therefore a conservative approach has been taken to costs. It has been assumed that there is no cost saving, and the screening cost has been inflated to 2013 prices. This provides an estimated cost of delivery of the indicator of £20.05.

This estimate is additionally conservative as the HTA model only considered avoided costs associated with stroke, rather than broader avoidance of coronary events and averted poor health outcomes that might be expected from the use of ECG and treatment for AF. In our scenario analysis the total costs were varied by +/-50%.

Baseline costs

- The baseline costs are taken from a Health Technology Appraisal relating to the use of ECG to identify and treat atrial fibrillation;
- The incremental lifetime cost of undertaking 12 lead ECG testing on people with hypertension at baseline is £20.05 per patient;
- The cost is a conservative estimate that only includes the cost of delivery of the ECG but does not factor in any of the potential cost savings through avoided stroke and other coronary events.

Evidence on the Benefits of the Indicator

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The HTA model that provides cost data for the indicator also provides evidence on potential QALY gains from ECG testing [2]. The model estimated QALY gains from long-term gains in both life years and quality of life through stroke avoidance.

The model reported that with opportunistic screening there was a QALY gain for all patients 65 and over. It reported a specific QALY gain of 0.0093 for 12 lead ECG screening by a GP for a 65 year old male. Using this QALY gain value in modelling could be seen as an underestimate of the gain expected in patients younger than 65, but this is balanced by an over-estimate of gain for older people. Guidelines for treatment of hypertension are similar for men and women [4]. Additionally as the model only considers QALY gains from averted incidence of stroke it can be seen as a conservative estimate of potential gains from the avoidance of other coronary conditions through treatment of AF. Using this value in our modelling, therefore, maintains a conservative approach. As with the costs, we used scenario analysis to explore the impact on our findings of changing QALY gains by +/-50%.

Baseline benefits

- It has been assumed that the benefits reported in the Health Technology Appraisal for atrial fibrillation are a conservative proxy value for the use of ECG and subsequent treatment for people with hypertension and heart conditions;
- It has been assumed that the benefits identified for men aged 65 in the HTA cost model are generalisable across the relevant population;
- The benefits used in the modelling only relate to atrial fibrillation and so are a potential under-estimate as they do not account for other conditions that may be identified and treated through the use of ECG;
- The incremental lifetime baseline QALY gain of undertaking 12 lead ECG testing on hypertensive patients at baseline is 0.0093 per patient.

Eligible Population

The eligible population (i.e. people who would make up the indicator denominator) is all patients who have not already been diagnosed with hypertension and who have an initial clinic blood pressure reading of 140/90 or higher. In the NICE costing template for the hypertension guidance an incidence rate of 0.78% of patients, over the age of 18, was suggested [5]. According to the Office of National Statistics (ONS) 78.8% of the population in the United Kingdom was over the age of 18 in 2012 [6]. Combining these two percentages provides an incidence rate of newly diagnosed hypertension in an average GP practice population of 0.61%. This percentage was used at baseline and was tested with sensitivity analysis between values of 0.31% and 0.91% (i.e. 50% higher or lower than the baseline population).

Baseline Level of Achievement

Pilot 8 data showed the indicator was achieved for 28% of eligible patients at the beginning of the pilot. Because it is likely that a QOF indicator would be implemented at higher achievement thresholds, we carried out an alternative analysis to explore the use of 45% as the minimum threshold for achievement.

Population

In the base case, the economic analysis was based on the total practice population registered with practices in England, that is, 8,088 practices with an average practice size of 6,891 [7].

Table 1: Practice information for UK countries, 2012

Country	Number of practices	Number of patients
England	8,088	6,891
Scotland	991	5,586
Wales	474	6,694
Northern Ireland	351	5,406

QOF Payments

Primary Care Quality and Outcomes Framework Advisory Committee
11 and 12 June 2014
Agenda item 15e: Hypertension: Target organ damage – YHEC report

Each QOF point is assumed to result in a payment of £156.92. This was the value per point in England during 2013/14 (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.

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, 5 points were allocated to the proposed indicator. This reflects the fact that the current QOF includes an indicator for the diagnostic use of ECG testing for heart failure (HF002), for which there are 6 points available.

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

Thresholds

The pilot 8 GP practices showed performance mid-way through the pilot of between 0 and 60%. We used a threshold range of 45% to 80% 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 (£20.05), incremental benefit (0.0093 QALYs with a value of £20,000 per QALY) and eligible population (0.61%), the net benefit analysis suggests that the indicator is cost-effective, with QOF payments at 5 points justifiable on economic grounds (Appendix A). Under our conservative assumptions, the value of the increase in quality of life offered by

testing outweighs the additional healthcare costs of advice and treatment in a net benefit analysis if the value per QALY is assumed to be £20,000.

The indicator remains justifiable at baseline and 80% achievement on economic grounds at a maximum of 15 points or when the value per QALY falls to £11,175.

Findings are insensitive to a 50% increase in costs (Appendix B) at 80% achievement across the range of points considered. At 5 points, the indicator is also insensitive to a 50% reduction in the QALY gain per patient (Appendix C) or a 50% decrease in the eligible population (Appendix D). However, this is not the case across all the points considered and beyond 6 points there is evidence that if costs are underestimated by 50% or utility gains overestimated by 50% the indicator would no longer be cost-effective.

The indicator could not be recommended at 5 points and 80% achievement if:

- The intervention increases in cost by 321% to £169;
- The QALY gain per patient falls 55% to 0.0042;
- The eligible population falls 67% to 0.20%.

If the assumptions underpinning this analysis hold, then there is strong economic evidence that the indicator is cost-effective at 5 points if the value per QALY is £20,000. There is evidence under our assumptions to offer up to the 10 points considered in the analysis for the indicator but an offer up to this number of points would be dependent on the assumptions we have made on utility gains and the eligible population.

Discussion

Under the baseline assumptions and the sensitivity analysis there is robust evidence that the indicator is likely to be cost-effective at 5 points and up to the 10 points considered in the analysis.

The conservative nature of the analysis should be reiterated. The utility gain considered was based solely on the avoidance of stroke and not any other cardiovascular conditions that the ECG could either detect and treat or potentially prevent.

In addition, the modelling on which our analysis was based found a cost saving from ECG testing which we have ignored in our analysis.

References

- [1] National Institute for Health and Care Excellence. Hypertension: Clinical management of primary hypertension in adults. 2011
- [2] Hobbs FDR, Fitzmaurice DA, Mant J et al. A randomised controlled trial and cost-effectiveness study of systematic screening (targeted and total population screening) versus routine practice for the detection of atrial fibrillation in people aged 65 and over. The SAFE study. Health Technol Assess 2005;9 (40).
- [3] Healey JS, Connolly SJ. Atrial fibrillation: hypertension as a causative agent, risk factor for complications, and potential therapeutic target. Am J Cardiol. 2003 May 22;91(10A):9G-14G.
- [4] Gudmundsdottir H et al. Hypertension in Women. Ther Adv Chronic Dis 2012;3(3):137-146
- [5] National Institute for Health and Care Excellence. Hypertension: Costing report. Implementing NICE guidance. 2011
- [6] Office for National Statistics. Population Estimates for UK, England and Wales, Scotland and Northern Ireland, Mid-2011 and Mid-2012.
- [7] General practice trends in the UK. NHS Information Centre. Published 23 January 2013.

Appendix A: Net Benefit Base Case Analysis (£20k/QALY)

Pilot Hypertension TOD ECG

Value per point achieved	£156.92	Societal value of a QALY	£20,000
Number of practices	8,088		
Mean practice population	6,891		
Minimum threshold	45%	Baseline achievement	
Maximum threshold	80%	Eligible population (mean % of practice population)	0.61%
		Baseline achievement (mean % of eligible patients)	26.5%
		Cost-effectiveness estimates	
		Incremental cost (£ per patient)	£20.05
		Incremental effect (QALYs per patient)	0.0093

National totals												
Expected Achievement	QOF payments (£000s)										Change in treatment cost (£)	Change in QALYs
30%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£238,581	111
35%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£579,411	269
40%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£920,241	427
45%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£1,261,070	585
50%	£363	£544	£725	£907	£1,088	£1,269	£1,450	£1,632	£1,813	£1,601,900	743	
55%	£725	£1,088	£1,450	£1,813	£2,176	£2,538	£2,901	£3,264	£3,626	£1,942,730	901	
60%	£1,088	£1,632	£2,176	£2,720	£3,264	£3,808	£4,351	£4,895	£5,439	£2,283,560	1059	
65%	£1,450	£2,176	£2,901	£3,626	£4,351	£5,077	£5,802	£6,527	£7,252	£2,624,390	1217	
70%	£1,813	£2,720	£3,626	£4,533	£5,439	£6,346	£7,252	£8,159	£9,065	£2,965,220	1375	
75%	£2,176	£3,264	£4,351	£5,439	£6,527	£7,615	£8,703	£9,791	£10,879	£3,306,049	1533	
80%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£3,646,879	1692	
85%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£3,987,709	1850	
90%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£4,328,539	2008	
95%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£4,669,369	2166	
100%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£5,010,199	2324	
Net Benefit (£000s)												
30%	£1,975	£1,975	£1,975	£1,975	£1,975	£1,975	£1,975	£1,975	£1,975	£1,975		
35%	£4,796	£4,796	£4,796	£4,796	£4,796	£4,796	£4,796	£4,796	£4,796	£4,796		
40%	£7,617	£7,617	£7,617	£7,617	£7,617	£7,617	£7,617	£7,617	£7,617	£7,617		
45%	£10,438	£10,438	£10,438	£10,438	£10,438	£10,438	£10,438	£10,438	£10,438	£10,438		
50%	£12,896	£12,715	£12,533	£12,352	£12,171	£11,989	£11,808	£11,627	£11,446	£11,446		
55%	£15,354	£14,992	£14,629	£14,267	£13,904	£13,541	£13,179	£12,816	£12,453	£12,453		
60%	£17,813	£17,269	£16,725	£16,181	£15,637	£15,093	£14,549	£14,005	£13,461	£13,461		
65%	£20,271	£19,546	£18,821	£18,095	£17,370	£16,645	£15,920	£15,194	£14,469	£14,469		
70%	£22,729	£21,823	£20,916	£20,010	£19,103	£18,197	£17,290	£16,384	£15,477	£15,477		
75%	£25,188	£24,100	£23,012	£21,924	£20,836	£19,749	£18,661	£17,573	£16,485	£16,485		
80%	£27,646	£26,377	£25,108	£23,839	£22,570	£21,300	£20,031	£18,762	£17,493	£17,493		
85%	£30,467	£29,198	£27,929	£26,660	£25,390	£24,121	£22,852	£21,583	£20,314	£20,314		
90%	£33,288	£32,019	£30,750	£29,481	£28,211	£26,942	£25,673	£24,404	£23,135	£23,135		
95%	£36,109	£34,840	£33,571	£32,302	£31,032	£29,763	£28,494	£27,225	£25,956	£25,956		
100%	£38,930	£37,661	£36,392	£35,123	£33,853	£32,584	£31,315	£30,046	£28,777	£28,777		

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.

Appendix B: Net Benefit Analysis Assuming 50% Increase in Incremental Costs per Patient (£20k/QALY)

Pilot Hypertension TOD ECG

Value per point achieved	£156.92	Societal value of a QALY	£20,000
Number of practices	8,088		
Mean practice population	6,891		
Minimum threshold	45%	Baseline achievement	
Maximum threshold	80%	Eligible population (mean % of practice population)	0.61%
		Baseline achievement (mean % of eligible patients)	26.5%
		Cost-effectiveness estimates	
		Incremental cost (£ per patient)	£30.08
		Incremental effect (QALYs per patient)	0.0093

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	£0	£357,931	111
35%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£869,261	269
40%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£1,380,590	427
45%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£1,891,920	585
50%	£363	£544	£725	£907	£1,088	£1,269	£1,450	£1,632	£1,813	£2,003,250	743	
55%	£725	£1,088	£1,450	£1,813	£2,176	£2,538	£2,901	£3,264	£3,626	£2,914,580	901	
60%	£1,088	£1,632	£2,176	£2,720	£3,264	£3,808	£4,351	£4,895	£5,439	£3,425,909	1059	
65%	£1,450	£2,176	£2,901	£3,626	£4,351	£5,077	£5,802	£6,527	£7,252	£3,937,239	1217	
70%	£1,813	£2,720	£3,626	£4,533	£5,439	£6,346	£7,252	£8,159	£9,065	£4,448,569	1375	
75%	£2,176	£3,264	£4,351	£5,439	£6,527	£7,615	£8,703	£9,791	£10,879	£4,959,899	1533	
80%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£5,471,228	1692	
85%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£5,982,558	1850	
90%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£6,493,888	2008	
95%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£7,005,218	2166	
100%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£7,516,547	2324	
Net Benefit (£000s)												
30%	£1,855	£1,855	£1,855	£1,855	£1,855	£1,855	£1,855	£1,855	£1,855	£1,855		
35%	£4,506	£4,506	£4,506	£4,506	£4,506	£4,506	£4,506	£4,506	£4,506	£4,506		
40%	£7,156	£7,156	£7,156	£7,156	£7,156	£7,156	£7,156	£7,156	£7,156	£7,156		
45%	£9,807	£9,807	£9,807	£9,807	£9,807	£9,807	£9,807	£9,807	£9,807	£9,807		
50%	£12,095	£11,913	£11,732	£11,551	£11,369	£11,188	£11,007	£10,825	£10,644			
55%	£14,383	£14,020	£13,657	£13,295	£12,932	£12,569	£12,207	£11,844	£11,482			
60%	£16,670	£16,126	£15,583	£15,039	£14,495	£13,951	£13,407	£12,863	£12,319			
65%	£18,958	£18,233	£17,508	£16,783	£16,057	£15,332	£14,607	£13,882	£13,156			
70%	£21,246	£20,340	£19,433	£18,526	£17,620	£16,713	£15,807	£14,900	£13,994			
75%	£23,534	£22,446	£21,358	£20,270	£19,183	£18,095	£17,007	£15,919	£14,831			
80%	£25,822	£24,553	£23,283	£22,014	£20,745	£19,476	£18,207	£16,938	£15,668			
85%	£28,472	£27,203	£25,934	£24,665	£23,396	£22,126	£20,857	£19,588	£18,319			
90%	£31,123	£29,854	£28,584	£27,315	£26,046	£24,777	£23,508	£22,239	£20,969			
95%	£33,773	£32,504	£31,235	£29,966	£28,697	£27,427	£26,158	£24,889	£23,620			
100%	£36,424	£35,155	£33,885	£32,616	£31,347	£30,078	£28,809	£27,540	£26,270			

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.

Appendix C: Net Benefit Analysis Assuming 50% Decrease in Utility Gains Per Patient (£20k/QALY)

Pilot 3 2 1 Hypertension 2 0 D 2 1 ECG

Value per point achieved	£156.92	Societal value of a QALY	£20,000
Number of practices	8,088		
Mean practice population	6,891		
Minimum threshold	45%	Baseline achievement	
Maximum threshold	80%	Eligible population (mean % of practice population)	0.61%
		Baseline achievement (mean % of eligible patients)	26.5%
		Cost-effectiveness estimates	
		Incremental cost (£ per patient)	£20.05
		Incremental effect (QALYs per patient)	0.0047

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	£0	£238,581	55
35%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£579,411	134
40%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£920,241	213
45%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£1,261,070	292
50%	£363	£544	£725	£907	£1,088	£1,269	£1,450	£1,632	£1,813	£1,601,900	372	
55%	£725	£1,088	£1,450	£1,813	£2,176	£2,538	£2,901	£3,264	£3,626	£1,942,730	451	
60%	£1,088	£1,632	£2,176	£2,720	£3,264	£3,808	£4,351	£4,895	£5,439	£2,283,560	530	
65%	£1,450	£2,176	£2,901	£3,626	£4,351	£5,077	£5,802	£6,527	£7,252	£2,624,390	609	
70%	£1,813	£2,720	£3,626	£4,533	£5,439	£6,346	£7,252	£8,159	£9,065	£2,965,220	688	
75%	£2,176	£3,264	£4,351	£5,439	£6,527	£7,615	£8,703	£9,791	£10,879	£3,306,049	767	
80%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£3,646,879	846	
85%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£3,987,709	925	
90%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£4,328,539	1004	
95%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£4,669,369	1083	
100%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£5,010,199	1162	
Net Benefit (£000s)												
30%	£868	£868	£868	£868	£868	£868	£868	£868	£868	£868		
35%	£2,108	£2,108	£2,108	£2,108	£2,108	£2,108	£2,108	£2,108	£2,108	£2,108		
40%	£3,348	£3,348	£3,348	£3,348	£3,348	£3,348	£3,348	£3,348	£3,348	£3,348		
45%	£4,588	£4,588	£4,588	£4,588	£4,588	£4,588	£4,588	£4,588	£4,588	£4,588		
50%	£5,466	£5,284	£5,103	£4,922	£4,741	£4,559	£4,378	£4,197	£4,015			
55%	£6,343	£5,981	£5,618	£5,255	£4,893	£4,530	£4,167	£3,805	£3,442			
60%	£7,221	£6,677	£6,133	£5,589	£5,045	£4,501	£3,957	£3,413	£2,869			
65%	£8,098	£7,373	£6,648	£5,922	£5,197	£4,472	£3,747	£3,021	£2,296			
70%	£8,976	£8,069	£7,162	£6,256	£5,349	£4,443	£3,536	£2,630	£1,723			
75%	£9,853	£8,765	£7,677	£6,589	£5,502	£4,414	£3,326	£2,238	£1,150			
80%	£10,730	£9,461	£8,192	£6,923	£5,654	£4,385	£3,115	£1,846	£577			
85%	£11,971	£10,701	£9,432	£8,163	£6,894	£5,625	£4,356	£3,086	£1,817			
90%	£13,211	£11,941	£10,672	£9,403	£8,134	£6,865	£5,596	£4,326	£3,057			
95%	£14,451	£13,182	£11,912	£10,643	£9,374	£8,105	£6,836	£5,567	£4,297			
100%	£15,691	£14,422	£13,152	£11,883	£10,614	£9,345	£8,076	£6,807	£5,537			

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.

Appendix D: Net Benefit Analysis Assuming 50% Decrease in Eligible Population (£20k/QALY)

Pilot **2013** Hypertension **2013** QOF **2013** CCG

Value per point achieved	£156.92	Societal value of a QALY	£20,000	
Number of practices	8,088			
Mean practice population	6,891			
Minimum threshold	45%	Baseline achievement		
Maximum threshold	80%	Eligible population (mean % of practice population)	0.31%	Incremental cost (£ per patient)
		Baseline achievement (mean % of eligible patients)	26.5%	Incremental effect (QALYs per patient)
				£20.05
				0.0093
				£1,988
				0.09
				0.10%

Expected Achievement	National totals										Change in treatment cost (£)	Change in QALYs
	QOF payments (£000s)											
30%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£119,290	55
35%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£289,705	134
40%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£460,120	213
45%	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£630,535	292
50%	£363	£544	£725	£907	£1,088	£1,269	£1,450	£1,632	£1,813	£1,813	£800,950	372
55%	£725	£1,088	£1,450	£1,813	£2,176	£2,538	£2,901	£3,264	£3,626	£3,626	£971,365	451
60%	£1,088	£1,632	£2,176	£2,720	£3,264	£3,808	£4,351	£4,895	£5,439	£5,439	£1,141,780	530
65%	£1,450	£2,176	£2,901	£3,626	£4,351	£5,077	£5,802	£6,527	£7,252	£7,252	£1,312,195	609
70%	£1,813	£2,720	£3,626	£4,533	£5,439	£6,346	£7,252	£8,159	£9,065	£9,065	£1,482,610	688
75%	£2,176	£3,264	£4,351	£5,439	£6,527	£7,615	£8,703	£9,791	£10,879	£10,879	£1,653,025	767
80%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£12,692	£1,823,440	846
85%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£12,692	£1,993,855	925
90%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£12,692	£2,164,269	1004
95%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£12,692	£2,334,684	1083
100%	£2,538	£3,808	£5,077	£6,346	£7,615	£8,884	£10,153	£11,423	£12,692	£12,692	£2,505,099	1162

Expected Achievement	Net Benefit (£000s)									
	£987	£987	£987	£987	£987	£987	£987	£987	£987	£987
30%	£987	£987	£987	£987	£987	£987	£987	£987	£987	£987
35%	£2,398	£2,398	£2,398	£2,398	£2,398	£2,398	£2,398	£2,398	£2,398	£2,398
40%	£3,808	£3,808	£3,808	£3,808	£3,808	£3,808	£3,808	£3,808	£3,808	£3,808
45%	£5,219	£5,219	£5,219	£5,219	£5,219	£5,219	£5,219	£5,219	£5,219	£5,219
50%	£6,267	£6,085	£5,904	£5,723	£5,541	£5,360	£5,179	£4,998	£4,816	£4,816
55%	£7,315	£6,952	£6,589	£6,227	£5,864	£5,501	£5,139	£4,776	£4,414	£4,414
60%	£8,362	£7,819	£7,275	£6,731	£6,187	£5,643	£5,099	£4,555	£4,011	£4,011
65%	£9,410	£8,685	£7,960	£7,235	£6,509	£5,784	£5,059	£4,334	£3,608	£3,608
70%	£10,458	£9,552	£8,645	£7,739	£6,832	£5,925	£5,019	£4,112	£3,206	£3,206
75%	£11,506	£10,418	£9,330	£8,242	£7,155	£6,067	£4,979	£3,891	£2,803	£2,803
80%	£12,554	£11,285	£10,016	£8,746	£7,477	£6,208	£4,939	£3,670	£2,401	£2,401
85%	£13,964	£12,695	£11,426	£10,157	£8,888	£7,619	£6,349	£5,080	£3,811	£3,811
90%	£15,375	£14,106	£12,837	£11,567	£10,298	£9,029	£7,760	£6,491	£5,222	£5,222
95%	£16,785	£15,516	£14,247	£12,978	£11,709	£10,440	£9,170	£7,901	£6,632	£6,632
100%	£18,196	£16,927	£15,658	£14,388	£13,119	£11,850	£10,581	£9,312	£8,043	£8,043

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