

<p>Title: NHS Outcomes Framework 2011/12</p> <p>Lead department or agency: Department of Health</p> <p>Other departments or agencies:</p>	Impact Assessment (IA)
	IA No: 5014
	Date: 20/12/2010
	Stage: Final
	Source of intervention: Domestic
Type of measure: Primary legislation	

Summary: Intervention and Options

What is the problem under consideration? Why is government intervention necessary?

The Department of Health intends to set-up a new NHS Commissioning Board or a similar body within DH that will be responsible for securing improved outcomes for NHS patients through the commissioning process. Under this "Principal-Agent" setting problems may arise if DH and the commissioning body have divergent objectives or if there is asymmetry of information about the quality of care provided.

In order to hold this new body to account, it is necessary to set up an accountability framework which should ensure that it works together with the NHS to deliver better healthcare outcomes.

What are the policy objectives and the intended effects?

The policy objective is to develop a set of indicators that can be used (i) by the Secretary of State to hold the NHS Commissioning Board or similar commissioning body to account, (ii) by Parliament to hold the Secretary of State to account for the overall progress of the NHS and (iii) to act as a catalyst for quality improvement throughout the NHS.

The intended effect is to drive forward improvement in the quality of NHS healthcare and ensure that the right healthcare outcomes for patients are used to hold the NHS Commissioning Board to account.

What policy options have been considered? Please justify preferred option (further details in Evidence Base)

Option 1: Do nothing.

Option 2: Develop an Outcomes Framework that will allow the Secretary of State to hold the NHS Commissioning Board or similar commissioning body to account, using indicators selected via a rigorous assessment process

Will the policy be reviewed? It will be reviewed

If applicable, set review date 2016

What is the basis for this review? PIR

If applicable, set sunset clause date

Are there arrangements in place that will allow a systematic collection of monitoring information for future policy review?

Yes

Ministerial Sign-off For final proposal stage Impact Assessments:

I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) the benefits justify the costs.

Signed by the responsible Minister:..... Date:.....

Summary: Analysis and Evidence

Policy Option 2

Description: Develop an NHS Outcomes Framework

Price Base Year 2011	PV Base Year 2011	Time Period Years 10	Net Benefit (Present Value (PV)) (£m) Opportunity Cost Basis		
			Low: -22	High: -80	Best Estimate: -51

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.29	2.47	21.57
High	0.05	9.24	79.58
Best Estimate	0.17	5.86	50.57

Description and scale of key monetised costs by 'main affected groups'

Costs of collecting and disseminating the outcome indicators that will constitute the Outcomes Framework. These costs will affect the DH and the NHS only. They are presented in an Opportunity Cost basis.

Other key non-monetised costs by 'main affected groups'

Costs of diverting NHS expenditure to meeting the levels of ambition that will be set from 2012-13 onwards, including opportunity costs. These costs are not quantified, as they will depend on the levels of ambition that will be negotiated throughout 2011/12 by the NHS commissioning Board or similar body and DH. Annex 2 provides illustrative examples of the costs and benefits from achieving different levels of ambition for given indicators.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low			
High			
Best Estimate	Unknown*	Unknown*	Unknown*

Description and scale of key monetised benefits by 'main affected groups'

As the improvements that will be required through the Outcomes Framework are not yet determined, it is not possible to quantify the benefits of achieving them. Therefore no benefits have been monetised.

Other key non-monetised benefits by 'main affected groups'

An NHS Commissioning Board or similar body held effectively to account in respect of the health care outcomes delivered by the NHS. This should lead to improvements in the quality of healthcare received by patients as the required levels of ambition drive the improvement of healthcare outcomes. Annex 2 provides illustrative examples of the costs and benefits from achieving different levels of ambition for given indicators.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5
<ul style="list-style-type: none"> - Selected outcomes represent accurately the overall treatment responsibilities of the NHS. - Selected outcomes will prove amenable to improvement via NHS health care interventions - Changes in outcome indicators will be attributable to NHS actions and will therefore be useful in holding it to account. - Levels of ambition will be feasible and affordable and will not distort priorities - Risks of setting up an incomplete accountability framework for the NHS Commissioning Board or equivalent body - Risks that the actions required to yield improved outcomes are not fully known in all cases 		

Direct impact on business (Equivalent Annual) £m):			In scope of	Measure classified as
Costs: 0	Benefits: 0	Net: 0	No	IN/OUT

Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?			England		
From what date will the policy be implemented?			01/04/2011		
Which organisation(s) will enforce the policy?					
What is the annual change in enforcement cost (£m)?					
Does enforcement comply with Hampton principles?			Yes		
Does implementation go beyond minimum EU requirements?			No		
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded:	Non-traded:	
Does the proposal have an impact on competition?			No		
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?			Costs: 0	Benefits: 0	
Annual cost (£m) per organisation (excl. Transition) (Constant Price)	Micro 0	< 20 0	Small 0	Medium 0	Large 0
Are any of these organisations exempt?	No	No	No	No	No

Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on...?	Impact	Page ref within IA
Statutory equality duties¹ Statutory Equality Duties Impact Test guidance	Yes	51
Economic impacts		
Competition Competition Assessment Impact Test guidance	No	
Small firms Small Firms Impact Test guidance	No	
Environmental impacts		
Greenhouse gas assessment Greenhouse Gas Assessment Impact Test guidance	No	
Wider environmental issues Wider Environmental Issues Impact Test guidance	No	
Social impacts		
Health and well-being Health and Well-being Impact Test guidance	Yes	25
Human rights Human Rights Impact Test guidance	Yes	51
Justice system Justice Impact Test guidance	No	
Rural proofing Rural Proofing Impact Test guidance	No	
Sustainable development Sustainable Development Impact Test guidance	No	

¹ Race, disability and gender Impact assessments are statutory requirements for relevant policies. Equality statutory requirements will be expanded 2011, once the Equality Bill comes into force. Statutory equality duties part of the Equality Bill apply to GB only. The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

Evidence Base (for summary sheets) – Notes

Use this space to set out the relevant references, evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Please fill in **References** section.

References

Include the links to relevant legislation and publications, such as public impact assessment of earlier stages (e.g. Consultation, Final, Enactment).

No. Legislation or publication

- 1 Revision to the Operating Framework for the NHS in England 2010/11, published by the Department of Health, available at http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_110107
- 2 A comparative analysis of quality incentives in healthcare systems in England and Tuscany: 'fiduciary reputation' rather than 'standards and sanctions'. *European Health Policy Group Autumn Meeting – London School of Economics: Sept 24, 2009*. With Michael Calnan, Milena Vainieri, Anna Bonini, Sabina Nuti
- 3 “Saving lives, Our Healthier Nation: executive summary” published by the Department of Health on 1st June 1999. Available at: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4008701
- 4 Bruster, S., Jarman, B., Bosanquet., Weston D., Erens, R. and Delbanco, T (1994) National survey of hospital patients, *British Medical Journal*, 309, 1542-1546.

Evidence Base

Annual profile of monetised costs and benefits* - (£m) constant prices

	Y ₀	Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆	Y ₇	Y ₈	Y ₉
Total Transition costs	0.17									
Total Annual recurring cost	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86
Total annual costs	6.02	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86
Total Transition benefits										
Total Annual recurring benefits										
Total annual benefits										
Business transition costs										
Business annual recurring costs										
Business annual costs										
Business transition benefits										
Business annual recurring benefits										
Business total annual benefits										

* For non-monetised benefits please see summary pages and main evidence base section

Sunset Clause

The policy will be reviewed 5 years after implementation. Details are included in the Project Implementation Review in the IA.

Evidence Base (for summary sheets)

A. Characteristics of the underlying problem.

1. The NHS Operating Framework sets out the agenda for the NHS and the basis on which NHS organisations are held to account. It includes the indicators that will be used to monitor progress and hold the NHS to account within the year.
2. *Revision to the Operating Framework for the NHS in England 2010/11(1)*, published on 21 June 2010, set out key changes for immediate action within 2010/11 and the direction of travel for 2011/12. Whilst the indicators for the 18 weeks referral-to-treatment waiting time and for access to primary care were removed, the four-hour A&E waiting time indicator was retained on clinical advice.
3. The publication signalled the intention to review all indicators for the 2011/12 NHS Operating Framework for clinical relevance and improved health outcomes.
4. The Department of Health intends to set-up a new NHS Commissioning Board which will be responsible for commissioning NHS services. The establishment of the NHS Commissioning Board needs to be approved by Parliament and so cannot be taken for granted in this Impact Assessment. It is therefore assumed that if the NHS Commissioning Board is not established a similar commissioning body within DH will take up those responsibilities.
5. This type of arrangement can be analysed as a principal-agent situation, with the NHS Commissioning Board as the agent (with the task of commissioning healthcare) and DH as the principal (with the aim of ensuring healthcare is commissioned). Problems can arise if the principal and the agent have divergent objectives and there is “asymmetry of information”, where the principal cannot directly observe the actions of the agent. Accountability mechanisms are a way of mitigating these risks and ensuring delivery of high quality healthcare.
6. In order to hold this new body to account, it is therefore necessary to set up an accountability framework that should ensure that either commissioning body works together with the NHS to deliver good healthcare outcomes.
7. This is particularly relevant because the NHS currently achieves relatively poor healthcare outcomes in certain major healthcare areas when compared to our peer countries.
8. This Impact Assessment is concerned with the effect of setting up a specific set of indicators as an Outcomes Framework in itself rather than with the benefits and costs of achieving any specific improvements in the outcome indicators. These specific levels of improvement will be negotiated between the Department of Health and the NHS Commissioning Board or similar body.

What are the policy objectives and the intended effects (the treatment goals)?

9. The policy objective is to develop a set of indicators that can be used to hold the NHS Commissioning Board or an equivalent body within DH to account for securing improved outcomes for patients through the commissioning process.
10. The intended effect is to drive forward the improvement in the quality of NHS health care and ensure better healthcare outcomes for NHS patients that compare well with those of peer countries.

B. What are the underlying causes of the problem?

11. As explained above, commissioning of publicly-funded healthcare can be described as a principal-agent situation with DH as the principal and the NHS (through the NHS Commissioning Board) as the agent. Issues can arise if the principal (DH) and the agent (the NHS Commissioning Board) have divergent objectives and if there is “asymmetry of information”, where the principal cannot directly observe the actions of the agent. Accountability mechanisms are a way of mitigating these risks and ensuring provision of high quality healthcare.
12. If the NHS Commissioning Board or similar body is only held to account in commissioning general service provision and financial requirements, there could be a divergence between the objectives of the two bodies. The NHS Commissioning Board could hypothetically focus on meeting these conditions by for instance decreasing the choice or quality of services it commissions. In this way it could meet these conditions perfectly without necessarily meeting the aims envisaged by DH.

13. If the NHS Commissioning Board or equivalent body is to be responsible for the quality of health care delivered by the NHS, it needs to be itself held to account by the Secretary of State. This should ensure that either commissioning body works together with the NHS to deliver good healthcare outcomes.
14. Setting up such a body without the appropriate accountability architecture could have very serious consequences in terms of the quality and continuity of care provided by the NHS. Past experience in England and elsewhere shows that designing effective accountability frameworks can be challenging. Most importantly, it is necessary to select indicators that will motivate high performance and improvement, whilst leaving the NHS Commissioning Board sufficient flexibility of action and without generating perverse incentives. There is a tension here, due to the fact that, in healthcare, it is often considerably easier (and, indeed, sometimes more clinically relevant) to focus on clinical process measures rather than outcomes. Several past policies have targeted aspects of mortality outcomes with some success: e.g., *Our Healthier Nation* (3) targeting Cardio-vascular and Heart Disease (CHD) and stroke mortality, and a Public Sector Agreement (PSA) target for reducing heart disease and stroke mortality by 40% in under-75s. Equally, other target frameworks have at times resulted in incorrectly specified targets, displacement of effort in areas not being measured, and disincentivisation of innovation due to overly prescriptive process targets.

C. What policy options have been considered?

(i) Set out the baseline (Do Nothing Option – Option 1), against which other options are assessed:

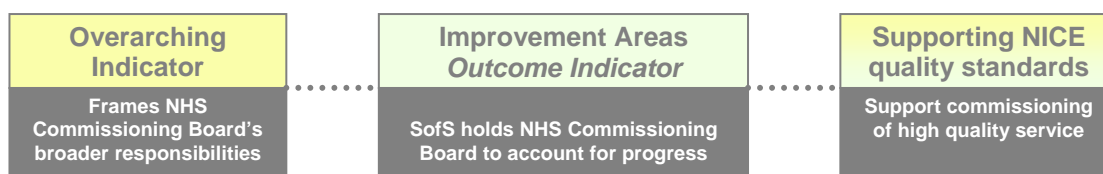
15. The do-nothing option implies that an NHS Commissioning Board is set-up, or a similar commissioning structure is established within the DH, but it is only held to account for achievement of general objectives (including financial balance, commissioning a comprehensive general service). This body is not subjected to an accountability framework involving outcomes. Otherwise, it is assumed that current spending commitments are maintained.
16. As explained above, this do-nothing option implies that the NHS is likely to continue to under-perform when compared with its peers in several key health outcomes. It will also be likely to lead to a situation in which the NHS Board or equivalent body commissions from the NHS on the basis simply of what information and measures are currently available, rather than those derived from a systematic attempt to develop a “balanced scorecard”.
17. More importantly, the implication is that this new body would not be explicitly held to account over the health outcomes relating to NHS patients. This would introduce a dangerous lack of accountability that could have serious consequences going forward. It is possible that in this case asymmetric information and diverging objectives will lead to suboptimal outcomes.

(ii) List and summarise briefly the options assessed in the rest of the IA.

Option 2

18. Option 2 consists of establishing an NHS Outcomes Framework that can be used to hold the NHS Commissioning Board to account.
19. The NHS Outcomes Framework will shape the mandate between the Secretary of State for Health and the new NHS Commissioning Board or equivalent body. The framework is not meant to represent a set of priorities for the NHS. Rather, it should identify a focused but balanced set of outcome indicators that will align the objectives of the NHS and the DH (therefore helping to mitigate the issues created by divergent objectives of principal and agent) and offer DH (the principal) good information on the actions of the NHS (the agent). It should act as a catalyst for driving up quality across all services and provide an indication of the overall progress of the NHS in improving outcomes.
20. The first NHS Outcomes Framework for 2011/12 accompanying this IA describes what the framework will look like. The NHS Outcomes Framework has been developed taking into account the consultation responses. A separate Government response to the consultation has also been published alongside this IA. The framework will act as a balanced scorecard that the Secretary of State will use to gauge the progress of the NHS Commissioning Board (which is set to be in existence in its shadow form from 1 April 2011) or similar body in managing the NHS.

21. To make sure that the NHS Outcomes Framework provides an accurate reflection of the progress of the NHS, a balanced set of progressive outcomes has been chosen. It spans the definition of quality which Lord Darzi set out (High Quality Care For All: NHS Next Stage Review Final Report, 2008) and which the NHS has embraced as a clinically sound definition of quality:
- Effectiveness
 - Patient experience
 - Safety
22. Currently PCTs are allocated £84.4bn (2010/11) to commission services with the overarching remit to provide better health, better care and better value. The NHS Commissioning Board will be responsible for administering this funding either by commissioning services itself, (for specialist services and GP services) or by devolving responsibility for commissioning services to GP Consortia.
23. To achieve this, the Outcomes Framework has been developed around a set of five domains that the NHS should be delivering for patients:
- Preventing people from dying prematurely (EFFECTIVENESS)
 - Enhancing quality of life for people with long-term conditions (EFFECTIVENESS)
 - Helping people to recover from episodes of ill-health or following injury (EFFECTIVENESS)
 - Ensuring people have a positive experience of care (PATIENT EXPERIENCE)
 - Treating and caring for people in a safe environment and protecting them from avoidable harm (PATIENT SAFETY)
24. The figure below explains how the framework is structured for each of the five outcome domains (please see the Consultation Response Document for further explanation):



25. For each domain, an outcome and an overarching indicator have been identified, allowing the Secretary of State to track the progress of the NHS in delivering outcomes in that domain as a whole.
26. There are specific improvement areas identified within each domain. These improvement areas have been consulted upon and chosen according to a robust, evidence-based rationale.
27. Delivery of outcomes in each domain will be supported by a suite of Quality Standards commissioned from NICE which provide an authoritative definition of what high quality care looks like in a particular pathway.
28. Outcome indicators have been selected so as to make clear the extent to which the NHS Commissioning Board will be responsible for that outcome, in contrast to the contributions that can be made by public health or social care interventions. They have also been selected on the basis of using appropriate indicators to measure the right outcomes, rather than relying just on indicators which are currently available.
29. Therefore, for some outcomes, identifying and developing the correct indicators will require further research. The final set of indicators will be presented before the implementation of the final levels of ambition in 2012-13.
30. Further analytical work will also be necessary to seek, evaluate and set out evidence on the likely incremental contribution of each indicator to overall outcomes for users and carers. The objective of this is to give an indication of the relative importance of each indicator in contributing to improved final outcomes. It is not the intention to constrain the NHS Commissioning Board or similar body in

their decisions about priorities but just to provide evidence that they may find helpful in formulating their priorities.

31. This is the current list of indicators

Domain 1 – Preventing people from dying prematurely

32. Overarching indicators:

- **1a Mortality from causes considered amenable to healthcare** - the Commissioning Board would be expected to focus on improving mortality in all components of amenable mortality as well as the overall rate
- **1b Life expectancy at 75**

33. Improvement areas:

- **Reducing premature mortality from the major causes of death**
 - **1.1** Under 75 mortality rate from cardiovascular disease (*shared responsibility with the Public Health Service*)
 - **1.2** Under 75 mortality rate from respiratory disease (*shared responsibility with the Public Health Service*)
 - **1.3** Under 75 mortality rate from liver disease (*shared responsibility with the Public Health Service*)
 - **1.4** Cancer survival:
 - **i** One- and **ii** five-year survival rates for colorectal cancer
 - **iii** One- and **iv** five-year survival rates for breast cancer
 - **v** One- and **vi** five-year survival rates for lung cancer
- **Reducing premature death in people with serious mental illness** (*shared responsibility with the Public Health Service*)
 - **1.5** Under 75 mortality rate in people with serious mental illness
- **Reducing deaths in young children**
 - **1.6.i** Infant mortality (*shared responsibility with the Public Health Service*)
 - **1.6.ii** Perinatal mortality (including stillbirths)

Domain 2 - Enhancing quality of life for people with long-term conditions

34. Overarching indicator:

- **2 Health-related quality of life for people with long-term conditions**

35. Improvement areas:

- **Ensuring people feel supported to manage their condition:**
 - 2.1** Proportion of people feeling supported to manage their condition
- **Improved functional ability in people with long-term conditions:**
 - 2.2** Employment of people with long-term conditions.
- **Reducing time spent in hospital by people with long-term conditions:**
 - 2.3.i** Unplanned hospitalisation for chronic ambulatory care sensitive conditions (adults)
 - 2.3.ii** Unplanned hospitalisation for asthma, diabetes and epilepsy in under 19s
- **Enhancing quality of life for carers:**
 - 2.4** Health-related quality of life for carers.

- **Enhancing quality of life for people with mental illness:**

2.5 Employment of people with mental illness.

Domain 3 - Helping people to recover from episodes of ill health or following injury

36. Overarching indicators:

- **3a Emergency admissions for acute conditions that should not usually require hospital admission**
- **3b Emergency readmissions within 28 days of discharge from hospital**

37. Improvement areas and corresponding indicators:

- **Improving outcomes from planned procedures**
3.1 PROMs for elective procedures
- **Preventing lower respiratory tract infections (LRTI) in children from becoming serious**
3.2 Emergency admissions for children with LRTI
- **Improving recovery from injuries and trauma**
3.3 An indicator needs to be developed
- **Improving recovery from stroke**
3.4 An indicator needs to be developed
- **Improving recovery from fragility fractures**
3.5 The proportion of patients recovering to their previous levels of mobility / walking ability at i 30 and ii 120 days.
- **Helping older people to recover their independence after illness or injury**
3.6 Proportion of older people (65 and over) still at home after 91 days after discharge from hospital into rehabilitation services.

Domain 4 - Ensuring people have a positive experience of care

38. Overarching Indicators

- **4a Patient experience of primary care**
- **4b Patient experience of hospital care**

39. Improvement areas and corresponding indicators

- **Improving people' experience of outpatient care^{*#}**
4.1 Patient's experience of outpatient services
- **Improving hospitals' responsiveness to personal needs**
4.2 Responsiveness to in-patients personal needs
- **Improving people's experience of accident and emergency services^{*#}**
4.3 Patient experience of A&E services
- **Improving access to primary care services**
4.4 Access to i GP Services[#] and ii dental services[#]
- **Improving women and their families' experience of maternity services^{*#}**
4.5 Women's experience of maternity services
- **Improving the experience of care for people at the end of their lives**
4.6 Survey of bereaved carers
- **Improving the experience of healthcare for people with mental illness[#]**
4.7 Patient experience of community mental health services
- **Improving children and young people's experience of healthcare**
4.8 An indicator needs to be developed.

40. Under the existing survey programme arrangements, surveys are conducted on a variable and rolling basis. This means that while the inpatient and community mental health service surveys are conducted annually, the primary care survey is currently conducted quarterly (set to become half-yearly) and others will provide data in alternate years (i.e. every 2 or 3 years - indicated above with an asterisk [*]).
41. Some of the indicators listed above need to be developed – though this should be relatively straightforward - since they will be based on surveys that have been conducted in the past, baselines can be established (indicated above with a hash symbol [#]). The primary care survey will be subject to changes so the extent to which a baseline can be established will depend on the extent of the changes. Surveys covering end of life care and children are currently under development – while it is unlikely that they will be able to produce data in 2011, they do represent potential candidates for inclusion in future NHS outcome frameworks.

Domain 5 - Treating and caring for people in a safe environment and protecting them from avoidable harm.

42. Overarching indicators:

Three part patient safety measure consisting of:

- **5a** Patient safety incident reporting
- **5b** Severity of harm; and
- **5c** number of similar incidents

43. Improvement areas and corresponding indicators:

Reducing the incidence of avoidable harm

- **5.1** Incidence of hospital-related venous thromboembolism (VTE)
- **5.2** Incidence of healthcare associated infection: **i** MRSA and **ii** C. difficile
- **5.3** Incidence of newly-acquired category 3 and 4 pressure ulcers
- **5.4** Incidence of medication errors causing serious harm

Improving the safety of maternity services

- **5.5** Admission of full-term babies to neonatal care

Delivering safe care to children in acute settings

- **5.6** Incidence of harm to children due to ‘failure to monitor’

The selection process

44. The potential outcomes indicators have been consulted upon; current candidates and others identified during the course of the consultation have been assessed individually using the following specific criteria:
- How well does it measure health outcomes?
 - Does it cover all people relevant to this improvement area?
 - Are there any perverse incentives associated with this measure?
 - How much influence can healthcare have on this measure?
 - How statistically sound is the indicator?
 - How meaningful will this indicator be to the public?
 - How clinically credible is this measure likely to be?
 - How much work will be required before this indicator can be used?
 - How much time would it take for NHS improvements to be reflected in the indicator value?

45. In order to be manageable, the NHS Outcomes Framework has 51 indicators, including all overarching indicators and improvement areas across different domains, but it needs to provide a full and representative overview of NHS activities to hold the NHS Commissioning Board to account. An important selection criterion therefore has been to ensure that this relatively small number of indicators will cover most of the activities of the NHS appropriately. This has been done by structuring indicators into domains that cover the main areas that the NHS is involved in. The extent to which the domains cover NHS activities is estimated and analysed further on section D(iii) below and on Annex 3.
46. The selection process has considered the potential effectiveness of the NHS in improving each outcome indicator. Although cost-effectiveness for illustrative levels of ambition has also been taken into account wherever possible, the cost-effectiveness of improving each indicator will depend on the specific level of ambition chosen for each indicator. Therefore, cost-effectiveness will need to be considered as a criterion to set adequate levels of ambition.
47. Domains have on average around 7 indicators each, including composite indicators in some cases. The number of indicators for each domain varies according to the technical issues involved in covering the activities in each area and does not reflect any intent to prioritise domains.

Domain 1

48. The underlying principle behind Domain 1 – preventing people from dying prematurely – is that people should not die early where medical intervention could make a difference (as distinct from primary prevention measures in public health). Mortality from causes considered amenable to healthcare measures deaths that occur from a pre-defined set of causes that have been judged to be amenable to healthcare intervention. In practice, some of the deaths included might have been unavoidable, and some deaths that could have been avoided through better health care will not be included.
49. Amenable mortality is by definition capped at age 75 largely because of the difficulty of ascribing cause of death at 75+ where there are often multiple morbidities. Clearly some deaths at 75 and over will be premature and having a crude age cut-off risks being discriminatory. To address this Life Expectancy at 75 is proposed as a companion over-arching indicator. Although this measure is based on all deaths at 75 and over, it was judged to be the best available measure of the impact of healthcare on deaths in older people.
50. As well as separately monitoring premature deaths from individual amenable causes such as amenable cancers, CHD and stroke, it was considered important to look at:
 - a. Premature mortality from three major causes of death where it was considered that both NHS and Public Health interventions will be jointly responsible for the outcome – cardiovascular disease, respiratory disease and liver disease.
 - b. cancer survival, which is seen as a better measure of effectiveness of the NHS than cancer mortality as it does not depend on incidence, which can be related to lifestyle factors
51. Finally, specific improvement areas are proposed for two groups which might otherwise be overlooked because numbers of deaths are small,
 - People with serious mental illness - on average people with serious mental illness die 10 years earlier than the general population; and
 - Babies and children - perinatal mortality (including stillbirths) reflects pre-pregnancy, pregnancy and early neonatal care while infant mortality is a key internationally comparable measure of deaths in children.

Domain 2 - Enhancing quality of life for people with long-term conditions

52. Within domain 2, in line with the consultation proposals, a condition specific approach has not been taken. This is particularly important given that increasing numbers of people have more than one long-term condition. The focus has been instead on the generic outcomes that matter to people with any long-term condition. The aim has been to propose broad indicators that include as many people as possible with long-term conditions.

53. Generic outcomes have been identified based on analysis of evidence and consultation responses as follows:
- Feeling supported to manage their condition – this measures how well the NHS as a whole is doing in supporting people to look after themselves and handle the consequences of their conditions;
 - Functional ability – this measures how well the person is able to live as normal a life as possible, and by looking at employment ties in well with DWP and the Government’s wider policies about getting people back to work; and
 - Reduced time spent in hospital – this measures how successfully the NHS manages the condition(s) by looking at unnecessary hospital admissions and excessive length of stay.
54. Improvement area indicators have also been proposed for people with mental illness and for carers. For people with mental illness, employment is a key aspect of quality of life. Broader quality of life indicators in this area only include people with severe mental illness, and therefore were not favoured. Carers are important not only as individuals, but also because of their valuable work looking after others. For this reason, it is proposed that an indicator of their quality of life is included.

Domain 3 - Helping people to recover from episodes of ill health or following injury

55. In this domain, the consultation proposed two aspects of NHS care which should be covered:
- preventing minor conditions from becoming serious; and
 - helping people recover from short-term illness and injury as effectively as possible.
56. When selecting improvement areas for this domain, the general approach (as set out in the consultation) has been to identify the most common causes of emergency care for children, adults and older people, and then to identify appropriate outcomes for each. This approach was chosen in order to maximise coverage while meeting the needs of all age groups.
57. For most of the improvement areas in this domain, (injuries in children and adults, stroke and fragility fractures), the desired outcome has been identified as effective recovery. However, for lower respiratory tract infections in children, the steer from clinicians has been that such conditions should not in general require hospital care, so the desired outcome is preventing conditions from becoming serious.
58. In addition to this, two further areas of interest are recognised. These are areas that would otherwise be missed by the approach described above, but are important to ensure coverage:
- **Elective care**
As the numbers are smaller than for emergency care, this would be neglected by a purely numbers-driven approach. Patient reported outcome measures (PROMs) currently exist for four elective procedures, and these will be included in the NHS Outcomes Framework. Future PROMs development should aim to maximise coverage, in keeping with the rationale for selecting improvement areas.
 - **Independence in older people**
Many older people never recover their independence following a spell in hospital for any cause. Clinical consensus recognises this as a key issue for this age group, and it is not picked up by a diagnosis-based analysis.
59. The inclusion of the indicator on recovery of independence in older people means that this domain is slightly weighted towards older people. This is justifiable given that they are the heaviest users of healthcare services, and the needs of adults and children are still included in this domain.

Domain 4 - Ensuring people have a positive experience of care

60. As was made clear in the NHS Outcomes Framework consultation document, the approach adopted for Domain 4 is evolutionary. This means that the initial focus for 2011-12 is, of necessity, based on developing indicators from existing arrangements for nationally coordinated surveys. However, in the future, new options will be developed and existing collections may need to be refined so that they can generate future indicators that fully meet the requirements of the NHS Outcomes

Framework. The indicators listed above represent options that will be taken forward in the short term, while this longer-term work is undertaken.

61. The NHS National Patient Survey Programme and the GP Patient Survey build on an approach that was originally pioneered by Picker/Commonwealth Program in the USA (4) . This approach focuses on service specific issues which are important to patients, and which can help clinicians and managers easily identify specific service issues for improvement. Questions are designed to keep the subjective element to a minimum, so avoiding some of the problems commonly associated with questions that ask patients to provide an overall rating or level of satisfaction. Such questions can often hide more tangible and actionable service quality problems.
62. A method of grouping and scoring patient experience questions has been developed to enable improvement areas to be identified and progress over time monitored. This approach is currently used and reported by CQC and DH when assessing provider performance.
63. Two overarching indicators have been proposed that cover the majority of hospital inpatients and the care provided by general practitioners. These two measures are an average of scores derived from a subset of questions from within two survey instruments.
64. The improvement area indicators will be derived from a smaller set of questions drawn from a range of survey instruments. An average score can be calculated from this set of focused questions, which can then be used to monitor particular aspects of the patient experience, which have been identified as needing improvements.
65. The initial set of improvement indicators are drawn from different patient experience surveys, and they are able to produce data for inclusion in the NHS Outcomes Framework from 2011-12 onwards. Collectively, they achieve a wide coverage of patient interactions with the NHS, and they will focus on issues which are important to patients, and which describe different features of patient-centred care (“no decision about me – without me”). For example, on average patients see their GP four times a year, while use of other services is likely to be far less frequent. It is important to capture, as much as is feasible and practical, as full a range of NHS settings and activity as possible – both now and in the future.
66. Results are presented for each survey separately. Combining patient experience indicators across the indicator settings is not possible for several reasons, including differing questions in the underlying surveys, coverage of different organisations, and complexities around calculating and weighting a composite measure. It is also likely to lead to loss of clarity over what it represents and will be open to misinterpretation.

Domain 5 - Treating and caring for people in a safe environment and protecting them from avoidable harm.

67. The proposed indicators stem from several pieces of work over many years, and reflecting the more recent work of
 - the National Patient Safety Agency to improve safety and promote an improved patient safety culture, and
 - work commissioned by the National Quality Board to identify a useful national set of patient safety indicators for the NHS to use. These indicators were then narrowed down, by focusing on measures relating more directly to patient outcomes, rather than some of the more process and culture focussed indicators, which will be more relevant in delivering against the outcomes.
68. The proposed indicators generally cover key safety issues that are also wide-ranging and generic in terms of patient safety activity – relating to proper assessment, monitoring and care of all patients, and good infection control. Rather than focusing on narrow issues, the indicators relate to the relatively small, but tangible risk that all patients potentially face when entering a care setting.

Levels of ambition

69. Under Option 2, no specific level of improvements on outcome measures will be required from the NHS Commissioning Board or equivalent body during the first year of the scheme (2011-12). The required improvements for 2012-13 onwards will be the object of negotiation between the Department and the NHS Commissioning Board or equivalent body.

70. Through this NHS Outcomes Framework, the Secretary of State would select the outcomes and indicators by which the Board or similar body will be held to account. Specific, quantified levels of ambition for improvements in each (or selected) indicator would then be negotiated with the Board. Levels of ambition agreed should take account of past and expected trajectory. This would then allow the Board to be held to account for its success or failure to deliver each agreed outcome through the commissioning process, and for the agreement of a calibrated set of responses to the Board's actual level of achievement.
71. Although the specific levels of ambition will be negotiated, they should satisfy rigorous, transparent criteria that will include:
- Levels of ambition required should take into account the current trajectory of each indicator as the baseline, where known.
 - Levels of ambition should take into account to what extent are variations attributable to NHS actions. Required improvements should take into account the proportion in which the NHS can be expected to affect the outcome and the interplay with Public Health, Social Care and other factors.
 - Where applicable, levels of ambition should be adjustable to changes in external variables that affect the selected outcomes. Where external variables not related to NHS performance can influence the outcome in question to a great degree, the level of ambition should be adjusted in consequence. For example, it would be reasonable for the level of ambition required for indicators such as "Ensuring people feel supported to manage their conditions" to take into account variations in the delivery of social care services. The list of relevant external variables and the extent to which the level of ambition should be adjusted should be determined at the outset.
 - Levels of ambition should take into account the cost-effectiveness of required improvements. The improvements required should represent a cost-effective use of public funds.
 - Levels of ambition should take into account the timeliness of the impact of NHS on health care outcomes. For many of the outcome indicators chosen there will be a delay between the implementation of improved performance and this improvement being reflected in the indicator. This is because collecting the indicators will take time but also more importantly to the fact that current health outcomes will partly reflect past NHS actions and performance. This is particularly important for indicators such as 5-year Cancer survival but will be an issue for every indicator. Furthermore, those indicators for which the level of ambition relates to international comparisons may suffer from further time lags, as international data is typically at least two years behind. It is crucial that timeliness of indicators is taken into account when selecting levels of ambition and monitoring performance against them.
 - The required improvements should be achievable and affordable as a whole. The required improvements should be consistent overall with the NHS funding envelope and the QIPP programme.
 - The variation and inequalities in health outcome indicators should be considered, taking account of equalities characteristics, disadvantage and where people live. As well as improvements for the headline outcome indicators, requirements to reduce significant inequality in those outcomes across different population groups may also be introduced.
72. It should be noted that Option 2 assumes that process measures may still be needed to support delivery of outcomes in the normal management of organisations. However, the Government will not hold the NHS to account on points of process. As explained above it will develop an NHS Outcomes Framework, including a set of outcomes and indicators, which allow it to hold the NHS, through the new NHS Commissioning Board or similar body, to account for improving the quality of healthcare and outcomes for patients.
73. These indicators will apply at England level, although where possible they should also be meaningful at local level. The Secretary of State will require the NHS Commissioning Board or equivalent body to consider and report on the variation within the outcomes set out in the NHS Outcomes Framework. This will include consideration of the Public Sector Equality Duty, levels of disadvantage and outcomes in different communities. Wherever possible, data against the indicators in the framework will be able to be disaggregated according to equalities characteristics and

geography. Health inequalities across the six equalities strands² will be monitored and if, any issues are identified, then the NHS Commissioning Board and Secretary of State may wish to agree a related level of ambition, as explained above. The aim is to ensure the headline figures do not mask poor outcomes for specific groups and that inequality in health outcomes is explicitly recognised and tackled.

74. The NHS Outcomes Framework will be appropriately reviewed and maintained. Indicators will be reviewed annually and replaced if superior alternatives become available. These decisions will need to be made according to the same criteria used to select the original set of indicators (as explained in paragraph 44. They will be published and the reasons for any changes explained transparently. The specific institutional arrangement for this will be determined in time. Arrangements for reviewing the NHS Outcomes Framework five years after implementation are set in Annex 1 as part of the Post Implementation Review.

Other alternative options considered

75. Over the policy development process a number of options have been considered. This section summarises these options and the reasons for excluding them.
76. It was considered whether it was necessary to require the NHS Commissioning Board to achieve specific levels of ambition at all. Establishing an NHS Outcomes Framework and monitoring progress against baselines would in any case create incentives for the NHS Commissioning Board or similar body to improve NHS performance. However, as explained below in the Benefits section, the strength of these incentives is difficult to determine and it is difficult to know if they would by themselves be sufficient to solve the accountability problem.
77. Different dates for the introduction of levels of ambition for the NHS Outcomes Framework were also considered, including the option to determine and apply levels of ambition from the introduction of the NHS Outcomes Framework in April 2011. The specific levels of ambition would be determined unilaterally by DH and the NHS Commissioning Board or similar body would be expected to achieve those levels of ambition. However, the NHS Commissioning Board would only be set-up in shadow form from mid-2011 and therefore it would not be able to contribute to the determination of the levels of ambition nor effectively start working towards meeting them. Furthermore, the setting of levels of ambition is likely to require complex analysis and weighting of different criteria, which will take time.
78. For all these reasons, it was considered problematic for DH to set the levels of ambition unilaterally from April 2011. The proposed solution is to develop a mature accountability model that supports constructive dialogue between DH and the NHS Commissioning Board as to progress through a negotiated process. Specific, quantified levels of ambition for each (or selected) indicator would be negotiated with the Board and required from April 2012 onwards. This would then allow DH to judge the Board more directly on its success or failure to deliver each agreed outcome, and would also allow for the agreement of a more calibrated set of responses to the Board's actual level of achievement.

D. Impacts, Costs and Benefits of Option 2

(i) Set out the mechanism by which Option 2 is intended to work, its expected scale of impact, and the evidence supporting these expectations:

79. The NHS Outcomes Framework will provide the primary mechanism by which the Secretary of State will hold the NHS Commissioning Board or similar body to account for its progress in improving health outcomes. This body itself will have a number of mechanisms available to it by which to ensure that the NHS delivers the high-level outcomes described in the Framework (e.g. the national contract, accountability arrangements between it and commissioners, potential incentives for commissioners to achieve improved outcomes); these specific mechanisms are not the subject of this Impact Assessment. As explained above, at this stage, the level of improvements that will be required for each indicator has not been determined. The total impact of Option 2 cannot therefore be determined at this stage, as this will depend on the level of ambition selected for each indicator in the NHS Outcomes Framework.

² The six strands of equality are: Age, Disability, Gender (including Transgender), Race, Religion or Belief and Sexual Orientation.

80. This Impact Assessment is concerned with the effect of setting up an NHS Outcomes Framework in itself rather than with the benefits and costs of achieving a specific level of ambition for each of the outcome indicators.

(ii) Set out the costs and benefits of option 2.

Costs

Opportunity Cost Approach

81. For the NHS and other public organisations providing health care, the opportunity cost of re-allocating money to meet the duties of cooperation policy requirements will lead to an additional social cost. NICE assesses the cost of a QALY to the NHS at £25,000 each. Hence, the opportunity cost of around £25,000 of DH funding is one QALY. However, it is estimated that the general public value one QALY at £60,000, and therefore the opportunity cost of public funding in terms of QALYs should be monetised at £60,000 each QALY to obtain its true value. In practice, this means that benefits need to be around 2.4 greater than costs in order to achieve an improvement in the cost-effectiveness of the overall DH budget.
82. This applies to all public spending required, whether from the DH budget, from local authorities or from other Government Departments.

Costs from diverting NHS expenditure to collecting and disseminating the outcome indicators:

83. Although some new indicators will be required for the Outcomes Framework, the emphasis as far as possible is to derive indicators from existing data sources, in order to minimise the costs associated with setting it up. Therefore, in many cases indicators will not necessitate establishing new data collections, and the costs associated with doing this. For other indicators, the frequency of collection and timeliness of publication will need to be improved in order to be useful as indicators of NHS performance. However, for some indicators, where all other possibilities have been exhausted, new data systems will need to be developed, sometimes at a great potential cost.
84. These costs cannot be fully determined until the whole set of indicators have been selected. However, for those indicators that have already been identified, the additional costs of collection are set out below.

Domain 1

85. The proposed indicators are largely based on existing datasets:

- ONS mortality data
- ONS population data
- Mental Health Minimum Dataset

However, there will be some costs involved in developing and calculating some indicators where the exact definition is not yet finalised or where an existing indicator is not in the correct form:

- a. Mortality from causes considered amenable to health care: work is being carried out by the ONS to update the existing list of causes considered amenable. This is independent from the NHS Outcomes Framework and therefore any costs are not related to this policy.
- b. One- and five-year relative survival from colorectal cancer (rather than from colon cancer and rectal cancer separately) is not routinely published by ONS in that form for England. The type of data is however very similar that required for OECD purposes and therefore the costs are likely to be negligible.
- c. European age-standardised premature mortality rates (under 75) from amenable causes separately are not all published routinely, and would have to be calculated. This type of data may be produced by the Information Centre. The cost is expected to be small.

- d. Amenable mortality in people with serious mental illness is an indicator in development. It requires linkage of ONS deaths data with data from the mental health minimum dataset. While similar linkage has been done for other datasets and is therefore theoretically possible by April 2012, the work has not yet been done. This is already in development independently of the NHS Outcomes Framework, although there may be some small additional administrative costs to DH if the process needs to be sped up for 2011 or 2012.

86. These costs are expected to represent small administrative costs, mainly for the Department of Health.

Domain 2 - Enhancing quality of life for people with long-term conditions

87. The proposed indicators are largely based on existing datasets:

- Health Survey for England
- GP Patient survey
- Labour Force Survey
- Hospital Episode Statistics

However, there will be costs involved in developing and calculating some indicators where the exact definition is not yet finalised or where an existing indicator is not in the correct form:

- a. *Health related quality of life for people with long-term conditions*: This is based on EQ-5D³ data. A proposal to alter the GP Patient Survey (GPPS) so that it includes the EQ-5D questions and gathers the data necessary for the case-mix adjustment is being considered. The future characteristics of the GPPS or any equivalent future primary care survey beyond 2011/12 are currently being reviewed, but DH intends for EQ-5D information to be included in it. The proportion of it that is allocated to the new EQ-5D can be considered the additional cost of collecting the data for the NHS Outcomes Framework. As the cost of extending the GPPS needs to be negotiated, it is difficult to quantify this. It is assumed that running the new version of the survey would cost around £5 million per year and that the EQ-5D content would cover between 20% and 75% of the survey, giving a range of data collection costs between £1million to £3.75 million per year.

Further work is also needed to establish a robust case-mix adjustment model in order to make the data comparable. This work would probably need to be commissioned from outside the Department, although it would probably build on the analytical work already provided by the Department. The one-off costs associated with this are estimated to be around £20,000 at most.

- b. *Proportion of people feeling supported to manage their long-term condition*: This data is taken from the GPPS (see above). This data is currently published at a national level as part of the standard GPPS reports. There may be small costs associated with ensuring this data is available in the desired disaggregated format, but otherwise there will be no additional costs from collecting this data.
- c. *Employment of people with long-term conditions*: This is based on data from the ONS Labour Force Survey. This survey is independent of the NHS Outcomes Framework. However, some work is needed to extract and analyse the data on an ongoing basis. The costs associated with this are likely to be small.
- d. *Unplanned hospitalisation for chronic ambulatory care sensitive conditions*: This indicator needs to be developed. Work is needed to agree the optimum definition of chronic ambulatory care sensitive conditions. Once the definition was agreed, there would be a small amount of work to do, on an annual basis, extracting and analysing the data from HES. The costs associated with this are expected to be minimal.
- e. *Unplanned hospitalisation for asthma, diabetes and epilepsy in under-19s*: This indicator is currently produced by CHIMAT (Child and Maternal Health Observatory) as three separate indicators. A very small amount of recurring work is needed to combine the data into this indicator. The indicator is based on HES data.

³ EQ-5D™ is a trademark of the EuroQol Group. Further details can be found on their website: <http://www.euroqol.org>

- f. *Health related quality of life for carers*: This indicator would be based on data from the proposed GPPS. In order to calculate this indicator the GPPS has to include EQ-5D questions (see above for discussion of costs).
- g. *Employment of people with mental illness*: This is based on data from the ONS Labour Force Survey. This survey is independent of the NHS Outcomes Framework. However, some work is needed to extract and analyse the data on an ongoing basis. The costs associated with this are likely to be small.

88. The costs of collecting data for Domain 2 are shown below for the two scenarios linked to the GPPS.

High cost scenario £million	EQ5D	Case-mix adjustment	Total
Transition Financial Costs		0.02	0.02
Annual Financial Costs	3.75		3.75
Total transition costs including opportunity costs		0.05	0.05
Total annual costs including opportunity costs	9.00		9.00

Low cost scenario £million	EQ5D	Case-mix adjustment	Total
Transition Financial Costs		0.02	0.02
Annual Financial Costs	1.00		1.00
Total transition costs including opportunity costs		0.05	0.05
Total annual costs including opportunity costs	2.40		2.40

Domain 3 - Helping people to recover from episodes of ill health or following injury

89. Most of the indicators for this domain are based on existing datasets. However, there will be development and/or collection costs attached to some.
90. The following indicators require development work only. This may be done within the Department or commissioned from an external organisation. Either way the one-off costs are expected to be low.
- Emergency admissions for acute conditions that should not usually require hospital admission*
There are various definitions (lists of conditions) available for this indicator. Further work will need to be done to build consensus about which definition is most appropriate, or to draw up a new definition.
 - Emergency readmissions within 28 days of discharge from hospital*
There are issues around the interpretation of this indicator. Further work will be needed to better understand how readmissions can be interpreted and, if possible, to develop a more meaningful indicator based on readmissions data.
 - Proportion of older people (65 and over) who were still at home after 91 days following discharge from hospital into rehabilitation services*
There is a concern that this indicator does not ensure that hospitals discharge patients into rehabilitation services in the first place. Further work will be needed to determine how this can be addressed.
91. The following indicators will require new collections of data.
- PROMs*
There is ongoing development of the PROMs programme, but this is independently of the NHS Outcomes Framework and so it sits outside the scope of its costs.
 - An indicator on stroke recovery*
The Stroke Strategy recommends that stroke patients are followed up six months after discharge and their health status measured. Any indicator that is developed for the NHS Outcomes Framework is likely to rely on this data. Provided that the Stroke Strategy is implemented and that this data is collected nationally and consistently, the NHS Outcomes Framework should not place any additional burden of data collection on the service.

c. *An indicator on injuries and trauma*

In response to the NAO's report on major trauma, work is ongoing in the Regional Trauma Networks to develop outcome indicators for major trauma. The Regional Trauma Networks have provided indicative costs for two options:

- Telephone survey of 10,000 major trauma patients - £100,000 p.a.
- Linkage of DWP data with healthcare data - £100,000 setup cost + £30,000 p.a.

d. The plans to implement one of these options for major trauma are independent from the NHS Outcomes Framework and so are out of scope for this costing. However, the NHS Outcomes Framework requires this work to be extended to all injuries, so there may be additional costs involved that are attributable to it. The following are illustrative costs for each option.

- i. If it is assumed that a further survey of all injury patients is carried out using a similar methodology and the same sample size, then the additional cost will be £100,000 each year.
- ii. The work already planned will link Trauma Audit & Research Network (TARN) data to DWP datasets. For all injuries it would be necessary link HES data as well. The additional setup costs are not likely to be greater than the £100,000 estimate for TARN data and the recurring costs are not likely to be greater than the corresponding £30,000 estimate.

92. The total data collection costs from Domain 3 are set in the table below:

High cost scenario £million	New survey for all injuries	Extending TARN	Total
Transition financial costs			
Annual financial costs	0.10		0.10
Total transition costs including opportunity costs			
Total annual costs including opportunity costs	0.24		0.24

Low Cost scenario £million	New survey for all injuries	Extending TARN	Total
Transition financial costs		0.10	0.10
Annual financial costs		0.03	0.03
Total transition costs including opportunity costs		0.24	0.24
Total annual costs including opportunity costs		0.07	0.07

Domain 4 - Ensuring people have a positive experience of care

Primary care

93. Data for the primary care patient experience indicators for GP services and dental services are expected to be extracted from the GPPS. The future characteristics of the GPPS are currently under consideration, but it is expected to go ahead. Therefore, there are no additional costs due to the NHS Outcomes Framework.

Other care settings

94. Inclusion of patient experience indicators within the initial 2011-12 NHS Outcomes Framework will require the following surveys:

- Inpatient Survey
- Outpatient Survey
- A&E Survey
- Community Mental Health Survey
- Maternity Survey

95. Both the Inpatient and Community Mental Health Surveys are currently conducted on an annual basis, and it is anticipated they will continue to be so in the future. If they are conducted to the same specification as across recent years, then there are no additional data collection costs associated with these.
96. The Maternity, Outpatient and A&E surveys are conducted on a rolling programme, which means that they will be conducted in alternate years (i.e. every 2-3 years). These indicators will be updated every three years, using data from the current surveys. Assuming the programme continues along these lines in the future, there will be no additional data collection costs associated with these.
97. As set out above, survey development work is currently underway across a wide range of other care settings to scope and develop future options. This will involve reviewing existing surveys that could feature in future iterations of the Framework, and taking full account of new requirements (eg to provide data along service lines, across pathways, focused on specific conditions or groups of patients). By definition, this work is longer term – so the costs of developing these possible options are not covered here.

Domain 5 - Treating and caring for people in a safe environment and protecting them for avoidable harm.

98. The proposed indicators, including those requiring further development, are based on existing data sets, mainly Hospital Episode Statistics, the National Reporting and Learning System and the mandatory surveillance datasets for Healthcare Associated Infections, currently run by the Health Protection Agency. Therefore, there are no significant additional costs attached to these indicators. Where developments are taking place, these primarily relate to definition and clinical coding selection, or dataset developments that are already funded and underway.

Costs from diverting NHS expenditure to meeting the levels of ambition set, including opportunity costs:

99. As explained above, different levels of ambition will need to be negotiated for each outcome indicator depending on the feasibility and cost of improvements. Under this option, there would be no set levels of ambition for 2010-11, the first year of operation of the NHS Outcomes Framework. Levels of ambition for improvement will be determined prior to 2012-13 through negotiation between DH and the shadow NHS Commissioning Board.
100. Achieving the levels of ambition that will be specified from 2012-13 onwards will have both costs and benefits. These depend on the levels of ambition negotiated with the NHS Commissioning Board. The criterion that levels of ambition should represent cost-effective improvements in health outcomes should ensure that the benefits outweigh the costs.
101. Although it is not possible to quantify benefits and costs at this stage, examples of costs and benefits for several indicators considering two illustrative levels of ambition are presented on Annex 2.

Benefits

Improvement in quality of healthcare from achieving different levels of ambition

102. Different levels of ambition will potentially lead to different levels of benefits. Until these levels of ambition are determined, it is difficult to know what the specific benefits will be from achieving them.
103. *Measuring and publishing the outcome indicator as part of an NHS Outcomes Framework* is likely to give the outcome indicators greater visibility than they currently have in some cases and, where it is a new indicator, it can provide a new way to indicate the performance of the NHS through the NHS Commissioning Board or similar body. Even when no explicit target is set, this is likely to provide incentives to improve the quality of healthcare. Similarly, the increase in the visibility of relevant information may help to make existing activities more efficient and better targeted. The strength of these effects is however difficult to determine and with no available evidence should be assumed to be relatively small.

104. *Levels of ambition that explicitly require improvements* are likely to produce benefits, particularly if the concerns around feasibility and affordability considered above are taken into account. Requiring the NHS Commissioning Board to achieve a given improvement in an outcome indicator will give it incentives to achieve this improvement. Overall, if, as explained in the description of Option 2, the outcomes selected are appropriate and representative of the quality care in the NHS, this should provide a good system of incentives for the NHS Commissioning Board or similar body to improve the quality of health care in the NHS. However, it will be important to ensure through rigorous analysis that proposed levels of ambition are cost-effective and do not represent a diversion of resources from more cost-effective alternatives.
105. Because of the way the NHS Outcomes Framework has been constructed, this quality of care should cover the main areas of health care effectiveness, patient experience and patient safety. These benefits cannot be quantified without knowing the specific levels of ambition but could potentially be very large.
106. The benefits and costs of several outcome indicators for several illustrative levels of ambition are presented in Annex 2.

(iii) Set out the assumptions upon which projections for Option 2 have been based, and the risks to which they are subject.

Complete accountability framework

107. If the NHS Outcomes Framework is implemented without imposing any further constraints on the NHS Commissioning Board, then there is the risk that the accountability framework is incomplete. A manageable and meaningful NHS Outcomes Framework of the form proposed in Option 2 can necessarily only encompass a proportion of the huge range and variety of services that the Board or similar body must ultimately commission. Therefore there is a need for supplementary approaches to ensuring that the Board can account effectively for its comprehensive service obligation, alongside the envisioned small set of “representative” outcome indicators. Clearly, the Board will also need to account financially for its use of public funds, and potentially for a number of other legal requirements.
108. For this reason, the NHS Outcomes Framework is only one part of the future accountability frameworks that the NHS Commissioning Board or similar body will need in order to operate correctly. Secretary of State will give the NHS Commissioning Board a Mandate that will include the NHS Outcomes Framework and its comprehensive service obligation, as well as financial and further legal requirements.
109. It is hard to anticipate how the national NHS Outcomes Framework will inform this commissioning accountability framework. It must also be recognised that outcome data suitable for use at national level may not necessarily be capable of disaggregation to local level in a timely or granular form. Therefore it is also assumed that the NHS Board will, in due course, develop its own Commissioning Outcomes Framework, an accountability framework for use with commissioners, a more detailed set of indicators which the NHSCB will use to hold the GP Consortia to account for improving outcomes for their populations.

Improvements in NHS Outcomes Framework indicators will reflect improvements in NHS performance as a whole

110. This Impact Assessment assumes that selected outcomes will represent accurately the overall outcomes that are achieved by the NHS. Two important potential risks must be recognised here: that the specific outcomes chosen may not, in fact, represent the best use of limited resources, and that the framework itself may distort incentives and behaviours in undesirable ways.
111. If the relative costs and benefits of improving different indicators are not taken into account in the selection process, it is possible that specific outcomes identified as components of the NHS Outcomes Framework may not necessarily represent the most cost-effective means of maximising the health outcomes of the population. To mitigate this risk, an explicit cost-effectiveness criterion has been used as part of the indicator selection process.

112. More broadly, management of the NHS Outcomes Framework following its implementation should focus on the risks that the precise components of the Framework might attract disproportionate effort and focus by the Board, commissioners and providers, with the consequent risk that they “crowd out” attention to other important (but excluded) outcomes. Ensuring that the Board’s own incentive structure (and its incentive arrangements for commissioners) does not distort effort disproportionately towards individual outcomes will also be important to consider.
113. Both risks can be mitigated by ensuring that the selected outcome indicators represent the breadth of activities for which the NHS is responsible.
114. It is important that measures included in the NHS Outcomes Framework are representative across the NHS in order for the Framework to be representative, and to minimise perverse incentives. As explained above, the indicator selection process has used transparent criteria systematically to provide coverage of the main services provided by the NHS. The table below shows the percentage of Programme Spend, according to how well it is represented in the NHS Outcomes Framework. To calculate this, domains were rated according their estimated coverage of Programme Spending areas, classified as Strong, Moderate, Weak, Unclear or No coverage. Where two or more domains rated the same area, the highest rating was taken. Domain 4 was excluded from this, as Patient Experience will by its nature cover the whole activity of the NHS. The analysis shows that domains clearly represent the majority of NHS activity, according to spend, with 100% having some form of coverage. The majority of the NHS (63%) is covered Strongly by the NHS Outcomes Framework. As explained above the total likely coverage will be greater as this analysis excludes Patient Experience. Please see Annex 3 for more detail on the analysis.

Coverage Strength in NHS Outcomes Framework	Percentage of Programme Spend
Strong	63%
Moderate	9%
Weak	17%
Unclear	10%
No coverage	0%

115. Despite these precautions built-in to the design of the NHS Outcomes Framework, like any accountability system it may in some cases lead to perverse incentives. Because of this, the functioning of the NHS Outcomes Framework will need to be monitored closely and the list of outcomes indicators reviewed regularly. The annual review of the NHS Outcomes Framework will do this, considering whether indicators should be updated or replaced according to the original indicator selection criteria and where improved indicators have been developed. In addition, the Post Implementation Review (described in more detail in Annex 1) will be commissioned externally and examine the first five years of operation of the NHS Outcomes Framework and assess whether it has achieved its objectives as well as suggest any necessary changes. It will be a chance to examine the effect of the framework in terms of improving health care outcomes but also as an accountability structure in greater depth than the annual reviews and consider more wide-ranging changes to the framework as a whole.

NHS Outcomes Framework will reduce gaming

116. Any accountability mechanism will face attempts at “gaming” it, i.e. nominally meeting its requirements at the expense of achieving its actual goals. Additionally, there is the risk for indicators and information to be manipulated. The features of the NHS Outcomes Framework are expected to minimise the extent to which this happens. The indicators have been chosen to be representative of the activities of the NHS as a whole, so improvements in them should reflect improvements in the services and outcomes. They have been selected in a transparent and rigorous manner that has included a consultation, incorporating suggestions from the wider public, academic experts and health professionals. Annual reviews are to be conducted in a transparent manner according to clear and rigorous criteria. As pointed out by Brown, Calnan et al. (2) in their discussion of the Performance Evaluation System of health care in the Italian region of Tuscany, indicators developed in a collaborative manner should reduce the risk that local managers may manipulate data or refuse to engage with the evaluation system. The fact that the indicators relate directly to health outcomes should also make them credible and legitimate to healthcare workers.

Outcome framework indicators are attributable to NHS actions

117. This Impact Assessment assumes that selected outcomes will be attributable to the NHS Commissioning Board or similar bodies and will therefore be useful in holding it to account. Indeed, the degree to which improvements in these indicators could be attributed to NHS actions has been one of the criteria used to select the set of indicators in the NHS Outcomes Framework. The process of assessing whether levels of ambition have been met will also form part of a mature dialogue where the Secretary of State will recognise when factors outside the control of the NHS affect outcomes.
118. However, for most health outcome indicators external factors will have a significant impact aside from healthcare interventions, making it difficult to hold the NHS Commissioning Board absolutely accountable for their delivery. Experts have strongly suggested that an arrangement where success or failure in delivering improvements is considered in black or white terms would not be appropriate.
119. This risk is partially mitigated by the fact that one of the criteria for selecting the indicators in the NHS Outcomes Framework has been the extent to which it was the outcome of NHS actions.
120. The proposed option proposes levels of ambition should be negotiated between DH and the NHS Commissioning Board or similar body. This negotiation process should ensure that these issues are taken into account when setting levels of ambition and monitoring performance. This would then allow DH to judge the Board more directly on its success or failure to deliver each agreed outcome, and would also allow for the agreement of a more calibrated set of responses to the Board's actual level of achievement
121. Additionally, several indicators are likely to overlap with those selected for the Public Health Outcomes Framework. This reflects the fact that health outcomes will often be the result of both NHS and Public Health interventions, particularly those linked to mortality (Domain 1). These shared indicators should initially help align the actions and incentives of NHS and Public Health. If there is an overlap, it is crucial that the levels of ambition should take account of the interaction between the two frameworks. Overtime the aim will be to move beyond this interim approach and focus on indicators that capture the NHS contribution more accurately.

The NHS Commissioning Board or similar body will know how to improve outcomes

122. It is also assumed that there is a room for improvement in healthcare outcomes, although it is not always clear-cut on what needs to be done to achieve it – and improvement may be difficult to achieve in practice where there is not clarity on the actions required. As the NHS Commissioning Board will be part of the NHS, it should be able to harness its expertise to solve such problems. The negotiation process by which levels of ambition will be agreed between DH and the NHS Commissioning Board should also help mitigate the risk that over-ambitious levels of ambition are chosen when the necessary intervention is not clear.

The levels of ambition achieved through negotiation will be feasible, cost-effective and consistent with QIPP programmes and SR spending envelope

123. Levels of ambition will be the main drivers for health benefits and financial costs. Secretary of State and the NHS Commissioning Board should have the correct incentives to negotiate appropriate levels of ambition. However, as so much of the effect of the policy depends on these levels, it is important to ensure that any risks are recognised here and any mitigation strategies made explicit.
124. The negotiations should explicitly take into account a set of criteria that include the following:
- Levels of ambition required should take into account the current trajectory of each indicator as the baseline
 - Levels of ambition should take into account to what extent are variations attributable to NHS actions
 - Levels of ambition should take into account the relative cost-effectiveness of required improvements
 - Levels of ambition should take into account the timeliness of the impact NHS actions on health outcomes

- The required improvements should be achievable and affordable as a whole; and
- The variation and inequalities within health outcome indicators should be considered in setting levels of ambition.

(iv) Set out expected impacts upon Equality and Human Rights:

125. The impacts on Equality and Human Rights are set out in the Equality Impact Assessment attached to this Impact Assessment.
126. The Health Impact Assessment screening questions have been applied, and all were assessed as not relevant, other than the first, “direct impact on health, mental health and wellbeing”. The likely impact in this area is positive, and will be assessed directly in the Final Impact Assessment, based on responses to the consultation and ongoing analysis.

E. SUMMARY AND WEIGHING OF OPTIONS

Provisional net costs

127. The estimated Net Present Value of the project over 10 years and assuming a discounting rate of 3.5% is around -£22 to -£80 million. This does not include the costs and benefits of setting and achieving levels of ambition for different indicators.

Total Costs £million	High	Low	Best
Transition financial costs	0.02	0.12	0.07
Annual financial costs	3.85	1.03	2.44
Total transition costs including opportunity costs	0.05	0.29	0.17
Total annual costs including opportunity costs	9.24	2.47	5.86
NPV over 10 yrs Including opportunity costs	-79.58	-21.57	-50.57

128. Costs and Net Present Value broken down by domain are as follows:

High cost scenario £million	Domain 1	Domain 2	Domain 3	Domain 4	Domain 5	Total
Transition Financial Costs		0.02	0.00			0.02
Annual Financial Costs		3.75	0.10			3.85
Total transition costs including opportunity costs		0.05	0.00			0.05
Total annual costs including opportunity costs		9.00	0.24			9.24
NPV over 10 years Including Opportunity Costs		-77.52	-2.07			-79.58

Low cost scenario £million	Domain 1	Domain 2	Domain 3	Domain 4	Domain 5	Total
Transition Financial Costs		0.02	0.10			0.12
Annual Financial Costs		1.00	0.03			1.03
Total transition costs including opportunity costs		0.05	0.24			0.29
Total annual costs including opportunity costs		2.40	0.07			2.47
NPV over 10 years Including Opportunity Costs		-20.71	-0.86			-21.57

129. The costs quantified show the likely costs of collecting and processing additional data for the NHS Outcomes Framework. They are however represent a small portion of the actual costs of the policy and are expected to be small relative to the costs and benefits of achieving the required levels of ambition.

130. However, it should be noted that the benefits from the policy are equally likely to be much larger. Annex 2 provides examples of the illustrative costs and benefits of achieving different levels of ambition for each indicator.

Summary

131. Option 2, representing the setting up of an NHS Outcomes Framework that allows the new NHS Commissioning Board or similar body to be held to account, is the preferred option.
132. Benefits are expected to outweigh costs if the outcome indicators and levels of ambition selected are appropriate and fulfil the conditions explained above and in the Consultation document.

Annexes

Annex 1: Post Implementation Review (PIR) Plan

Basis of the review: [The basis of the review could be statutory (forming part of the legislation), it could be to review existing policy or there could be a political commitment to review];

Political commitment

Review objective: [Is it intended as a proportionate check that regulation is operating as expected to tackle the problem of concern?; or as a wider exploration of the policy approach taken?; or as a link from policy objective to outcome?]

This review will examine the first five years of operation of the NHS Outcomes Framework and assess whether it has achieved its objectives as well as suggest any necessary changes. It will be a chance to examine the effect of the framework in terms of improving health care outcomes but also as an accountability structure in greater depth than the annual reviews and consider more wide-ranging changes to the framework as a whole.

Review approach and rationale: [e.g. describe here the review approach (in-depth evaluation, scope review of monitoring data, scan of stakeholder views, etc.) and the rationale that made choosing such an approach]

The review will examine the evolution of NHS Outcomes Framework indicators over this period, as well as a range of other published health outcome indicators not included in the framework. It will be commissioned externally, in order to provide an independent assessment of the performance of the NHS Outcomes Framework.

The focus will be on analysing the NHS Outcomes Framework as a driver for healthcare outcome improvements as well as its effect as an accountability framework.

It will examine issues such as:

(i) the extent to which the NHS has managed to attain the negotiated levels of ambition, (ii) whether improvements in NHS Outcomes Framework indicators have reflected improvements in overall NHS performance, (iii) the incentive effects of the framework including any evidence of perverse incentives or gaming, as well as (iv) the interaction of the NHS Outcomes Framework with the Public Health and Social Care Frameworks.

Baseline: [The current (baseline) position against which the change introduced by the legislation can be measured]

Each indicator will have a baseline trajectory and/or value that it will be compared against and which will be used to set the level of ambition. External data sources will be collected for the review.

Success criteria: [Criteria showing achievement of the policy objectives as set out in the final impact assessment; criteria for modifying or replacing the policy if it does not achieve its objectives]

Success criteria will include:

- The degree to which the levels of ambition have been met and so whether the NHS Outcomes Framework has been successful in improving health outcomes.
- An assessment of whether the framework indicators are representative of overall NHS performance and improvements in the selected indicators are indicative of an overall improvement in NHS performance.
- An assessment of whether the levels of ambition have been set appropriately
- Evidence that the incentive effects of the NHS Outcomes Framework have been positive and that the incidence of perverse incentives has been limited.
- An assessment of the appropriate interaction with the Public Health and Social Care Frameworks.

Monitoring information arrangements: [Provide further details of the planned/existing arrangements in place that will allow a systematic collection of monitoring information for future policy review]

The NHS Outcomes Framework will require the monitoring of healthcare information and outcomes. This will be supplemented with other sources of data on healthcare outcomes in England.

Reasons for not planning a PIR: [If there is no plan to do a PIR please provide reasons here]

N/A

Annex 2: Illustrative costs and benefits of selecting specific levels of ambition for a set of indicators

133. For the purposes of this Impact Assessment, outcomes have been analysed in order to illustrate the cost of setting up and achieving outcomes within an NHS Outcomes Framework. This section shows broadly how the analysis of costs and benefits for a given indicator and level of ambition would be structured. The figures presented are for indicative purposes only and provide an illustration of the general approach.
134. The processes needed to achieve each outcome can be split into those relating to:
- Collecting data and disseminating the outcome indicators
 - Making the necessary changes to ensure the outcome is achieved
135. The impact of the outcomes can be split into:
- The cost of collecting and disseminating the outcome indicators
 - The cost of making the necessary changes to ensure the outcome is achieved
 - The benefits from achieving the outcome
136. The second of these will depend crucially on the level of ambition chosen for each outcome. As explained above, the generic levels of ambition chosen for each outcome are likely to be:
- Measuring and publishing the outcome indicator
 - Achieving year-on-year improvements in the outcome indicator
 - Achieving a comparable level to peer countries, represented as the EU-15 average level
137. The NHS Outcomes Framework is expected to encourage or incentivise improvement in outcomes above and beyond that which would be expected in the absence of such a framework; It is not known what this impact will be because it depends upon the quality of the indicators chosen, on the levels of ambition to be set and on the assumed counterfactual.
138. The levels of ambition used to construct the cost and benefit analysis shown below are just for illustrative purposes and do not intend to influence or pre-judge in any way the result of the negotiations between DH and the NHS Commissioning Board or similar body.

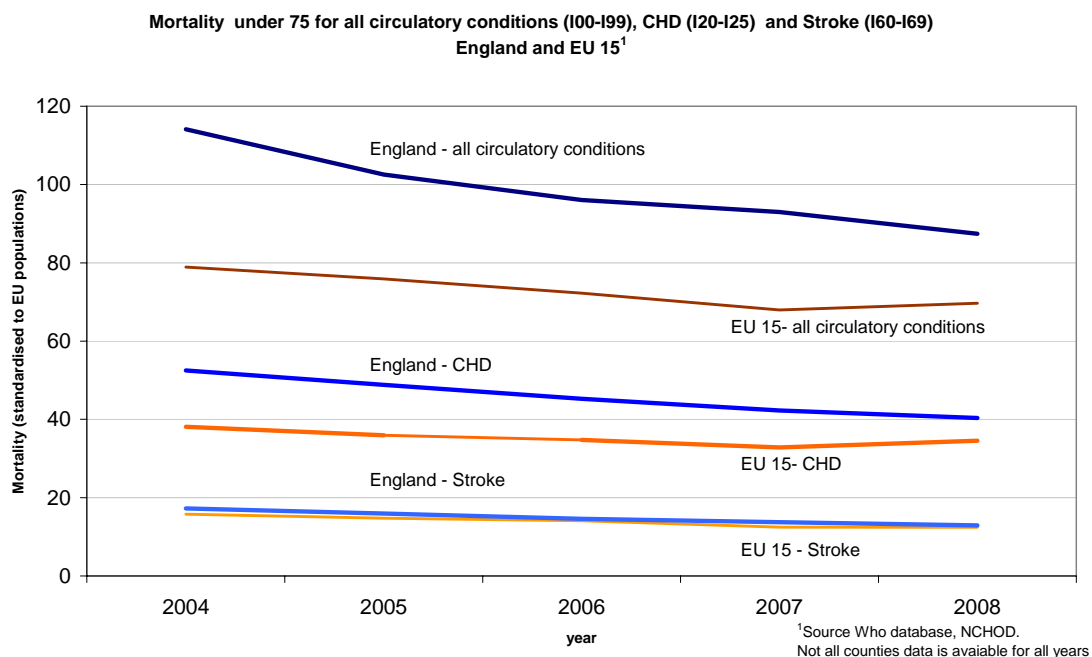
Illustrative example 1: Premature mortality from stroke and heart disease

Background information

Current performance on this outcome:

139. England has lower premature mortality rates than the EU12 (average of new EU enlargement members since 2004) and the overall EU27 average, but higher than the average of EU15 (pre-2004 enlargement EU countries), for:

- All circulatory diseases
- Stroke
- Coronary heart disease (CHD)

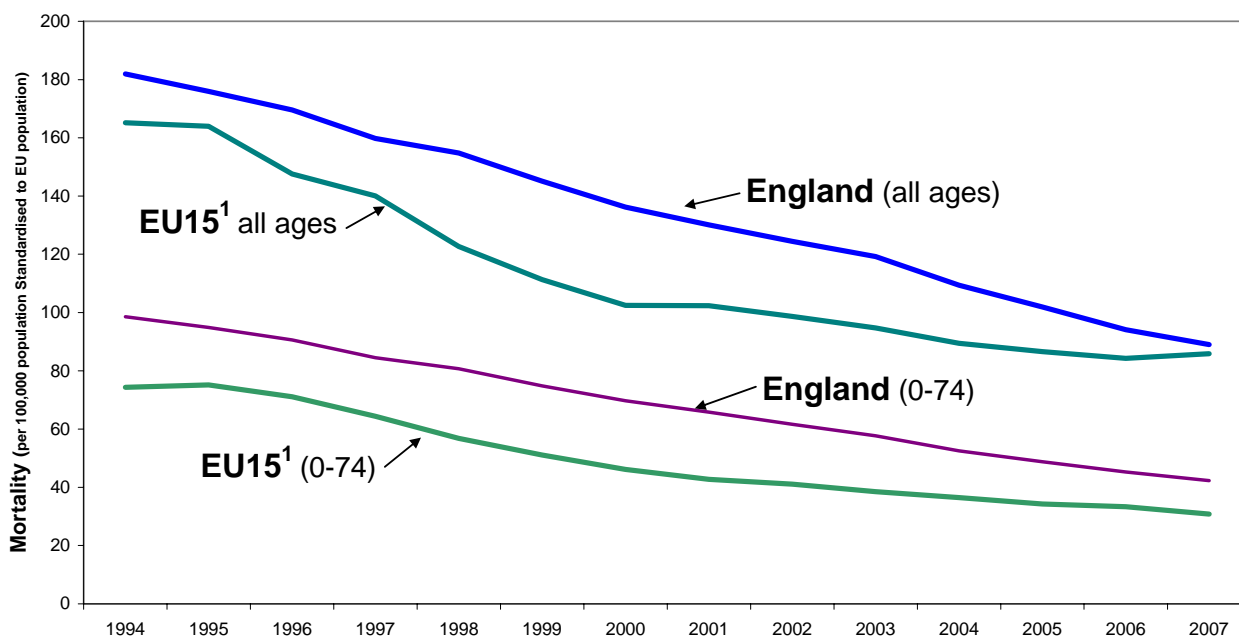


140. DH calculates that to achieve a lower rate than EU15 countries by 2015, the annual reduction in the England rate would need to increase from 6% to 9% for CHD, and from 3.9% to 6.1% for stroke (assuming EU continues to fall at the same rate).

141. The DH stroke policy team considers that for stroke this will be achievable with the current levers (Stroke Strategy 2007, Vital Sign 2008, and Best Practice Tariff 2010). There are no specific levers in place to achieve the necessary 9% reduction for CHD.

Coronary heart disease

0 to 74 and all ages I20 - I25



Source EU15 = WHODatabase ¹Not all counties data is available over whole time series , Engl;and = nchod

Costs

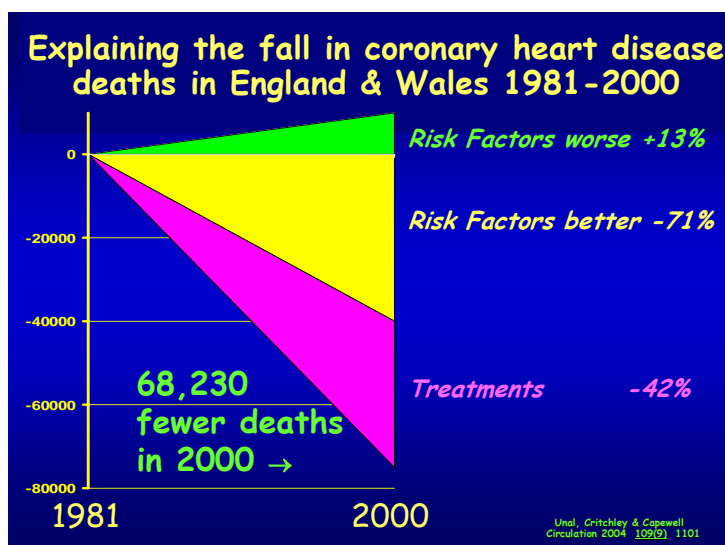
Costs of measuring outcome:

142. No additional expenditure is needed to monitor national rates of mortality from stroke or CHD. The ONS already reports the raw numbers, and it is simple to calculate the standardised mortality rates from these. WHO/Europe international comparative data is reported with a 2-3 year lag. Death rates for particular sub-populations at a local authority level tend to need averaging over a three to five year period to give statistically significant trends. Some further work may need to be undertaken to develop mortality outcomes indicators if they are to be useful in local commissioning arrangements.
143. Currently it is difficult to systematically link mortality by cause for an individual patient to healthcare interventions prior to death. Holding to account providers for particular healthcare interventions to eventual outcomes for stroke and heart diseases would add a significant extra burden for data collection, which cannot be estimated here.

Costs of achieving levels of ambition:

144. For the purposes of this example, the high-level ambition considered for stroke would be an additional 6% reduction in mortality rate with a low level ambition of an additional 3%. For coronary heart disease, the high-level ambition illustrated would be an additional 10% reduction per year and a low level ambition of an additional 5%.
145. The levels of ambition used to construct the cost and benefit analysis shown below are just for illustrative purposes and do not intend to influence or pre-judge in any way the result of the negotiations between DH and the NHS Commissioning Board or similar body.

146. The death rate for stroke and CHD has been falling for over 20 years in England. It has been already discussed earlier in this document that this continually falling death rate has lagged behind some of the UK's close international comparison countries. For example, the death rate for CHD lags behind Germany by about three years. For example, the death rate for CHD lags behind Germany by about three years. The difference between England and France is much larger, which is possibly due to a much lower incidence of heart attacks in France, in common with the counties in the Mediterranean region, or due to differences in reporting practices."
147. The death rate from stroke and heart attacks can of course be reduced by providing more high quality healthcare interventions. However work studying the fall in death rates in the US and England suggests that only around 40% of the fall in death rates between 1980 and 2000 could be explained by better healthcare. The majority of the gain was due the general reduction in risk factors, principally smoking, diet and exercise.



148. The inter-relationship between spending on public and personal healthcare in achieving outcomes can make it difficult to attribute what benefit might be achieved from an incremental increase in spending in one area compared with another. It is generally believed that investment in public health interventions has a greater potential cost / benefit ratio compared to investment in medical interventions, but the benefits usually take longer to achieve.
149. The programme budget costs for problems of circulation (which includes CHD, stroke and other circulatory diseases) incurred by the NHS are shown in the table below:

PBC Co	Programme Budgeting Category	Gross Expenditure £000					
		2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
10	Problems of Circulation	5,715,032	6,187,935	6,361,965	6,898,410	7,227,743	7,420,201
10A	Problems of Circulation - Coronary Heart Disease	-	-	-	2,307,992	2,440,612	2,440,476
10B	Problems of Circulation - Cerebrovascular Disease	-	-	-	836,856	918,886	1,030,953
10C	Problems of Circulation - Problems of Rhythm	-	-	-	383,400	450,497	463,141
10X	Problems of Circulation - Other	-	-	-	3,370,163	3,417,749	3,485,631

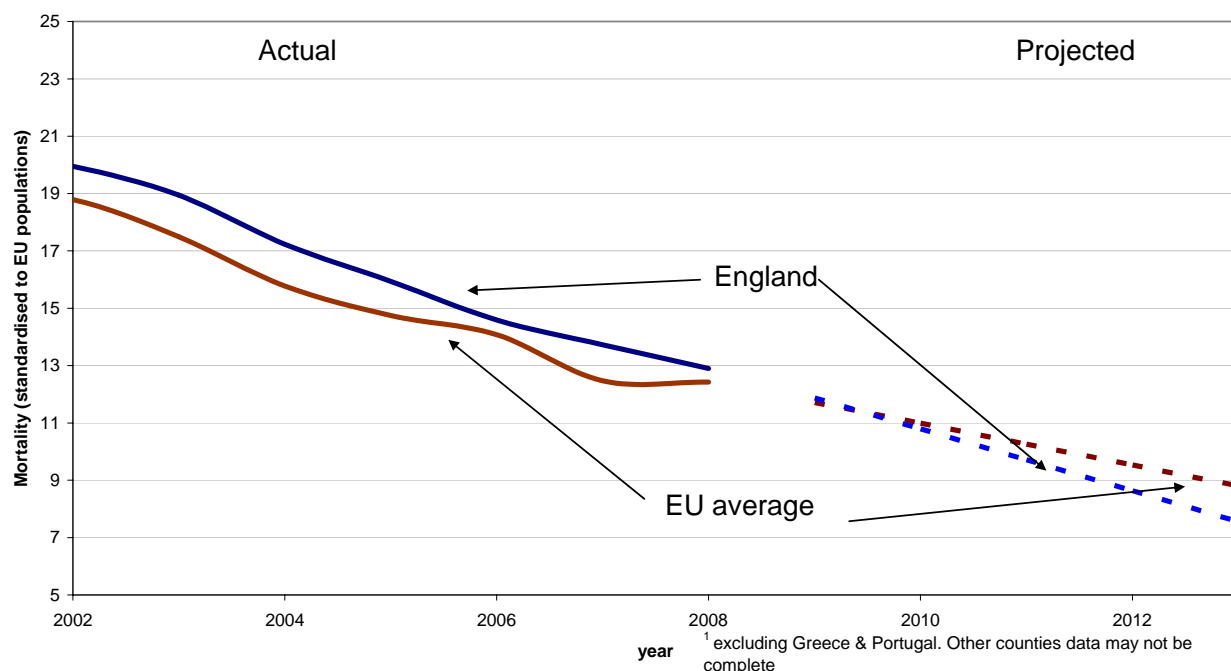
150. This shows that between 2006/7 and 2008/09 the spending on CHD increased by 2.8% and cerebrovascular disease by 10.4% per year.

Estimated costs of meeting the EU15 average mortality for stroke:

151. The UK stroke death rate for the 0-74 age range has fallen year-on-year since the WHO database permitted EU average comparisons in 2001. Early results from the 2008 mortality figures

(the latest year for which figures are available) suggest that if the UK improvement rate is maintained, it is possible that that the outcome goal of matching the EU 15 average for this age range by the end of 2010 may be achieved.

Stroke Mortality - England and EU 15 average ¹
age range 0 - 74 ICD codes I60 to I69



152. Implementation of the Stroke Strategy began in 2008/09 and is due to be fully rolled out by 2017/18. It has three major components: a) the rapid assessment and treatment of TIAs to prevent a stroke occurring, b) the rapid assessment and treatment of strokes on dedicated units to reduce death and disability, and c) timely rehabilitation to ensure that disabilities from a stroke are minimised.

153. This programme has been costed and the additional resources needed to fully fund the additional services are as follows:

	10/11	11/12	12/13	13/14	14/15
Total In Year Costs (current prices) £m	83	94	104	111	118
Increase over 2008/09 programme budget (£1,030 m)	8%	9%	10%	11%	11%

Cash resource - 2010/2011 prices

154. This assumes that the public health benefits to vascular risk reduction continue at the same or increasing rates.

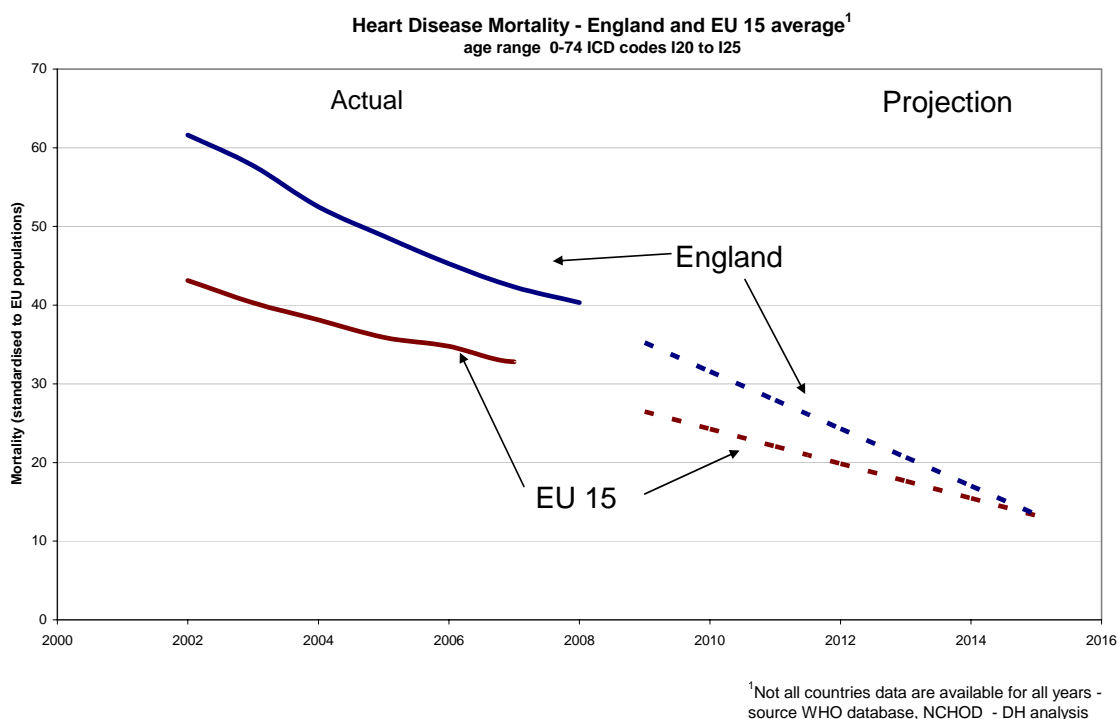
155. It also assumes that the Stroke Strategy objectives and analysis will be adopted as levels of ambition under the NHS Outcomes Framework. This is just for illustrative purposes.

Estimated costs of meeting the EU15 average mortality for coronary heart disease:

156. In 2007, with the exception of Finland, the UK had the worst coronary heart disease mortality rate compared to the EU15 countries that provided date to WHO. The UK is lagging Germany by three years and the Netherlands by more than seven years.

157. As shown in the graph below the gap between the UK and the EU 15 countries is closing but at the current rate it will be 2015 or later that the UK catches up.

158. The NHS Health Check programme will reduce mortality rates from CHD and stroke as well diabetes and chronic kidney disease with the main benefit building up over a 20 year period.



159. To increase the rate of improvements, targeted additional resources have been identified by the DH vascular programme team from expert advice as follows:

Priority areas	Intervention	Approximate cost (£million)
Atrial Fibrillation	Identification and appropriate anticoagulation	63.5
Cardiac Rehabilitation	Increasing access	20- 40
Heart Failure:		
Diagnostics	Ensuring primary care access to BNP testing	3.1
Medication	Optimising medication – specialist staff	0.5 – 155
Coordinating care	Access to specialist staff	(see above under medication)
TOTAL		88 - 262

160. The rationales for these costs are as follows:

- Atrial Fibrillation (AF) is common, affecting over 600,000 people in England (1.2% has been the accepted prevalence). Recent surveys by NHS Improvement of over one million patients in general practice have given an estimate of the prevalence of known AF in England as 1.59%, or approximately 800,000 people.
- It is a major predisposing factor for severe stroke: 12,500 strokes per annum are attributed to AF, and estimates suggest that appropriate anti-coagulation could prevent 4,500 strokes per year in patients with AF.
- Admissions for AF and flutter have increased by 56% since 1998/99 and by 38% since 2000/01.
- Evidence is that Cardiac Rehabilitation gives heart attack patients a 26% greater chance of surviving in the 5 years post diagnosis (and significantly improves quality of life) – Taylor et al 2004.
- Heart failure (HF) continues to be a major cause of emergency admission, accounting for 1% of all emergency admissions (HES data 2007/08). In 2008/9, there were 53,164 emergency admissions for HF, down slightly from 2007/8. 90% of all HF admissions are emergencies.
- There is evidence that mortality in newly diagnosed HF has decreased but the use of neurohormonal antagonists was still suboptimal. The cost of optimising medication is mainly around HF nurse, practice nurse and GP time. The medications are largely generic. Hull costed a GP appointment at £36 and a nurse appointment at £29 (with a longer appointment but less expensive staff) but pointed out that actually this work was already in their normal work.

161. From this, high and low estimates have been made of the cost of an accelerated heart mortality reduction programme might cost which would aim to eliminate the difference between English and EU15 average mortality rate before 2015/16, as follows:

	2010/11	2011/12	2012/13	2013/14	2014/15
Heart programme - low estimate		22	44	66	88
% of 2008/09 programme budget (£2,440m)		1%	2%	3%	4%
Heart programme - high estimate		66	131	197	262
% of 2008/09 programme budget (£2,440m)		3%	5%	8%	11%

(Costs £m)

Benefits

162. It has been assumed that of the patients that would have previously died from a stroke but now survive, half will be free from disability and have a normal life expectancy for their age and the other half have a 50% reduction in their QALY outcome.

163. The overall benefits from further reducing stroke mortality by an additional 3% and 6% per year have been calculated as follows:

Stroke QALY Gain

	2011/12	2012/13	2013/14	2014/15
additional 3% per year reduction in mortality rate	329	461	573	668
additional 6% per year reduction in mortality rate	658	920	1143	1331

164. Using a similar methodology, the QALY gain for a reduction in coronary heart disease mortality has been calculated as follows:

CHD QALY Gain

	2011/12	2012/13	2013/14	2014/15
additional 5% per year reduction in mortality rate	1310	1830	2272	2644
additional 10% per year reduction in mortality rate	2616	3647	4520	5251

165. A 5% additional reduction in mortality rate may achieve the desired position of England having a CHD mortality rate equal to the EU15 average by 2014/15. A 10% reduction should achieve that position earlier.

Illustrative example 2: Domain 4 illustrative example for inpatient overarching indicator

Current performance

166. As shown in the table below, patient experience scores from the inpatient survey have been relatively static at a nationally aggregated level in recent years. However, individual trusts have seen large changes over time, and survey results do consistently demonstrate wide organisational performance differentials in patients' self-reported service experience.

Overarching indicator (out of 100)

2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
75.7	76.2	75.7	75.3	76.0	75.6

167. The proposed indicator provides a good national overview of patient experience based on existing survey arrangements, and so it is suitable for use within the NHS Outcomes Framework for 2011-12. However, as noted above, the underlying survey architecture will need to be further developed, especially if final indicators are to have good coverage of services and patients, and be fully effective at both assessing performance and driving local improvements.

Measuring the benefits

168. The Centre for Health Economics estimates patients that are anxious or moderately depressed have a lower quality of life than those that are not. Using this analysis, it is estimated that a patient's quality of life can be improved by 5% through the delivery of a good patient experience. While ceiling effects mean that an organisation is unlikely to achieve the maximum score of 100 (since this would require all survey respondents to rate their experience in the most positive way), results do show wide variations in performance. It is assumed that the 5% quality of life improvement is associated with an increase of 30 points in a patient's survey score. This allows estimating the benefits of improving patient experience in monetary terms using the equation below.

estimated benefits	=	assumed increase in score	x	estimated number of users	x	duration of improved experience	x	$\frac{\text{change in QALY}}{\text{range of scores}}$	x	value of a QALY
--------------------	---	---------------------------	---	---------------------------	---	---------------------------------	---	--	---	-----------------

169. In addition, the following assumptions are used:

- There are approximately 11.2 million overnight inpatient stays per year (HES).
- The average length of inpatient stay is around 5.6 days (HES). For the purpose of these calculations, it is assumed the benefits are felt over a period of 10 days, as those with a longer stay are more likely to report a bad experience. The benefits may also be felt over a longer period than just the hospital stay.
- The estimated social value of a QALY is £60,000, according to standard DH IA guidance.

Moderate level of ambition

170. As already noted, improvement in the indicator at a national level has been low, but individual providers have been able to improve patient experience - particularly where local and national emphasis has been focused on specific policies and operational issues. It is expected that inclusion of this indicator in the NHS Outcomes Framework will give patient experience a high degree of salience across the NHS - with the level of performance of each individual provider being clear and transparent.

171. For this scenario it has been assumed modest improvements of 0.1 point per year from 2011-12 will be achievable nationally through inclusion in the NHS Outcomes Framework alone. Underneath this national improvement, there will be a narrowing in the variation of patient self-reported experience, with those currently performing less well increasing their scores by more than 0.1 points,.

Level of ambition – moderate (percentage points)				
2010-11	2011-12	2012-13	2013-14	2014-15
0.0	0.1	0.2	0.3	0.4

172. The data required for this indicator are already collected. It is assumed that there will be no changes in the design or delivery of this survey, which means that there will be no additional data collection costs arising from inclusion of this indicator in its current form in the NHS Outcomes Framework. Under the moderate level of ambition, it is assumed the only change is that this indicator will be included in the NHS Outcomes Framework - so this is a zero cost option. There are likely to be some costs to organisations as they take action to improve the quality of their services - but these are assumed to be small, and related to developing an increased focus on ways to deliver care that is patient centred, and more sensitive to patient experience considerations.

173. The advantages of patient feedback and nationally coordinated surveys are that they enable organisations to measure patient’s views across a range of service issues that would otherwise go unmonitored, and results can be benchmarked – both over time and across the country. This enables local clinicians and managers to understand the experience of local patients, gain an insight into what improvement in delivery or services may be required, and how best to focus current efforts to improve patient experience. From the patients’ perspective, this will also increase transparency in information, so helping to support and increase patient choice and control.
174. This means that organisational efforts to improve patient experience can become more efficient and better focused, supported by patient experience data that is disseminated and used to inform local decision-making. This represents a reasonable assumption for this illustrative example, but would need to be investigated further when determining the levels of ambition.
175. The table below shows these improvements converted to QALYs using the information above. As this is a zero cost option, these are the net benefits of the moderate level of ambition. Over the SR period, this option provides net benefits of £29.8 million.

Net benefits – moderate ambition (NPV millions)

2010-11	2011-12	2012-13	2013-14	2014-15	Total
£0	£3.1	£6.0	£8.9	£11.7	£29.8

High level of ambition

176. Under the high level of ambition, much larger increases in the indicator score are required – this is assumed to be in the region of 1.25 points per year from 2011-12. The achievement of such improvements would require some modest increases from the highest performing trusts, and much larger changes from those currently performing less well.

Level of ambition high (percentage points)

2010-11	2011-12	2012-13	2013-14	2014-15
0.0	1.25	2.5	3.75	5

177. If it is assumed that a national 5-point improvement in patient experience is not achievable through inclusion in the NHS Outcomes Framework alone, then, some additional activity is needed to focus on ways of delivering care that is patient-centred and sensitive to patient experience. At least some of the cost of this additional activity is likely to be covered by existing programme budgets and/or other funding arrangements. However, this will not always be the case, so additional local resource and activity could be required to improve performance.
178. It is difficult to identify and then estimate the cost of the full range of improvement actions that an organisation may wish to take. For example, improvements are often associated with broader organisational issues, including culture and leadership – and there are a multiplicity of options available for addressing these problems. Further, identifying possible local improvement activity from national data for this IA is complex and problematic. Not all organisations will need to focus on the same issues, and the action required to drive improvements is likely to vary widely across the country.

179. As a starting point, for this illustrative example, analysis of the detailed data underlying the indicator highlights two areas of care with significant room for improvement across most providers. These are areas where the average performance is much lower than the scores achieved by the best trusts. This indicates that there are mechanisms in place in the NHS for achieving high scores, and that average trusts have some way to go to deliver this level of experience:

- Staff providing information / handling discharge processes in a way that helps patients
- The quality of hospital food

180. The scale of improvement for this level of ambition is likely to require a broad range of activities and commitments across organisations, and a careful analysis of the likely local obstacles to (and drivers of) improvement. For the purposes of this illustrative example, this activity could consist of the following elements:

- Providing staff with additional training to improve understanding of the patient's perspective, and presenting complex information clearly. This training option could be adopted by all trusts whose patients rate them less well on questions relating to information provision, with a particular focus on healthcare professionals who have an information-giving and public-facing role (such as doctors, nurses, and allied health professionals). If it is assumed that training is given to around 216k people, that the cost of the training is £1k per person in 2011-12, with further refresher courses required in 2012-13, 2013-14 and 2014-15 costing £250 per person.
- It seems reasonable to assume that lack of time may sometimes be an obstacle that makes it difficult for staff to provide care that is as responsive to the needs of individual patients as they would like to. The magnitude of this restriction is unclear, but for the purpose of this analysis it is assumed a one-off 1% increase in the number of FTE nurses (current FTEs is approximately 176,000) would be required (approximately equivalent to 10 additional nurses per trust). It is assumed these new nurses are paid a salary of £21k (According to the Royal College of Nursing, this is the minimum salary for a registered nurse).
- Another area where there is a gap between average and high performance is in patient ratings of hospital food. The amount required to deliver improvement can be estimated, using information about an earlier programme on hospital food led by Lloyd Grossman (costing £40m). An additional £10m per year may deliver the required levels of improvement.

181. These are broad cost estimates for these three potential improvement activities. Based on the assumptions set out above, the total cost of delivering these improvements over the SR period is an estimated £545.8 million (see table below):

NPV costs (millions)

	2010-11	2011-12	2012-13	2013-14	2014-15	Total
Training	£0.0	£ 216.0	£ 52.2	£ 50.4	£ 48.7	£ 367.3
1% increase in staff	£0.0	£ 37.0	£ 35.7	£ 34.5	£ 33.3	£ 140.5
Food	£0.0	£ 10.0	£ 9.7	£ 9.3	£ 9.0	£ 38.0
Total	£0.0	£ 263.0	£ 97.5	£ 94.2	£ 91.1	£ 545.8

182. The table below also illustrates, from these three examples of possible activity, the estimated improvements converted to QALYs and net of the costs detailed above.

Net benefits – high ambition (NPV millions)

2010-11	2011-12	2012-13	2013-14	2014-15	Total
£0	-£ 224.60	-£ 21.97	£ 17.45	£ 55.66	-£ 173.46

183. This shows that while substantial improvements in patient experience are achievable by such actions, investing resource in this manner alone is unlikely to be cost effective. Therefore, under the criteria for negotiating levels of ambition, the alternative low level of ambition would be selected in this illustrative example.

184. As is also clear, there needs to be in place an understanding of the specific local reasons for underperformance, the locally relevant interventions, and the right level of ambition needs to be considered carefully (according to the criteria laid out in the main body of the IA) to avoid setting levels of ambition which are not optimal.

185. The analysis in this illustrative example is based on identifying specific and common activities as being required to drive improvements, and that it is necessary to apply such options across a large number of organisations in the country. However, as noted above, different interventions and activities are likely to be required in different organisations. This needs to be informed by locally detailed insights into the issues that matter most to local patients. This indicator (as well as others that may be developed in the future), can assist organisations identify such local priorities in a consistent, standardised and comparable way – but the precise intervention or action required will vary according to local circumstances. Therefore, while the net benefits for each local improvement could be small, the overall impact of the potential net gain could be large at a local and national level.

Illustrative example 3: Reducing healthcare associated infections

Background

186. Healthcare Associated Infections (HCAI) are acquired via the provision of healthcare either in hospital or in a community setting. The two infections which are currently identified as being the most appropriate to assess progress against are MRSA and *C. difficile*, which are subject to mandatory surveillance.

Current level and trajectory of the indicator

187. Changes in the count of cases for both MRSA and C Diff show some variability month to month, so it can be difficult to assess the underlying trend. In addition, organisations with large numbers of cases have more scope to deliver large percentage decreases. This means that the overall rate of decline nationally is likely to slow down over time. DH analysts have examined data at organisational level to assess the underlying trend and forward trajectory, whilst noting that the trend is difficult to determine precisely.

MRSA

188. Based on the **12-month period ending September 2010 there were 1,741 MRSA bloodstream infections nationally** and based on the performance from the better performers showing what can be achieved (many organisations having no infections over a 12-month period), there remain within a large number of organisations with significant capacity to make further progress.

189. Recent monthly figures suggest a **trend reduction of around 4% in year 1**, with smaller reductions in future years. This yields the following numbers of cases.

Base year	Year 1	Year 2	Year 3	Year 4
1741	1677	1610	1610	1610

C. difficile

190. Based on the 12-month period ending September 2010 there were 24,232 *C. difficile* infections nationally and from both the large numbers still being reported and from what the better performers have achieved, there does remain, to an even larger degree than MRSA, significant capacity to make further progress within a large number of organisations.

191. In terms of trend, again following work undertaken by analysts the best estimate of what the trend would deliver in terms of reductions over the next 12 months is an 11% reduction. Continuing this rate of reduction for a further 3 years gives the following numbers of cases:

Base year	Year 1	Year 2	Year 3	Year 4
24232	21460	19099	16998	15128

Levels of ambition considered

MRSA

192. The ambition to reduce MRSA is currently being delivered in the NHS through the MRSA Objective, established in the NHS in April 2010, through a methodology developed under the leadership of the National Quality Board. It aims to drive a narrowing in the range of performance between organisations through the application of its methodology, placing the biggest challenge on those who have made little or no progress over the past few years.

193. This is adopted as the hypothetical high level of ambition under the new NHS Outcomes Framework for the purposes of this illustrative example.

194. The do nothing option in this case is represented by what would happen if the NHS Outcomes Framework did not include an objective for MRSA. The likelihood is that the current rates of reduction of about 4% per year would continue for a year or two, and would then flatten out. This change reflects the continued effect of improvements already underway, in particular where organisational or management changes take some time to impact on outcomes. This represents the do nothing scenario for MRSA.

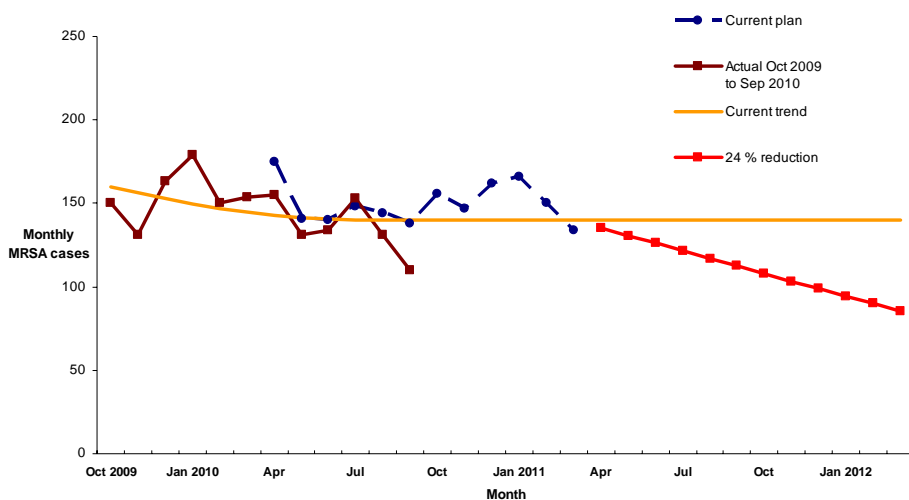
195. Analysts have carried out a very detailed assessment of likely trends over the next 12 months. The graph below shows the reductions delivered by the estimated trend compared with those delivered by the application of the already established Objective methodology.

196. This means a comparison between a 4% trend reduction and a 24% reduction applying the Objective methodology. Analysts have used a simplified form of this methodology to project forward the number of cases for a further 3 years, and results are shown below:

	Base year	Year 1	Year 2	Year 3	Year 4
Current Trend (4%)	1741	1677	1610	1610	1610
Ambition (24%)	1741	1321	1004	1004	1004

197. Expressed as numbers, the baseline trend leads to a reduction of 131 cases per year over 4 years. The ambition, defined by the Objective methodology (24% fall in year 1) leads to an overall reduction of 737 cases per year over 4 years. This equates to an overall reduction in infections of 2,174 over 4 years.

Current MRSA plan, against current performance and expected trajectory compared with current ambition (24%) established in MRSA Objective for 2011/12



198. Each of these levels of ambition in terms of a national overall reduction are driven by how quickly and by how much detailed implementation focuses on removing variation between the best and poorest performers. Under all ambitions articulated, the principle of the poorest performing organisations facing the greatest challenge applies as they have the largest capacity to make the greatest degree of progress in the first few years. However, the larger the ambition in terms of an overall national reduction the smaller the variation between the best and worst performers. It is not possible to project forward the impact on individual organisations for more than a few months.

C. difficile

199. The current mechanism proposed for an ambition in *C. difficile* reduction is the *C. difficile* Objective. It would, through its successful implementation, reduce both absolute numbers and the variation in performance between organisations.

200. Analysts have carried out a very detailed assessment of trends over the next 12 months. In the graph below is shown the reductions delivered in year 1 by the percentage reduction associated with the estimated trend, the proposed percentage reduction under the currently published methodology (High ambition) and a percentage reduction in between the trend and the currently proposed percentage methodology reduction (Lower ambition).

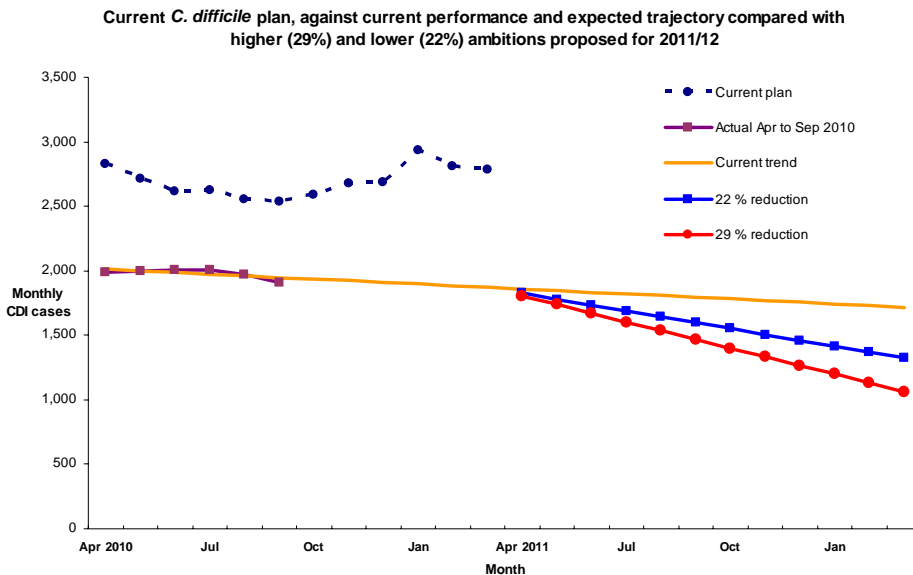
201. This means a comparison between an 11% reduction based on trend, a 29% reduction in terms of the application of the published methodology and a 22% reduction which is above trend but not as ambitious as the methodology. Projected this methodology forward for a further 3 years gives the following counts:

	Base year	Year 1	Year 2	Year 3	Year 4
Current Trend (11%)	24232	21460	19099	16998	15128
Low ambition (22%)	24232	18901	14743	12384	11022
High ambition (29%)	24232	17205	12216	9772	8698

202. Expressed as numbers, the baseline trend leads to a reduction of around 9000 cases per year within 4 years.

203. The higher level of ambition, **applying the proposed methodology of the Objective (29% fall)** and projecting forward leads to a reduction of 15,500 cases per year within 4 years, or around 64% compared to baseline. This equates to a reduction of 24,794 in the overall number of infections over the four year period.

204. The lower level of ambition, **applying an ambition above the trend but below the level of the proposed methodology of the Objective (22% fall)** results in a 55% reduction overall, and this equates to 15,635 fewer infections over the four year period.



205. Each of these levels of ambition in terms of a national overall reduction are driven by how quickly and by how much detailed implementation focuses on removing variation between the best and poorest performers. Under all ambitions articulated, the principle of the poorest performing organisations facing the greatest challenge applies as they have the largest capacity to make the greatest degree of progress in the first few years. However, the larger the ambition in terms of an overall national reduction the smaller the variation between the best and worst performers. It is not possible to project forward the impact on individual organisations for more than a few months.

Estimated costs of improving the outcome (for each level of ambition)

206. There is substantial evidence based guidance available to the NHS on how to prevent these infections and the applicability of this guidance is demonstrated by those organisations that have made significant progress.

207. Those organisations currently facing the biggest challenge because of poor performance may incur minimal additional costs, such as an additional infection control nurses, although the majority of progress can be achieved by having effective and robust infection prevention and control systems in place throughout the healthcare setting.

208. A successful approach to reducing HCAs infection is a multifaceted one, and includes:

- Establishing a clear vision;
- providing effective leadership;
- ensuring competence and measure compliance;
- communicating clear accountability (and escalation policies);
- putting assurance frameworks in place; and
- learning from others, inside the organisation as well as outside it.

209. Costs for achieving these ambitions are therefore, relatively low and this is against the substantial savings that can be accrued through making reductions.

MRSA

210. Previously, the Department has published two impact assessments for MRSA. The one specifically for the MRSA Objective originally estimated an expected annual expenditure of £7.5m for each of the three years on additional infection control staff at poorer performing organisations. This is the equivalent to the hiring of 168 staff and would be equivalent to a total NPV cost of £27.5m over the 4 years covered by the projections above.

211. The aim of this estimate was to give a sense of scale, capturing the potential cost of any activities to improve the levels of infections. However, the intention of the policy was for Trusts to be more effective in the work they already do and to prioritise resources appropriately.

212. When the MRSA Objective was established, there were over 3,000 MRSA bloodstream infections at national level, since when they have reduced by almost another 50%. Large numbers of organisations have already achieved many months of zero infections, without recruiting additional staff, rather they ensured that they had robust “board to ward” systems in place to implement evidence based good practice. There are no additional costs, or at least minimal costs, involved in delivering these board-to-ward systems. This simply requires Trusts to establish the best possible mode of working within existing resources. Continued improvement in business processes is already part of normal management function in the NHS.

213. Therefore, it seems unlikely that the £7.5 million has been or will be required to be invested in practice.

214. Actions may include disseminating results from an up-to-date evidence base available to the NHS to tackle these and other HCAs.

215. Therefore, in conclusion, there are no substantial costs associated with achieving either the trend or the Objective outcome, implementation simply requires full adherence to evidence based good practice.

C. difficile

216. As with the ambition for MRSA, and despite there being significantly more infections associated with *C. difficile*, the key principle is that trusts are expected to be more effective in the work they already do and to prioritise resources appropriately. Prioritisation of work is already a core function, and the continued downward trend in CDI cases indicates that the NHS is getting progressively better. There is no need for substantial additional activity that would require an increase in staffing levels.

217. Actions may include disseminating results from an up-to-date evidence base available to the NHS to tackle these and other HCAs.

218. However, given the large numbers involved in comparison to MRSA, the same precautionary approach as was taken with MRSA previously should be taken and therefore it is estimated that at the very most there would be a requirement to recruit 168 additional staff as specified in the previous MRSA Objective IA.

219. This cost would be the same irrespective of whether the ambition was 22% or 29% so the costs are estimated as follows;

Trend – £0

22% reduction - £7.5m per annum, or £27.5m NPV over 4 years

29% reduction - £7.5m per annum, or £27.5m NPV over 4 years

Estimated benefits from improving the outcome (for each level of ambition)

MRSA

220. With no costs estimated to be required, the benefits associated with reductions based on the trend and the applying of the MRSA Objective methodology are set out below. The benefits of reducing MRSA bacteraemia are as follows:

- Benefits to patients in avoided deaths
- Avoided expenditure for the organisation in treating cases.

221. Precise estimates of the cost of treating an individual case of MRSA are based on research from the mid 1990s, uprated for inflation. The estimate used in terms of costs to the NHS for each of these infections is £7,000. It should be noted that while this is the best estimate of costs based on assessments conducted, it is an order of magnitude figure so the actual cost could be lower or higher, although any deviation is not expected to be substantial.

222. Reducing the number of infections also reduces the number of deaths from infection. It is estimated that around 23% of MRSA infections result in death of the patient. The MRSA objective IA calculated a value of £390k per life saved. This was calculated using QALY's (Quality Adjusted Life Years), assuming 10 years of life at quality of 0.7, with a year of healthy life valued at £60k and a 1.5% discount rate. The final figure was rounded slightly from approx £392k.

223. There is a degree of sensitivity around some of these assumptions, particularly the implied assumption that surviving patients have a notional life expectancy of at least 10 years, on average. It should be noted that this is an average figure, and takes account of those patients who would live a great deal longer than 10 years.

224. With these assumptions, the Objective Methodology for MRSA produces the following benefits when compared to the baseline 'do nothing' trend:

Benefit to NHS of avoided treatment cost: £13.8m NPV

Benefit to patients of avoided deaths: £187.3m NPV

As the costs are, implicitly, zero, the overall net benefit of this ambition is: £201.2m NPV over 5 years (year 0 to year 4)

C. difficile

225. The best estimate of costs to the NHS associated with a *C. difficile* infection are around £10,000 and this is the figure that has been used below to assess benefits; against the trend, a 22% reduction and the 29% that is proposed under the current methodology. It should be noted that while this is the best estimate of costs based on assessments conducted, it is an order of magnitude figure so the actual cost could be lower or higher, although any deviation is not expected to be substantial.

226. As for MRSA, reducing the number of infections also reduces the number of deaths from infection. It is estimated that around 13% of CDI infections lead to the death of the patient. Deaths tend to occur amongst patients with multiple co-morbidities or otherwise at risk, so it is reasonable

to calculate the projected life expectancy using a more moderate set of assumptions. Indications are that patients would typically have a life expectancy of no more than 2-3 years. A quality of life of 0.7 on a QALY scale (just below the average of 0.78 for people in the 65-74 age group) and a life expectancy of 2 years are assumed. With QALYs valued at £60k this gives an (economic) value of life lost from C Difficile of £83k.

227. With these assumptions, the interim ambition delivers the following benefits when compared to the base case of 'do nothing and continued trend'.

Benefit to NHS of avoided treatment cost: £142.3m NPV

Benefit to patients of avoided deaths: £162.1m NPV

Cost of delivering these benefits: £27.5m NPV

Net overall benefit (4 years NPV): £276.9m

228. Similarly, the benefits and costs for the high level of ambition (if delivered) can be worked out as follows:

Benefit to NHS of avoided treatment cost: £222.9m NPV

Benefit to patients of avoided deaths: £257.1m NPV

Cost of delivering these benefits: £27.5m NPV

Net overall benefit (4 years NPV): £455.5m

229. There is an important consideration here around achievability. The figures above assume that 29% reductions, slowing gradually to the baseline rate of reduction, over several years could be delivered. Setting a trajectory at this level does not mean that the trajectory is delivered. There may be risks that setting an ambition at too high a level would disincentivise those who fall short of achieving it and it is possible therefore, that higher levels of ambition lead to lower levels of reduction nationally. According to the criteria for selecting levels of ambition set out in the main body of the IA, the choice of ambition level should consider its achievability and deliver the greatest incentive for improvement, across organisations at all levels.

Annex 3 – NHS Outcomes Framework coverage of NHS Programme Spending

230. The table on the next page shows the coverage of Programme Areas according to how well they are represented in the NHS Outcomes Framework. To calculate this, domains were rated according to their estimated coverage of Programme Spending areas, classified as Strong, Moderate, Weak, Unclear or No Coverage (cells are left blank). Domain 4 was not included in this, as Patient Experience would be expected to cover all areas of Programme spending.
231. The coverage of a particular area was determined by the highest rating in any of the four domains. For example, “1. Infectious Diseases” has ratings of Strong, Moderate, Weak and No Coverage across the different domains. Therefore, Infectious Diseases was counted as having Strong representation within the Framework, since Strong was the highest rating.
232. The results shown on paragraph 114 weighted each group in terms of expenditure per head. Where areas have subgroup, the ratings of the subgroups were counted.
233. This exploratory analysis was carried out to provide an overview of the NHS Outcomes Framework and its coverage of NHS activities. For more precision detail, further analysis should be carried out, breaking down Domains and Programme Areas.

NHS Programme Area		Outcome Framework Domain				
		1	2	3	4	5
1	Infectious Diseases	Strong		Moderate		Moderate
1a	HIV and AIDS	Unclear	Strong			Weak
1x	Infectious diseases (Other)	Strong		Moderate		Moderate
2	Cancers and Tumours	Moderate	Strong	Weak		Weak
2a	Cancer, Head and Neck		Strong	Weak		Weak
2c	Cancer, Lower GI	Strong	Strong	Weak		Weak
2d	Cancer, Lung		Moderate	Weak		Weak
2e	Cancer, Skin	Strong		Weak		Weak
2f	Cancer, Breast	Strong	Strong	Weak		Weak
2g	Cancer, Gynaecological	Strong	Strong	Weak		Weak
2h	Cancer, Urological		Strong	Weak		Weak
2i	Cancer, Haematological	Moderate	Strong	Weak		Weak
2x	Cancers and Tumours (Other)	Moderate	Strong	Weak		Weak
3	Disorders of Blood	Unclear	Strong	Weak		Weak
4	Endocrine, Nutritional and Metabolic	Moderate	Strong	Weak		Weak
4a	Diabetes	Strong	Strong	Weak		Weak
4b	Endocrine, Nutritional and Metabolic problems	Weak	Strong	Weak		Weak
4x	Other Endocrine, Nutritional and Metabolic	Weak	Strong	Weak		Weak
5	Mental Health Disorders		Strong	Weak		Weak
5a	Substance Misuse		Strong	Weak		Weak
5b	Organic Mental Disorders		Moderate	Strong		Weak
5c	Psychotic Disorders		Unclear	Weak		Weak
5d	Child and Adolescent Mental Health Disorders			Weak		Weak
5x	Other Mental Health Disorders		Strong	Weak		Weak
6	Problems of Learning Disability		Weak			Weak
7	Neurological	Unclear	Unclear	Weak		Weak
7a	Chronic Pain		Strong	Weak		Weak
7x	Neurological (Other)	Unclear	Unclear	Weak		Weak
8	Problems of Vision		Strong			Weak
9	Problems of Hearing		Strong			Weak
10	Problems of Circulation		Strong	Moderate		Moderate
10a	Coronary Heart Disease	Strong	Strong	Weak		Weak
10b	Cerebrovascular disease	Strong	Strong	Strong		Weak
10c	Problems of Rhythm	Unclear	Moderate	Moderate		Weak
10x	Problems of circulation (Other)		Strong	Weak		Moderate
11	Problems of the Respiratory System	Moderate	Moderate	Moderate		Weak
11a	Obstructive Airways Disease	Weak	Strong	Weak		Weak
11b	Asthma	Moderate	Strong	Weak		Weak
11x	Problems of the respiratory system (Other)	Moderate		Moderate		Weak
12	Dental Problems					Weak
13	Problems of Gastro Intestinal System	Moderate	Strong	Weak		Weak
13a	Upper GI	Unclear	Weak	Moderate		Weak
13b	Lower GI	Unclear	Strong	Weak		Weak
13c	Hepatobiliary	Unclear	Strong	Weak		Weak
13x	Problems of the gastro intestinal system	Unclear	Unclear	Weak		Weak
14	Problems of the Skin		Strong	Weak		Moderate
14a	Burns			Weak		Weak
14x	Problems of the Skin		Strong	Weak		Moderate
15	Problems of Musculo Skeletal System		Strong	Moderate		Weak
16	Problems due to Trauma and Injuries	Weak		Strong		Weak
17	Problems of Genito Urinary System	Moderate	Unclear	Moderate		Weak
17a	Genital tract problems	Unclear	Unclear	Strong		Weak
17b	Renal problems	Moderate	Strong	Moderate		Weak
17c	STD	Unclear				Weak
17x	Problems of Genito Urinary system (Other)	Unclear	Unclear	Weak		Weak
18	Maternity and Reproductive Health	Moderate				Moderate
19	Conditions of Neonates	Strong				Moderate
20	Adverse effects and poisoning	Unclear				Strong
20a	Unintended consequences of treatment	Moderate				Strong
20b	Poisoning					Strong
20c	Violence			Strong		Weak
20x	Poisoning and adverse effects					Strong
21	Healthy Individuals					
21a	NSF Prevention programme					Unclear
21b	NSF Mental health prevention					Unclear
21x	Healthy Individuals (Other)	Unclear	Unclear	Unclear		Unclear
22	Social Care Needs			Unclear		
23	Other Areas of Spend/Conditions:	Unclear	Unclear	Unclear		Unclear
23a	General Medical Services/ Personal Medical Services		Strong			Weak
23b	Training (Workforce Development Confederation)					
23x	Miscellaneous	Unclear	Unclear	Unclear		Unclear

NB: The "Problems of circulation" Programme area in the table above corresponds to conditions covered under "Cardiovascular disease" in the rest of the document.

Annex 4 – Equalities IA Screening Template



H:\Quality
Framework\Delivering

