

## Summary - Appropriate perspectives for Health care Decisions

### Introduction

In most cases new technologies appraised by NICE offer improvements in health for those patients who use the technology but at additional costs which must be found from elsewhere in the NHS. NICE uses cost-effectiveness analysis to compare the health benefits that are expected to be gained by those patients using a new technology with the health that is likely to be forgone due to the additional costs falling on the NHS (and publicly-funded social care) and displacing other activities that improve the health of other NHS patients. If NICE were to adopt a broader 'societal perspective', then wider economic effects impacting on patients, carers, other areas of public expenditure and the wider economy would be formally incorporated. The problem is that it is not clear how or whether a societal perspective should be implemented, once a fixed NHS budget set by government is acknowledged, particularly if the financial transfers which would be needed between different sectors are not possible. It poses difficult questions of how the trade-offs between health, economic effects and other social considerations should be made, as well as how a range of activities (those with market prices and those without) ought to be valued. The aim of the report is to assess the implications of alternative policies regarding the economic perspective to adopt, and to undertake a series of case studies to inform decisions about the appropriate perspective for NICE Technology Appraisal and Guidance.

### Alternative policies regarding the economic perspective

Four alternative policies are examined in detail:

- A. *Ignore the wider costs outside the health sector.* Essentially the post 2008 NICE position, which is restricted to costs and cost savings for the NHS and personal social services, except in exceptional circumstances notified by the Department of Health.
- B. *Treat any wider costs as if they fall on the budget constraint.* All costs are included but decisions assume all wider economic costs or benefits accrue to the NHS
- C. *Ignore the budget constraint.* All costs are considered but it is assumed that all costs or economic benefits fall on the wider economy rather than a fixed NHS budget.
- D. *Taking account of where the costs fall.* A formalisation of the pre 2008 NICE position: all costs and economic benefits may be given some weight in decision making. The appropriate weight for non NHS costs depends on the cost-effectiveness threshold for the NHS and some estimate of a consumption value of health.

Each of the three simple policies (A, B, and C) creates biases in different directions depending on particular circumstances. No single policy is unequivocally superior and, in each case, the bias could lead to false positive decisions (a technology that should be rejected is wrongly approved), or false negative decisions (a technology that should be approved is wrongly rejected). Policy D would be unbiased if the impact on the NHS budget was marginal (sufficiently small that the cost-effectiveness threshold does not change). However, the repeated application of this policy to a sequence of decisions will ultimately have non-marginal impacts with increasingly valuable health care tending to be displaced. This poses a number of problems and, unless transfers are made to compensate the NHS, the implied reallocation of resource between sectors may not be socially desirable. In principle, the transfers or compensation required between the NHS, other public sectors and the wider economy can be identified. However, such transfers might not be regarded as a feasible policy option as they may be costly to implement and considered undesirable for other reasons.

### Illustrative examples

Four case studies based on past NICE appraisals demonstrate that whether a technology tends to offer external benefits or impose costs will depend on the nature of the technology (e.g. whether it primarily affects mortality or quality of life), the type of disease (e.g. acute or chronic) and the type of patient population (e.g., age, gender and employment status). The analysis indicates that some key questions of how to value productivity and financial impacts on patients would need to be resolved. Robust estimates would require additional analyses as an integral part of the NICE appraisal process.

### Implications for policy

- The appropriate perspective for the type of issues considered by NICE is not simply a technical question. It poses fundamental questions about social values and the role that economic analysis ought to play in social choice.
- Taking account of effects outside the NHS and social care requires some means of valuing health gained and forgone for NHS patients relative to wider costs and economic benefits. A key question is whether it is possible or desirable to formalise all the possible trade-offs which would be required, with implications for decision across all the public sectors, not just health.
- Extending the NICE perspective beyond the NHS and social care poses a series of empirical questions of how to measure and then value a range of wider economic effects. Many of these questions also require judgments to be made about social values.
- Any additional NHS costs of new technologies will displace other health care activities, not only resulting in forgone health elsewhere, but also forgone benefits to other patients' carers and the wider economy. Therefore, it is not sufficient to observe economic benefits associated with a new technology but that these exceed the economic benefits which maybe forgone elsewhere as other NHS activities are displaced. An NHS perspective may more appropriately respect the overall economic effects of new and displaced technologies because those technologies which generate overall health improvement (and would be approved based on an NHS perspective) would also be expected to result in an overall net economic benefits. Equally, those technologies not regarded as cost-effective under the existing NICE perspective would reduce overall health and also be expected to result in an overall net economic cost.
- Extending the NICE perspective to take more formal account of any wider economic benefits will have dynamic effects: providing an incentive for manufacturers to price technologies to the point at which the overall benefits, to the NHS and the wider economy, will be zero. Therefore, any economic benefits to the wider economy will tend accrue to manufacturers through higher prices, at least during the period of patent protection, turning what were external benefits into higher internal NHS costs.

## Conclusions

- Adopting a wider perspective without taking proper account of the implications of an NHS budget, which is fixed by government and beyond the remit of a body like NICE, has little to commend it.
- The current NICE perspective may be reasonable given the problems of widening the perspective. The current NHS perspective is likely to be sufficient 'on average'. There will be exceptions, where the external economic benefits associated with the health gains offered by a technology are likely to be substantially greater or substantially less than the economic benefits associated with health forgone elsewhere in the NHS. Current policy does allow consideration of specific external effects in exceptional circumstances.
- Any return to NICE's 2004-2008 policy of allowing wider costs to be taken into account in the Appraisal Committee's deliberative process would need to make the basis of any such deliberation more explicit, but the type of dynamic effects on prices and NHS costs discussed above may be expected to emerge. The critical question, however, of what wider economic benefits are likely to be forgone as a consequence of positive NICE guidance would remain unresolved.
- It should be recognised that extending the perspective for all technologies appraised by NICE would impose additional costs and time pressures on the appraisal process and introduce the possibility of a biased assessment if the economic benefits forgone elsewhere are more difficult to identify. The problem may be more manageable if the consideration was restricted to those exceptional cases where a health care system perspective is more likely to be inadequate, i.e., where the external economic benefits are likely to be substantially greater or less than current NHS activities which may be displaced.
- This more focused deliberative approach would require explicit criteria for when an exceptional case could be made, possibly based on the nature of the technology, the type of disease and the patient population. Nevertheless, the repeated application of this policy will lead to non marginal impacts on the NHS and a positive bias in favour of new technologies. In

combination with more restrictive policies (i.e., ignore external economic benefits but treat any wider economic costs as if they fall on the NHS budget when the impact on the NHS of approval is significant), the effect of non-marginal impacts might be mitigated. However, without empirically based assessment of the likely scale of non-marginal effects, such a combination of policies may be open to challenge.