

COST-EFFECTIVENESS

Matters

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Providing reliable evidence to support decision-making:

The NHS Economic Evaluation Database (NHS EED)

- Health care resources are finite. Therefore, information about both costs and effectiveness are essential to making evidence-based decisions about competing health care interventions.
- Decision-makers in the NHS need easy access to reliable information on cost-effectiveness to make judgements about which types of health care offer value for money.
- Information about the cost-effectiveness of care can be difficult to identify, appraise and interpret.
- Easy to access critical appraisals of economic studies are available in the *NHS Economic Evaluation Database (NHS EED)*. The database is available free of charge on the Internet (<http://nhscrd.york.ac.uk/>)
- Alternatively, the database can be searched, on your behalf, by CRD staff (tel: 01904-433707 or e-mail nhscrd-info@york.ac.uk)

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Does cost-effectiveness matter?

Health care resources are finite. Therefore, information about both costs and effectiveness are essential when making evidence-based decisions about competing health care interventions. In the White Paper *The New NHS: Modern, Dependable*, the government made a commitment to ensure that every penny of tax payers' money received by the NHS would be spent in the most efficient way possible. This commitment is highly dependent upon making the right judgements about which types of health care offer value for money and thus can justifiably be funded. These judgements require the successful identification, assessment and application of high quality research evidence about costs and effectiveness by those making clinical, managerial and policy decisions. Studies that provide this synthesis of costs and effectiveness in the form of economic evaluations can be key parts of the decision-making process.

Although there is a growing literature evaluating the cost-effectiveness of health care interventions, these studies may be difficult to identify and appraise. This is especially true for those who are not familiar with the different methods of economic evaluation (see box 1). The interpretation of economic evaluations may also be limited by the reader's knowledge of what constitutes good research. The relative strengths and weaknesses of economic evaluations may not be immediately obvious.

Economic information to inform health care ranges from raw cost data (how much treatments and procedures cost) to economic information transformed into forms that can be used by decision-makers (e.g. appraisals of the costs and effectiveness of new drugs and treatments). Selected key economic information resources are presented on the back page.

Given the importance of cost-effectiveness information to decision-making, the Department of Health has funded a major resource to promote easy access to these studies. The NHS Economic Evaluation Database (NHS EED) is produced and maintained by the NHS Centre for Reviews and Dissemination and is available free of charge on the Internet.

Box 1

What is an economic evaluation?

- Cost-benefit analysis (CBA) measures both costs and benefits in monetary values. An intervention is commonly adopted if the monetary benefits exceed the costs, resulting in a 'net' benefit.
- Cost-effectiveness analysis (CEA) compares alternative interventions using costs and a common effectiveness outcome (e.g. heart attacks avoided). These are combined (cost per heart attack avoided) such that the relative cost-effectiveness of comparisons can be assessed.
- Cost-utility analysis (CUA) compares interventions using costs and a health outcome that is adjusted for quality of life (for example Quality-Adjusted Life Years or QALYs). These are combined (cost per QALY) to provide information about the optimal choice.

What is the NHS Economic Evaluation Database?

NHS EED is a collection of critical assessments of published economic evaluations of health care interventions. Its purpose is to assist decision-makers by systematically identifying economic evaluations, appraising their quality and highlighting their relative strengths and weaknesses.

Economic evaluations are identified from the large number of research studies about the economics of health care and health technology assessment. The economic evaluation literature is recorded in many electronic databases and paper-based resources. The NHS EED database saves decision-makers time that might have been spent searching for these studies in databases such as MEDLINE and CINAHL.

Not only does the database save time by gathering information together in one place, but it also assesses the quality of each evaluation. Each assessment is written by a health economist who provides structured

Using economic evidence to support decision-making in practice

In 1999, Leicestershire Health Authority was considering whether to implement a recommendation from the National Service Framework for Mental Health. The question was whether to provide Assertive Community Treatment (ACT). Before deciding whether to implement ACT, the Health Authority set out to assess whether it is clinically effective and whether it provides as good or better value for money than relevant alternatives.

A systematic search of the Cochrane Library was undertaken to identify systematic reviews of the effectiveness of ACT and a search of NHS EED was undertaken to find economic evaluations of ACT. The usefulness of the retrieved NHS EED abstracts was then assessed by the Health Authority.

The search of the Cochrane Library retrieved a review of ACT which concluded that ACT is an effective way of caring for people with severe mental illness in the community. ACT, if targeted on high users of in-patient care, can substantially reduce hospital admissions, time spent in hospital and can improve outcomes. With this clear evidence of effectiveness the decision-makers turned to the cost-effectiveness question.

A cost-effectiveness analysis found on NHS EED suggested that ACT and standard case management (known as the Care Programme Approach in the UK) were not significantly different in terms of cost-effectiveness over a three year study period. However, ACT efficiency appeared to improve over time. The clinical and economic evidence used in the NHS EED abstracted studies was assessed and found to be consistent with the review of effectiveness identified from the Cochrane Library.

Based on this appraisal of the available evidence, along with other relevant information, Leicestershire Health Authority decided to introduce two ACT teams in the city of Leicester.

information about the original study to assist decision-makers to decide on the relevance and quality of the studies. Research in the process of being abstracted is highlighted and decision-makers are welcome to contact CRD to get an assessment 'fast-tracked'.

To ensure that the information is of maximum benefit to the intended user, assessments normally describe the clinical effectiveness information on which the economic evidence is based as well as providing a detailed breakdown of the key components of the economic evaluation. A commentary summarises the overall reliability of the paper, and presents any practical implications for the NHS.

Box 2 provides an illustration of the usefulness of NHS EED abstracts in informing a recent decision.

How to access NHS EED

NHS EED is available free of charge and can be found at:

- the CRD website (<http://nhscrd.york.ac.uk/>)
- updated monthly
- the National electronic Library for Health (www.nelh.nhs.uk/)
- the Cochrane Library (www.nelh.nhs.uk/ or www.cochrane.org/)
- updated quarterly

CRD welcomes feedback on the uses and usefulness of NHS EED.

Selected key economic resources for health care

Raw data on the costs of treatments and procedures		
NHS reference costs	Unit costs of NHS treatments and procedures.	http://www.doh.gov.uk/nhsexec/refcosts.htm Free access
Unit Costs of Health and Social Care 2001.	Information about national unit costs of services.	http://www.ukc.ac.uk/PSSRU/UC2001.html Free access on the internet or purchase the book
Collections of assessed economic evaluations		
NHS EED	Department of Health funded collection of critical appraisals of economic evaluations.	http://nhscrd.york.ac.uk Free access
Health Economic Evaluations Database	A joint initiative between the Office of Health Economics (OHE) and the International Federation of Pharmaceutical Manufacturers' Associations (IFPMA). Presents information on cost-effectiveness studies and other forms of economic evaluation of medicines, other treatments and medical interventions.	http://www.ohe-heed.com/ Subscription service
Syntheses and systematic reviews of the evidence of the costs and effectiveness of interventions		
NICE technology appraisals	Assessments of the effectiveness and cost effectiveness of treatments. The assessments inform guidance on individual health technologies (including medicines, medical devices, diagnostic techniques, and procedures) and the clinical management of specific conditions.	http://www.nice.org.uk/catrows.asp?c=49 Free access
Health Technology Assessment database	Index of published and ongoing assessments of the effectiveness and cost-effectiveness of health care interventions.	http://nhscrd.york.ac.uk/ Free access
Further Reading		
Jefferson T, Demicheli V & Mugford M.	Elementary economic evaluation in healthcare. 2nd ed.	London: BMJ Books, 2000.
Drummond M F, O'Brien B, Stoddart G L & Torrance G W.	Methods for the economic evaluation of health care programmes. 2nd ed.	Oxford: Oxford University Press, 1997.
NHS Centre for Reviews and Dissemination, York.	Improving access to cost-effectiveness information for health care decision making: the NHS Economic Evaluation Database. 2nd ed. (CRD Report Number 6)	NHS Centre for Reviews and Dissemination, 2001. http://www.york.ac.uk/inst/crd/report6.htm

NHS EED Helpline

Experienced information staff are available to search NHS EED on your behalf. They can also provide more information on NHS EED and may be able to assist if there are problems with access.

Telephone: 01904 433707
(9am - 5.15pm, Monday - Friday)
Fax: 01904 433661
E-mail: nhscrd-info@york.ac.uk or revdis@york.ac.uk