
How health technology assessment, regulation and
planning, affect the diffusion of technology in health
care systems

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Overview

- Impact of HTA
 - survey evidence
 - case studies
 - use of economic evaluation in decision making
- Barriers to use of HTA/economic evidence
- Other influences on decision making
 - organisational and system characteristics

What is the issue?

- Efficacious technologies slow to achieve an impact, those of questionable value diffuse rapidly, persistence of technologies which are no longer useful
- Variation in use of technology independently of differences in disease prevalence
- Lack of impact of HTA
 - “it is widely acknowledged that clinicians have not actually changed their practice to agree with HTA results despite the rhetoric about evidence” (Banta and Oortwijn review of HTA activities in Europe)

What does the evidence suggest?

- Survey evidence of decision making processes (US, Canada, UK) mixed
- Indications that HTA is sometimes used but other factors important
 - historical trends
 - opinions of medical staff
 - informal discussions
- Literature review for ECHTA/ECAHI could not detect any systematic use of HTA in Europe

Specific HTA exercises

- Impact identified for:
 - *Australia*: National Health Technology Advisory Panel and other advisory groups
 - *Quebec*: Health Technology Assessment Council (saving of \$25 million)
 - *Alberta*: ‘Technotes’
 - *UK*: ‘Effective Health Care bulletin’ on persistent glue ear estimated to result in savings of £27 million

Policy use of economic evaluation

- Reimbursement requirement for all new drugs:
 - Australia
 - Canada (Ontario, British Columbia)
 - New Zealand
 - Finland, Norway
 - 2 US managed care organizations
- Discretionary requirement:
 - France, Netherlands, Denmark, Portugal
- Advice to health service decision makers:
 - UK (NICE)

Implementation of requirements

- Not just inclusion on/exclusion from formulary
 - reimbursement sometimes restricted to sub-groups of eligible patients
- Pricing an issue
 - in Australia, price premium requires evidence of superior effect compared with alternative
- Catalyst for ‘risk sharing agreements’
 - ‘bundling’ in New Zealand, price-volume agreements, MS drugs in UK

Impact of requirements

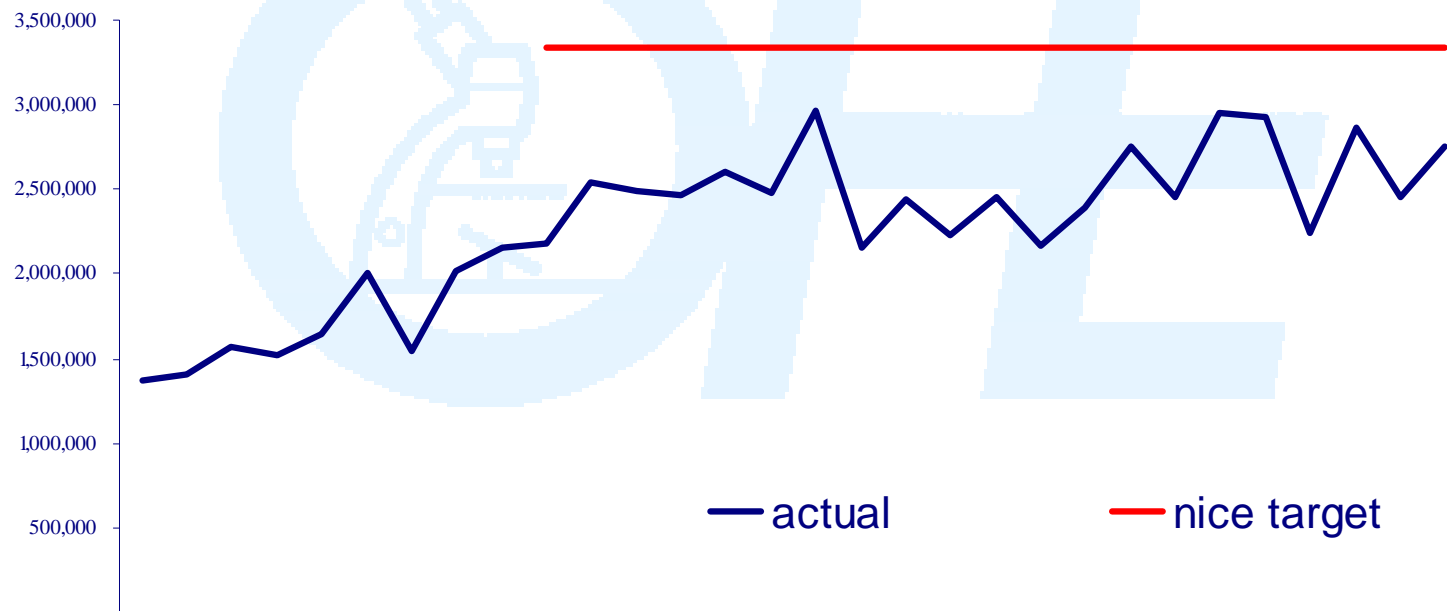
- British Columbia
 - 65/88 submissions rejected January 1996-April 1999
- Australia:
 - 73/355 submissions January 1991 – June 1996 were resubmissions
- New Zealand
 - 2001: 61 products listed, 32 declined
- Impact on government spending on drugs
 - Year to June 2001: 20% increase in Australia, 2% in New Zealand (9% estimated without PHARMAC)

NICE

- Systematic review of clinical and cost-effectiveness evidence
- 43 technology appraisals to date, 33 of drugs
 - 20 routine use
 - 17 restricted use
 - 6 rejected
- Overall estimated cost impact
 - £400-600 million per year

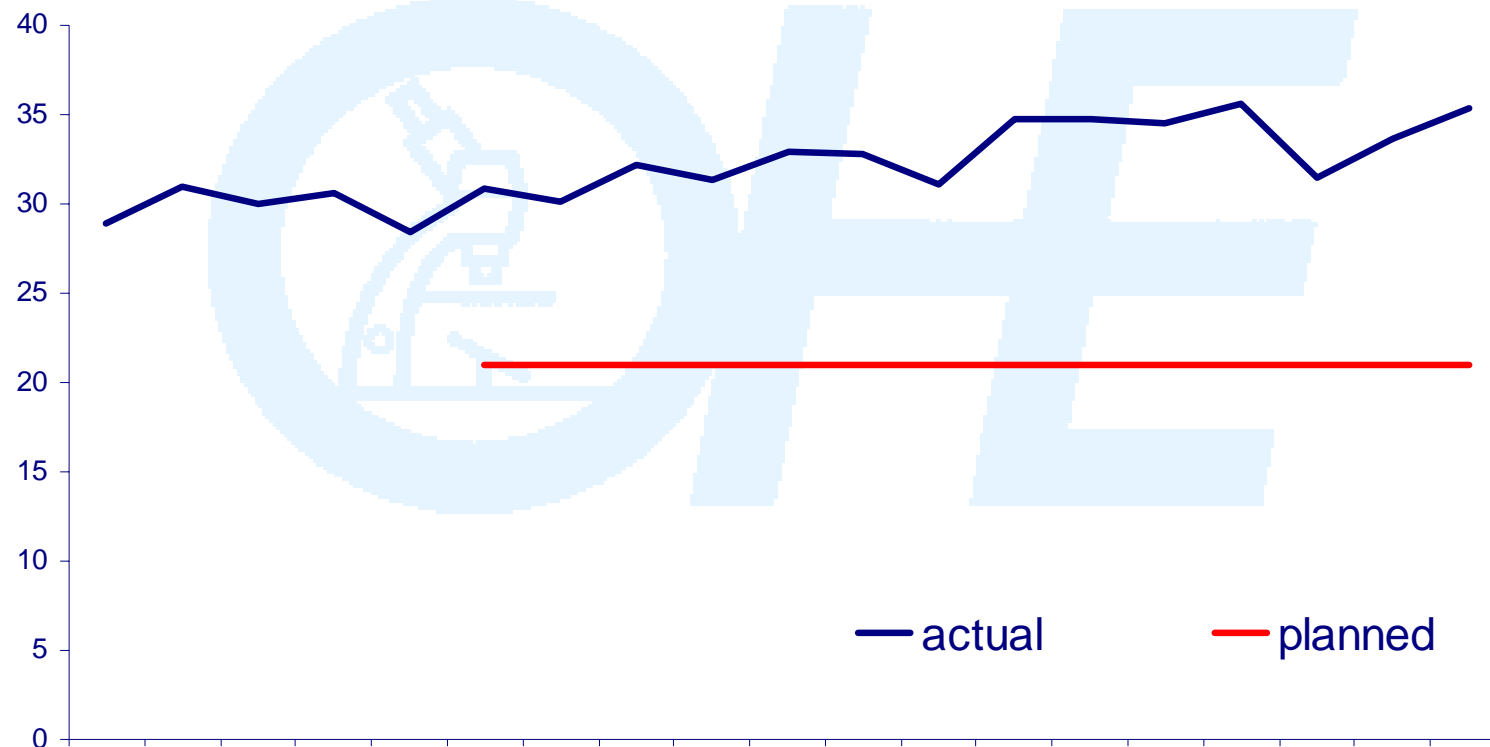
NICE take-up: taxanes

- Monthly expenditure (£) October 99 – March 02
(source: NICE, IMS)



NICE take-up: PPIs

- Monthly expenditure (£m) October 00 – March 02
(source: NICE, IMS)



Barriers to use of economic data

- Evidence from surveys of decision makers (EU, US):
 - Structure of the health care system
 - tight budgets, inability to move funds between budgets
 - Relevance of data to the decision maker
 - industry sponsorship, lack of generalizability, narrowness of the question addressed, poor quality of effectiveness evidence

Other factors affecting diffusion

- Health care decision makers are influenced by a range of factors:
 - organizational behaviour-based theories stress role of innovators and early adopters
 - regulatory hurdles e.g. certificate of need legislation
 - reimbursement mechanisms
 - competition between providers
 - cultural factors
 - political pressures

Conclusions

- Willingness to use HTA in decision making but effect is unclear
- Economic evaluation increasingly used in policy making especially for drugs
- Influence of HTA agencies constrained by:
 - fragmentation of health care provision and budgeting arrangements
 - information not suited to needs of users
 - difference in priorities between local decision makers and HTA bodies
- Decision makers influenced by a range of factors, of which HTA is only one

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