



*National Institute for
Health and Clinical Excellence*

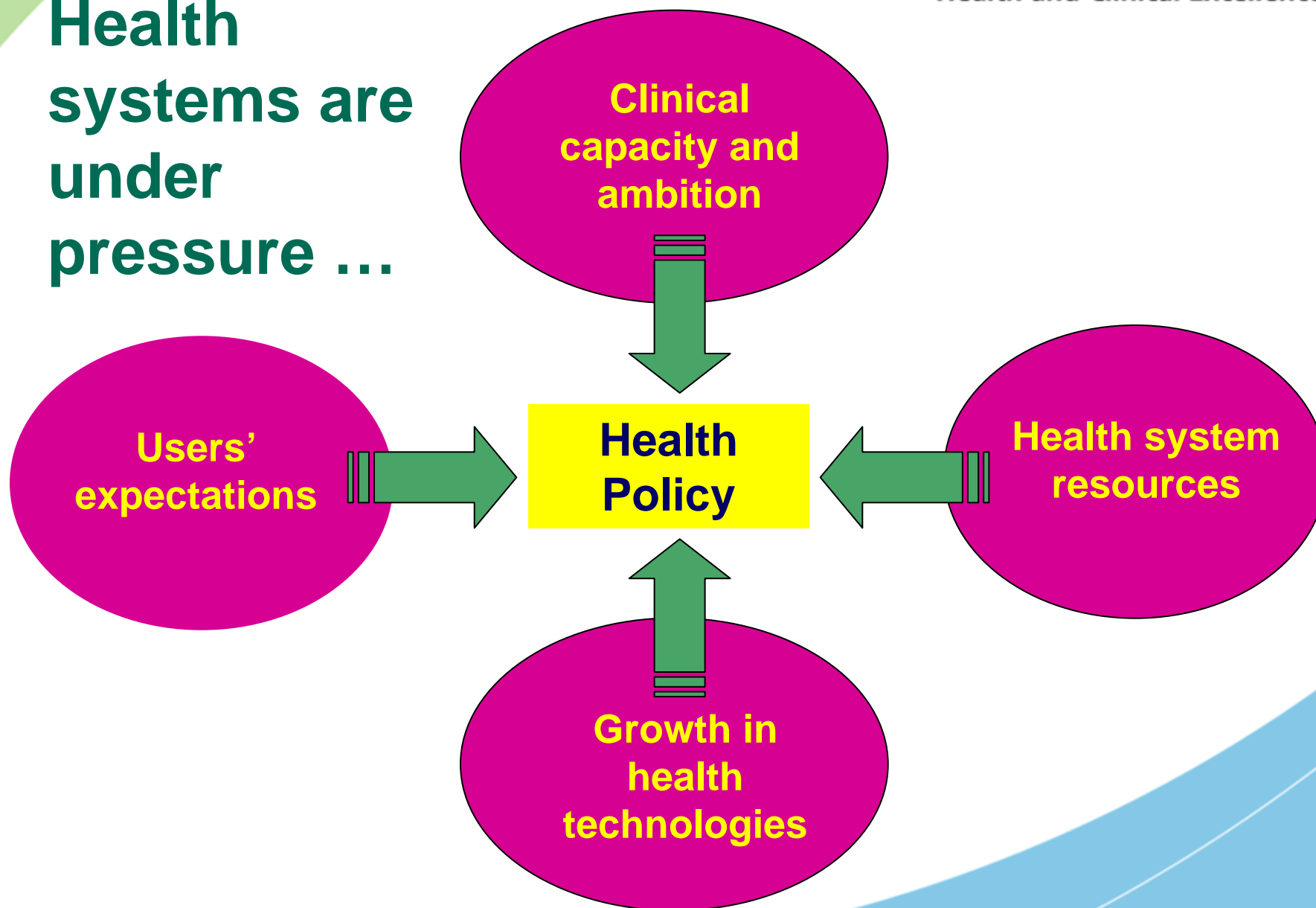
Making Decisions at NICE: how models inform guidance

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Health
systems are
under
pressure ...




Most health systems want to ...

- Improve the health status of the insured population
 - Secure effective care
 - Make efficient use of available funds
 - Stimulate innovation in medical practice and the tools it uses
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And some also need to ...

- Provide universal and equitable coverage
 - Make policy decisions transparently using best available evidence
 - Take account of both clinical *and cost effectiveness* in approving treatment strategies
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What NICE is for

- Promote effective means of preventing ill health and treating illnesses
 - Help the NHS and the wider public health community improve quality and reduce variation in care
 - Give people who use the NHS information about what they can expect from it
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NICE process and methods

- Comprehensive evidence base
 - Expert input
 - **Independent advisory committees**
 - Genuine consultation and contestability
 - Regular review
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Models are used in most NICE programmes

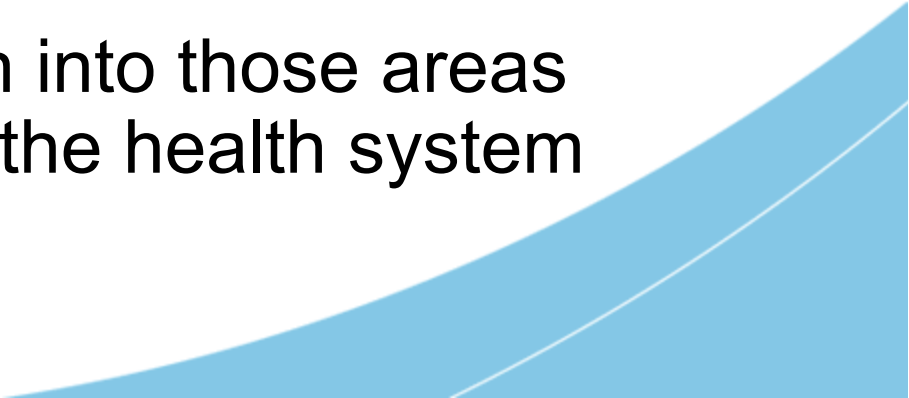
- Technology appraisals
 - use well-integrated into the decision process
 - Clinical guidelines
 - application is increasing but the context is challenging
 - Public health
 - an evolving approach with new perspective twists
 - Patient safety
 - entirely novel (for NICE) with real potential for controversy
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Oddly enough, not everyone appreciates models ...

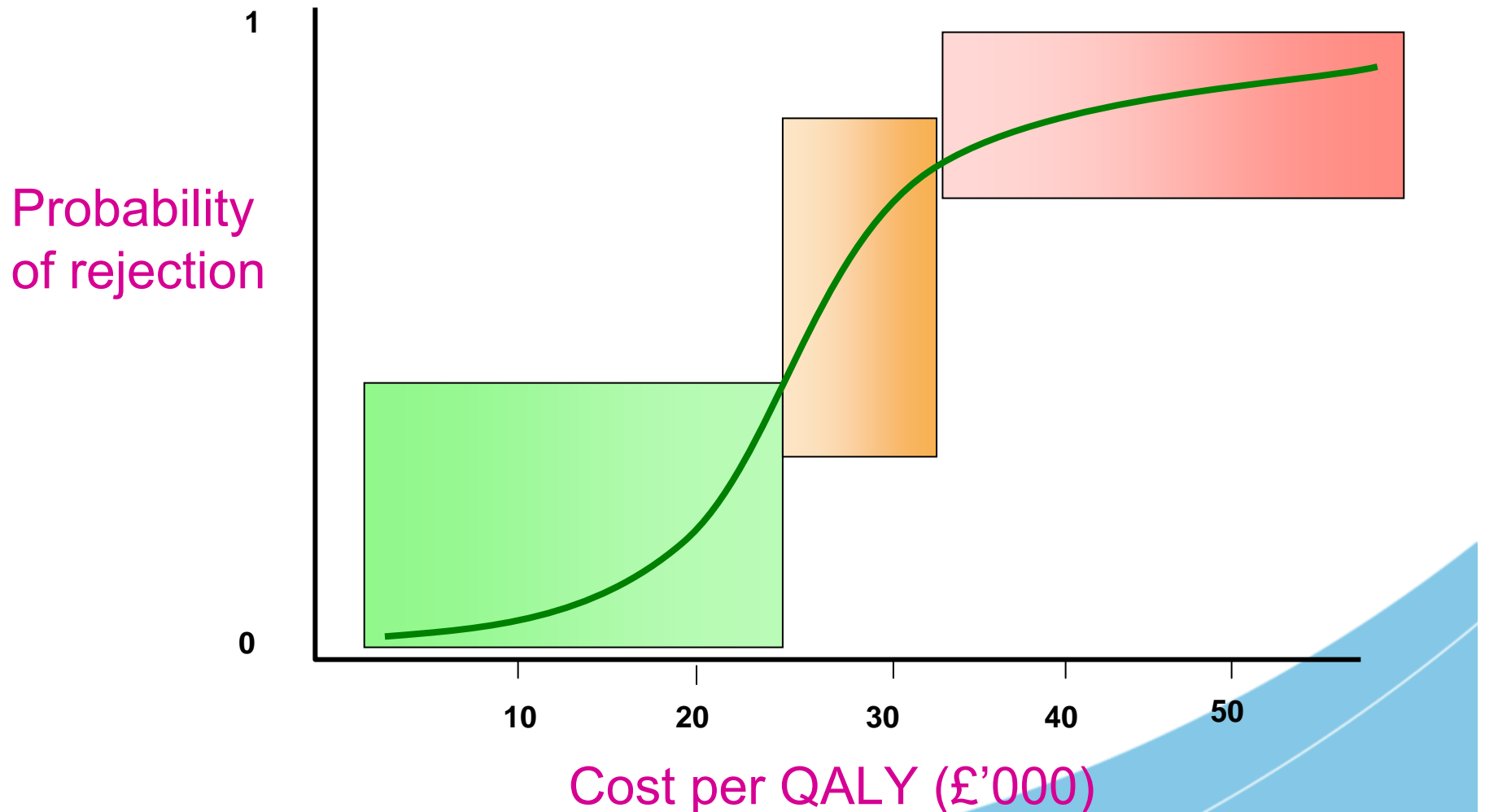
- Our recommendations are sometimes controversial ...
- **And cost effectiveness is not universally understood, or accepted**
- The public is suspicious and the media generally hostile



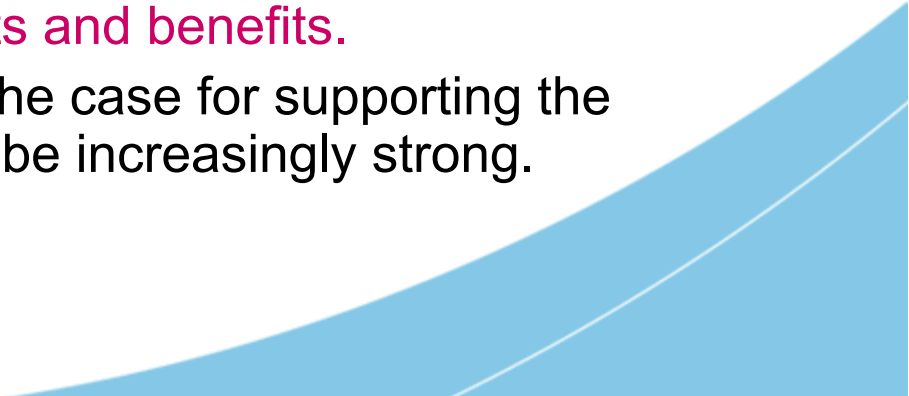
The need for economic assessment

- Recognises the reality of fixed NHS resources – and brings this to the attention of the public
 - Exposes the opportunity cost of new interventions
 - Enables consistency in investment – and disinvestment – decisions
 - Helps to direct innovation into those areas regarded as priorities by the health system
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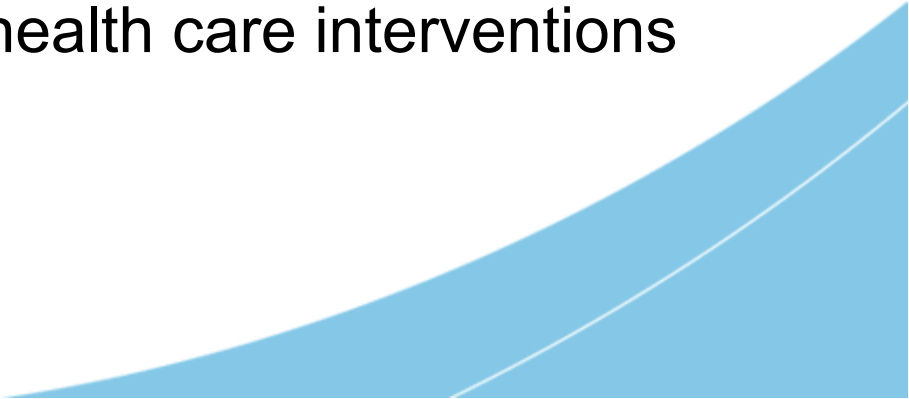
Assessing Cost Effectiveness




Assessing cost effectiveness

- Below a most plausible ICER of £20,000/QALY, judgements about the acceptability of a technology as an effective use of NHS resources are based primarily on considerations on the cost effectiveness estimate.
 - Above a most plausible ICER of £20,000/QALY, judgments about the acceptability of the technology as an effective use of NHS resources are more likely to make more explicit reference to factors including the degree of uncertainty of the ICER, the innovative nature of the technology, the particular features of the condition and population receiving the technology, and (where appropriate) the wider societal costs and benefits.
 - Above an ICER of £30,000/QALY the case for supporting the technology on these factors has to be increasingly strong.
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The value of economic models

- All relevant data is not necessarily available from a single source
 - Impact of the intervention continues beyond the end of the trial
 - Trial data may not reflect the decision problem faced by the NHS
 - Enables the explicit synthesis of evidence on costs and outcomes of alternative health care interventions
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Our methods guide.....

- Describes the general methodological concepts underlying appraisal process
 - Describes the requirements for those submitting evidence to NICE
 - Uses a 'reference case' for cost-effectiveness analysis
 - need for consistency in approach for decision-making
 - defines the methods which should be used in our preferred approach
 - Is kept under review – latest is currently underway
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Elements of the Reference Case

<i>Element of health technology assessment</i>	<i>Reference Case</i>
Defining the decision problem	The scope developed by NICE in consultation with stakeholders
Comparator	Alternative therapies routinely used in the NHS
Perspective on costs	NHS and PSS
Perspective on outcomes	All health effects on individuals
Type of economic evaluation	Cost-effectiveness analysis
Measure of health benefits	Quality-adjusted life years (QALYs)
Representation of uncertainty	Probabilistic sensitivity analysis

Some issues and challenges

- Appraisal of technologies closer to point of launch
 - registration trial may not have compared to most appropriate comparator for the appraisal
 - Availability of data relevant to the decision problem
 - trials may have not compared intervention to comparator of interest
 - Increasing complexity of models
 - balancing accuracy and transparency
 - Wider understanding and acceptance of economic assessment and the use of modelling
 - we need to raise awareness and educate
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