APPRAISING THE APPRAISERS:
WHAT IS THE FUTURE OF HEALTH TECHNOLOGY ASSESSMENT IN EUROPE?

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Evaluating the impact of the NIHR HTA Programme –
qualitative and quantitative approaches
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Assessing the impact of the NIHR HTA Programme, 2003-2013

- **Objective:** to assess the impact of the programme in the UK and abroad
- **Research questions:**
  - What has been the impact of the programme, and HTA-funded research, from 2003 to 2013?
  - How can the programme maximise its impact in the future?
- **Methods:** mixed methods, primarily qualitative

*Note: this research builds on the work of Hanney et al. (2007) and was commissioned and funded by the NIHR HTA Programme*

Analysis of the returns on research funding under the NIHR HTA programme

- **Objective:** to provide an economic assessment of the benefits of the programme at low cost
- **Research questions:**
  - What benefits would have been available to the health system, and the wider community, if the findings of HTA studies had been implemented?
- **Methods:** Economic analysis comparing potential benefits, assuming full implementation, from 10 high impact HTA studies to the cost of the programme; short illustrative case studies
Outline

Introduction  Background  Research methods  Impact  Conclusions & recommendations

NIHR HTA Programme

- **Aim**: to fund research on the effectiveness, costs and broader impact of health technologies for those who use, manage and provide care in the NHS
- **Research**: pilot and feasibility studies, clinical trials and evidence syntheses
- **Funding streams**: commissioned and researcher-led workstreams and Technology Assessment Reports (TARs)
- **Output**: Research published in *Health Technology Assessment* and other peer-reviewed journals

Source: http://www.nets.nihr.ac.uk/programmes/hta
### NIHR HTA Journal publications, 2003-2012

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### Outline

- Introduction
- Background
- Research methods
- Impact
- Conclusions & recommendations
**Methods – qualitative/mixed-methods study**

- **Key informant interviews** (n=20)
- Bibliometric analysis
- Survey
- Case studies (n=12)

**Key informant interviews**

Interviews with senior stakeholders (n=20): academics, policy-makers and individuals involved in the HTA Programme

- **Strength**: Diverse perspectives, draws on extensive knowledge of HTA programme
- **Limitation**: Primarily positive
Bibliometric analysis

Analysis of the dissemination and use of scientific publications resulting from HTA-funded research

- **Strength:** citation-based measures with benchmarks for comparison; full portfolio coverage
- **Limitation:** citation-based measures are only a proxy for quality; research focus

Researchfish impact data

Electronic survey of all grant holders on the impacts of their research

- **Strength:** low additional burden on researchers
- **Limitation:** concerns over data comprehensiveness, low response rate from study specific respondents
Case studies

Case studies (n=12): in-depth case studies on the outputs and outcomes of HTA-funded research projects

• **Strength**: detailed investigation into impact of HTA-funded research and mechanism of impact

• **Limitation**: summarising diverse impacts

Methods – (primarily) quantitative study

**Economic analysis** supplemented by short case studies

*Note:* two key (and many other) assumptions: (i) separation of implementation from research; (ii) skew in distribution of impacts

• **Strength**: ‘Quick and dirty’ economic analysis; gives a ‘headline’ number with case studies providing some context

• **Limitation**: Many (mostly conservative) assumptions; one big (not conservative) assumption; limited formative value
Findings from the mixed-methods study: Types of impacts

**Impact on patients and health policy:** health gains, health system change, health policy change, socioeconomic benefits from improved health outcomes

**Impact on knowledge production and the research system:** knowledge production, direction of research, capacity building

**Impact on industry and the economy:** product development, wider socioeconomic benefits

**International impact:** any international impact across all of the above categories
Impact of NIHR HTA research on patients and health policy

• **Direct impact**: direct implementation

• **Indirect impact on patients**: through impact on guidelines, particularly NICE and the NSC
  - **NICE**: change in guidelines
  - **NICE**: TARs
  - **NSC**: screening pilot and, if pilot successful, national screening Programme

Impact of NIHR HTA research on patients and health policy

• **Joint impact of HTA Programme and NICE/NSC**: little uptake of research without 'receptor bodies', but also lack of evidence for guidelines without NIHR HTA Programme

• **Implementation**: challenges around responsibility, resources and stakeholder perspectives
Impact of NIHR HTA research on the research system

- **Publications**: Monographs in *Health Technology Assessment* and publications in other peer-reviewed journals
- **Publication rate**: 96% of research published (excluding TARs) (Turner et al. 2013)
Impact of NIHR HTA research on the research system

- **Capacity building**: Major programme of clinical research building UK capacity
- **Cultural change in attitudes to research**: contributed to the change attitudes towards clinical and health economic research

  *The research establishment has completely changed its view about the validity and importance of the HTA’s kind of work. The HTA isn’t the only driver of this change….but it played a role in the general paradigmatic change in what is meant by good health research in the last 20 years.*

Impact of NIHR HTA research on industry and the economy

- **Limited overlap with industry-funded research**: HTA Programme typically funds research in areas where there is little or no commercial incentive to carry out research (e.g. off-patent drugs)
- **Refinement of products**: where HTA research suggests that there may be a market for a particular technology, there is some indication that this then leads to product refinement
- **Role of TARs**
International impact of NIHR HTA research

• Insofar as HTA research findings are generalizable to other countries (and sometimes even when they’re not!), HTA research can have an impact on all of the aforementioned areas of impact:
  – Patients and health policy: direct implementation of new technology; citations on international guidance
  – Knowledge production and the research system: inclusion in pooled analyses; international collaborations and sharing of methods
  – Impact on industry and the economy: impact of TARs via NICE

Quantitative study findings

• Potential net-benefit from the 10 studies of £3.0 billion
• 12 per cent would cover cost of HTA Programme from 1993 to 2012
• Many critical assumptions:
  – Findings are fully implemented and each treatment implemented for one year
  – Economic methods comparable and high quality
  – Results replicated in general population and prevalence estimates appropriate
  – No dis-benefits and no ‘opportunity cost’ for treatments displaced.
Conclusions

- Both approaches demonstrated impact of programme in different ways
- Both suggest that the NIHR HTA programme is effective in delivering many of its intended outcomes
- Qualitative/mixed-methods approach offers more nuanced understand of:
  - Routes through which this happens
  - Facilitators and barriers
  - Formative findings to support further impact in the future
Areas for improvement

- Greater targeted post-hoc support for dissemination
- Consider funding research on the short-term costs of the implementation of new technologies
- Monitor and evaluate the impact of PPI
- Improve the transparency of the priority setting process

Good practice to maintain

- Maintain relationships with NICE and the NSC
- Maintain flexible and supportive relationships with researchers
- Maintain quality and focus on NHS needs
- Continue to monitor the impact of the programme
- Continue to be an exemplar of good research practice
Lessons for wider HTA systems and their evaluation

- Assess impact for accountability and learning
- UK system requires close relationships with decisionmakers
- Important benefits for research
- Quantitative and qualitative approaches offer different benefits
- Some qualitative content is important for effective learning and improvement

Acknowledgements

Qualitative study
- **Team at RAND Europe**: Teresa Bienkowska-Gibbs; Catriona Manville; Alexandra Pollitt; Anne Kirtley; Steven Wooding
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Quantitative study
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