

# Analysing the economic impact of the Health Technology Assessment programme

The National Institute for Health Research (NIHR)'s Health Technology Assessment (HTA) programme was established in 1993 and is the largest dedicated research programme for the National Health Service (NHS). The purpose of the programme is to ensure that high-quality research evidence on the effectiveness, costs and impact of health technologies is made available to policymakers, practitioners and patients in a timely and efficient manner. The underlying principle of the HTA programme is that clinical research should not only use the most rigorous techniques, but should be needs-led, with a clear benefit to patients and practitioners.

## Aim

RAND Europe conducted a study looking at the impact of the HTA programme. The work aimed to understand the potential economic benefits of the programme. We looked at 10 HTA-funded projects that had shown that a new treatment could offer benefits if introduced in the NHS, either by saving costs, or by improving health through better treatment.

## Findings from our economic analysis

We found these 10 projects could potentially bring benefits worth approximately £3.0bn, if the new treatments were used in the NHS for one year. This includes both cost savings for the NHS and the health benefit to patients converted into financial terms.<sup>1</sup> The total costs of the HTA programme over the past 20 years were approximately £367m. Therefore, if 12 per cent of the calculated potential net benefit is realised as a result of the work of the HTA programme, this would cover the total cost of the HTA programme from 1993 to 2012.

## Caveats to the economic analysis

Making such an estimate requires a range of assumptions. The three most important assumptions are as follows:

1. The analysis assumes that the findings of the projects are completely implemented across the NHS.
2. The impact is assumed to be wholly due to the HTA-funded research. This means that other factors that might have been important, including other research, are not given credit for their role.

<sup>1</sup> Health gains are measured in quality-adjusted life years and monetised using a standard value of £20,000.

## Summary

- RAND Europe has analysed the economic benefits arising from a sample of ten projects funded through the Health Technology Assessment (HTA) programme.
- If 12 per cent of the potential benefit of these projects is realised, this would cover the total cost of the HTA programme from 1993 to 2012.
- The role of the HTA programme is to provide evidence on clinical- and cost-effectiveness, but not drive implementation. In our estimates we calculated the value of findings as if there was 100% adoption.
- A number of additional assumptions were necessary to calculate the benefits of the programme. We have attempted to be conservative with these assumptions – for example, assuming only one year of implementation of findings.
- We have developed a set of recommendations for the HTA programme, based on the economic analysis and a series of case studies, to help enhance the future impact of the programme.

3. There are many other types of benefit that can result from the research funded by the HTA programme, such as savings made by stopping treatments that are shown not to be effective, and these are not captured by this analysis.

Our analysis also assumes that each treatment is used for only one year, even though it is likely that most will be used for longer, bringing greater benefits. It also assumes that the benefits observed in the studies could be replicated once implemented more widely in the NHS. Estimates derived of the number of cases that would be treated using each new treatment are also based on a range of assumptions.

## Case studies of impact

To provide insights that could help improve the impact of the HTA programme, we also prepared ten case studies looking at HTA-funded research projects that were thought to have a high potential for impact. We investigated the context in which the studies were conducted, their

findings, the potential impact of the work, and the actual impact of the work on policy, practice and more widely. We found that of the ten case studies:

- Three had a clear impact on policy through citation in guidance, with another expected to be included in forthcoming guidance.
- Three showed a clear impact on practice.
- A further three cases showed some evidence of changes in practice, but attribution of these changes to the specific study was more challenging.

Overall, nine out of the ten case studies had some impact on policy or practice, although in each example there were other factors to be taken into account, such as other research, or wider changes in the healthcare system.

## Recommendations

Based on both the economic analysis and the case studies, we have developed the following recommendations for the HTA programme:

- *Consider the full range of costs of implementation.* Some of the HTA-funded studies did not cover the total cost of putting new treatments into practice, such as training requirements. These can prevent new treatments being taken up and should be considered in the discussion supporting the economic analyses.
- *Think about the timing of projects relative to the revision of relevant guidelines.* In some cases, guidance was published shortly before the HTA work was published. There may be an opportunity to improve this situation by communicating with relevant guideline committees and perhaps providing pre-publication findings for them to take into account where relevant.
- *Continue to support valuable research that is not well supported elsewhere.* The case studies illustrated some positive examples of the HTA programme's support for research such as long-term follow up or meta-analyses across studies, that could be valuable in embedding new

treatments into practice, but may not always be funded by other sponsors (according to these case studies).

- *Continue to examine both new, evidence-based practices and existing unproven practices in the NHS.* Despite an increasing focus on becoming an evidence-based organisation, there are still interventions in use with little or no evidence of effectiveness. This happens for a variety of reasons, from historical accident to extrapolation of effectiveness from related conditions. In four of the case studies, HTA-funded research showed that current practice was not effective and hence cost savings could be made by dropping or changing those practices.
- *Continue to require systematic reviews before primary research is commissioned.* In several cases, HTA-funded studies were valuable because they filled a gap in existing knowledge, or because the trials were large enough to provide clear answers to relevant questions. To ensure the findings of HTA-funded studies are relevant to policy and practice, primary research should be appropriately designed to draw the necessary conclusions, based on a review of existing evidence.
- *Improve meta-data on collected studies.* The HTA has an ongoing project to develop meta-data across its clinical trials. Gathering meta-data of this type across the HTA portfolio would mean the results of relevant HTA studies could be identified, classified and used more readily across, and beyond, the NHS. This could promote better analysis of the HTA programme and better use of its study findings.
- *Continue to improve the consistency of economic analyses.* Several case studies showed the importance of these economic analyses to the overall impact of the study, so ensuring their quality and consistency is essential. The type and quality of economic analysis included in the HTA studies have varied in the past but are now becoming more standardised, partially as a result of the updated guidance from NICE on the requirements for economic analysis.

This brief describes work documented in S. Guthrie, M. Hafner, T. Bienkowska-Gibbs and S. Wooding (2015). *Returns on research funded under the NIHR Health Technology Assessment (HTA) Programme: Economic analysis and case studies*. RAND Report RR-666-DH (available at [www.rand.org/t/RR666](http://www.rand.org/t/RR666)). To view this brief online, visit [www.rand.org/t/RB9800](http://www.rand.org/t/RB9800). RAND Europe is a not-for-profit research institute whose mission is to help improve policy and decisionmaking through research and analysis. RAND Europe's publications do not necessarily reflect the opinions of its research clients and sponsors. RAND® is a registered trademark.

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