Models and applications for measuring the impact of health research: update of a systematic review for the Health Technology Assessment programme

James Raftery,¹* Steve Hanney,² Trish Greenhalgh,³ Matthew Glover² and Amanda Blatch-Jones⁴

¹Primary Care and Population Sciences, Faculty of Medicine, University of Southampton, Southampton General Hospital, Southampton, UK
²Health Economics Research Group (HERG), Institute of Environment, Health and Societies, Brunel University London, London, UK
³Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK
⁴Wessex Institute, Faculty of Medicine, University of Southampton, Southampton, UK

*Corresponding author

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Plain English summary

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This review updates a previous review of methods for assessing the impact of programmes such as the National Institute for Health Research Health Technology Assessment (HTA) programme. This review confirmed the earlier finding that the Payback Framework was, and remains, the main method used internationally. This work also reviewed the wider literature to develop a taxonomy of different underlying approaches to measuring impact. On the basis that it is robust, flexible and remains the most widely used approach internationally, we found that the Payback Framework remained an appropriate approach for the HTA programme to use.

Three extensions to the Payback Framework were examined in more detail, the first in relation to expressing impact in terms of its monetary value. Studies using the approach generally show big returns from investment in health research. A first attempt to apply this to the HTA programme found similar results.

As the results of randomised trials mainly impact on clinical guidelines through systematic reviews, we checked how often trials funded by the HTA programme were included in systematic reviews undertaken after these trials were published. We found that around one-quarter of such trials were included in later reviews by the Cochrane Collaboration. We recommended that the programme consider what its impact might be on systematic reviews and clinical guidelines for each trial it publishes.

The third extension considered whether or not, and to what extent, trials funded by the HTA programme successfully stopped the spread of new technologies that had failed to show benefit; we found that this was rare. Around one-quarter of trials funded by the programme could be considered ‘first in class’, but many were variants of existing technologies rather than entirely new. Areas for further research include exploring the benefits to the HTA programme of, considering the impact on systematic reviews and clinical guidelines from each trial it publishes, and second, monitoring the extent to which the trials it funds are ‘first in class’.
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Reviews in Health Technology Assessment are termed ‘systematic’ when the account of the search appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

HTA programme

The HTA programme, part of the National Institute for Health Research (NIHR), was set up in 1993. It produces high-quality research information on the effectiveness, costs and broader impact of health technologies for those who use, manage and provide care in the NHS. ‘Health technologies’ are broadly defined as all interventions used to promote health, prevent and treat disease, and improve rehabilitation and long-term care.

The journal is indexed in NHS Evidence via its abstracts included in MEDLINE and its Technology Assessment Reports inform National Institute for Health and Care Excellence (NICE) guidance. HTA research is also an important source of evidence for National Screening Committee (NSC) policy decisions.

For more information about the HTA programme please visit the website: http://www.nets.nihr.ac.uk/programmes/hta

This report

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