

The ‘Payback Framework’ explained

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The Payback Framework, originally developed to examine the ‘impact’ or ‘payback’ of health services research, is explained. The Payback Framework is a research tool used to facilitate data collection and cross-case analysis by providing a common structure and so ensuring cognate information is recorded. It consists of a logic model representation of the complete research process, and a series of categories to classify the individual paybacks from research. Its multi-dimensional categorisation of benefits from research starts with more traditional academic benefits of knowledge production and research capacity-building, and then extends to wider benefits to society.

THE PAYBACK FRAMEWORK was originally developed by Martin Buxton and Stephen Hanney at the Health Economics Research Group (HERG) at Brunel University, UK, to examine the ‘impact’ or ‘payback’ of health services research (Buxton and Hanney, 1994; 1996). It was further developed in studies of research funded by the National Health Service (NHS) (Buxton and Hanney, 1998), and subsequently extended in collaboration with RAND Europe to also examine basic and early clinical biomedical research (Hanney *et al*, 2004; Wooding *et al*, 2005).

The Payback Framework consists of two elements: a logic model representation of the complete research processes (for the purposes of research impact evaluation), and a series of categories to classify the individual paybacks from research. The framework has undergone some development and revision, partly to reflect the perspectives of various research funders who have commissioned studies organised using the framework. Nevertheless, the basic Payback Framework still retains most of its original structure and elements.

The logic model is presented in Figure 1. It consists of seven stages (0–6) and two interfaces between the research system and the wider political, professional and economic environment.

The model facilitates analysis of the ‘story’ of a research idea from initial inception (Stage 0) through the research process (Stage 2) into dissemination (Interface B) and on towards its impact on society, potentially reaching the final outcomes of health and economic benefits (Stage 6). Depending on the type of research funding being considered, Stage 0 might represent two rather different forms of topic identification. It could be undertaken by researchers internally within the scientific community and be aimed at addressing particular scientific imperatives or unanswered questions. Alternatively, the topic identification could involve, at least partially, the wider environment and include policy-makers, healthcare professionals, patient representatives, etc. (Buxton and Hanney, 1996; Hanney *et al*, 2007).

The framework is a research tool to facilitate data collection (by informing surveys, interview schedules and documentary analysis) and cross-case analysis by providing a common structure for each case study, thereby ensuring cognate information for each study is recorded in the same place. The model contains numerous feedback loops and so *is not meant to imply that the research process is linear*.

The multi-dimensional categorisation of benefits from health research starts with more traditional academic benefits of knowledge production and research capacity-building. But the next three categories constitute wider benefits to society. Apart from the first category, the others have various sub-categories as illustrated in Table 1. There has been a widening of the scope of some categories of benefits, for example, the ‘Benefits from informing policy and product development’ category has expanded

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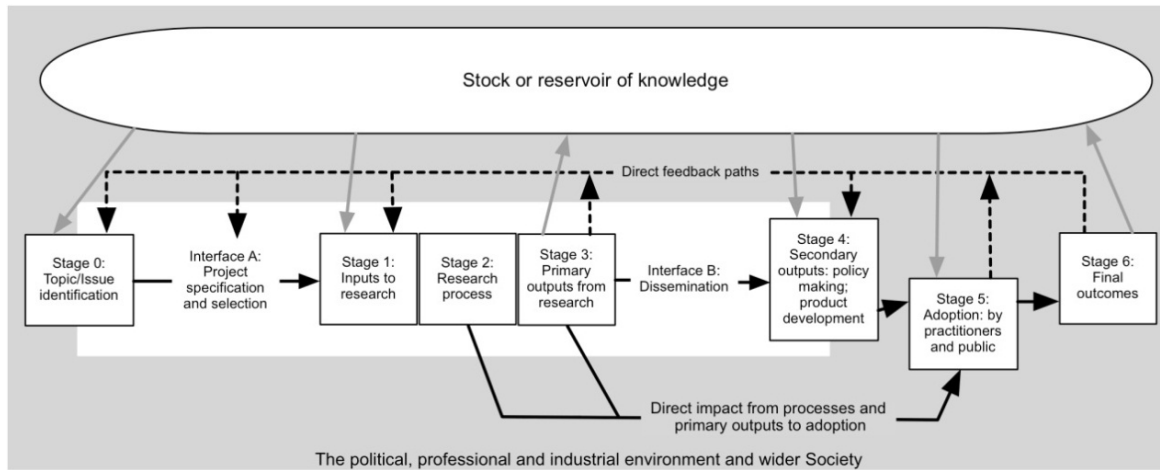


Figure 1. The logic model of the Payback Framework
 Source: Hanney *et al* (2004)

to give more emphasis to product development. This widening is partly a consequence of the expansion of the types of research to which the Payback Framework has been applied, especially to basic and early clinical research.

While it is not completely possible to tie the categories of benefits to specific stages of the model, it is possible to identify broad correlations that show where the categories of impacts are most likely to be found in the logic model: in this instance the 'Knowledge' and 'Benefits to future research and research use' categories together are generally the primary outputs from research; the 'Benefits from informing policy and product development' category relates to the secondary outputs; and the categories for 'Health and health sector benefits' and 'Broader economic benefits', respectively, are generally the final outcomes.

While the Payback Framework was originally developed to examine the 'impact' or 'payback' of healthcare research, it has subsequently been adapted to assess the impact of research in other areas such as the social sciences (Wooding *et al*, 2007; Klautzer *et al*, 2011) and the humanities (Levitt *et al*, 2010).

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Table 1. Example of the multi-dimensional categorisation of paybacks of the Payback Framework

Category	Definition
1. Knowledge	Journal articles; conference presentations; books; book chapters; research reports
2. Benefits to future research and research use	<ul style="list-style-type: none"> • Better targeting of future research • Development of research skills, personnel and overall research capacity • A critical capacity to absorb and utilise appropriately existing research including that from overseas • Staff development and educational benefits
3. Benefits from informing policy and product development	<ul style="list-style-type: none"> • Improved information bases for political and executive decisions • Other political benefits from undertaking research • Development of pharmaceutical products and therapeutic techniques
4. Health and health sector benefits	<ul style="list-style-type: none"> • Improved health • Cost reduction in delivery of existing services • Qualitative improvements in the process of delivery • Improved equity in service delivery
5. Broader economic benefits	<ul style="list-style-type: none"> • Wider economic benefits from commercial exploitation of innovations arising from R&D • Economic benefits from a healthy workforce and reduction in working days lost

Source: Adapted from Buxton and Hanney (1994, 1996, 1997) and Wooding *et al* (2004)

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