

<p>Institution: Brunel University</p>
<p>Unit of Assessment: 2 – Public Health, Health Services and Primary Care</p>
<p>a. Context</p> <p>The Health Economics Research Group (HERG) seeks to foster meaningful engagement with non-academic users of its four research themes: economic evaluation of healthcare technologies; economics of public health and health promoting behaviours; measurement and valuation of health outcomes; and evaluating the payback from expenditure on research.</p> <p>The national and international user groups, beneficiaries and audiences for these themes include:</p> <ul style="list-style-type: none"> • <i>Healthcare policymakers and advisory and guideline committees</i>, eg Department of Health (DH), National Screening Committee (NSC), Health Protection Agency (HPA), NICE, local authorities, Medicare (USA), US Preventive Services Task Force (cervical screening, 2012), European Society for Vascular Surgery (Abdominal Aortic Aneurysm (AAA) screening, 2011); • <i>Healthcare professionals</i> who use HERG's findings, or policies and guidelines they informed; • <i>Non-governmental organisations (NGOs) and advocacy and patient groups</i>, eg the National Childbirth Trust (NCT) worked with HERG on showing breastfeeding benefits (UNICEF, 2012); • <i>Patients and members of the public</i> who benefit from improved services and also from the advice about health promoting behaviours that arise especially from the public health stream; • <i>Medical device and pharmaceutical manufacturers</i>, eg through advice on cost-effectiveness and health outcomes such as that in Technical Support Documents produced for NICE; • <i>Research funding organisations in the public and charitable sectors</i> use the findings of HERG's payback stream of research, eg see Impact Case Study 2 for examples in the UK such as the Association of Medical Research Charities, Asthma UK and MRC, and internationally such as International Centre for Diarrhoeal Disease Research, Bangladesh (Strategic Plan 2010-2020), Alberta Innovates – Health Solutions, National Breast Cancer Foundation of Australia; • <i>Campaign groups and members of the public</i> who support research, eg <i>Science is Vital</i>. <p>The main types of impact also overlap and include:</p> <ul style="list-style-type: none"> • <i>Improved patient outcomes</i> that result from the research-informed policies, eg in 2008 the PM announced the introduction of AAA screening following the MASS trial for which HERG did the key cost-effectiveness analysis, and which showed that screening could achieve a 42% reduction in the more than 6,800 annual AAA-related deaths in UK (Impact Case Study1); • <i>Policy decisions and guidelines</i> were informed by HERG research, eg NICE PH Guidance 44 on exercise, NICE Medical Technology Guidance on EXOGEN; Case Study 2 describes policy impacts on public research funding levels and strategic planning of medical research charities; • <i>Services were informed</i>, eg local authority smoking controls by a tool developed for NICE; • <i>Companies were assisted</i> by early assessment of cost-effectiveness of devices (MATCH); • <i>Public debate</i> has been informed, eg on breastfeeding, on medical research funding levels.
<p>b. Approach to impact</p> <p>HERG benefits from the expertise generated by its own payback stream of research on evaluating the wider impacts of health research. This facilitates understanding of mechanisms – especially the collaborative approach between researchers and users - that enhance end-user engagement, research dissemination and the uptake of findings. HERG's expertise in analysing impact was drawn on by the University to develop guidance, eg on pathways to impact. But also, HERG does draw on Brunel's growing expertise related to impact, eg advice from the research office about using European networks. HERG's approach to impact focused on three key principles: 'engaging and influencing', 'embedding', and 'communicating'. Time and resources are provided to support activities linked to them. Examples of impacts achieved are described in the account of each:</p> <p><i>Engaging with and influencing research priorities of non-academic research users:</i> HERG supports its staff to take opportunities to develop longer term relationships with users to inform research agendas and to develop networks likely to increase the possibility of research impact. This includes appointments to international committees (Buxton, Canada; Donovan, Ireland) and major national bodies (NICE, NSC, HPA), participating in and hosting workshops, seminars and courses aimed at non-academic users, and contributing advice on research needs and priorities. Engagement is also facilitated by researchers, and honorary staff, appointed to HERG having strong links/previous experience of key bodies for HERG's research, eg NICE (Longworth, Lord).</p>

- HERG's long-standing aim to conduct policy-relevant research was often facilitated by close working with the Policy Research Programme of the DH. A letter in 2011 from the programme's Head congratulated HERG on its work: 'This has made a significant contribution to strengthening the evidence-base for policymaking through a range of applied economic research'. Two items mentioned are described in HERG's impact case studies (AAA screening and the Payback stream); others were HPV screening and public health interventions.
- Examples of close links with the DH include Fox-Rushby's contribution to the CMO's meetings on physical activity (effective interventions) and antibiotic resistance (research needs).

Embedding research users in the research process: HERG promoted impact by engaging with non-academic users during the research process, and before finalising projects, to increase the relevance of the research and the capacity of potential users to absorb the research findings.

- An 'Economic toolkit of tobacco control' project (Pokhrel) had a built-in strategy of continual engagement with local authorities and NICE. This engagement led to the publication of a toolkit for local authorities on the NICE website in 2012 which informs local service provision (e.g. Kent County Council). NICE used the research to inform similar tools, eg for physical activity.
- During the MAPGuide project to evaluate whole diagnostic and treatment pathways in NICE guidelines, the models and results were presented to NICE clinical guideline developers (Lord).
- In the AAA example the considerable impact (above and Case Study 1) was at times facilitated by close liaison between the research team (including Buxton) and key stakeholders, eg NSC.
- HERG was part of a team that evaluated the use of government welfare food vouchers targeted at low income children and mothers in the Healthy Start scheme (Fox-Rushby, Pokhrel). The project's design built in a series of targeted workshops to discuss early results with practitioners and local policymakers, and to draw up policy recommendations addressing stakeholder concerns. This prepared them for the final results and ensured policy relevance.
- A project on frameworks for decision making at NICE included two interactive workshops with NICE and its stakeholders to discuss preliminary and final results, assist with interpretation of data and draw conclusions, and gauge responses to a draft decision-making framework to ensure implementation. Aspects of it have been formally adopted by NICE (Longworth).

Communicating HERG's research to targeted audiences: HERG presented research at major conferences attended by non-academic users, and also arranged specific dissemination events.

- HERG research on the cost-effectiveness of non-invasive methods for diagnosing liver fibrosis (submitted report to HTA 09/114/02) was presented at a major international clinical conference in April 2013. This led to an invitation (Longworth) to present the work to a WHO guideline committee in June 2013. Permission was gained from NIHR to share data with WHO.
- Chambers presented his PhD findings on the role of CEA to policymakers at Medicare.
- A high profile international dissemination event in 2008 launched the HERG-led *Medical Research: What's it Worth?* report valuing UK medical research. This was attended by many key stakeholders who then directly or indirectly used the findings in public debate and private lobbying to advocate sustained or increased levels of research funding, especially in the 2010 UK Spending Review. The Science Minister stated that the report was used by the Department for Business Innovation & Skills in its Spending Review evidence (Impact Case Study 2).
- In 2011 HERG gave funding and administrative support for an international workshop on 'State of the Art in Assessing Research Impact'; participants included research funding organisations.

c. Strategy and plans

Developing an evolving impact strategy and plans: HERG's senior management, informed by HERG's own team of payback researchers, has devised a strategy to maximise the significance and reach of its impact by building on its existing approaches, and will then develop them further. HERG's own research shows that impact is achieved by many different approaches, depending on the circumstances. Therefore, HERG has a multi-faceted strategy detailed below. The strategy will be enhanced by new staff with experience of achieving and analysing research impact in Canada (Coyle) and Australia (Derrick). Sources used to inform the evolving strategy include:

- *HERG's research programme on impact assessment:* in the past this has demonstrated the importance of the collaborative approach and stakeholder engagement. Future funded studies include an MRC-funded prospective study to explore the most effective level and intensity of stakeholder engagement, as well as an ESRC Fellowship (Derrick), sponsored by Donovan,

that will expand the work on understanding the nature of health research impact.

- *Brunel's growing body of support, material and activity for achieving impact:* eg advice from the research office for describing pathways to impact (an approach itself informed by HERG);
- *Learning lessons from successful examples of achieving impact:* lessons from the case studies include the importance of collaboration, stakeholder engagement and dissemination.
- *HERG's central role in international networks analysing research impact:* eg learning from HERG's 2011 impact workshop and active North American links (Buxton, Donovan)

Implementing impact strategies and plans: HERG's impact strategy promotes an impact-aware culture, effective reciprocal engagement with non-academic research users, and communication of research findings tailored to research users' priorities. Each goal has been divided into 'high level actions' to take forward, but plans will also evolve in the light of the emerging evidence.

- *An impact-aware culture:* HERG's 'impact-aware' culture will enable staff to build capacity to generate impact. Members of HERG's payback team will enhance this by regularising existing *ad hoc* approaches of working with colleagues to examine their projects' impact potential and help them identify and operationalise impact pathways. The team will organise events on how to achieve impact, starting with an 'impact master class' with Prof Buxton to explore impacts from his research, and the importance of non-academic user collaboration and engagement. All HERG staff have impact boxes to store evidence of non-academic engagement and outcomes that may later become important in *ex post* mapping of pathways to impact. HERG plans to use the University's Knowledge Transfer Secondment Scheme to help maximise impacts.
- *Engage effectively with research users:* HERG's strategy includes continual learning about how to engage effectively with non-academic users to achieve these impacts. For example, advice from the University's research office aided recent HERG success in winning two large EU FP7 grants with substantive stakeholder engagement, networking and dissemination at their core, and with highly-developed impact plans. Other strategies include: supporting sustained interaction with key user groups and agenda setting bodies; where appropriate, recruiting staff (and honorary staff) with good links to non-academic user groups; and financial and administrative support for the type of dissemination events that have previously led to impact, eg targeted project meetings to discuss early results, workshops involving research users.
- *Develop a bespoke communications policy:* HERG is working proactively with the University's press office to promote finalised research findings to different audiences (eg specialist press, consumer groups, general public), and sought advice from Brunel's communications office on adopting social media to connect with potential research users and promote research findings. HERG is expanding its research dissemination and influence through: specific staff responsible for actively running HERG's website and social media; using the University's facilities eg the Open Access BURA platform; a monthly meeting with the press office; and working with project-funders and the University on suitable communications strategies for projects.

d. Relationship to case studies

HERG's approach to impact is based on learning from its past successes, and is embodied in Case Study 1 (AAA screening) and Case Study 2 (the impact of payback research). The most critical lesson is the importance, where possible, of collaboration and engaging with non-academic users, before and during research processes, to increase both the relevance of the research and the capacity of potential users to absorb the research findings. The case studies exemplify this approach in drawing attention to: a) the importance of long-term relations with non-academic users (the initial research for both case studies was facilitated by DH contacts); b) collaborative research with practitioners and extensive liaison with potential research users facilitates major impact on policies; c) multiple approaches and methods can be applied to achieve impact; and d) research underpinned by high quality publications is persuasive in making the case to non-academic research users for changes in policies or practices.

As noted above lessons learned from these case studies informed the development of our impact strategy. A key message is the need to sustain a culture of impact-awareness across HERG that embeds: continual learning about identifying potential impact in current and future research; how to engage effectively with non-academic users to achieve these impacts; encouragement of, and time for, sustained interaction with key user groups and agenda setting bodies; and the need for an evolving communications strategy tailored to different non-academic user groups' interests.