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NIHR Economics Group

The Role of Health Economics in NIHR Biomedical Medical Research Centres (NIHR-BRCs)

A report by the NIHR Economics Sub-Group Committee for Biomedical Research Centres and HealthTech Research Centres

Executive Summary

Background: NIHR BRCs translate early-stage scientific discoveries into NHS practice. Health economics supports this translation by assessing value for money and informing how healthcare resources are used. This report, prepared by the NIHR Health Economics Sub-Group Committee for BRCs and HealthTech Research Centres, examines how health economics is currently incorporated across NIHR-funded BRCs in England and options for strengthening its role in BRC5. The report is based on findings from a survey of NIHR-BRC Directors and follow-up discussions within the Sub-Group Committee.

Survey Methods: An online survey was designed and sent in September 2025 to all 20 NIHR-BRCs Directors. The survey aimed to understand their views on the role of health economics and how it is embedded in the current programme of work for their BRC. The survey comprised mostly closed ended questions but also included open questions.

Survey Findings: 21 responses were received from the 20 NIHR-BRCs, with two NIHR-BRCs submitting multiple responses. Not every question was answered in the returned surveys. The survey revealed significant variation in how health economics is embedded across BRCs. Some centres appear to have well-integrated expertise through dedicated workstreams, methodological hubs, or embedded roles, others have limited or no formal inclusion. Directors' views on the role of health economics were mixed. Most recognised its growing importance, particularly in demonstrating economic impact and supporting translational

decisions. However, some perceived it as more relevant to later-stage research, limiting early integration.

Option appraisal of alternative models of providing health economics within BRCs: The Directors survey and discussions within the NIHR Health Economics Sub-Group Committee helped to identify four potential models for integrating health economics, ranging from a health economics theme to a service approach.

Report Conclusions: Despite the importance of health economics for NIHR-BRCs achieving their goals, there are missed opportunities where health economics is absent or underutilised. This report emphasises the importance of embedding health economics early in the research pathway. The four potential models that we identified for integrating health economics should be tailored to each BRC and informed by close collaboration between Directors and health economists, but also recognise that the most impactful use of health economics input will require the use of robust methods and appropriate funding.

Overview

This report has been prepared by the NIHR Health Economics Sub-Group Committee for Biomedical Research Centres (NIHR-BRCs) and HealthTech Research Centres (NIHR-HRCs). The report was written by Katherine Payne (University of Manchester) and Sarah Wordsworth (University of Oxford) with input from members of the Sub-Group Committee. The purpose of this report is to describe the results of a survey of Directors of NIHR-BRCs (hereafter 'NIHR-BRC Directors') to identify the extent to which health economics is being included in the currently funded NIHR-BRCs. The report also presents an option appraisal for future models for including health economics in the next round of the NIHR-BRCs (referred to as 'BRC5'). We highlight the importance of appropriate models matching the purpose of each NIHR-BRC being selected and how this decision should be informed by active engagement with health economists.

Membership of the NIHR Health Economics Sub-Group Committee for BRCs and HRCs

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Background

There are 20 NIHR Biomedical Research Centres (NIHR-BRCs) that bring together a network of experts who work collaboratively between NHS Trusts and Universities across England. Their primary goal is to facilitate early-stage experimental medicine research and support the translation into practical applications for NHS use. Crucially, all sectors of the NHS are under the remit of NIHR-BRCs including general practice (primary care), general and specialist hospitals (secondary and tertiary care) and social care.

The academics working with clinicians and scientists in the NIHR-BRCs bring expertise in research methods and, importantly, work with patients and the public in an inclusive way to understand if, and how, to move scientific breakthroughs into clinical reality. All the developed and evolving new medicines, diagnostics and other health technologies could impact on the NHS budget. The website for NIHR-BRCs states that the funding from NIHR is there to *'translate promising scientific breakthroughs and develop them into new treatments, diagnostics and medical technologies for the benefit of patients, the public and the health and care system.'*

Health economics is one of the core methods, alongside statistics, qualitative enquiry and behavioural methods, crucial for developing a robust, timely and relevant evidence base to inform the introduction of new medical technologies into the NHS. Health economics offers a suite of methods underpinned by the concept of *opportunity cost*. *Opportunity cost* reflects that society has a defined budget to spend, for example, on healthcare, including medicines, diagnostic, surgery or screening programmes. If a new medical technology is introduced into the NHS, then money must be identified within the allocated healthcare budget to fund the proposed intervention; potentially taking funds away from other interventions (the '*opportunity cost*').

The NIHR Health Economics Sub-Group Committee for NIHR-BRCs and NIHR-HRCs was convened by Katherine Payne and Tracey Sach with the aim to understand the current, and possible future roles, of health economics in programmes of work in NIHR-funded BRCs and HRCs. The inaugural meeting of the NIHR Economics Group was held in October 2025.

Professors Sach and Payne organised a session during this inaugural meeting (ARC GM | Economics in BRCs and HRCs) with the aim of forming a network of health economists working with NIHR-BRCs and/or NIHR-HRCs or having aspirations of developing a health economics research programme within future NIHR-BRCs or NIHR-HRCs. Following the inaugural meeting a Sub-Group Committee was established comprising seven members (Dr Kyriaki Giorgakoudi, City St George's, University of London; Professor Katherine Payne, The University of Manchester (Sub-Group Committee co-convener); Professor Tracey Sach, University of Southampton (Sub-Group Committee co-convener); Dr Gurdeep Sagoo, Newcastle University; Professor Mara Violato, University of Oxford; Associate Professor Jane Wolstenholme, University of Oxford; Professor Sarah Wordsworth, University of Oxford). This Sub-Group Committee now meets on a monthly basis. This report is the first output from this Sub-Group Committee and focuses on NIHR-BRCs.

A Survey of NIHR-BRC Directors

An online survey was designed and sent in September 2025 to all 20 NIHR-BRC Directors. The survey aimed to understand their views on the role of health economics and how it is embedded in the current programme of work for their BRC. The survey comprised mostly closed ended questions, but also included open questions allowing for free-texts answers. These data were analysed using descriptive statistics (counts) and simple grouping of key themes respectively. The survey asked for the named contacts representing health economics in each NIHR-BRC to provide possible contacts for future networking opportunities as part of the NIHR Health Economics Sub-Group for NIHR-BRCs (and NIHR-HRCs). Following the survey, the Sub-Group Committee members used personal contacts spanning universities and BRCs across England to identify further health economists involved in NIHR-BRCs.

Survey Findings

A total of 21 responses were received from the 20 BRCs, with two BRCs submitting multiple responses (two and three each, respectively) and not every question was answered in the completed surveys. **Table 1** summarises the involvement of named health economists in each NIHR-BRC combining the results of the survey and follow-up with personal contacts of the Sub-Group Committee. The results indicated that a named health economist was not always identified as the lead for health economics in each NIHR-BRC. If a named lead was not specified then this was described as 'none' in **Table 1**. **Table 1** also summarises if a NIHR-BRC had named health economists working as researchers. If appropriate, the approximate number of health economics research staff supported by funding from the NIHR-BRC was also indicated. This detail was provided by the known personal contacts rather than the NIHR-BRC Directors who generally did not know this information. For two NIHR-BRCs, although a named health economist was identified as the lead, there was no funding for health economics researchers included in the programme of research. For four NIHR-BRCs, with named health economics leads, it was not possible to confirm whether health economics researchers were funded.

Scale of health economics involvement

Eight of the 21 NIHR-BRC Directors (or representatives) indicated that health economists were co-applicants on the initial NIHR-BRC proposal. It was, however, clear that this question has been interpreted in different ways: some NIHR-BRC Directors suggested four health economists had been co-applicants (which is not feasible). Six NIHR-BRC Directors indicated that funding had been allocated to support named health economists in the NIHR-BRC. Three NIHR-BRC Directors indicated that health economists were involved in the delivery of the NIHR-BRC and a total of 12 health economists were named.

Table 1: **Summary of health economics in current NIHR Biomedical Research Centres**

NIHR-BRC	NIHR-BRC Director	Named Lead for Health Economics Provided	Health Economics Staff Name/s Provided
Barts	Professor Mark Caulfield	Yes	Not known
Cambridge	Professor Miles Parkes	Yes	Not known
Exeter	Professor Sarah Lamb	No	Not applicable
Manchester	Professor Anne Barton	Yes	Yes (n~8)
GOSH	Professor Thomas Voit	No	Not applicable
Imperial	Professor Mark Thursz	No	Not applicable
Leeds	Professor Philip Conaghan	Yes	Not known
Moorfields	Professor Sir Peng Tee Khaw Professor Andrew Dick	No	Not applicable
Newcastle	Professor Avan Sayer Professor Andrew Blamire	No	Not applicable
Nottingham	Professor Ian P Hall	No	Not applicable
Oxford Health	Professor Rachel Upthegrove	Yes	Yes (n~5)
Oxford	Professor Helen McShane	Yes	Not known
Sheffield	Professor Dame Pamela Shaw	No	Not applicable
Maudsley	Professor Grainne McAlonan	No	Not applicable
Royal Marsden	Professor Nick Turner	Yes	Yes (n~3)
UCLH	Professor Karl Peggs	Yes	None
Southampton	Professor Michael Patrick William Grocott	Yes	None
Birmingham	Professor Paul Moss	No	Not applicable
Bristol	Professor Jonathan Sterne	No	Not applicable
Leicester	Professor Melanie Davies	No	Not applicable

Organisation of Health Economics Input

The NIHR-BRC Directors indicated that there were many and varied approaches to including health economics. In part, these responses reflect that each NIHR-BRC has its own approach to how it delivers the specified programme of research. The organisation of health economics input was identified as being part of:

- one or more topic workstreams (n=4)
- a dedicated methodological workstream (n=2)
- a dedicated workstream (n=1)
- one or more topic workstreams & a dedicated methodological workstream (n=1)
- one or more topic workstreams & a dedicated workstream (n=3)
- a dedicated workstream, a dedicated methodological workstream & one or more topic workstreams (n=2)

Three additional approaches to the organisation of health economics input were: no health economist co-applicant but one named in application; integrated into theme objectives; named as an associate partner inputting into themes.

Funding of Health Economics

Thirteen of the NIHR-BRC Directors indicated how the health economics in their research programme was funded. There were a number of different approaches described:

- We pay for health economists' time on a project-by-project basis (n=4)
- We employ health economists to work on the BRC (n=1)
- We fund part of one or more health economists' time to work on the BRC (n=5)
- We fund part of one or more AND we pay for health economists' time on a project-by-project basis (n=2)
- We fund part of one or more AND we employ health economists to work on the BRC (n=1)

One NIHR-BRC Director provided additional text to explain their response:

> *'As the BRC is an infrastructure award, the costs of most specific projects are expected to be met from external grant income. We fund a small amount of core time for economists input into project development'.*

The survey also asked the NIHR-BRC Directors to explain how the funding was directed towards the organisation of health economics input. Two NIHR-BRC Directors indicated that they were unsure if, and how, the funding for health economics was used. Three NIHR-BRC Directors said there was funding to deliver a dedicated health economics workstream, with one of these three explaining that this was 'part' funding and another referring to funding a health economics hub. Nine of the NIHR-BRC Directors reported that health economics is included in other workstreams. Four of these nine NIHR-BRC Directors specified that there was part-funding to cover the health economists' salary to work in these workstreams.

Methods Used by NIHR-BRC Health Economists

The NIHR-BRC Directors were provided with a list of potential methods that the health economists might use to address specified research questions in the research programmes. Seven NIHR-BRC Directors (two responses from one NIHR-BRC) said they were familiar with the methods used and two NIHR-BRC Directors stated they were unsure about the types of health economics methods included in their NIHR-BRC.

Five NIHR-BRC Directors went on to indicate the methods they believed were used by the health economists:

- Model-based economic evaluation;
- Trial-based economic evaluation, model-based economic evaluation, budget impact analysis;
- Trial-based economic evaluation, model-based economic evaluation, micro-costing, discrete choice experiment;
- Model-based economic evaluation, micro-costing, discrete choice experiment (preference survey), Equity-based economic evaluation;
- Trial-based economic evaluation, model-based economic evaluation, discrete choice experiment, equity-based economic evaluation, simulation models, societal impact costing.

Capacity to Deliver Health Economics?

Nine of the NIHR-BRC Directors said they felt that their NIHR-BRC had been able to access the health economics input needed to deliver the specified research programme. Four NIHR-BRC Directors indicated they had not been able to access the health economics input needed, and an additional four NIHR-BRC Directors indicated that they were unsure. A number of the NIHR-BRC Directors provided some useful additional insights into capacity and health economics within their NIHR-BRC as illustrated by additional free-text comments.

Three of the NIHR-BRC Directors indicated that they did not have sufficient capacity in health economics citing insufficient budget and skills shortage.

> *'Insufficient budget to fund more, especially with inflationary pressures on a budget that was costed approx 4 years ago'*
>
> *'The answer to Q9 is 'sort of' rather than yes or no. We can access the input that is needed but the level of activity is restricted by budget.'*
>
> *'There is still to some extent a skills shortage in this area. However, for the BRC, which focuses on early phase studies (pre-clinical to phase 2) health economic input is usually less important than for later phase research at phase 3+. We work closely with the ARC and HIEM to get the necessary support as projects work through the translational pipeline.'*

This NIHR-BRC Director suggested that health economics should focus on later phase research which is perhaps not relevant for NIHR-BRCs:

> *'There is a role especially in planning and evaluation of pilot and feasibility studies, but it is much more limited than for later phase research'*

Four of the NIHR-BRC Directors clearly saw a role for health economics in their NIHR-BRC:

> *'This is an important aspect of translational research and we have encouraged all to utilise the resources available. '*

'We have encouraged all to recognise that health economics is an important health services methodology that should be used to evaluate the burden of disease and current practices. '

'I really value the health economics support we have been able to fund - I think there is great value in early economic evaluations, for example, to determine whether findings from experimental medicine studies should progress along the translational pathway.'

'The role of health economics has become more important in recent years. There is an increased focus from NIHR/DHSC on the economic impact of research and therefore an increasing need for us to demonstrate not just research outputs and impact on patient care, but the £ amount associated with this.'

<u>Survey Conclusions</u>

There is a varied approach to including health economics in the currently funded NIHR-BRCs. Each NIHR-BRC Director having their own view on if, and how, to include health economists and health economics. There was evidence that some of the NIHR-BRC Directors were clearly working closely with health economists, and health economic methods were embedded in the research programmes for the NIHR-BRC. There were, however, notable omissions, and some NIHR-BRCs did not include health economics in any of their research programmes.

The Future

The results of this survey were presented at the inaugural NIHR Economic Group meeting in Manchester on 13th October 2025. Following this meeting, we convened the Sub-Group Committee who meet online each month to discuss how we can work together with the overall goal of improving how health economics and health economists are embedded in NIHR-BRCs (and NIHR-HRCs). The members of the Sub-Group Committee individually followed-up with personal contacts in universities and BRCs, to identify further health economists involved in NIHR-BRCs where a health economist was not named through the survey. As part of this follow-up exercise, we have identified some NIHR-BRCs that plan to include health economics in their next application.

The Sub-Group Committee have also shared their own experiences on how to deliver health economics within a NIHR-BRC. As a result, we have identified four core models of how to deliver health economics within a NIHR-BRCs (see **Appendix 1**). The relevant model of delivering health economics should be cognisant of how each NIHR-BRC delivers its research programme and available capacity in terms of the number and skill-set of local health economists. It is also possible that a hybrid approach, combining two or more, of the suggested models best suits the needs of a specific NIHR-BRC to embed health economics and deliver a health economics research programme. The appropriate model of delivery of health economics within a NIHR-BRC should ideally be established by close collaboration with the Director and local senior health economists (if available and interested in working with the NIHR-BRC).

We identified some NIHR-BRC Directors who suggested that health economics is (only) more important later in the pathway of developing new medical technologies. We strongly feel that this is a poor strategy, as health economics has a key role in early evaluation to identify potential evidence gaps and future evidence requirements to inform the development of new medical technologies and their use in the NHS to maximise patient benefit and value for money for the healthcare system. Late inclusion of health economics can also lead to missed opportunity to collect key health economic data such as resource use and health outcomes data, meaning that data are not available for health economic analysis or only partial analyses can be performed.

We believe there is additional value in health economists connecting cross-BRCs to share and advance economic evidence on the evaluating new medical technologies. Currently the Sub-Group Committee is unfunded and the NIHR-BRCs are funded as individual entities limiting the potential scope of this group.

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Appendix 1: Option appraisal for alternative models of providing health economics within NIHR Biomedical Research Centres

Model type	Key features	Advantages	Disadvantages/Risks	Best Use Cases
Separate Health Economics Theme	Health economics team sets the research agenda aligned with NIHR-BRC priorities. Strong collaboration with clinicians, scientists, and data teams.	Produces high-quality, methodologically rigorous research. Greater likelihood of high-impact academic publications. Builds a strong identity and reputation for health economics within the BRC. Enables strategic, long-term programmes of work.	Likely higher financial cost due to dedicated staffing and research time. May be perceived as less responsive to immediate project needs across the NIHR-BRC. Risk of misalignment with fast-moving translational priorities if too methods focused.	NIHR-BRC prioritises academic excellence and publications. Health economics is a strategic priority area. Strong leadership and funding for core methods development.
Health Economics Service Hub	Centralised health economics team providing on-demand support. Focus on grant applications, study design, economic evaluation, business cases, and market access. Works across all themes as a shared resource.	Likely to be least expensive financial model as no health economist-led research (no surveys etc to fund). Responsive to NIHR-BRC and investigator needs. Supports translational pipeline (e.g., early-stage technologies, trials). Aligns closely with directorate priorities and deliverables. Can add value to grant applications and industry collaborations.	May be seen negatively as a “service” rather than an academic discipline, hampering true collaboration across disciplines. Limited time for independent research and research methods innovation. Lower likelihood of high-impact publications. Unpredictable workload as demand likely to fluctuate. Related to the above, possibility that BRC theme leads may expect large amount of work for which health economists have not been costed. Career progression for health economists may be constrained, especially for early career researchers.	NIHR-BRC prioritises fast translation, impact, and industry engagement. For supporting grant income generation and a high volume of clinical projects. Strong NIHR-BRC and health economics leadership providing career development opportunities to early career researchers.

Model type	Key features	Advantages	Disadvantages/Risks	Best Use Cases
Health Economics Service and Research Hub	Hybrid approach (maybe 50% service, 50% research). Core team delivers support while maintaining its own research programme. Could include protected academic time.	Balances responsiveness with academic interests and output. Supports both grant income and publications. More attractive for recruitment and retention of staff. Enables methodological innovation alongside applied work.	Requires strong health economics leadership to manage competing priorities. Risk that service demands crowd out research time. Potential tension between short-term delivery and long-term goals.	Requires strong governance to manage competing priorities. When the NIHR-BRC has dual priorities (academic excellence vs fast translational impact). Where leadership can ensure protected research time in NIHR-BRC mature centres/themes from NIHR-BRC 4 (where theme set up is already in place).
Health Economics in all/selected Themes	Health economics lead oversees and directs health economics input into specific themes (e.g., genomic medicine, cancer, cardiovascular, digital health). Work closely with clinical and scientific teams on a day-to-day basis.	Strong integration of the health economics lead and health economics staff with research teams working closely to co-create projects. Improves early inclusion of economic evaluation in study design. Ensures full coverage across all BRC themes. Enables career development of early career researchers as they build research portfolios in health economics around specific themes. Enhances relevance and impact of analyses.	Financial impact for each theme as they must divert some of their funds to support the health economics embed in their theme. Risk of professional isolation and lack of peer support unless closely coordinated by the health economics lead. Limited capacity for large-scale or cross-cutting projects.	When there is a clearly defined health economics lead. When themes are well-defined. In highly interdisciplinary environments. Where early-stage input, such as early economic modelling is used to inform subsequent trial design. When other study designs, such as preference methods, are important to the themes and the health economists.