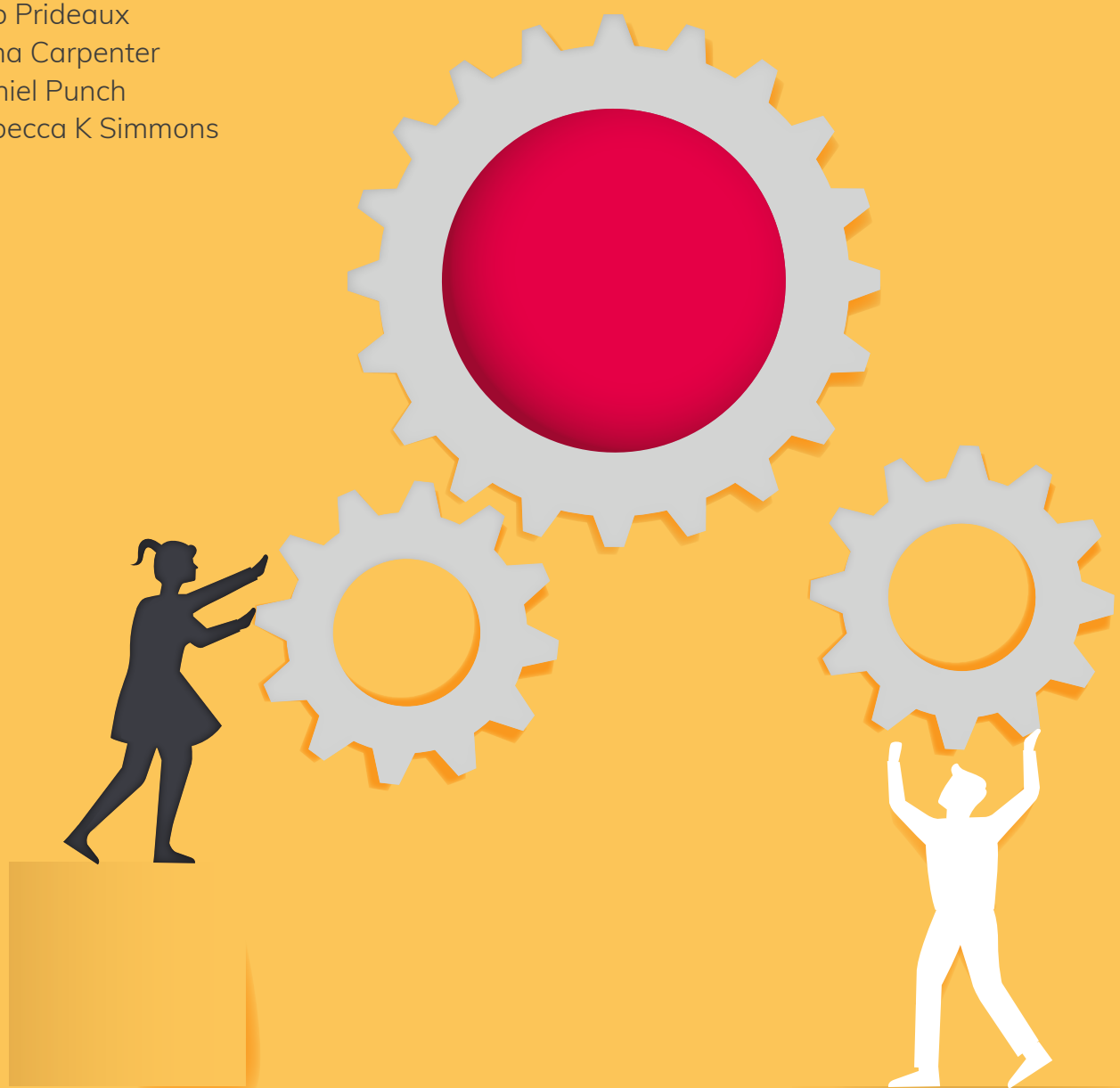# Involving NHS staff in research

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Background

NHS staff live the health system every day. They have much to offer to research about healthcare. Their first-hand experience and insights can help in multiple ways: generating and shaping research questions, gathering and analysing evidence, and spreading research knowledge.

Staff may have an especially valuable role in research about how to improve healthcare. While much research is already led by NHS staff, particularly consultants and clinical academics, the full potential of involving a wider range of NHS staff in healthcare research is yet to be realised. How to realise that potential is the subject of this report.

We explore why and how NHS staff contribute to research, the factors that enable engagement, the impact of engagement on research processes and outcomes, and the implications for future engagement efforts.

Approach

This report is informed by a rapid evidence assessment of relevant literature and interviews with experts (listed in the acknowledgements section).[1] It is primarily concerned with NHS staff actively engaging with research, for example by helping shape research questions or by implementing study designs, rather than considering NHS staff as study participants. While we are particularly interested in how NHS staff can contribute to research about improving healthcare, we considered evidence on staff involvement in healthcare research more broadly, including health services research and clinical research, for example. We also looked beyond clinical academic and fellowship models to explore the potential for broader engagement.

When we use the term 'NHS staff' in this report, we're referring to people directly and indirectly involved with care delivery – everyone across clinical, managerial, administrative and support roles. We use the words 'involvement' and 'engagement' interchangeably to describe interactions with research, reflecting the general terminology used in the wider literature.

From shaping research questions, to collecting data, and disseminating findings, NHS staff make valuable contributions at every stage of the research process. But their potential is yet to be fully realised.

Why do NHS staff engage with research?

The NHS comprises many diverse groups of staff, with a wide range of backgrounds and professional experience. Based on our literature review and key interviews, the most important reasons for their seeking to engage with research include:

- personal interest in a research or evaluation topic[2-6]

- a belief that research and evidence can improve the quality and safety of healthcare, patient experience and patient outcomes[2, 5-7] – which can sometimes be fuelled by frustration with existing practice

- a positive prior experience with research[5, 8]

- prospects for career development, as well as reputational or financial benefits[4, 6, 9-12]

- cultural expectations about research being part of the job, which vary among clinical disciplines, professions and locations

Exposure to research activities and opportunities to engage with research vary from staff group to staff group within healthcare. We found comparatively little evidence on engaging NHS staff who do not work in clinical roles. Doctors tend to be offered more research opportunities than nurses.[13] They are also more likely to get research training early in their careers – in part because of the structure of their postgraduate training period – and are more frequently exposed to research and related activities. Many NHS staff are involved in clinical audits and quality improvement projects, but despite some excellent examples, not all of these activities are scientifically rigorous.

Though organisations like the NIHR Collaborations for Leadership in Applied Health Research and Care (CLAHRCs) and Clinical Research Networks (CRNs) have helped generate more research opportunities for nursing staff and allied health professionals, clinicians in non-academic roles have generally not been engaged to the degree they could be.[10, 14] Opportunities also vary within professions, with certain clinical specialities recognising the importance of research in career development more than others.[6] This translates into more research support through training opportunities, attending conferences and research networks.[13] According to one interview participant:

> "If you are training in neurology, it is more likely that you will do a PhD as part of your training. It is similar in renal medicine. However, in geriatrics, it is very unusual for doctors in training to take time out and pursue academic studies."

For those who do have opportunities, personal interest in the research topic and the belief that research can improve healthcare are among the most common motivators for getting involved. For some, recognition is a valued reward, whether that means being named as an author on research papers, referenced in a newsletter, career development or formal reward schemes.[4] But it is generally not seen as the primary driver. The potential for financial reward – such as pay progression or promotion – is an additional incentive for some,[11] and the prestige associated with research plays a role in certain clinical specialties.[6] Feedback on research progress and on the impact of their contributions is also important.

Overall, our research showed that different motivations were relevant to different groups of NHS staff and that opportunities are highly variable. Any initiative to encourage NHS staff to contribute to research should take account of these diverse motivations and opportunities, and understand the importance of forms of recognition that are relevant and meaningful to each group of staff.

Opportunities to get involved in research are not evenly available across or within different professions or staff groups. A wider range of healthcare staff could be mobilised.

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How do NHS staff engage with research?

NHS staff can engage with research in a variety of ways. Their contributions span all phases of the research process, from idea to design to dissemination, and include setting priorities, helping draft research protocols and funding applications, collecting and analysing data, and sharing research insights with policymakers.

Our review highlighted the breadth of research projects and tasks undertaken by NHS staff. In one example, healthcare staff were involved in studying and co-producing a standardised nursing bag.[15] Nurses typically bring a bag of supplies with them to visit patients in the community, and the study aimed to understand how the bag and its contents could be improved to better meet nurses' needs and better support patient care.

A steering group of service improvement managers, community matrons and infection control specialists participated in five workshops to inform the design of the bag, test it, and evaluate it. They brought a unique perspective from their day-to-day working environment and their efforts led to the design of a new bag with the potential for better functionality and patient safety.

Another example saw NHS staff involved in a Delphi exercise aimed at identifying and agreeing upon research priorities in mental healthcare.[16] A total of 35 psychiatrists, psychiatric nurses, clinical psychologists, social workers and occupational therapists were invited to engage by study leads, and asked to name up to five mental health topics they believed were priorities for research. The study found that healthcare professionals were less likely to agree on research priorities than service users and carers, who were also involved in the study.

The wide range of research tasks and activities conducted by NHS staff are summarised in **Table 1**.

Efforts to involve NHS staff should be mindful of the reasons why they get involved in research: an interest in the topic of study, the desire to improve healthcare and the potential for career development, for example.

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Table 1 Research tasks and activities that may be performed by NHS staff	
Research stage	**Tasks and activities**

Agenda setting	• Prioritising topics for research[12, 16-23] via:
	  • Structured priority-setting collaborations and partnerships, such as the James Lind Alliance[17, 20, 22, 24]
	  • Membership of steering committees or advisory groups[3, 7, 12, 17, 24]
	  • Responding to researcher-led consultation about research priorities[23]
	  • Peer support and research networks[18, 21]
	• Influencing the translation of priorities into the commissioning of research projects and programmes[20, 24] via:
	  • Direct meetings and discussions with funding bodies as part of panels, committees or advisory groups
	  • Sharing information about research priorities with professional organisations that have influence on the funding landscape[24]

Attracting funding	• Leading or contributing to the development of research proposals and funding applications[12, 25, 26]
Design and procedures	• Leading the design of research in collaboration with other researchers and/or as part of a team[18] • Acting as advisors or collaborators to inform project development, for example by specifying research questions or developing data-gathering protocols or research tools[7, 9, 18, 23, 24] • Developing, testing and implementing research frameworks[27] • Collaborating with patients to design a clinical trial[28]
Recruitment of study participants	• Advising on and being actively involved in the recruitment of patients or others for studies[6, 9, 23, 27] • Promoting surveys and encouraging participation in studies by other healthcare staff or patients[24]
Data collection	• Collecting data from research participants[7, 9, 24] • Recording information and data[9, 15] • Conducting telephone and online surveys, workshops, interviews and focus groups[18, 20, 24] • Reviewing literature and documentation[15, 17] • Observing patient care as part of research to identify opportunities for improvement[15] • Engaging in consensus-building, for example using Delphi exercises involving a cross-section of practitioners[16, 19]
Data analysis	• Actively conducting data analysis tasks, either independently or with other stakeholders (eg data from consensus-building exercises, surveys, focus groups, trials, and systematic reviews)[17, 18, 24, 28] • Being involved in the interpretation of data and in establishing recommendations[15, 17, 28, 29] • Evaluating research tools produced by others or interventions for their use in clinical settings[15, 29]
Dissemination and facilitating uptake	• Being involved in the production of journal outputs or research reports[26] • Disseminating research findings to policymakers[24] • Disseminating research findings to academics and other practitioners[26, 27]
Evaluation of research	• Critically appraising research outputs[15, 26, 29] • Evaluating service interventions in a practical setting (eg in trials, pilots, or full-scale studies)

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What is the impact when NHS staff engage with research?

The previous section described how NHS staff might contribute to the research process, and, in general, their contributions are viewed as valuable. Yet evidence on the impact of involving NHS staff in research is scarce. The literature on staff engagement with research is less developed than the literature on involving patients and the public in research. Though clinical staff have always been involved in some research activities, including recruitment of study participants, the literature includes limited consideration about whether involving wider groups of NHS staff in research is affordable or practical and what impact it might have.

Our rapid evidence assessment identified one review that assessed whether involving healthcare professionals and provider organisations in research improved healthcare performance.[30] Most literature focuses on the potential benefits of engagement rather than systematically evaluating its impact. We also found a lack of evaluation frameworks that can systematically and effectively guide those who want to assess engagement processes.

From the existing evaluative studies, we categorise four ways NHS staff can potentially impact research and describe them in Table 2.

Table 2 Potential impacts of NHS staff engagement with research	
Types of impact	**Examples of impacts**
Impact on research studies	• **Setting priorities** including identifying and prioritising research topics[17, 23, 24] [7, 15, 17, 24, 29] • **Improving research design and methods** by making them more relevant to healthcare staff and patients[12, 28, 31] • **Helping recruit participants** by being 'on the inside'[31] • **Helping implement studies** by providing practical advice and challenging the assumptions of academic researchers[31,32] • **Disseminating findings** by providing guidance on how to reach healthcare audiences[6 (31)]
Impact on the wider research system	• **Attracting funding for research** through research grants, which help healthcare organisations retain talent, knowledge and skills[6] • **Increasing the likelihood that healthcare staff use research** by increasing their ability to use research and willingness to do so[30]
Impact on clinical practice	• **Contributing to improved healthcare performance** enabled by mechanisms such as collaborative and action research[30] • **Spreading knowledge and promoting innovation**[6, 11] in part because involving practitioners in research contributes to an expanded knowledge base among healthcare staff
Impact on individuals	• **Helping healthcare staff develop new skills and progress their careers** which can help them feel fulfilled in their roles and feel they are contributing to health service improvement[2, 4-7, 9-12]

What challenges limit NHS staff engagement with research and how can they be addressed?

NHS staff can make important contributions to research, but enabling those contributions is no easy task. Many barriers stand in the way.

One of the most prominent barriers faced by NHS staff is a lack of time to engage with research. Other challenges include lack of funding to support engagement;[3, 7, 12, 33, 34] lack of knowledge, skills and confidence[5, 8, 11, 26] (often related to a lack of exposure to research); difficulties accessing relevant training or mentorship supports;[2, 4, 6, 13, 25, 34] and lack of support by leadership.[4-6, 11-13, 21, 34, 35]

An evidence base on the mechanisms that enable engagement is now emerging. These enablers include organisational factors such as structure, governance, management, and culture.[2, 10, 12-14, 20, 25, 34] For example, it's important that leadership within organisations and professional networks champion research.[4, 5, 20, 30, 34] NHS staff need to be connected with research collaborators[2, 4, 7, 14, 20, 27, 34] and supported through training, mentorship and feedback.[12, 13, 20, 34-36] It is also helpful when they are guided by organisational policies that value research and make engagement feasible.[5, 10, 12-14, 30]

Table 3 summarises the factors that inhibit NHS staff engagement with research as well as those that enable it.

Given these complex challenges and enablers, it is clear that one strategy alone won't enable engagement. Instead, multiple strategies to encourage engagement are needed.[30]

Engagement efforts should also recognise the barriers that can prevent NHS staff from engaging with research, including – first and foremost – not having the time to get involved.

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Table 3 Challenges and enablers of effective NHS staff engagement with research		
Driver of effective engagement	**Challenges**	**Enablers**
Governance, management and infrastructure	• Lack of funding for research and/or lack of awareness about how to access it[3, 6, 7, 11, 12, 33, 34] • A weak or opaque governance and management infrastructure – an unclear, inadequate or unwieldy bureaucracy for research and development (R&D) approvals can inhibit research applications[4, 12] • A failure to recognise research contributions in job plans, appraisal systems and career pathways[4, 8, 11, 12] • Lack of clear leadership and defined roles for NHS staff within research projects[21] • No information sharing about research opportunities	• Formal roles such as research champions in provider organisations[10, 12, 13] • Clear guidelines and procedures for developing and implementing research[12, 30] [37] • Well-designed time-management systems that recognise research activities of NHS staff[5, 10, 14] • Financial recognition through pay progression[11] • Mechanisms for awareness raising about opportunities for involvement in research and how NHS staff can engage[19] • Accessible funding for research[14, 20, 35] • An enabling research infrastructure (equipment, facilities, information infrastructure)[14, 20, 21, 35] • Organisational practices which free up time and headspace to engage with research[2, 10, 14, 20, 25, 34]
Individual and organisational capacity to be involved in research	• Lack of knowledge and skills needed to do research[5, 8, 11, 26] • Lack of access to relevant training[2, 4, 13, 25, 34] • Lack of dedicated time to be involved in research[34]	• Integrating research within clinical practice by promoting evidence-based practice and engaging with research in clinical decision-making[4-7] • Access to training for NHS staff to develop their research skills and confidence[12, 13, 20, 34-36] • Mentoring and informal teaching[10, 12, 20, 25] • Collaboration with other organisations and individuals with an active interest in research[2, 4, 7, 14, 20, 27, 34]
Culture, attitudes, values and behaviours	• Insufficient support by leadership[4, 5, 11-13, 21, 34, 35] and associated lack of strategic planning for R&D at organisational level[21, 26] • Divergent views among NHS stakeholders about what topics are important to research[13, 20] • A perception that research is a specialist activity and outside the domains of some health professions[12, 13] • A perceived inability to influence practice through research[11] • A perception among health professionals that it can be difficult to work with research teams in academia[5, 11] • Concern that time demands on NHS staff to deliver research tasks can be underestimated by research teams[5, 20]	• Organisational leadership and culture, which values and promotes research activity[4, 5, 20, 30, 34] • Recognition and awards for involvement in research[4, 6, 9-12] • Effective mechanisms for disseminating research findings[35] • A compelling narrative about the research[2, 6] • A culture of feedback on the impact of staff contributions to research and wider impacts[6, 13] • Exposure to research training in early career stages

Areas of focus for involving NHS staff in research

The findings from our review of the literature, interviews and input from stakeholders suggested that the knowledge, expertise, energy and commitment of NHS staff in research are invaluable, and might be mobilised through the following strategies:

Preparing to involve NHS staff

Identify the most meaningful contributions for NHS staff on a case-by-case basis

NHS staff engagement should depend on the project's needs, how feasible engagement would be, and the operational context. Their contributions may be multiple, ranging for example from consultation, to data gathering, to full co-production of the research and its outputs. Some types of engagement will be conducive to innovative techniques such as citizen science approaches, while others will require more traditional methods of collaboration.

Clearly define research roles and responsibilities at the onset

Lack of role clarity can deter NHS staff from getting involved in research. The purpose, scope and remit of research roles should be clearly communicated from the beginning.

Target specific groups in some cases, engage more widely in others

Some research projects will benefit from involving diverse groups of NHS staff while others will require input from a targeted community. These decisions should be made based on the value and perspectives that different professional groups can add to a research project. Opening up opportunities widely (when appropriate) can have spillover benefits for future engagements, even if opportunities aren't taken up immediately. Where relevant, consider whether more effort should be put into engaging groups that are not typically involved in research (ie NHS staff who do not work in clinical roles).

Where possible, evaluate the process, outcomes and impacts of NHS staff engagement using sound methods

Generating a better evidence base for staff engagement with research is likely to improve understanding of how, when, what, why and where staff might contribute, and provide insights into costs, benefits, and other resource implications. Evaluation plans should be based on the roles NHS staff are expected to play, the desired outcomes and impacts from their involvement, and how they will be supported to engage effectively. It is also important to share the learning from these evaluations.

NHS staff engagement should be based on project needs and feasibility, with contributions considered on a case-by-case basis.

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Promoting research opportunities

Frame research opportunities to align with what motivates and enables NHS staff engagement
Communicate how research involvement opportunities relate to their personal and professional interests, and make clear the links between research activity and the potential to improve clinical practice and benefit patients. As one interviewee said, ask yourself: *"Why should a person running a geriatric ward, in Bolton, on a Friday night, be interested?"*

Pay attention to the language and avoid unnecessary jargon
A clear and compelling narrative about how and why NHS staff can contribute is important – it might not be obvious. This should be central to a communications strategy for engagement, and can help change attitudes about who has valuable expertise.

Consider how best to use established networks and organisations when involving healthcare staff in research
Consider working with professional organisations and specialist societies (eg royal colleges, professional societies), regional networks (eg CRNs, CLAHRCs, AHSNs), special interest groups attending health services and quality improvement conferences, and bodies such as NHS Providers, NHS Employers and NHS Confederation to raise awareness and recruit contributors. National policy programmes such as Choosing Wisely, Getting It Right First Time and NHS RightCare may also provide a useful source of helpful contacts and insights, as could influential individuals in policy circles (though independence will always need to be ensured). Recognise that some NHS staff groups will not have established networks and organisations to support them in contributing to research, so alternative means of connection may be needed.

Enabling engagement throughout the research process

Ensure engagement mechanisms are as user-friendly as possible
NHS staff have multiple demands on their time, so it needs to be as easy as possible for them to contribute to research. Engagement with research should – as far as possible – complement usual practice, rather than disrupt it.

Build links with leadership across hierarchies and professions to help foster a research-supportive environment
Support from senior leadership is critical in setting a research-engaged organisational culture, but it's not always enough. Consider engaging with executive leadership, middle management and frontline staff on the basis that engagement at all levels is needed to achieve organisational buy-in and supportive organisational environments.

Build on existing organisational efforts and the governance of safety and quality
Ensure that there is communication and coordination between senior leadership and frontline teams underpinned by a shared view of the value of research activities. This will enable research to support wider safety and quality activities.

Engage with health system leaders and stewards to encourage time and headspace for staff to get involved with research
This interaction could also help raise awareness about opportunities for staff to make contributions out of personal interest or for professional development (through citizen science, for example).

Create opportunities for recognition and rewards and communicate them to healthcare professionals
Make clear how contributions will be acknowledged, and how feedback on the progress and impact of research and outcomes of engagement will be communicated. Work with professional bodies to consider benefits and rewards for the career development of a broad range of NHS staff, and ensure that staff who get involved see the impact of their involvement and how much their contributions are valued.

Reflect on the role organisations play in building wider research capacity in the health system
In addition to research project opportunities, share information about training and mentorship support available throughout the system.

Conclusions

NHS staff can and do play a valuable role in every stage of research. Many of them are already shaping research questions, recruiting patients, collecting and analysing data, disseminating findings, facilitating impact and making other important contributions.

But a closer look reveals room for more wide-scale engagement. Not all staff have control over whether they can choose to be involved with research, and a number of challenges can stand in their way. Opportunities to engage with research could be more evenly available to different healthcare professions and specialties, and a broader range of staff groups could be better supported to make contributions to research.

Though evidence about NHS engagement with research and its impact is generally limited, an evidence base on mechanisms that enable engagement is emerging. It suggests that these mechanisms need to be used in combination and must be mindful of the diverse factors that encourage involvement in research and those that discourage it.

Enabling engagement shouldn't mean launching an endless, unquenchable push for more staff to get involved. The degree to which NHS staff are engaged should be based on a particular research project's needs, how feasible engagement would be, and the operational context. Wider involvement by NHS staff should be considered on a case-by-case basis.

Mobilising a wider range of NHS staff may require new methods of engagement. Citizen science, for example, can help bring new and diverse voices into the research process. Career structures and research cultures in the NHS may also need to evolve, time to conduct research may need to be built into the system beyond clinical and academic fellowship models, and the academic, education and policy communities may need to work collaboratively with healthcare professionals to make these things happen.

Bold new approaches could offer substantial rewards for building the evidence base on how to improve healthcare. The expertise of NHS staff could lead to a better understanding of what works in healthcare, what doesn't, and why, and inform meaningful improvements for the people who work in the NHS and they patients they serve.

Bringing a wider range of expertise into healthcare research may require new forms of career structures and building in time to conduct research beyond clinical academic and fellowship models.

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Evidence about how to involve NHS staff in research, and the impact it can have, is fragmented and limited. Further investigation is needed to effectively unlock the full potential of NHS engagement.

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