

Fellowship call for applications

Learning from and improving the spread of innovation in healthcare: the case of perioperative care for older people

1 Background

In the United Kingdom, multiple systems and agencies contribute to efforts to secure consistent, good-quality care. One important approach involves national recommendations for implementation of high-quality evidence. In England, for example, the National Institute for Health and Care Excellence (NICE) appraises evidence for the effectiveness and cost-effectiveness of new care approaches (including diagnostics, therapies and care pathways), and makes recommendations for provision that commissioners and providers are expected to meet. This approach has much value in making clear expectations of care, but it tends to be focused on priority areas where the highest-quality evidence, typically sourced from multi-centre randomised clinical trials and economic evaluations, is available.

Yet very often, improvements to care need to be made in the absence of such guidance. In such situations, those charged with organising and providing care may have to base decisions and actions on a developing evidence base that has not yet matured to the point where it is ready for a national mandate. Interventions such as the collaboratives run by regional Academic Health Science Networks, and the work of membership organisations such as NHS Elect, seek to support local organisations in adopting and adapting novel approaches to care delivery in their own routine practice. However, in contrast with the large literature on variations arising from inconsistent implementation of national recommendations,¹ relatively little is known about the work of spreading novel approaches that have important potential benefits for quality of care in advance of full clarity on the evidence: how practitioners and organisations make decisions about what to disseminate and what to adopt and adapt, the processes of spread, adoption and adaptation and their consequences for quality of care, and

how organisations might best evaluate implementation. THIS Institute wishes to recruit a fellow to lead a study investigating these issues, using the example of perioperative care for older people undergoing surgery as a case study.

1.1 Perioperative care for older people

Older people form the majority of those undergoing elective surgery in the NHS, but outcomes vary, particularly for patients at higher risk, due for example to comorbidities or poor functional capacity. Underlying risk factors are not always routinely identified by standard pre-operative assessment processes,^{2,3} which are often used primarily to inform a binary decision about whether or not to operate—even where risk factors are potentially modifiable. There is growing evidence that thorough multidisciplinary pre-operative assessment, combined with interventions to optimise surgical patients by addressing modifiable risk factors and with improved post-operative management, is associated with better outcomes for patients and systems.⁴ However, recent NICE reviews and guidance on perioperative care for older people have concluded that there is insufficient evidence of the cost-effectiveness of pre-operative optimisation clinics for older people.⁵

In the absence of a definitive evidence base for effectiveness and cost-effectiveness, pressing clinical need remains, further increased by the impact of the Covid-19 pandemic on elective activity in the NHS. Accordingly, much work is underway to secure the uptake and spread of promising innovations in perioperative care for older people that have not (yet) met the evidential criteria needed for NICE recommendation. One approach with a rapidly developing evidence base and increasing traction among the clinical community is the Perioperative Care for Older People Undergoing Surgery (POPS) model.

Pioneered at Guy's and St Thomas's Hospital Trust, it covers the entire perioperative pathway, including pre-operative optimisation and post-operative recovery, based on a geriatrician-led model deploying principles of Comprehensive Geriatric Assessment. It seeks to address medical, behavioural and social circumstances and shared decision-making to improve intra-operative safety, reduce incidence of post-operative complications such as delirium, and reduce length of stay.⁶ Among other things, it seeks to secure better identification of older people with complex needs who would benefit from surgery but whose risks can be reduced through perioperative optimisation, as well as identifying those for whom a non-surgical alternatives might be a better option.

Some evidence for the effectiveness^{7,8} and cost-effectiveness⁹ of POPS exists. While existing evidence was deemed insufficient by NICE to inform national recommendations, there have been efforts to reproduce the approach in other settings.⁶ Recently, POPS has been taken up by NHS Elect's Acute Frailty Network, an improvement organisation that uses an approach based broadly on the collaborative model¹⁰ to seek to “drive the adoption and spread of this service model across the NHS” through an initial “six-month collaborative programme of learning and development events.” Involving national events, masterclasses, webinars, coaching and improvement support, the building of peer networks, and online resources, the programme seeks to support the implementation of a POPS-based approach in seven organisations initially, with further rounds involving more hospitals likely to follow. Ultimately, it is likely that this programme will need to be supplemented or displaced by an approach that relies to a greater extent on peer-to-peer learning and exchange (rather than direct replication

of the prototypical POPS model), for example through further dissemination led by adopting units, to support uptake elsewhere in the system.

1.2 Learning from the roll-out of POPS to inform better improvement

Initiatives to spread the POPS approach to other organisations providing surgical care for older people offer an opportunity for learning about the dynamics of such efforts. Specifically, they provide a chance to study the conditions that facilitate the dissemination of promising approaches to care across organisations, in the absence of a ‘top-down’ mandate for change or a fully firmed-up evidence-base, and the ways in which approaches are replicated and adapted as they are taken up in diverse settings.

Spreading practice from a successful single-site prototype presents a different set of challenges and opportunities from work to implement a national mandate locally. It potentially allows the enrichment of the approach, and the evidence supporting its implementation, in response to local contextual conditions, such as differences in patient population, organisational arrangements or the roles of practitioners from different specialties and disciplines, and the development of insights into how to make it work in diverse settings—a crucial endeavour given the challenges of implementing complex interventions of this kind.¹¹

Conversely, work to spread and adapt the approach may also risk undermining the core components that make it work. It may not always be obvious in advance whether changes are appropriate adaptations to tailor the approach to local contexts, or inappropriate infidelity to the prototype that risks distorting the approach and squandering its benefits. More broadly, there are important questions about what prompts an organisation to choose to invest in developing services outwith national mandates to do so. How are alliances built to make perioperative care (or any other area of care) an organisational priority? Whose interests are served? What are the opportunity costs? How can the evidence in favour or against the approach continue to be built?

Findings from research on these issues are likely to be of direct use in informing further efforts to spread and learn from innovative approaches, including POPS itself, and to contribute to wider knowledge on replication and spread, particularly as it relates to the balance between fidelity and adaptation, the practice of intra-organisational priority-setting, and the tension between bottom-up and top-down approaches to improvement^{12–16}—key areas of research interest for THIS Institute.

To address these questions, THIS Institute wishes to fund a fellow to undertake research alongside the Acute Frailty Network’s POPS programme. Combining retrospective analysis of the initial round of support for spread of POPS with prospective research on future rounds, the fellow will develop a programme of research in consultation with colleagues from the Institute, POPS and the Acute Frailty Network focusing on the following themes:

1. **Organisational decision-making and participation in spread programmes**
 - What governs organisational decisions to participate in a programme of this kind

- What drives clinical engagement and inter-professional buy-in for new ways of working
- 2. **How the spread of a new model of care takes place**
 - What works well and less well in support provided by the central programme
 - The role of learning and support for adoption and adaptation between and within participating sites
- 3. **Evaluating uptake and its impact**
 - The adaptation process and its consequences: how the intervention changes in the course of uptake in different organisational contexts, what is understood to constitute the 'core' of the intervention, what influences levels of adaptation, and the impact of adaptations on outcomes
 - The principles that might guide organisations and programmes in evaluating implementation and impact, including choice of metrics

2 Fellowship award

THIS Institute wishes to make an award of a fellowship to an individual to be based at their own university or other research-intensive environment to lead a project involving research alongside current efforts to roll out the POPS approach, with a view to contributing to the academic literature on innovation, replication and spread in healthcare, and to informing and supporting ongoing work to spread the approach. We envisage a mixed-methods study that will take full advantage of data already collected by the Acute Frailty Network programme and organisations participating in it, and collect further data to provide insights into and learn from this approach to supporting uptake of POPS in new settings.

We invite proposals that set out imaginative, rigorous, feasible and theory-informed approaches. Drawing on data collected by successive rounds of the Acute Frailty Network's collaborative programme to support the adoption of POPS, and on additional qualitative data as appropriate, applicants should seek to:

- Generate new knowledge on the practice of spreading innovation, with a particular focus on organisational decision-making to participate in such programmes, the process of uptake and adaptation of the approach in different contexts, and practice-relevant learning on how such efforts can best be evaluated
- Develop outputs aimed at academic and practitioner audiences conveying key messages from the study, including implications for the future spread of POPS itself and other Acute Frailty Network initiatives, and broader learning for efforts to accelerate uptake of promising interventions.

The fellowship is likely to commence after the first round of the Acute Frailty Network's programme has finished, but will run alongside further later rounds, if commissioned. While developing study design and data collection plans will be the responsibility of the fellow, we envisage that they will combine retrospective and prospective data collection. Retrospectively, they will be able to draw on data collected by organisations participating in the programme during its first round, along with qualitative data (such as in-depth interviews) with those

involved in the first round to gather insight into their experiences of the process. The fellow may also wish to collect qualitative and quantitative data from earlier informal efforts to replicate POPS that predate the Acute Frailty Network's involvement. For further rounds of the Acute Frailty Network's programme, the fellow will be able to collect data prospectively. We expect them to rely primarily on quantitative data already collected by sites participating in the programme, rather than initiating separate collection of quantitative data. However (subject to COVID-19 restrictions), they will be able to undertake prospective qualitative data collection in later rounds, for example ethnographic observation of the work of the programme at national level and in participating sites, and/or qualitative interviews.

The fellow will be able to make use of THIS Institute's research and development platform, [Thiscovery](#), which allows healthcare research to be undertaken remotely (e.g. using remote interviews, surveys, data gathering, and consensus-building efforts). The fellow should account for the impact of current efforts to mitigate the transmission of COVID-19, including planning for the risk of further lockdowns or limits on face-to-face data collection. They will work closely with others involved in POPS, the Acute Frailty Network and THIS Institute, and report to colleagues at THIS Institute.

3 Fellow requirements

Applicants for this fellowship should be experienced and skilled mixed-methods researchers who can lead the project effectively, with collaborative input from colleagues at THIS Institute, the POPS team and the Acute Frailty Network. Applicants should have a background in health services research, with good knowledge of existing research on innovation, spread and replication in healthcare; knowledge or experience in the care of older people and perioperative care will be advantageous. Applicants do not need to have a clinical background, although applications from clinicians will be welcomed. Applicants should have a PhD in a relevant area or, exceptionally, equivalent postgraduate research experience. Applications are accepted from all career stages, though we would expect that this opportunity may be especially suitable for those with significant postdoctoral experience. Applicants should have a good publication record for stage of career, including peer-reviewed qualitative or mixed-methods research publications. Specific requirements include:

- Understanding of existing research and theory on replication and spread, particularly debates around fidelity and adaptation (essential)
- A good command of the social scientific literature on the organisation of healthcare improvement, including for example the role of the professions in leading and coordinating improvement (essential)
- Experience of mixed-methods or multi-method evaluation (essential)
- Understanding of key issues of quality and safety relating to surgery and perioperative care, particularly for older people (desirable)
- Experience of developing practitioner-oriented guidance (desirable)

This fellowship is suitable for applicants who are currently in post at UK universities or other research-intensive environments who are available to work as soon as possible on this award. The successful applicant will remain employed by their own organisation.

The appointed fellow will be offered a professional development programme which will be discussed on award and customised to the specifics of the fellow's needs, commitments, and fellowship duration. The programme may include, for example, membership of a learning set, coaching, and/or mentoring. Full engagement with the agreed programme will be expected.

4 Budget

The award will include salary costs (at the agreed proportion of FTE) and research expenses directly relevant to the project up to a maximum of £140k. This fellowship should be completed within 15 months. It is expected that the fellowship will begin spring 2022. Only direct costs can be paid; no overheads or indirect costs are payable. Direct costs are those items are chargeable on the basis of cash amount spent and are that verifiable and auditable from the accounting records (e.g. invoices for non-pay expenditure and payroll for staffing). Examples of direct costs include staff costs specifically for the project (including backfill of current role if necessary, and/or time for some research assistance), consumables, travel and small items of equipment. The appointed fellow should be in post at their own university or organisation at time of application.

5 References

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6 Application timetable

Competition opens – 03 November 2021, 09.00 GMT

Application deadline – 26 January 2022, 12:00 GMT

Funding decision – March 2022