University of Southampton

Faculty of Medicine

School of Healthcare Enterprise and Innovation

HARD GRAFTING: APPLIED LEARNING ON THE WORK NEEDED TO GET ORGANISATIONAL RESEARCH USED BY HEALTHCARE MANAGERS

by

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Abstract

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Much evidence has been published on getting research used in the health service. This focuses particularly on clinical research for doctors, nurses and therapists. Less attention is given to organisational research for managers. And yet this evidence is complex, context dependent and difficult to translate into action. Hard graft is needed by researchers and managers to transform research into evidence which is valued and useful.

But this work is often invisible. It does not feature in existing knowledge translation evidence which can be highly theoretical and abstract. Practical learning often remains locked in bodies with limited lifespans. My updated literature review confirms the gap in articulating and assessing specific activities of curating, packaging, translating, targeting and mobilising evidence by and for managers.

My outputs provide description and analysis of the hard graft by researchers, managers and intermediary bodies to get knowledge used. These granular accounts include a book for researchers on presenting findings to optimise use and a chapter and two articles for managers on applying research to decision problems. A further two articles assess attempts by intermediary bodies to maximise research use through new outputs, processes and linkage and exchange activities.

The steps needed to translate research into usable information were often clearer in older linear models overtaken by more sophisticated iterative and systemic theories. There is a `third way' recognising complex knowledge environments but focusing on specific skills and activities of different agents at critical junctures. My publications indicate what `good enough' evidence work looks like for managers, researchers and intermediaries. This is achieved through reflexive accounts, fusing hybrid theoretical knowledge with applied learning and worked examples of organisational research in management contexts. Further actions include strengthening strategic communication skills for researchers and critical appraisal training for managers, with funders rewarding impact processes rather than outcomes.

Table of Contents

Table of Tables

Table of Figures

Research Thesis: Declaration of Authorship

Print name: Tara Jane Lamont

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I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. Parts of this work have been published as:

    - Lamont T, 2021. Making research matter: steps to impact for health and care researchers. Policy Press. https://policy.bristoluniversitypress.co.uk/making-research-matter

    - Research and evaluation: what managers need to know – Tara Lamont and Gareth Hooper in Walshe, K., Smith, J., Moralee, S. & Sidhu, M. (Eds.) (2025). Healthcare management. (4th ed.) McGraw-Hill Education (UK)

    - Lamont T, Barber N, de Pury J, Fulop N, Garfield-Birkbeck S, Lilford R, Mear L, Raine R, Fitzpatrick R. New approaches to evaluating complex health and care systems. BMJ. 2016 Feb 1;352:i154 https://www.bmj.com/content/352/bmj.i154.long

- Lamont, T., 2021. But Does It Work? Evidence, Policy-Making and Systems Thinking Comment on" What Can Policy-Makers Get Out of Systems Thinking? Policy Partners' Experiences of a Systems-Focused Research Collaboration in Preventive Health". International Journal of Health Policy and Management [IJHPM], 10(5), p.287. https://www.ijhpm.com/article_3813_0.html

- Lamont, T. and Maxwell, E., 2023. From dissemination to engagement: learning over time from a national research intermediary centre (Four Fs). Evidence & Policy, 19(1), pp.135-148. https://doi.org/10.1332/174426421X16323393555059

- Lamont T, Chatfield C, Walshe K. Developing the future research agenda for the health and social care workforce in the United Kingdom: findings from a national forum for policymakers and researchers. Int J Health Plann Mgmt. [HPM] 2024; 39(3): 917-925. https://onlinelibrary.wiley.com/doi/10.1002/hpm.3775

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HARD GRAFTING: APPLIED LEARNING ON THE WORK NEEDED TO GET ORGANISATIONAL RESEARCH USED BY HEALTHCARE MANAGERS

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Chapter 1 INTRODUCTION

My focus is the work needed to optimise the use of organisational research by healthcare managers. These contributions in the form of six publications reflect ten years of professional practice at a national evidence centre and health service research programme, developing new ways of promoting research findings for practitioners, managers and organisations. There was a gap between the extensive theoretical work on knowledge mobilisation and the reality of work to curate, translate, package and target research evidence to healthcare staff including managers. The outputs provide reflexive accounts and analyses in a UK context of different aspects of this evidencing work, which is largely absent in the literature. Some of my publications provide critical narratives of new intermediary activities, products and events to reduce the gap between management and research communities. Others attempt to distil and condense complex and theoretical research on what is known about maximising impact (for researchers) or how research and evaluation can improve decision-making (for managers) in accurate but accessible ways with new worked examples, interviews and applied learning.

This commentary provides background to these publications with brief accounts of changes in health service and research contexts and developments in thinking on evidence use. A rapid scoping review provides a deeper look at recent trends and key gaps in concepts and practice of knowledge mobilisation in healthcare as context for my six outputs. The contribution of these publications to bodies of knowledge in three overlapping domains of researchers, managers and intermediary bodies are critically examined with discussion of implications for future activity. The last section considers further research needed to strengthen what we know about getting evidence used by managers in healthcare.

Chapter 2 AIMS AND NATURE OF RESEARCH

There have been important changes in how evidence is used in healthcare systems over the last thirty years and scholarly interest in understanding the relationship between research and practice. But much of the focus has been on the use of biomedical or clinical research by doctors, nurses and therapists. There has been less attention on general managers[1] and the use of organisational research to support decisions about services and models of care, although this is often complex, context dependent and difficult to translate into action. Existing research about evidence use tends to be highly theoretical and abstract, removed from the practical activities of making research more used and useful for managers.

The focus and use of terms in this commentary are clarified in Appendix A. Before considering the six publications and their contribution, this section provides background on recent developments as context for my body of work. This includes why managers find it hard to apply research and the limits of applying the paradigm of evidence-based medicine to management; how changes in research funding increases pressure on researchers to demonstrate impact; and developments in thinking on knowledge mobilisation emphasising complex systems of evidence use. These all lead to the proposition that considerable work is needed by managers, researchers and intermediaries to get evidence used. A rapid scoping review of recent developments in thinking on knowledge mobilisation in healthcare highlights specific gaps which my outputs address.

2.1 Using evidence is more difficult for managers than clinicians

The rise of evidence-based medicine over the last thirty years with established mechanisms and structures for transferring codified research findings into clinical practice provides a particular context for understanding evidence use in healthcare in the UK, despite some challenges to fundamental precepts.[2] Evidence-based medicine took hold towards the end of the twentieth century, combining a `bottom-up' social movement of clinicians demanding better knowledge for treatment decisions through repositories of trials[3] with a `top-down' need by government to contain costs and address public concerns around `postcode lottery' of new high cost treatments. This culminated in the new National Institute for Health and Care Excellence (NICE) in England with an ambitious mandate for both assessing cost-effectiveness of new technologies and combining evidence and clinical expertise to develop national clinical

guidelines. As well as a mechanism for embedding research findings into clinical practice, NICE also created demand for further research, supported by new programmes of pragmatic clinical trials.[4] There is no equivalent to NICE in terms of a recognised institutional channel for identifying new research needs or managing, mediating, synthesising and legitimising organisational type evidence in healthcare in standard and accepted ways. Attempts to apply guidelines approaches to organisation of care (including safe staffing levels) proved challenging and was discontinued.[5]

How relevant is the evidence-based medicine movement to managers? This has been a dynamic debate for at least twenty years, sparked by an early address by Denise Rousseau[6] noting the weak evidence base for many core management ideas and under-developed research culture, calling on the management community to emulate the successes of evidence-based medicine. This has been contested by some, including an influential early paper by Walshe and Rundall[7], charting profound differences between management and clinical communities in evidence use. In terms of the evidence itself, health services research can be more subjective, contingent, harder to generalise, heterogenous and often poorly organised and indexed. While the hybrid clinician-academic is common, there is less career porosity between manager and researcher. More recent observations by educationalists confirm fundamental differences in professional identity and behaviours where clinicians "are socialised into the scientific method as a way of knowing and a belief in the generalisability and objectivity of research evidence"[8 (p. 95)] and can share well-synthesised knowledge through communities of practice, professional development activities and recognised journals widely read by practitioners as well as researchers.

The same is not true of general managers with very different behaviours, habits and assumptions about research. In a recent provocative editorial, Lega argues that the majority of research is "totally irrelevant for health policy makers and health managers".[9, para 1] He contends that most influential game-changing theories and models that inspired large-scale service changes in the last two decades like values-based healthcare have very little connection to formal research. These often come from management consultants or case examples with "a very limited and often ignored academic research [on key questions like] hospital organisation and transformation or primary care organisation models."[9, para 6]

Countless studies of UK healthcare managers evidence-using habits confirm little if any reliance on formal research[10,11,12] in favour of experiential knowledge and shared anecdotes. And yet more is now expected of managers in terms of using research. The Health and Care Act of 2022 set new legal duties in England for the recently formed integrated care boards to support and promote research delivery and also to make use of "research evidence for quality improvement and evidence-based practice".[13, para 3] These responsibilities were not very clearly delineated and examples of high-impact research in the guidance were largely clinical rather than organisational.

There has also never been greater need for research to guide difficult management decisions given challenges on performance and productivity, greater demands on services with record staff shortages and turnover. And services themselves have been in flux with experimental new models of care in support of dynamic localism but few attempts to evaluate these changes and share learning.[14] More is now expected of managers in spending resources wisely in a rapidly shifting context, but health services research remains remote from everyday decision-making.

2.2 Researchers are now more focused on use of findings

At the same time, there has been greater pressure on researchers to demonstrate impact on policy and practice. In UK healthcare, a new NHS research budget with centrally determined priorities[15] to be delivered from 2006 through an ambitious new infrastructure of the National Institute for Health Research (NIHR) emphasised the need to engage stakeholders to increase relevance and minimise research waste.[16]

The wider context in research funding was also changing, with the rise of the 'impact agenda'. The introduction of the new UK Research Excellence Framework (REF) from 2014 marked a shift away from measuring performance by grant income and publications in favour of wider societal benefit. While this new attention on relevance was welcome, analysis of impact case studies showed little attention by researchers to the mechanisms and activities by which impact is achieved.[17] The last ten years has seen increased investment by research funders and universities in dedicated functions to promote, translate and embed research. The work of intermediary staff and organisations in this space is a new area of inquiry which is starting to be critically examined.[18]

2.3 Greater understanding of how research gets used

While managers and researchers are exhorted to do more to get research used, theoretical and empirical studies over the last thirty years emphasise the complexity of these activities which cannot be seen in isolation from competing demands, influences and customs. Following observational research in general practice, Gabbay and Le May concluded that clinicians use different forms of knowledge to make decisions through "mindlines" - "internalised, collectively reinforced, and often tacit guidelines."[19, p76] This is an active and social process, where evidence is interpreted and negotiated in light of clinical experience and other information.

Parallel empirical studies of health service managers over the last fifteen years and their use of evidence[10,20,21] emphasise the dynamic rapid decision-making context not of "logical appraisal of research based evidence but of continual contested sense-making through negotiation that involved many other sources of evidence."[22,para 34] Local evaluations often trump formal national evidence[11, 23] and studies emphasise the importance of context-specific or situated knowledge. This aligns with Weiss' earlier formulation of 'interactive' models of knowledge utilisation where "research is only one part of a complicated process that also uses experience, political insight, pressure, social technologies and judgement." [24 (p. 429)] Researchers and managers need to take active steps to ensure that research takes its place with other influences in "evidence-oriented organising".[25]

This is a long way from traditional `conduit' or linear theories where immutable evidence is transferred via channels of distribution.[26] Best and Holmes in 2010[27] articulated well the generational shifts in thinking on knowledge mobilisation. Earlier linear models common in biomedical research emphasise effective communication and packaging to increase uptake of discrete and unchanging products; relational models foreground personal interaction and local context in activities like knowledge brokering; through to complex system approaches with dynamic and unpredictable elements, which need to be aligned or activated for changing research evidence to be used.

Since then, the growth in academic interest has been marked. A review by Oliver in 2014[28] mapping barriers and facilitators to evidence use in policy was recently updated[a] indicating a 20-fold increase in publications over the last ten years, with over two thousand primary studies and over 250 systematic reviews across all policy sectors. A broader conceptual mapping of literature by Davies et al in 2015[29] identified 71 reviews describing or evaluating use of evidence use models, theories and frameworks in healthcare, education and social care. Analysis of the literature at that time showed important differences and tensions in purpose and definitions of knowledge mobilisation activity. Given the steep rise of publications and interest since then, it is worth looking a little more closely at recent trends and developments in our understanding of knowledge mobilisation in healthcare.

2.4 Recent developments in knowledge mobilisation in healthcare

2.4.1 Rapid scoping review methods

To inform this overview and as context for the publications to be assessed, I carried out an updated review at the end of 2024. The review question centred on **important developments in strategies and thinking on knowledge mobilisation with a particular focus on healthcare from 2014** onwards. A rapid scoping review using Joanna Briggs Institute (JBI) methodology was seen as the most appropriate approach to "to assess and understand the extent of the knowledge in an emerging field or to identify, map, report, or discuss the characteristics or concepts in that field."[30 p.2121] The timelines were chosen to align with publication of my six outputs and the end date of the broader Davies 2015 review.[29]

With support from research librarians at the University of Southampton and the Kings Fund, searches were carried out in four electronic databases MEDLINE (PubMed), CINAHL (EBSCO), PsycInfo and HMIC in November 2024, following initial scoping searches in October 2024. This was supplemented by forward citation tracking of nine foundational papers. Studies were restricted to evidence syntheses for the database search but included a broader scope of papers for citation mining although excluding conference abstracts, protocols and grey

[a] Oliver K et al [Submitted] 2025 What factors influence evidence use in policymaking? An updated systematic map

literature. Further details of the search strategy and methods are given in Appendix A, together with a PRISMA flowchart and brief discussion of limitations including single screening and review.

A basic qualitative content analysis or inductive approach was used to present findings, suitable for identifying key characteristics or factors related to a concept[31] and mapping or describing clusters of publications. This rapid scoping review identified 46 reviews and 89 further primary research outputs relevant to mobilisation and use of organisational research by healthcare managers.

2.4.2 Review findings

The following areas are presented in a narrative synthesis as new emphases, fields of inquiry or `turns' in the literature over the last ten years, highlighting those of particular relevance to my publications. A full account is given in Appendix B. This rapid scoping review, particularly the forward citation from key publications, also informs the next section contextualising outputs.

2.4.2.1 Challenges of evaluation

One repeated theme from the scoping review is the paucity of evaluation evidence. [27,32,33-36] The body of knowledge is still largely exploratory, including focus on barriers and facilitators and descriptions of knowledge mobilisation practices, with few attempts to assess impact.[37]

Evaluation in this space is difficult, given lack of agreement on basics around how to measure and attribute impact. Appropriate methods to carry out these evaluations also received attention, from use of social network analysis[38] to contribution analysis[39] to the potential of realist approaches to capture complex interplay between different components of evidence use[40] and focus on specific causal mechanisms linked to improved uptake.[41] At the same time, the growth in realist evaluations and reviews with emphasis on local context and conditions poses challenges for synthesis and actionable findings for decision-makers.[42]

2.4.2.2 Focus on systems thinking, complexity and engagement

The same is true for systems thinking which may work better as a frame for understanding how knowledge mobilisation happens than for assessing impact[43], although some scholars have tried to extract practical learning on optimising evidence use in complex systems.[44] Another new `turn' in the literature is a focus on integrated knowledge translation[45] recognising the

value of engaging end users throughout from research production to developing tractable recommendations.

2.4.2.3 Learning from other disciplines

Over the last ten years, there has been greater understanding of what healthcare can learn from other fields including policy and political sciences[46], science and technology[47,48], management and organisation studies[49] and library sciences.[50] There has been greater focus on organisational capacity to use and understand knowledge, with theories of absorptive capacity providing a useful structuring framework for studies in healthcare (for instance[51]) and reviews noting interplay of processes at professional group, organisational and local level influencing evidence use.[52]

As the field of knowledge mobilisation matures, many reviews and studies identify important gaps from attention to equity and marginalised groups[53] to the costs[54] and sustainability[48] of interventions.

2.4.3 Review summary and relation to my outputs

This rapid scoping review shows an expanding and sophisticated knowledge base. With forty six reviews on knowledge mobilisation in healthcare alone in the last ten years, there is much literature now to draw on and indeed some question about the added value of studies given that this is, as noted by one review author, a "popular line of inquiry".[35, p894] There is a marked increase in scholarly interest but much of it is highly theoretical. Work on systems thinking has deepened understanding of the complex and iterative nature of evidence journeys but makes it harder to apply actionable findings to service problems. Similarly research methods such as realist reviews and evaluations provide new insights but are difficult to synthesise for managers. There are few real-world evaluations of attempts to increase uptake or use of evidence. Integrated knowledge translation highlights the importance of bringing managers and researchers together in meaningful ways across the research cycle. Many initiatives are short-term but there is greater interest in the system and service support needed to sustain evidence use as well as collective rather than individual actions. My contributions provide applied learning on the efforts needed by researchers, managers and intermediary bodies to optimise research impact. These pragmatic insights are still missing in the scholarly literature which can be removed from the realities of service decision-making.

2.5 Aims and line of argument

The aim of my body of work is to articulate the actions needed by researchers, managers and intermediary bodies to enhance the use of organisational research in healthcare. This could be described as **evidence grafting** – in terms of the hard work needed to transplant and reanimate knowledge for use.[b]

A key contention of my body of work is that dismissal of linear models of knowledge mobilisation in favour of more iterative and systemic models fails to separate out the particular processes and activities needed to extract, synthesise, interpret and mobilise research evidence for use by and with managers. While the flaws in a linear, pipeline model are well established,[55] that view provided a sense of different steps that needed to be taken which can be overlooked in current thinking. Unpacking some of those behaviours and activities is a useful corrective.

2.6 Theoretical framing

There is no single organising theoretical framework for this study. It draws on a rich cumulative set of understandings of the social nature of knowledge, which is situated and complex. Empirical studies of how evidence is understood and transformed[10,11,1220] draw on models from Latour's notion of `reassembling'[56] through to Habermas' notion of `lifeworlds' or everyday culture and practices through which any communicative action is filtered and received.[57, p84] Such theorists help us understand that research impact requires understanding of the assumptions, interests and behaviours of end users and the importance of the context of implementation as a moderator as well as mediator of evidence. But it also emphasises the work involved to adapt and embed knowledge that might stick.

These outputs combine knowledge of related fields of scholarship with practical experience in reviewing, curating, packaging, interpreting and promoting research to managers and creating spaces for evidence work to happen. Some of these activities highlight competing demands

[b] Term used in botany and surgery for transplanting plants or living tissue, but British English use for labour or hard work. Also deriving from Greek term *graphein* to write (https://www.merriam-webster.com/dictionary/graft).

and expectations of funders, researchers and evidence users. To understand these conflicts and challenges, Weick's framing of organisational sense-making[58] is helpful. This involves *retrospection*, a process of looking back and coming to an understanding of past (collective) experiences. Taken together, my six outputs `tell the story' of the different currents and tensions in `evidencing work'[59] for and with managers at this moment in time. In this sense, perhaps these works provide a contribution to what has been framed `critical knowledge mobilisation' or "contextual and reflexive engagement in the production and sharing of knowledge"[60, p348] from those involved in different ways with the evidence on using evidence.

The following section sets out the contribution of my six publications to a more granular understanding of steps that can be taken to optimise use of organisational research by healthcare managers.

Chapter 3 CONTRIBUTION OF OUTPUTS

3.1 Thread linking the outputs

The broad field of interest is how to optimise the use of organisational research by healthcare managers. This brings together related publications in overlapping fields of interest, demonstrated in Figure 1. These three domains relate to the model of knowledge mobilisation in education developed by Levin which sets out three types of context or domain for the use of research.[61] These include the context in which knowledge is produced (researcher domain), used (manager domain) and the mediating processes between the two (intermediary domain). I chose Levin's model as it related well to the focus of my outputs with a simple organising framework which also allows for complexity. In a similar fashion, widely used research-practice implementation models such as PARIHS emphasise dynamic interplay between evidence, context and facilitation.[62] The six published outputs are grouped by the three domains of researcher, manager and intermediary body with discussion of their contribution in relation to relevant literature.

Lamont T, 2021. Making research matter: steps to impact for health and care researchers. Policy Press. https://doi.org/10.51952/9781447361176 [Book] https://policy.bristoluniversitypress.co.uk/making-research-matter

Research and evaluation: what managers need to know – Tara Lamont and Gareth Hooper in Walshe, K., Smith, J., Moralee, S. & Sidhu, M. (Eds.) (2025). Healthcare management. (4th ed.) McGraw-Hill Education (UK) https://www.mheducation.co.uk/healthcare-management-4e-9780335252596-emea-group [Chapter]

Lamont T, Barber N, de Pury J, Fulop N, Garfield-Birkbeck S, Lilford R, Mear L, Raine R, Fitzpatrick R. New approaches to evaluating complex health and care systems. BMJ. 2016 Feb 1;352:i154 https://doi.org/10.1136/bmj.i154 [Article]

Lamont, T., 2021. But Does It Work? Evidence, Policy-Making and Systems Thinking Comment on" What Can Policy-Makers Get Out of Systems Thinking? Policy Partners' Experiences of a Systems-Focused Research Collaboration in Preventive Health". International Journal of Health Policy and Management [IJHPM], 10(5), p.287. https://doi.org/10.34172/ijhpm.2020.71 [Article]

Lamont, T. and Maxwell, E., 2023. From dissemination to engagement: learning over time from a national research intermediary centre (Four Fs). Evidence & Policy, 19(1), pp.135-148. https://doi.org/10.1332/174426421X16323393555059 [Article]

Lamont T, Chatfield C, Walshe K. Developing the future research agenda for the health and social care workforce in the United Kingdom: findings from a national forum for policymakers and researchers. Int J Health Plann Mgmt. [HPM] 2024; 39(3): 917-925. https://doi.org/10.1002/hpm.3775 [Article]

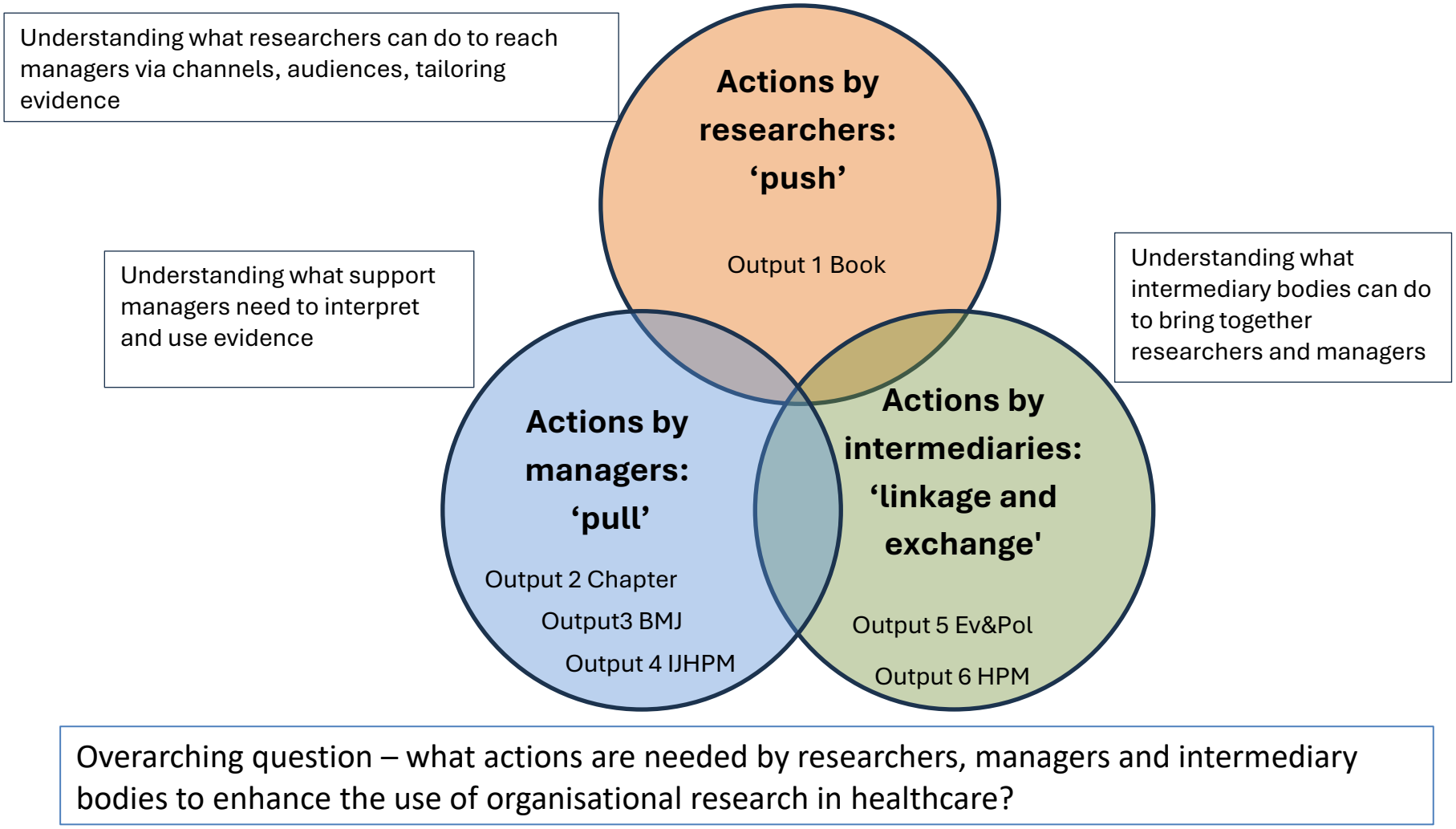

Figure 1: Themes and outputs of thesis

The consistent thread running through these various publications is the graft needed by researchers, managers and intermediaries for evidence to inform healthcare decision-making. Recent reviews note greater focus on describing problems than evidence on how to overcome barriers or support known facilitators to uptake.[34]

My outputs provide new insights into the `evidencing work'[59] needed by all three communities to optimise research use. Much of this graft is hidden and implicit, requiring hybrid knowledge and skills and organisational support. Greater effort is needed to demonstrate and understand the value of health services research itself, as well as particular gains from individual studies. More work is also needed to contextualise, interpret and apply service-related knowledge.

As noted in Appendix A, these six outputs are focused more on dissemination and engagement than implementation. It is beyond the scope of this enquiry to track the extent and nature of changes made in healthcare as a result of research evidence. This focus corresponds to the first two steps in an organisational knowledge model by Carlile[63] who identified three progressively complex processes of *transfer, translation and transformation* of knowledge and the work needed at each boundary. This commentary is focused more on the activities around transfer and translation which are themselves challenging and important areas but often overlooked in current research.

A recent review noted a marked gap in academic literature on accessibility of findings and how researchers should package research for decision-makers.[64] This is the first domain to be reviewed here. Recent empirical studies in the UK have deepened understanding on how commissioners and managers use organisational research, but it is still difficult to understand what the ask is for managers in research and evaluation literacy. The second domain includes three contributions clarifying what we can expect of managers in using or commissioning research. The third domain is around the activities of individuals and organisations mediating between research and practice or policy. My two outputs provide pragmatic examples of evidence work of an intermediary body and a research-management network on healthcare workforce issues. For each domain, there is a short description of the output, discussion of the strengths, contribution and alignment with relevant literature followed by critical reflections on limitations.

3.2 DOMAIN 1 : WHAT CAN RESEARCHERS DO

3.2.1 Output 1

Lamont T (2021). Making Research Matter: steps to Impact for Health and Care Researchers. Policy Press.

3.2.1.1 Summary

The aim of this book was to provide a scholarly primer for researchers in health and social care with insights on how to make research findings more used and useful for the general public, clinicians, managers and policymakers. The framing of the book was around why, what, who, when and how: why researchers should invest time in active dissemination; what counts as knowledge; who researchers should target with separate chapters on the constituencies of practitioners, patients or the public and managers or policy-makers; when research can make a difference; and how research can be presented and packaged for optimal effect. The book provided an analytic overview of current theory, empirical knowledge and debates on knowledge mobilisation and implementation science together with new worked examples of evidence journeys and impact. The focus was on health services research and the particular challenges of interpreting and translating complex studies into actionable findings. There were also sections on use of narrative, storytelling and strategic communications to strengthen influence of research. The book included fifteen interviews with leading journalists, science communicators and researchers.

3.2.1.2 Contribution to knowledge

Anonymous academic reviewers confirmed that this book made an original contribution to work in this field with "distillation of insights (from literature and stakeholder interviews) into actionable strategies for those in the health domain." It was targeted at researchers, particularly early career researchers, with clear steps to maximise impact[c]. The book drew on

[c] As at December 2024, the book had been downloaded as an open access resource by over 8000 users.

and expanded the concept of `impact literacy' developed by Bayley and Phipps[65] with three intersecting elements of identifying impact endpoints (what); practices to create impact (how) and the successful integration of these by research impact practitioners (who). The focus of their work was largely directed to those in formal `impact' roles in universities as research support staff or knowledge brokers. By contrast, the target of my book was researchers themselves and their need to understand the information seeking behaviour, channels and needs of their audiences (*who*) and how their research evidence sits with other forms of knowledge (*what*). My book also added further elements of *why* researchers should spend time promoting their findings and *when* research can have impact, with a worked example of the `policy window'[66] which opened for evidence on weekend working.

The use of fourteen worked examples from high quality research is a distinct contribution of my work. Each summary was validated by the lead researcher. Drawing on a broad and deep knowledge of UK applied health services research portfolio, this book provided new analyses and application of salient studies, from centralising stroke services to safe levels of nurse staffing. This underlines the value of organisational research for managers. The use of examples is itself a conscious attempt to practise what is known about effective and impactful writing.[67] Sword's thesis expounded in my book is that academic writing often does not follow basic precepts of good writing such as using active voice, short sentences and making use of examples. But she also advises researchers to go further, taking risks (which I attempt to do) by judicious use of the personal voice, quotes, stories and humour without diluting the content. Considerations of style are often absent in the evidence on evidence use but may be an important tool in the researcher's impact armoury.

An interesting element of Bayley's model identifies progressive levels of literacy from basic, intermediate to advanced which are needed to exercise these competences at project, programme or systems levels. This was expanded more recently to consider institutional impact literacy levels[68], perhaps similar to the absorptive capacity of organisations discussed elsewhere.[51] There is a debate about whether all researchers need or want to be engaged in impact work, given the particular communication and influencing skills needed (see for instance[27, p.130]). Indeed, a recent qualitative study on implementing operational research noted the authority of the principal investigator in getting policy traction, which could not have been replicated by other members of the team.[69] The contribution of Output 1 is to provide a minimal or sufficing level of knowledge on pathways to impact for all researchers even if the work may

be done by others. A critical quality is understanding which elements are in the gift of researchers. Isett and Hicks[70] characterise these facets of knowledge as content salience, effective communication, quality and attending to parameters of use. This is set against very real system barriers for researchers of limited time, funding and fixed-term contracts inhibiting whole-team dissemination activity at end of projects and career incentives privileging academic over service-facing publications. Researchers also report lack of confidence in necessary skills and competences.[71] My book provides concrete and substantiated examples of those elements of impact which researchers *can* control as well as activities to strengthen competence and capabilities.

Another distinct contribution (recognised by reviewers) in the `how' chapters of this book is synthesising learning from fields of social marketing, communication, persuasion and the art and science of narrative. Holmes et al noted that "strategic communication is undervalued in knowledge-to-action and emphasise its importance especially in complex system initiatives."[42, p.554] These chapters provide some theoretical grounding and worked examples to support better storytelling in research, while being alert to risks of spin and distortion.

The book describes particular outputs for healthcare decision-makers drawing on useful precepts of readability, relevance, rigour and resources[72] but is not prescriptive about format. Previous literature has identified `solutions' such as policy briefs or review summaries and tested these (for instance[73, 74]) although some have challenged uncritical adoption of other evidence products such as toolkits.[75] My book asks researchers to think about general principles and audiences, identifying who they are trying to reach and how best to do that rather than start with a preferred output.

The fifteen interviews provided qualitative insights into the challenges and meaning of research impact from different perspectives. Interviewees ranged from the head of a national `what works' centre, national broadsheet journalist, leading organisational researchers, science communicators to practitioners with high-profile social media accounts.

The book also identified five new steps for better engagement, focusing on the actions that can be taken by researchers. These provided more focus in areas such as presenting and packaging content than existing frameworks for knowledge exchange and use (see for instance[76]). This was articulated in a sequence of actions for researchers, from asking the right questions through to developing appropriate research outputs taking account of audience context,

channels and information-using habits. These steps hark back to linear models but recognising the `entanglement'[77 p.34] of research with other influences on decision-making. Researchers need to work hard to maximise the `signal' of findings amid other noise, for instance by relating research results to relevant decision currencies like reduced bed days. These five steps were used to provide targeted learning and advice for the three distinct communities of practitioner, public and manager in different chapters of the book.

3.3 DOMAIN 2 WHAT MANAGERS NEED

3.3.1 Output 2

Research and evaluation: what managers need to know – Tara Lamont and Gareth Hooper in Walshe, K., Smith, J., Moralee, S. & Sidhu, M. (Eds.) (2025). *Healthcare management*. (4th ed.) Open University Press.

3.3.1.1 Summary

I was invited to write a chapter on research and evaluation for a new edition of a leading academic healthcare management textbook[d] and developed an outline, inviting a colleague working at an integrated care board to contribute examples of service evaluation. The chapter starts with an argument on why research matters to managers, with examples of organisational research that supports or challenges service decisions. In a section on the use of evidence to inform decisions, two examples are given with detailed analytic appraisal of complex evidence. There are also examples of research which change thinking or `illuminate' as well as more instrumental use. The chapter also provides advice for managers planning or commissioning evaluations of service changes, with learning exercises, further resources and advice on quick evidence searches and assessing quality of studies.

3.3.1.2 Contribution to knowledge

It is still unclear what we expect from managers in terms of evidence literacy or use. Dennis Tourish argues that we need to replace a simplistic `what works' mentality of evidence-based management with use of different kinds of evidence for a "gradual reduction of what is unknown[25, p181] " in the spirit of "evidence-oriented organising".

[d] Draft chapter critically reviewed by two of the editors (Walshe, Sidhu)

The contribution of Output 2 in this context was to fill a gap, recognising profound differences between clinicians and managers in evidence use and the support that is needed for managers to navigate a diffuse, pluralistic and complex knowledge base without clear `rules' for assessing relevance and quality. My detailed worked example of an evaluation of telehealth where selective reporting of findings by policymakers distorted the `meaning' helped managers to understand how to read and interpret complex studies. The second worked example of a mixed methods synthesis on twelve hour nursing shifts guided managers on considering mixed evidence to support different assumptions, embodying Tourish' principle of reducing uncertainty rather than aiming for `absolute knowledge' or definitive answers on complex and contested service issues. Tourish argues for `critical realism' which "recognises ambiguity and indeterminacy but also embraces the challenge of identifying what actions, policies and solutions are more or less likely to have a positive impact on organisational practices and wider social wellbeing."[25 p.186] This is a useful middle ground between simplistic `what works' notions and theoretical obtuseness or relativism of some critical management studies in a world where managers need to make difficult decisions, with or without perfect evidence. Critical appraisal courses and resources are pitched towards clinical evidence and this chapter shows managers how to be discerning readers of complex organisational research. These capabilities may be important for leaders of organisations to enhance the absorptive capacity of their organisations, strengthening culture and habits of using and sharing knowledge to support improvement.[78]

Output 2 also nods to the important work of Weiss in distinguishing between different kinds of research utilization, from instrumental use to `enlightenment' models where "concepts and theoretical perspectives ... permeate the policy-making process"[24 p.429] through a "gradual sedimentation of insights, theories, concepts and ways of looking at the world."[79 p.535] While the chapter foregrounded instrumental use of research to strengthen decision-making in areas like centralising stroke service, it also highlighted ideas from social science research which have entered mainstream management thinking such as the gap between `work as imagined' and `work as done'.[80] These different examples act as a counter to widely held beliefs of the irrelevance of formal research to healthcare managers.[9]

Lastly, the contribution of this chapter was to de-mystify some of the steps for managers to undertake a `good enough' rapid review. A recent empirical study on managers introducing large-scale system changes in hospital infection control noted "a gap in credible evidence

sources relevant to managerial practices in the studied context."[20 p.139] In healthcare, many of the search platforms and resources are geared towards clinical rather than organisational research. For instance, a study[81] looking for systematic reviews relevant to healthcare managers found that 96% of PubMed searches over two years were not on target, yielding search results of little relevance. This chapter provided some practical `how to' guidance to rectify this gap.

No resource like this, including original critical appraisal of complex organisational research and application to real-world service problems, exists for managers outside graduate training schemes. These are concrete examples of the research translation work managers need to do which is missing in theoretical literature. Few managers will want to carry out research themselves but this chapter provided a compact, readable and authoritative guide for all managers on understanding and using research in modern healthcare settings.

3.3.2 Output 3

Lamont T, Barber N, de Pury J, Fulop N, Garfield-Birkbeck S, Lilford R, Mear L, Raine R, Fitzpatrick R. New approaches to evaluating complex health and care systems. BMJ. 2016 Feb 1;352:i154 https://www.bmj.com/content/352/bmj.i154.long

3.3.2.1 Summary

This analysis piece for the BMJ reflected discussion of a roundtable meeting of researchers, research funders and service leaders. It highlighted the difficulty for those introducing service changes of knowing what is a `good enough' level of evaluation and when different approaches might be needed. It highlighted a spectrum of evaluation effort for different purposes, from local audits to more rigorous designs with comparators, multiple timepoint and mixed methods to assess and attribute the impact of large-scale changes. The paper was structured around five core questions for any evaluation, whether a local audit or a complex national trial. The publication included methodological developments, examples of new approaches and resources for service-facing audiences.

3.3.2.2 Contribution to knowledge

External peer reviewers noted the distinct focus of this piece in guiding service innovators on the principles and appropriate forms of evaluation for different questions. It provided new information on appropriate evaluation designs, methods and investment for different questions with particular relevance to health service managers. An original contribution was a complete reworking of the spectrum of evaluation effort. The starting point was a simple arrow of local to national activity depending on question and budget. I revised the figure substantially adding new published examples of relevant local, regional and national evaluation projects with different study designs from simple pre-post testing to stepped wedge trial for decisions ranging from continuing a pilot hospice at home initiative to national changes in pathway following emergency surgery. The paper was restructured from the perspective of the service manager introducing service change, with sections and resources on different approaches and methods.[e] An accompanying manager-facing piece was published in the Health Service Journal with broader messages on evaluation principles.[82]

3.3.3 Output 4

Lamont, T., 2021. But Does It Work? Evidence, Policy-Making and Systems Thinking Comment on" What Can Policy-Makers Get Out of Systems Thinking? Policy Partners' Experiences of a Systems-Focused Research Collaboration in Preventive Health". *International Journal of Health Policy and Management [IJHPM]*, *10*(5), p.287. https://www.ijhpm.com/article_3813_0.html

3.3.3.1 Summary

This invited peer reviewed commentary responded to an interview study of an Australian policy, service and research partnership to improve chronic health which was informed by systems thinking.[83] My commentary noted that while systems thinking can help to reconceptualise

[e] The BMJ paper has been cited over sixty times (Scopus) in academic publications.

health problems, the approach is less helpful in delivering workable solutions. I used UK examples of evaluation of integrated care models to show how despite ambiguity in form and purpose, policymakers needed `hard' evidence of impact. The commentary discussed the rise of the `what works' ethos particularly in a UK context and argued for a middle way between simple binaries and complexities of system thinking, while understanding policymaker needs for clear demonstrations of impact.

3.3.3.2 Contribution to knowledge

My rapid scoping review highlighted a rise in publications on systems thinking in public health and healthcare thinking (for instance[84]). While this has value in addressing `wicked' problems like obesity and dynamic activities of knowledge mobilisation, there are also challenges in meeting the needs of managers given that "much of the literature is abstract and theoretically dense".[85, Section 3] A later commentator noted that "Only Lamont pushes us along the impact framework by focusing on the tension policy-makers feel between embracing complexity and the need for hard evidence and stories of impact."[86, p352]

This analysis drew on interpretative policy analysis to consider ideas of `performing' success and distinctions between `frontstage' imperatives and more nuanced and multi-faceted `backstage' accounts to tell the story of an initiative, noting recent use of dramaturgical lens in other knowledge mobilisation literature.[see also 87] My commentary drew on rich ethnographic studies of decision-makers – "They need evidence to tell stories that were likely to be accepted within a thought world that favoured certainty over accuracy and action over contradiction."[88 p.20] Researchers themselves may not always be best placed to construct this narrative. Case studies[64] of high-impact research noted it was intermediary bodies rather than researchers who were able to frame findings to achieve traction with policymakers.

Researchers need to understand the world in which managers and policymakers work.[89, 90] Haynes quoted one decision-maker: "Telling treasury and finance and ministers how complex things are is actually not that useful."[83] This may seem obvious but needs repeating. Recent studies from the management and organisation literature highlight the "instrumental orientation" of managers[91] and the dominance of capturing and reporting performance information, financial pressures and service demands.[92] The commentary drew on public

policy literature to indicate how these constraints are felt particularly in a highly centralised governing system like UK healthcare.

Against this backdrop, researchers need to be pragmatic and identify salient data or findings which will be useful to policymakers while being true to the wider study and the wider context of relevant literature. This is no easy task and Output 1 devoted attention to how researchers might strengthen storytelling without over-claiming or compromising the science. These kind of particular communication skills, often associated with more traditional linear models of evidence use, are re-asserted here. This piece overall calls for a third way between reductive `what works' approaches to evidence versus rich description of systems thinking without actionable findings for managers.

3.4 DOMAIN 3 – WHAT INTERMEDIARY BODIES ADD

3.4.1 Output 5

Lamont, T. and Maxwell, E., 2023. From dissemination to engagement: learning over time from a national research intermediary centre (Four Fs). *Evidence & Policy*, *19*(1), pp.135-148. https://doi.org/10.1332/174426421X16323393555059

3.4.1.1 Summary

This was an analytic report of new approaches to curating, packaging, interpreting and promoting evidence to managers by a national research funder evidence centre. This retrospective account identified four new distinct operational practices for knowledge intermediation – filter, forge, fuse and fulfil - and how they developed over five years. The first activity was *filter*, using service stakeholders to screen and rate research for relevance to the UK health service. The second activity *forge* involved use of expert panels and deliberate dialogue to shape evidence narratives for service audiences. *Fuse* described the role of nursing and other knowledge brokers spanning service and research worlds. The last activity, *fulfil*, described the strategic partnerships needed to extend reach and impact. The account provided a critical assessment of these activities in relation to existing knowledge and the tension between funder expectations to deliver research products and more developed relational and system approaches.

3.4.1.2 Contribution to knowledge

This article added to understanding of the `intermediation' of knowledge[93] or the managed processes by which staff can be supported to interact with knowledge. This is a neglected area – there has been little research or practice attention to the activities and forms of work of intermediaries as the `third community'[64]. An exception is a helpful mixed methods study of the knowledge mobilisation practice of research producers, funders, thinktanks and other intermediary bodies in healthcare, drawing on learning from other sectors and countries.[29, 94]

This included a review of reviews, survey of over 100 respondents and interviews across 51 agencies internationally, identifying clusters of activity around tailoring products, knowledge brokering and implementation of research evidence. As Davies noted, there is a "wealth of practical experience and rich learning that organisations have gained from their knowledge mobilisation work. The challenge is that much of this learning is currently 'locked up' within agencies and not widely shared" [29 p.130] This reinforces the original contribution of Output 5 given the dearth of detailed accounts of knowledge mobilisation work by intermediary bodies. The international survey of funders noted that "many of those working in knowledge mobilisation practice perceive the theoretical literature as distant from practice and too concerned with issues of terminology and theory."[94 p.219]

There have been a few recent accounts of intermediary activities. This includes a helpful analysis, if not a formal evaluation, of a practice-based model of translational research in public health in the UK.[95] This describes a comprehensive set of activities from raising awareness through early and repeated stakeholder engagement; sharing knowledge including a responsive evidence search service; making evidence fit for purpose with localised and tailored evidence as well as dedicated knowledge brokers; and supporting uptake of evidence in long-term relationships with policy and practice partners. This shares some of the features of Output 5 and adds to existing models[76, 96] with a practical understanding of how research evidence can be localised and tailored to address translational barriers acknowledging "a more fluid process of knowledge exchange through iterative cycles of four main activities that can occur concurrently."[95 p.682]

Less analytical are descriptions for instance of a responsive evidence review service for policymakers in Wales[97] or public health knowledge translation initiatives in Canda and Scotland.[98] Like many such accounts, this report was written by those leading the intermediary body without explicit statement of the need for critical distance.

By contrast Output 5 acknowledges its limitations both because of the position of the authors in relation to the work described and the lack of a formal evaluation of centre activities. The paper also includes discussion of the challenges of evaluation, distinguishing between the impact of the research itself and dissemination activities.[99] Recent attempts to develop pragmatic frameworks for assessing the impact of intermediary bodies themselves include work by McLean[100] and Redman[101], the latter hypothesising that for research engagement actions to take effect, there must be both a catalyst for organisations to use the evidence and

organisational capacity to engage. This is a useful further step in understanding why research may or may not have traction.

A distinctive feature of our output was an account of evolving practice over time and the reflective learning which led to adaptations of process and scope, for instance increasing investment in relational work with raters and themed review panels. Other accounts provide a snapshot of activities but the incremental changes are important to show maturing practice in the light of experience and feedback.

Output 5 touches on the challenges of the founding conditions as a government funded centre with an explicit aim to promote findings of a major research funder. There was a tension between the more relational work of the centre and the need to generate a relentless pipeline of products. Like other intermediary bodies with a broad scope, it was often easier to focus on "evidence first, audience second" than the other way round.[102, p130] Recent academic attention on thinktanks[103] and `what works centres'[104] highlight the `arms length' but liminal status of many of these brokering organisations with constant negotiation between independence and policy responsiveness.[105] Policy and politics studies, building on organisational historical accounts of the early days of NIHR,[4, 106] might provide a useful lens for further research in this area, foregrounding some of the institutional and power dynamics which shaped the work of the evidence centre.

It is worth focusing briefly on the four innovative or distinct evidence practices (filter, forge, fuse and fulfil) identified in Output 5 and recent literature which supports or challenges these activities.

3.4.1.2.1 Practice of FILTER

The function of filter, to produce a small number of contextualised evidence summaries (Signals) from a systematic sift involving stakeholders of relevant research, highlights some of the fundamental tensions in evidence work of intermediary bodies. Bodies like `what works' centres often reinforce existing evidence hierarchies based on study design rather than audience need.[104] Our evidence centre prioritised outputs from high quality biomedical journals at first, favouring rigour over relevance and privileging clinical (medical) audiences over managers especially given a publishing partnership with the BMJ[107] partway through the centre's contract. However, the centre's activities evolved to encompass a wider range of

management and quality improvement research journals and study types to better address the needs of managers.

An innovative feature of the centre was the use of over 1400 raters, healthcare experts (including managers) recruited to assess and select evidence, adapting a narrower system using clinicians only by McMaster University.[108] As noted in Output 5, what started as a mechanistic approach to triage research for relevance and quality shifted over time with greater emphasis on contextual information in rater comments than scores alone. In addition, more effort was put into sustaining the rater pool as a community of practice, providing feedback on the outcome of work (in terms of publication of Signals) and certificates linked to professional development for completed tasks. The pool included increasing numbers of patients and public contributors who were paid for the work. Further analysis of rater type, comments and how they were used in the context of parallel movements of citizen science, such as crowdsourcing to identify or screen research in evidence reviews[109] would be a useful addition to knowledge in this field.

3.4.1.2.2 Practice of FORGE

This described the practice of shaping or `forging' evidence narratives, selecting and interpreting dispersed research from across a major funder on a theme which was relevant to service audiences, from end of life care to ward staffing. Steering groups of managers, clinicians, patients and others formed deliberative panels to assess and interpret the research. In a sense, this process was transformative with the panels producing a new kind of *brokered knowledge*[110] where research is "made more robust, more accountable, more usable… knowledge that has been de- and reassembled." [110 p.123] The panels themselves, which often included clinical or service opinion leaders, became a mechanism for amplifying and embedding the evidence product using existing networks and channels. The selection of topics and timing of outputs were often shaped around policy or service initiatives – van der Graaf [111] notes the importance of `strategic opportunism' in successful knowledge mediation activities.

3.4.1.2.3 Practice of FUSE

Like many other intermediary bodies, the evidence centre featured in Output 5 employed clinical advisors (medical, nursing and allied health professional) to act as knowledge brokers. Some also had commissioning and management backgrounds. This evolved from a focus on individuals using research to more system-focused efforts to embed research in organisations, including work with senior nurses and policy leads to develop strategy for evidence use in trusts.

There is a broad and extensive literature on knowledge brokering in the UK healthcare context. While early literature focused on individual skills and attributes, their liminal status[112] was often problematic and later works note the presence of knowledge brokers is "necessary but not sufficient" without organisational support and processes to embed evidence use.[113] This leads to a call for a shift from individuals in this role toward embracing "knowledge brokering as an inherently collective process"[114] , recognising the work not just of dedicated knowledge brokers but also managers, clinicians and researchers performing this evidence work often operating in "broker chains".[115] Many of these studies drew on ambitious experimental collaborations between universities and healthcare organisations in the UK over the last fifteen years.[f] Early evaluations noted a lack of evidence on processes and impact of knowledge mobilisation activities, with much learning locked up in individual collaborations.[116] While the knowledge broker roles outlined in Output 5 were not subject to formal evaluation, their work spanning practitioner to national policy level is distinct and adds to the growing body of knowledge in this field.

3.4.1.2.4 Practice of FULFIL

The importance of `fulfil' or longer term relational work to maintain partnerships with evidence using communities as noted in Output 5 and in accounts by others[95] underlines the need for "sustained interaction".[117] This is often difficult for small evidence teams with broad remits and

f Currently NIHR funds fifteen Applied Research Collaborations at a cost of £150 million with complete coverage of England, expanding earlier initiatives from 2009.

time-limited programmes of work. A recent review[48] focused on the sustainability of knowledge mobilisation practices and unpacking what that means, from activating relevant networks to maintaining systems and structures for institutional support. Output 5 documents the work to sustain evidence work through strategic partnerships with professional bodies, health charities and others to move from evidence uptake to use. This included collaboration with local services to transform frailty evidence into audit resources. At a national level, the nursing knowledge broker sustained relationships with professional bodies and policy leads to embed evidence into continuing professional development activities and promote "brokered knowledge"[110] in leading nursing journals.

3.4.2 Output 6

Lamont T, Chatfield C, Walshe K. Developing the future research agenda for the health and social care workforce in the United Kingdom: findings from a national forum for policymakers and researchers. *Int J Health Plann Mgmt*. *[HPM*] 2024; 39(3): 917-925. https://onlinelibrary.wiley.com/doi/10.1002/hpm.3775

3.4.2.1 Summary

This paper described an event in 2023 to bring together over eighty service leaders and researchers with an interest in healthcare workforce. This event was designed as a deliberative dialogue over two days, with convened panels on fifteen areas from labour economics to international migration. Drawing on theories of linkage and exchange, small group discussion established what was known, strength of evidence and outstanding gaps where research was needed. There were also reflections on challenges with existing workforce knowledge given disciplinary and professional silos. The forum identified broad areas of research need with further work to identify workforce research priorities.

3.4.2.2 Contribution to knowledge

This was the first time in the UK that healthcare workforce researchers had been brought together with service leaders in this way. This account provided new insights into the state of

evidence from mixed groups of researchers and service leads identifying and interpreting complex research in areas like the impact of new roles on productivity. Other important findings included the under-use of relevant evidence from other sectors such as law or education on the role of paraprofessionals and difficulties of research involving lone workers from homecare staff to community nurses.

The design of the event drew on work from Lomas[118] to Graham and Tetroe[119] on linkage and exchange events as knowledge mobilisation activities.[g] This goes further than information exchange and broadcast, as the event was designed to exploit the benefits of *deliberative dialogue* where mixed groups of stakeholders can "discuss, contextualise and determine what the research evidence means in light of the tacit knowledge and real world experience that they bring to the discussion".[120 p.1939] The design included preparatory work by leading researchers in each field, summarising the state of knowledge and relative strength of evidence as a starting point for discussion in the round. Fifteen areas were selected in discussion with service stakeholders as the most pressing areas from workforce data and analytics to pay and reward strategies. Fresh insights from mixed groups included the gap between what the researchers held as `known knowns', such as strong evidence on the relationship between nurse staffing levels and patient outcomes, which was not well known to healthcare managers. There have been few attempts to record such efforts let alone evaluate their impact – for instance, a descriptive account in Australia of `functional dialogues' between researchers and state and federal governments to review evidence together on vaccine issues during the pandemic noted difficulties of quantifying the impact of this work on policy decisions.[121] The benefits of linkage events include unexpected points of connection and space for "interpretative conversations"[122] – early work on conditions for innovation emphasise the ability to allow for "open-ended, unpredictable conversation" as well as "the precise exchange of information."[123, p54]

This event drew on a broader literature around the `two communities' of research and practice or policy, emphasising the different epistemic worlds of research and service, although this has been critiqued as simplistic given that management itself contains diverse communities and levels of influence and operation.[124] There is also an interesting argument in looking for connections, but not integration or `smoothing over' differences between management and

[g] I was on the small organising group which designed the event, identified participants and session leaders and led one of the panels (on research funding and setting future agenda).

research in a process Bartunek and Rynes describe as "dialogical interplay".[125] It may be fruitful to acknowledge the points of friction between managers and researchers in terms of rigour and relevance, communication styles, time, interests and incentives, seeing "how the tensions represent fundamental, unresolvable paradoxes that can be generative of new research and practice if appreciated as such."[125 p.1181]

We do not know enough though about how to make this productive dialogue happen. In this case, the urgency of the staffing crisis – similar to the pandemic – created a ` pull' for relevant research and motivated good attendance by policy and service leads at the workforce research forum. There is a rich and expanding evidence base on policy-research intermediation but a recent review found that only 6% of such initiatives had been evaluated.[37] Against this backdrop, it is important to have at least critical descriptive accounts of initiatives to bring together researchers and managers in important but unbounded fields like workforce.

3.5 CRITICAL EVALUATION OF OUTPUTS

These six outputs in various forms provide reflective analyses of the everyday work of packaging, transforming and using evidence to manage and shape health services. They do not represent substantive primary research activity. While they show broad and deep grounding in relevant literature, none of these outputs drew on formal evidence syntheses. The interviews for Output 1 were not conducted as qualitative research with formal consent and governance processes and structured thematic analysis, although informants were given rough topic guides and transcripts and summaries to approve. There was no formal stakeholder engagement to identify and validate the five organising principles or steps to impact identified in Output 1. In this way, they contrast with the deliberative process and structured stakeholder input to inform the six practical actions for implementing evidence in complex systems by Holmes et al (2017).[44] Similarly, insights from stakeholders on complex service evaluations (Output 3) and workforce research priorities (Output 6) were not derived from structured facilitation or consensus building approaches such as Delphi or nominal group techniques.

Outputs 5 and 6 provide accounts and critical reflections of new knowledge intermediation initiatives. However these are not formal evaluations. The workforce research forum in Output 6 did not include even a participant survey with proximal outcomes from the event such as

raised awareness among service leaders or community building for researchers. Output 5 acknowledges the limited internal evaluations of knowledge mobilisation activities at the centre through downloads, views and usage metrics and some retrospective reviews of two evidence products which were not published. There is also a discussion of the positionality of myself and co-author having led work at the centre and issues of critical distance. The evidence centre would have benefited from independent and robust evaluation although there is still value in reflective accounts given what we know of poor recording and sharing of innovation in knowledge intermediation work.

The value and distinct contribution of this work has been the fusion of different kinds of knowledge to identify the products, activities, skills and capacity needed for organisational research to be used by managers. This includes learning from different disciplines, spanning management and organisation studies to health policy, as well as a range of theoretical and empirical research. I have also drawn on tacit knowledge and experience from working in an evidence intermediary centre, providing a valuable `insider-outsider' perspective.[126] Understanding both the needs of managers working in pressurised decision-making environments and the complexity and nuance of research has informed the conscious use of worked examples in various outputs to demonstrate how learning can be applied. This hybridity in spanning management and researcher domains, scholarship and lived experience and accessing different forms of knowledge has strengthened the reach and relevance of this work.

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Chapter 4 DISCUSSION

4.1 Two steps forward, one step back?

A defining argument in my body of work is that recent focus on more complex and systemic approaches to knowledge mobilisation overlooks the particular processes to identify, summarise, translate, curate and promote evidence for use by and with managers. The limitations of linear, pipeline models of evidence use are clear. And yet something has been lost if we ignore the distinct activities needed for evidence to be valued and useful for managers which were articulated more clearly in earlier thinking.

Some older models of knowledge transfer included steps of knowledge distillation (including processes to select and create `actionable' research messages and products) for target audiences before adoption.[127] Similarly, there was detail on marketing approaches and dissemination strategies in early thinking on diffusion of health technology assessment research.[128] Older models set out different factors to explain rates of research utilization which included "types of research outputs, organizational interests of users, adaptations of the products disseminated, dissemination efforts, and institutional and social linkage mechanisms".[129, p400] Almost twenty years ago, Graham's knowledge to action framework spelled out distinct stages of knowledge creation including identifying, appraising, synthesising research and further refining into knowledge tools or products tailored for target audiences before a range of facilitation approaches, although rejecting one-way linearity in a cyclical model.[96]

This granularity of actions and activities is evident in earlier "process models", using Nilsen's helpful taxonomy for those descriptive models with distinct phases to translate research into practice.[130] Such detail is often missing in later work rightly emphasising the complexity of health and research systems[85] but which are themselves often highly complicated. This includes for instance one integrated framework featuring thirty seven constructs in five domains.[131] Growing interest in systems thinking applied to knowledge mobilisation emphasises dynamic and iterative processes with multiple and shifting stakeholders in continuous feedback loops.[132] There is more focus on implementation and collaborative or participatory forms of knowledge sharing[133] than specific activities perhaps associated negatively with 'push-pull' models of knowledge transfer. In highlighting complexity there is a

risk of overlooking these necessary (but not sufficient) processes of knowledge mobilisation. Of course, these trends are not invariably true. Some contributions[84] combine systems thinking with operational experience of knowledge mobilisation, using worked examples to show dynamic interplay between linked clusters which include knowledge synthesis and creation. However, in general, growing recognition of the complexities of implementation have not always been accompanied by more advanced thinking or practical guidance on the `how' of knowledge mobilisation found in earlier process models.[96]

Recent studies[60, 134] provide nuanced accounts of complex and iterative evidence journeys but perhaps obscure activities that earlier models somewhat reductively described as `steps'. The role of individuals and organisations committed to "knowledge intermediation"[93] or the "collective-level processes of knowledge exchange"[135] is mentioned but not well explored. Indeed, in the field of knowledge mobilisation a constant refrain is the chasm[29, 85, 94] between theoretical knowledge and the practical learning which often remains locked in bodies with limited lifespan. Yet the transitional steps described in earlier literature are themselves complex, each requiring motivation and capability on the part of research and management communities. Such actions need to be retrieved from that chasm and more fully described and understood.

The six outputs together provide critical analyses of exactly these kinds of activity by researchers, managers and intermediary bodies. This translational work requires effort and skills, underlining the profound insight that "evidence does not speak for itself."[136, p19] My outputs provide realised examples of the hard graft involved.

This includes work by researchers to use language and storytelling to reach managers. For instance, my handbook for researchers (Output 1) shows how plain language summaries can provide compelling narratives while staying true to the science. My commentary (Output 3) identifies a `third way' for researchers between over-nuanced complexity and reductive impact headlines. Managers need to be persuaded of the value and relevance of research to decision problems and helped to interpret and appraise findings. My management textbook chapter (Output 2) provides critical readings of complex evidence on telehealth programmes and nursing shifts and my paper of evidence centre activities (Output 5) includes new tailored evidence products, involving managers in translating and curating organisational research. Other manager research capabilities overlooked in current literature include knowing how to

commission evaluations of service change, with a new spectrum of research effort (Output 4) showing range of study designs for different problems.

Positioning these works against relevant literature has also helped make sense of efforts to 'bridge' gaps between managers and researchers and why these often failed. My outputs describe different engagement approaches (Output 5) and the work needed to counter information asymmetry and support meaningful dialogue between service leaders and workforce researchers (Output 6). My outputs also highlight trade-offs and tensions for intermediary bodies between strengthening relational and system thinking to better meet management needs (Output 5) while addressing funder requirements to deliver defined programmes of evidence products in `push' mode.

Given that my works span the last ten years, it is worth briefly noting the shock of COVID in relation to evidence use. On the one hand, the importance of (biomedical) research was foregrounded with recognition of the transformative power of work on vaccine development through to pragmatic platform trials of a range of treatments for a new disease. Urgent demands were met through rapid evidence syntheses and compressed guideline development[137] with demonstrations of real-time use of research knowledge.[138] Indeed, it can be argued that outbreak science approaches and "adaptive evidence-making" during the pandemic could act as a model for normal times.[139] But at the same time, rapid and important service changes from hot/cold hubs to triage patients, new dedicated Nightingale hospitals or redeployment of staff received little or no research or evaluation attention. In this way, organisational research lagged behind clinical research and (perhaps surprisingly) the gap widened between evidence and its use to inform managerial type service decisions.

There remains then an urgency to shine light on the particular issues for healthcare managers in accessing, understanding and using organisational type evidence. Reviewing the six outputs, there are five distinct contributions to knowledge mobilisation practice and scholarship:

4.2 The graft in evidencing work

The first important insight is the amount of effort and skill required for organisational research, often complex and hard to synthesise, to become useful to managers. This has not always been recognised due to focus on clinical and biomedical knowledge and the needs of practitioners. Conscious effort and attention is needed by researchers to

promote and contextualise research (Output 1) and enough understanding and motivation around the value of research by managers (Output 2) to make this happen.

4.3 `Good enough' efforts by researchers and managers

A distinct contribution of these outputs is to provide some indication of `sufficing' knowledge and skills for general researchers and managers in this applied field. This includes advice based on broad analyses of relevant knowledge on what is needed for researchers to become persuasive `sellers' of evidence (Output 1) and for managers to be intelligent and discerning users of evidence (Outputs 2 and 3). While there have been useful frameworks of "impact competency"[65] these have been directed to dedicated intermediary workers in university impact centres and the like. What has been missing is the sense of what `good enough' evidencing work looks like for managers who are not research-active or for early career researchers without direct access to policymakers.

4.4 Focus on best evidence

The quality and relevance of research has been identified recurrently as a key enabler for successful uptake and use. Some research is important in advancing scholarship or adding to a body of knowledge but may not need to reach policymakers and managers. Not all research needs promoting. These six outputs provide a distinct contribution by focusing on the overlooked activity of filtering or curating evidence (Output 5) at a time of exponentially increasing volumes of different kinds of information. The use of carefully selected examples across the six outputs is deliberate to underline the value of high quality organisational research which is not often visible in the way of landmark clinical trials and other evidence.

4.5 The black box of intermediary bodies

Not enough is known about the daily activities of research funding agencies, thinktanks and other intermediary bodies. At best, they can reach places which individual researchers and research teams can't through sustained interaction and opportunities for influence with service stakeholders. With strategic communication skills in

packaging and storytelling there is potential to promote and embed research within existing policy and service channels (Output 5). But there are also system constraints which has made this hard to achieve and more pragmatic case studies and evaluations, however limited, are needed to strengthen and direct this effort.

4.6 Systems matter … but so do people and processes

We have learned that conscious skilled effort is needed for evidence to be used by managers. Research findings only have salience if contextualised and translated for use. This work is not just technical, but also relational – we know that "the mobilisation of knowledge is `peopled'."[113, p19] This is not just connections between individuals (although Output 5 notes the leverage of senior champions on evidence-informed nursing policy), but sustained and collective endeavours recognising that "collaboration can be fragile"[140] and susceptible to wider institutional and organisational pressures and hierarchies. There is little information on what well-supported stakeholder exchange looks like (Output 6). Longer term strategic networks and system support is needed to sustain and nurture effective evidence use by and for managers. This work collectively highlights some of the "mediating structures"[27] by which evidence can become embedded and used. It also reinforces earlier insights[27] that systems approaches build on rather than replace earlier thinking on linear and relationship models of knowledge mobilisation, which provide necessary foundations for effective evidence use.

The six publications provide reflective analyses of recent efforts by researchers, managers and funders to improve evidence use and identify further research needs which are discussed in the next section.

Chapter 5 FUTURE RESEARCH AND CONCLUSIONS

The last twenty years has seen a rich seam of empirical studies of how commissioners and other managers use healthcare evidence in the UK as well as a growing number of reviews exploring barriers, problems and (increasingly) theoretical frameworks to describe and understand mechanisms of evidence use. Adding to this, my six published outputs provide pragmatic UK-focused learning on recent approaches to increase uptake of evidence by managers. But there are still important gaps in what we know. These include:

5.1 Evaluating knowledge mobilisation activities

There have been few high quality evaluations of activities and interventions by intermediary organisations to optimise evidence use. There are some helpful frameworks [101] [141] to assess impact recognising wider spheres of influence and context outside the control of the evidence team or centre. Such approaches draw on `contribution mapping'[142], focusing on processes and contributions by multiple actors rather than isolated products and impacts. This addresses problems of attribution in classic impact models and pays attention to the quality of research mobilisation efforts, over and above the research itself. Such efforts might range from longer term collaborations in the form of research networks or communities of practice to bridging events, with particular questions for instance of the added benefits of in-person over remote activities or how to optimise the relational value of hybrid and remote connections.

5.2 Prospective studies of impact efforts

Existing evaluations trying to measure impact usually focus on retrospective accounts, often by the researchers themselves.[143] More prospective and independent impact assessments are needed alongside large-scale service changes in areas of importance to UK managers, from acute respiratory hubs to neighbourhood health services. Such evaluations could include theoretically-informed study of the mechanisms by which research is promoted, targeted and embedded with relevant decision-makers. This would redress some of the deficiencies evident in past REF case studies[17] with poor articulation of pathways to impact.

5.3 Role of research funders in optimising impact

Research funders like NIHR are devoting more attention to the potential impact of funded projects and supporting researchers to make this happen. It would be useful to audit the dissemination and engagement plans in research applications, including how audiences were identified, targeted and kept in play, co-production of tailored outputs and policy dialogue where relevant. Further research could also track and measure the actual versus intended reach and influence of funded work. This could add to a growing body of research on research which also explores tensions between funders and researchers in expectations and practice of achieving impact.[144]

5.4 Approaches to synthesising healthcare evidence

There are particular challenges in synthesising complex evidence in the field of organisational health studies. While reporting standards exist for mixed method reviews and frameworks for manager-facing evidence syntheses[72], these tend to focus on technical features. They do not cover the judgement and high-level analysis needed to provide `good enough' overviews of complex and mixed findings in poorly defined areas from discharge planning to skill substitution in primary care. The challenge in much complex organisational research is "how to practically combine 'tidy science' with `unruly values'."[145, p121] Working with real examples it would be useful to have consensus building exercises and emerging guidelines for accurate but actionable evidence reviews on complex management issues in healthcare.

5.5 Testing tailored outputs and new media

There has been a reasonable sub-strand of literature on outputs like policy briefs for managers with some testing of acceptability of format.[72] However there have been few evaluations of different features and their actual effect on uptake - with some exceptions, such as experimental testing[146] of different research-based communications. Output 1 touched on headline messaging and use of social media by researchers which becomes more important in attention-poor economies where nuanced full text outputs are rarely read. More work is needed to rigorously test new media and marketing techniques, channels and formats to reach different sub-strata of healthcare managers.

5.6 New context for decision-making in healthcare

The development of integrated care boards (ICBs) and recently announced neighbourhood health centres[147] in England provides fertile new ground for empirical studies of how evidence is used. There are new challenges with complex and multi-sectoral partners across health, social care and the voluntary sector.[148] This includes understanding and interpreting research which encompasses broad upstream determinants of health and longer term outcomes from a range of new sources beyond healthcare. The distributed nature of leadership on research and evaluation issues at ICB level is itself interesting and emergent and worth further study.

5.7 Conclusions

My outputs collectively demonstrate that there is a third way between on the one hand reductive evidence-based management thinking with assumptions about uptake of immutable knowledge in linear paths and on the other sophisticated approaches which emphasise unpredictability, complexity and dynamism of evidence journeys. The latter can lead to theoretical and relativist positions which seem far from the busy demands of decision-making at management level. But the polarity of linear and systems thinking is not helpful. The third way understands that research is one small part of decision-making happening in complex and contested environments, but that such knowledge - while not providing absolute and definitive answers - can still, as Tourish states, contribute to "the progressive reduction of ignorance"[25,p184] for managers. In this spirit, my outputs attempt to show the particular activities and skills needed by researchers, managers and intermediaries to maximise the chance of research being used and useful. Attention is also paid to the critical junctures between these communities and the fertile `translation spaces' in which certain hubs, clusters and nodes can be activated in Kitson's helpful framing[84] rather than the dead `translation gaps' of older linear models.

This `third way' thinking leads to positive actions which can be taken by researchers, managers and intermediary bodies. Researchers need to practise and strengthen skills, including formal training, to communicate well for different audiences while staying true to the science. In terms of outputs, researchers could make greater use of critical interpretive[149] and other forms of syntheses which combine rigour with clear actionable findings from complex mixed methods research. Managers need more training in critical appraisal of complex evidence applied to

service problems and access to high quality studies. They would be helped by a portfolio of compelling evidence on the value of health services research using payback[150] and other methodology. In terms of actions for and about intermediary bodies, more scrutiny needs to be given to the way evidence is used currently in healthcare thinktank outputs. To incentivise the right activities and behaviours, research funders should reward the *process* of knowledge mobilisation, drawing on what is known of optimal engagement and influencing practices, rather than place too much emphasis on anticipated outcomes.[122] This is not an exhaustive list of actions but demonstrates a range of next steps across the three communities arising from the foundational work in this thesis. The stakes are high, at a time of crisis and unprecedented demands on health services, to make the best use of important knowledge to improve systems and care.

Appendix A Clarifying concepts and focus of enquiry

In this field, there is a confusing set of terms sometimes used interchangeably. Even as an emergent field fifteen years ago, more than a hundred terms to describe research use had been identified.[151] These include knowledge transfer, knowledge exchange, evidence use or diffusion of research. Some of these terms have particular associations with conceptual models or traditions. For instance, knowledge transfer implies a more linear, problem solving idea of evidence use, while knowledge exchange points to more relational approaches.[152] The six featured publications span a number of different activities and interests from researchers `pushing' findings to managers `pulling' research for decision-making, through to linking and brokerage activities by intermediary bodies. Given this scope, the broad term **knowledge mobilisation** is used in this commentary. This has been defined most usefully by Davies et al as "the range of active approaches deployed to encourage the creation and sharing of research-informed knowledge".[29]

Within this broad field, the selected publications have a particular focus on research framing, uptake and use. In this sense the interest is more around dissemination than implementation and implementation science or research. Larger bodies of knowledge on later parts of the pathway looking at implementation and how evidence changes policy and practice in real-world settings are excluded from this study.

The focus is also on **organisational research** or applied health services research which might be used to inform decisions about investment, planning or service change. Research of this kind will span a number of disciplines and methods, drawing on a range of social science and evaluative traditions. Studies focused on treatment effectiveness to support clinical practice at an individual patient level are not the main focus of this enquiry.

My outputs and source research draw mainly on the **UK health context**, using examples from applied UK health services research, but there may be wider learning and transferability to other systems of healthcare and evidence use.

This commentary is focused on **healthcare managers** but these are not easy to define. Official statistics tell us that as at January 2025, there were just over 40,000 managers and senior managers working in the NHS in England.[153] This represents about 2.6% of the total workforce. This official statistic is focused largely on dedicated general managers and does not include

clinical managers with supervisory or leadership roles such as ward managers or clinical directors. This study is concerned with the use of organisational research in healthcare decision-making. This may include managers of different backgrounds, including hybrid clinical managers. However, these different backgrounds lead to different expectations, culture and habits in accessing and using research evidence. My work is therefore focused more on non-clinical managers and those making decisions around large-scale system and organisation changes.

My body of work also includes a focus on **intermediary bodies and staff** spanning the worlds between management and research. These include health research funders with functions to increase the uptake and impact of findings in services as well as healthcare charities, thinktanks and foundations working in policy and strategic roles.

Appendix B Scoping Review Methods and Findings

B.1 Review methods

A comprehensive review of reviews was carried out until end 2013 of the main knowledge mobilisation models and strategies in healthcare, education and social care.[29] The purpose of my scoping review was to chart developments since then focused on healthcare and further testing of existing models and frameworks. A scoping review was considered suitable given the broad and complex field and the exploratory nature of the review. Latest guidance from JBI on scoping reviews confirms their appropriateness in characterising knowledge in emergent fields.[30] The review question is deliberately wide-ranging to provide the background to contextualise selected works in the field of evidence use. Although this is not a comprehensive mapping of all literature, there may be an opportunity to identify any notable gaps or imbalances in research against the parameters of interest group and level of focus (manager or researcher; organisational or individual level) or type of research from descriptive to evaluative.

The broad principles of the JBI scoping review methodology[30] were adopted, although this was a rapid and pragmatic review by a single author, so no double screening or review was undertaken or confirmation of findings with stakeholders. There was no quality appraisal of included studies, which is not required in scoping reviews as the main purpose was to understand developments in thinking on knowledge mobilisation

With the help of information scientists/ librarians at University of Southampton (Paula Hyde) and the Kings Fund Library (Lynsey Hawker) a search strategy was agreed, adapted and simplified from earlier work by Davies et al. This was used for identifying published reviews from 2014 to 2024 in four electronic databases: MEDLINE (PubMed), CINAHL (EBSCO), PsycInfo and HMIC. Searches were carried out in November 2024 following initial scoping searches in October 2024. 2114 reviews were identified before de-duplication and screening.

In addition, to find the most relevant primary studies for further intelligence on key concepts and advance in thinking, forward citation tracking from 2014 was undertaken using Scopus for nine foundational texts or `seed references' identified by TL. These were considered most relevant to the review question and focus of the overall study in relation to knowledge mobilisation practices related to healthcare managers, organisations and systems. Supplementary citation mining of this kind is a recognised way of supplementing database

searches with associated articles from selected studies of greatest relevance and value).[154] This generated a further 2008 citations which were screened by abstract and 107 papers meeting criteria were included for more detailed review. Note that forward citations were assessed for salience and so included a wider scope than for reviews, including some studies outside healthcare.

All references were exported to Endnote and duplicates removed. After initial screening, full text was retrieved for all articles and 136 studies met the criteria. Reasons for exclusion were reported in the PRISMA flow diagram (Figure 2). For all included reviews and studies, extracted data were tabulated and results were synthesised using a thematic approach guided by the review and results presented in a narrative form.[31]

Limitations

Papers were single-screened by the author, which limits the robustness of the review as there was no opportunity to discuss borderline items or agree and refine criteria. In addition, citation mining includes a subjective choice of `seed' references and the screening was harder to replicate, although criteria were used as guidelines, as salience may have trumped categorical exclusions. Note that the papers were not quality appraised, as not required for a scoping review.

Review question

What were the important developments in strategies and thinking on knowledge mobilisation in healthcare from 2014 onwards?

Inclusion criteria

Inclusion and exclusion criteria are set out in Table 2 and scope with definitions used for this review are given in more detail below.

Participants

Health care managers or decisionmakers, also policymakers responsible for planning or commissioning services.

Concept

Knowledge mobilisation defined as active steps to promote and embed evidence into healthcare. Although main focus is organisational research, some reviews may include mix of evidence types including clinical research. Exclude studies focused exclusively on implementing research and measuring change in behaviour or design or those which are primarily interested in how evidence gets used by individual clinicians to change practice.

Context

Primary focus of interest is UK health system, but also wider learning from other healthcare economies recognising differences. Excluding studies focused on low and middle income countries.

Types of sources

Peer reviewed published systematic reviews or evidence syntheses. Primary studies in these reviews may use a variety of research designs, from trials, observational studies and mixed method evaluations to qualitative studies on experiences and beliefs.

INCLUSION	EXCLUSION
2014 onwards	Before 2014
English language	Other languages
Health systems with points of relevance to UK	Primary focus low to middle income countries or global health
Focus healthcare	Not including knowledge translation activities in education, social care and other sectors
Healthcare managers, decision-makers or policy-makers and relevant intermediary bodies	Clinicians, patients, public as prime focus
Focus on knowledge mobilisation, transfer and uptake of evidence	Implementation studies and measuring change in practice; service/quality improvement; co-production and participatory research collaborations where main focus is not end use
Study design for database search – peer reviewed systematic review or evidence synthesis only. For citation mining, all peer reviewed primary studies included as well as editorials and commentaries where salience was high.	Not including grey literature, conference abstracts, protocols.

Table 1 Inclusion and exclusion criteria

Search strategy

The original search strategy from Davies et al (2015)[29, p 154-5] was simplified and amended for a new search using the terms: knowledge transfer, knowledge diffusion, knowledge management, knowledge mobil*, evidence use, knowledge translation, research communication, research dissemination AND healthcare, health care, health-care and health

systems. This was then restricted to reviews only as study design, using the search terms (includes (systematic OR scoping OR narrative) ADJ2 review OR overview OR synthesis).

Foundational texts for citation mining

Contandriopoulos, Damien, et al. "Knowledge exchange processes in organizations and policy arenas: a narrative systematic review of the literature." *The Milbank Quarterly* 88.4 (2010): 444-483.

Davies, H., Nutley, S. and Walter, I., 2008. Why 'knowledge transfer' is misconceived for applied social research. *Journal of health services research & policy*, *13*(3), pp.188-190.

Davies HTO, Powell AE, Nutley SM. Mobilising knowledge to improve UK health care: learning from other countries and other sectors – a multimethod mapping study. Southampton (UK): NIHR Journals Library; 2015. Health Services and Delivery Research, No. 3.27.

Holmes, Bev J., et al. "Mobilising knowledge in complex health systems: a call to action." *Evidence and policy* 13.3 (2017): 539-560.

Oliver, Kathryn, et al. "A systematic review of barriers to and facilitators of the use of evidence by policymakers." *BMC health services research* 14 (2014): 1-12.

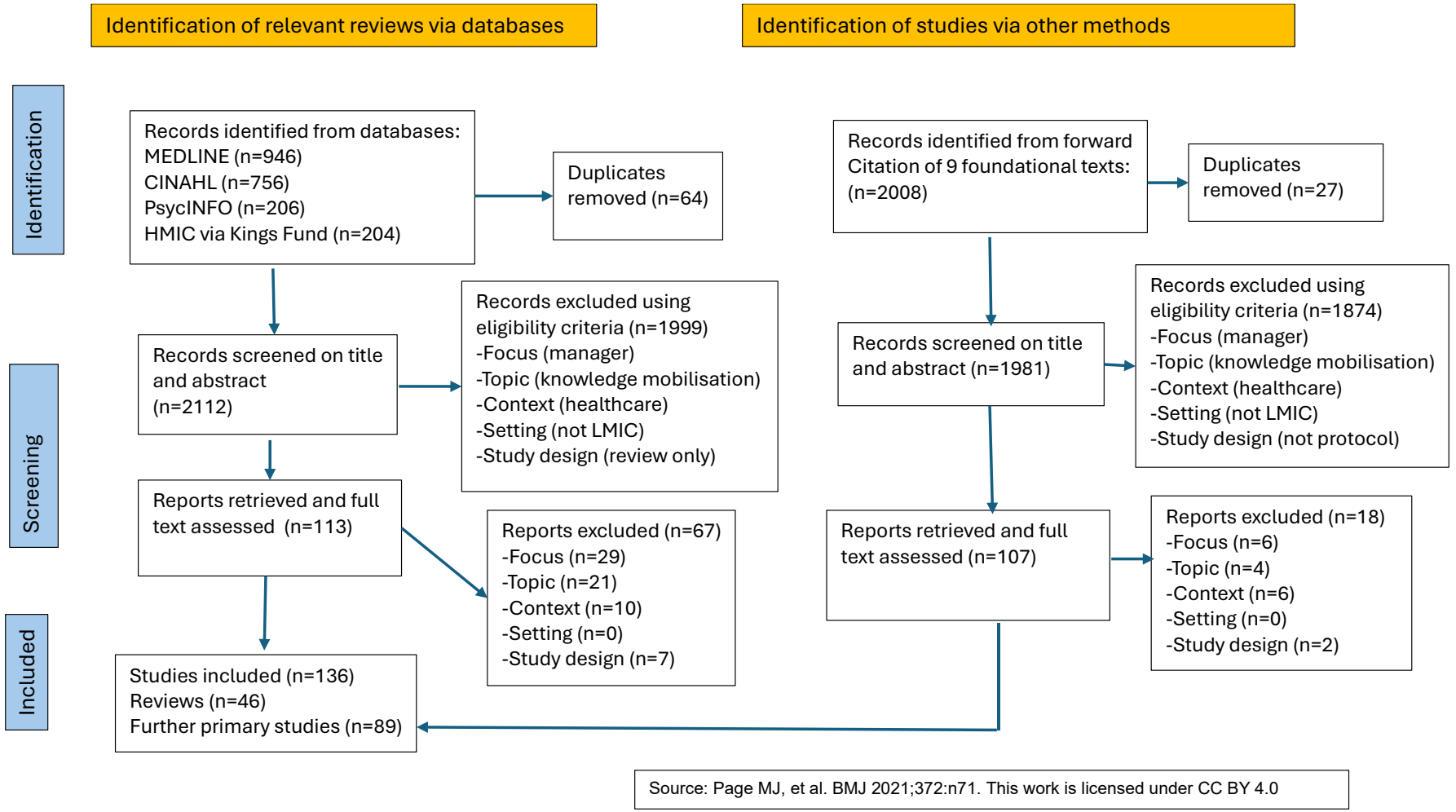
Powell, A., Davies, H.T. and Nutley, S.M., 2018. Facing the challenges of research-informed knowledge mobilization:'Practising what we preach'?. *Public Administration*, *96*(1), pp.36-52.

Van der Graaf (2020) Mobilising knowledge in public health: reflections on ten years of collaborative working in Fuse. Evidence & Policy; 16(4):673-85

Walshe K and Rundall TG (2001). Evidence-based Management: From Theory to Practice in Health Care (2001) Milbank Quarterly;79(3):429-457.

Wickremasinghe 2016 et al. "Taking knowledge users' knowledge needs into account in health: an evidence synthesis framework." *Health policy and planning* 31.4 (2016): 527-537.

Figure 2 PRISMA flow diagram for rapid scoping review November 2024



B.2 Findings and main themes

A scoping review was undertaken in December 2024 to chart important developments in strategies and thinking on knowledge mobilisation in healthcare over the last ten years, with particular reference to the management community. Below is a narrative synthesis of emerging themes.

Too little evaluation and new approaches to measuring impact

One repeated theme in overviews of the literature is the lack of focus on testing solutions in knowledge mobilisation and paucity of evaluation evidence.[27,32,33-36] The body of knowledge is still largely exploratory, with continued focus on barriers and facilitators and descriptions of knowledge mobilisation practices and few attempts to assess impact. Even when not evaluated, interventions were not always well described.[1, 155] This was true for single components and for combined strategies.[156] One review showed that only 6% of policy-research engagement activities were evaluated.[37]

Evaluation in this space is difficult, given lack of agreement on basics around how to measure and attribute impact. Some helpful maxims include clarifying the logic model for knowledge mobilisation interventions and identifying mechanisms to achieve immediate (proximal) and more distal outcomes.[152] Many studies of research impact are skewed towards retrospective accounts by researchers and funding bodies and more high quality prospective research is needed.[143] Appropriate methods to carry out these evaluations also received attention, from use of social network analysis[38] to track evidence journeys and exchanges between healthcare staff using evidence, to contribution analysis[39] identifying elements of added value in a chain of knowledge mobilisation activities, to the potential for realist evaluation to capture complexity of interplay between different components of evidence use.[40]

Realist evaluation, which seeks to understand how and why interventions work, usefully shifts attention away from interventions in isolation towards the *mechanisms* needed to produce a certain outcome. This foregrounds the ways in which interventions activate a response and the entirety of "the programme activity and processes… which may be more or less hidden from

view."[157, p24] A realist review of interventions aiming to increase capacity of healthcare policymakers to use research identified 22 relevant studies.[158] Some of the promising mechanisms associated with improved evidence uptake included tailored interactive supported workshops and system supports for cross-sector collaboration.

At the same time, the growth in realist evaluations and reviews poses a particular challenge for synthesis and actionable findings. For instance, Boyko et al[42] note the challenges of aggregating realist reviews for actionable findings in public health, given the importance of context which limits ability in some ways to extract transferable learning for decision-makers. It also highlights the need to make the processes and steps of knowledge translation more explicit as a framework for synthesising individual reviews of this nature.

Complexity, systems thinking and integrated knowledge activities

In the last ten years, there has also been much focus on systems thinking as a means of addressing multi-faceted and complex problems from knife crime to climate change. In the field of evidence use, this emphasises the layered and multiple interactions of different components needed for research to make a difference. Building on Best and Holme's[27] third stage of systems-oriented evidence use, Haynes et al[85] note the value of systems thinking for knowledge mobilisation in public health emphasising pluralistic views of knowledge, with "continual dialogue' with policy and practice contexts to respond to dynamic system challenges although "much of the literature is abstract and theoretically dense". Some such as Holmes et al[44] attempt to provide practical applications of systems thinking to optimise evidence use, highlighting the importance of strategic communications and shared goals and measurement in knowledge mobilisation initiatives. There is still debate about how to apply complexity and systems thinking to everyday evidence translation work. Kothari for instance suggests that "perhaps complexity is better positioned and explained as a frame of reference for understanding how knowledge translation works"[43, p564] than a tool for planning and measuring impact.

There has also been greater focus on the organisational culture and activities needed in organisations to be able to use evidence, over and above the motivation and capacities of individual managers. Studies draw on theoretical frames of absorptive capacity, established in organisational learning theory and management sciences but newer in healthcare contexts. A

review of fifteen studies noted the lack of clear conceptualisation or measurement of absorptive capacity in healthcare.[159] Other reviews note the lack of literature on the kinds of organisational support needed for managers to use evidence well or evaluation of these initiatives.[160]

Integrated knowledge translation propounded by Graham[45] and others was a new `turn' in the literature recognising the value of engaging end users of research throughout the research process through participatory methods and meaningful and sustained work with relevant stakeholders.[134] However, a review in 2016 of thirteen studies of integrated knowledge translation activities noted that these were "poorly and inconsistently described, evaluated and reported in most studies" and none were based in theory.[155] Greater rigour was introduced by Kitson et al in 2017[84] extending thinking around integrated knowledge translation approaches based on five clusters of processes around problem identification, knowledge creation, knowledge synthesis, implementation and evaluation. They argue that "structural solutions need to be underpinned by complexity and network thinking so that the leaders within the systems understand they need to be looking for individuals (or nodes) who will act as 'hubs', interacting with other nodes within and between clusters."[84, p239] Drawing on systems and network theory recognises the important role of actors, relationship and networks in multiple and interlocking forms of contact – indeed, the recent literature includes a review of evidence networks[161] or research partnerships[162] and more informal and self-generating communities engaged in sharing knowledge.

Learning from other disciplines and settings

Over the last ten years, there has been greater understanding of what healthcare can learn from other fields. The latest overview of knowledge mobilisation[h] highlights learning from diverse areas such as conservation and environment, town planning, social work and criminal justice.

This links to acknowledgement that understanding of evidence use may be enriched by greater theoretical contributions from relevant areas such as policy studies and political sciences. Cairney and Oliver[46] for instance use theory and understanding of policy process to help

[h] Oliver K et al [Submitted] 2025 What factors influence evidence use in policymaking? An updated systematic map

researchers leverage more influence. This is partly by persuasion and narrative skill to translate complex evidence into simple stories and also recognising the place (and limits) of scientific evidence alongside competing inputs. More sophisticated understanding of how policymaking happens also widens the debate on impact. A mapping review of use of research evidence in health policy-making noted recent trends with more "explanatory case studies of policy processes and critical social science investigations of the evidence-based policy paradigm."[35, p896] This reflects more nuanced understanding of how evidence might influence policy. As Weiss noted, "Rarely does research supply an `answer' that policy actors employ to solve a policy problem."[163,p620-1] Instead, research studies may percolate slowly and by different routes into a general knowledge base which `creeps' into policymakers' consciousness as decisions gradually accrete.

As well as drawing on policy and political sciences, knowledge mobilisation has also been enriched by other fields from science and technology studies[47,48] to management and organisation theory.[164] There has been greater focus on organisational capacity to use and understand knowledge, with theories of absorptive capacity providing a useful structuring framework for studies in healthcare (for instance[51]) and reviews noting the way evidence use is influenced by processes at all levels, from professional, organisational and local systems.[165] Recent contributions highlight potential for learning about healthcare research use from very particular disciplines such as information behaviour literature or library sciences.[50] Nicolini et al note that this leads to a shift of focus from individuals seeking information to the social practice of information behaviours, highlighting the importance of shared beliefs or cultural norms and specific situations as occasions for meaningful information and knowledge-sharing.

There is also recognition of the increased plurality of the healthcare sector, with greater attention to voluntary and third sector accounting for substantive proportion of healthcare provision in some areas such as homeless health or mental health support.[148] An interesting issue is the potential benefits to knowledge mobilisation from a culture which is perhaps more participatory and client or community-led. At the same time, there are tensions in what counts as evidence given the importance of tacit and experiential knowledge. Preferences and information seeking behaviour may be very different for these organisations, sectors and communities.

Gaps in knowledge, sustaining efforts and disbenefits

As the field of knowledge mobilisation matures, many reviews and studies identify important gaps. This includes lack of attention to equity in relation to evidence use and the particular needs of culturally and linguistically diverse audiences. A review by Elliott et al in 2024 identified 78 recent studies which considered tailored and targeted knowledge translation activities.[53, 84] Although most reported some form of end-user engagement and involvement, outcomes of increased uptake of research findings were not always monitored so it was not clear whether targeted efforts were more successful. Issues of power and voice in which stakeholders are engaged and how is given more attention in many newer studies.[134] [166]

We still know very little about the costs of dissemination and implementation efforts, although this area is attracting some recent scholarly attention[54] or whether interventions are sustained and sustainable with "few attempts to embed strategies in existing work systems".[48] A review by Borst et al in 2022 used 80 papers drawing on science and technology studies to "shift from viewing sustainability as an end-state towards sustaining as the (often mundane) work that is required to make and keep knowledge translation practices productive."[48, p2800] This conceptualises sustaining work as interplay of translating (constructing and activating networks), contexting (creating organisational contexts to support these practices) and `institutionalising' (maintaining systems and structures). This is a helpful framing for research funders or authorities to identify important elements in designing and supporting intermediary activities which last.

A new element is looking at the potential disbenefits or harms from knowledge translation. One study highlighted the `dark side' of knowledge brokers in unstable or vulnerable positions with struggles for legitimacy.[114] A scoping review found six reported cases of unintended negative consequences of knowledge translation,[167] particularly the emotional labour experienced by those in brokering and translation roles. This leads to calls for a focus on collective "knowledge brokering"[114] and institutional perspectives which illuminate the conditions for making this happen.[164] There is also interest in more embedded forms of boundary spanning, with focus on researchers in residence[168] and more embedded forms of knowledge co-production.[169]

Appendix C Declarations of Co-Authorship

Output 2

Section A	
Name of candidate:	Tara Lamont
Name of co-author:	Gareth Hooper
Full bibliographical details of the publication:	Lamont T and Hooper G (2025) Research and evaluation: what managers need to know. In Walshe, K., Smith, J., Moralee, S. & Sidhu, M. (Eds.) (In press, 2025). *Healthcare management*. (4th ed.) Open University Press. [Chapter]

Section B
DECLARATION BY CANDIDATE
I declare that my contribution to the above publication was as lead author
My specific contributions to the publication were: • Lead on the structure for the chapter • Lead on writing of chapter, contributing >80% of the text • Lead on responding to reviewer comments
Signed (candidate – Tara Lamont Date: 17 January 2025

Section C
STATEMENT BY CO-AUTHOR
I agree with the above declaration of the candidate
Signed (co-author): Gareth Hooper Date: 17 January 2025

Output 3

Name of candidate:	Tara Lamont
Name of co-authors:	Nick Barber, John de Pury, Naomi Fulop, Stephanie Garfield-Birkbeck, Richard Lilford, Liz Mear, Rosalind Raine, Ray Fitzpatrick (deceased)
	Full bibliographical details of the publication: Lamont T, Barber N, de Pury J, Fulop N, Garfield-Birkbeck S, Lilford R, Mear L, Raine R, Fitzpatrick R. New approaches to evaluating complex health and care systems. BMJ. 2016 Feb 1;352:i154 https://www.bmj.com/content/352/bmj.i154.long

Section B
DECLARATION BY CANDIDATE
I declare that my contribution to the above publication was as lead author
My specific contributions to the publication were: • Originated structure and outline of paper • Led on writing the article • Led on responding to reviewer comments and revisions
Signed (candidate – Tara Lamont Date: 17 January 2025

Section C
STATEMENT BY CO-AUTHOR
I agree with the above declaration of the candidate

Signed (co-author): Nick Barber Date: 17 January 2025

Section C
STATEMENT BY CO-AUTHOR
I agree with the above declaration of the candidate
Signed (co-author): John de Pury Date: 17 January 2025

Section C
STATEMENT BY CO-AUTHOR
I agree with the above declaration of the candidate
Signed (co-author): Naomi Fulop Date: 17 January 2025

Section C
STATEMENT BY CO-AUTHOR
I agree with the above declaration of the candidate
Signed (co-author): Stephanie Garfield-Birkbeck Date: 17 January 2025

Section C
STATEMENT BY CO-AUTHOR
I agree with the above declaration of the candidate
Signed (co-author): Richard Lilford Date: 17 January 2025

Section C
STATEMENT BY CO-AUTHOR
I agree with the above declaration of the candidate
Signed (co-author): Liz Mear Date: 17 January 2025

Section C
STATEMENT BY CO-AUTHOR
I agree with the above declaration of the candidate
Signed (co-author): Rosalind Raine Date: 17 January 2025

Output 5

Name of candidate:	Tara Lamont
Name of co-author:	Elaine Maxwell
Full bibliographical details of the publication:	Lamont, T. and Maxwell, E., 2023. From dissemination to engagement: learning over time from a national research intermediary centre (Four Fs). *Evidence & Policy*, *19*(1), pp.135-148. https://doi.org/10.1332/174426421X16323393555059

Section B
DECLARATION BY CANDIDATE
I declare that my contribution to the above publication was as lead author
My specific contributions to the publication were: • Joint conceptualising of paper, ideas and structure • Lead on writing and revision of paper • Lead on responding to reviewer comments
Signed (candidate – Tara Lamont Date: 17 January 2025

Section C
STATEMENT BY CO-AUTHOR
I agree with the above declaration of the candidate
Signed (co-author): Elaine Maxwell Date: 19 January 2025

Output 6

Name of candidate:	Tara Lamont
Name of co-authors:	Cat Chatfield, Kieran Walshe
Full bibliographical details of the publication:	Lamont T, Chatfield C, Walshe K. Developing the future research agenda for the health and social care workforce in the United Kingdom: findings from a national forum for policymakers and researchers. *Int J Health Plann Mgmt*. *[HPM*] 2024; 39(3): 917-925. https://onlinelibrary.wiley.com/doi/10.1002/hpm.3775

Section B
DECLARATION BY CANDIDATE
I declare that my contribution to the above publication was as lead author
My specific contributions to the publication were: • Originated structure and outline of paper • Led on writing the article • Led on responding to reviewer comments
Signed (candidate – Tara Lamont Date: 17 January 2025

Section C
STATEMENT BY CO-AUTHOR
I agree with the above declaration of the candidate
Signed (co-author): Cat Chatfield Date: 17 January 2025

Section C
STATEMENT BY CO-AUTHOR
I agree with the above declaration of the candidate
Signed (co-author): Kieran Walshe Date: 17 January 2025

Appendix D Full bibliography of all published work

Over the period of study (2015-2025), I have contributed to the following publications beyond the six featured outputs:

Oliver K et al [Submitted] Policy & Politics 2025 What factors influence evidence use in policymaking? An updated systematic map

Martin, G., Pralat, R., Waring, J., Peerally, M.F., Lamont, T. and Patient Safety Specialist Formative Evaluation Study Group, 2024. Professionalising patient safety? Findings from a mixed-methods formative evaluation of the patient safety specialist role in the English National Health Service. *Journal of Health Services Research & Policy*, p.13558196241268441. https://doi.org/10.1177/13558196241268441

van der Linden, B., Dunham, K.M., Siegel, J., Lazowick, E., Bowdery, M., Lamont, T. and Ford, A., 2022. Health funders' dissemination and implementation practices: results from a survey of the Ensuring Value in Research (EViR) Funders' Forum. *Implementation Science Communications*, *3*(1), 36. https://doi.org/10.1186/s43058-022-00273-7

Cook S, Lamont T, Cook R, Evans T, Davidson P. NIHR's research signals in The BMJ BMJ 2019; 364 :l513 doi:10.1136/bmj.l513 https://doi.org/10.1136/bmj.l513

Hibbert, P.D., Healey, F., Lamont, T., Marela, W.M., Warner, B. and Runciman, W.B., 2016. Patient safety's missing link: using clinical expertise to recognize, respond to and reduce risks at a population level. *International Journal for Quality in Health Care*, *28*(1), pp.114-121. https://doi.org/10.1093/intqhc/mzv091

Lamont, T. and Waring, J., 2015. Safety lessons: shifting paradigms and new directions for patient safety research. *Journal of health services research & policy*, *20*(1_suppl), pp.1-8. https://doi.org/10.1177/1355819614558340

Appendix E Other Academic Contributions

Below is a statement of positionality and the development of my research interests, skills and experience over the period spanning the publications from 2015 to 2024. There is also indication of the contributions to the wider research community through professional and additional activities.

Driving interest in the field of management and research

My motivation in thinking and writing about this space came from work supporting a national applied health services research programme and then helping to set up a national funder-led evidence centre. It was clear that health service managers did not look to research to help them in decisions, despite availability of high-quality mixed methods evaluations from our research programme and elsewhere in important areas from centralising stroke services to upskilling support staff. I have worked actively to promote relevant health services research linking across individual projects and connecting evidence to relevant audiences for over ten years.

In 2014 I co-led a successful bid to set up a new national dissemination and engagement centre for the NIHR. From 2015-20 I was deputy director and then director of a small team of research managers, journalists and knowledge brokers. We developed new processes, products and activities to try to reach new audiences for digested NIHR research findings. Over the five years of our contract, there was a relentless programme of outputs in a highly politicised context. We tried to modify and refine our activities as we learned, drawing on a loose community of practice (for instance, useful discussions and exchange with intermediary bodies in other systems such as the Australian Sax Institute and Netherlands Organisation for Health Research Development (ZonMw)), but there was little time for wider reflection.

Against this backdrop, I wanted to understand more about the debates and theoretical and empirical studies which shape what we know around making evidence more used and useful by decision-makers. The six outputs in the body of work range from a book for researchers, particular those at early stage in their careers, on maximising the impact of their work to a chapter on research and evaluation for healthcare managers to analytic pieces reflecting critically on the activities of the evidence centre to linkage and exchange events in workforce research and perspectives on `good enough' evaluation to complex systems thinking in relation to research.

Writing for different audiences

In addition to these more scholarly outputs, I have tried to develop and practise the craft of communicating complex health services research to wider audiences. This involves writing in more accessible forms, from digests to blogs. I prepared a series of research briefs for the NHS Confederation in 2011-2015 on areas from support workforce to avoiding emergency hospital admissions, with features I developed like five questions for the Board arising from the evidence. These got a wide readership with senior and middle managers in the NHS. The model of bringing together evidence in an accessible way with a panel of frontline staff and managers to interpret the evidence with contextual comments was adopted and refined at the evidence centre from 2015 (described in Output 5). I wrote four of these themed reviews for manager audiences on end of life care services (2016), pre-hospital care pathways (2016) organisation of stroke services (2017) and assistive technology for older people (2018). I also wrote accompanying feature articles in the trade and professional press – for instance an HSJ article with a stroke service lead giving headline messages from the stroke review. I have also written over twenty blogs for the BMJ in the last ten years on topics from sifting evidence to learning from social sciences during the pandemic (tried and failed to get the HSJ editor interested in a monthly spotlight on an interesting health services research study).

Other contributions to the research community

As a trustee for over twelve years at HSR UK, the prime network for health service researchers in the UK, I have been actively involved in a number of linkage and exchange events between managers and researchers. I helped to set up a Chief Executives forum with NHS Confederation, selecting interesting health service research studies for debate with senior managers, interviewed leaders on their research habits, wrote digests and summaries of research evidence for managers. I organised and spoke at a series of seminars with service leaders in 2020 on how evidence has changed healthcare. I co-wrote the December 2024 HSRUK submission to the government's 10 Year plan for the NHS, including signposting relevant health services research. I have been on the annual HSRUK conference organising committee for the last eight years, helping to shape the programme, selecting abstracts for presentation and chairing plenaries on subjects from decarbonising healthcare to social care research. I also convened and chaired a session in 2022 with editors of leading health service journals on trends in academic writing and publishing.

In terms of other inputs, I have been an active reviewer for a range of academic journals for many years, from Health Research Policy and Systems to Evidence & Policy. From 2011 to 2016 I supervised sixteen MSc student dissertation projects for the University of Warwick Medical Leadership and Healthcare Management courses. I closely supervised projects ranging from local evaluations of digitising ophthalmology clinic to skill substitution in operating departments to more theoretical contributions on values-based pricing or comparative systems of medical litigation. Over two thirds of students from a range of backgrounds got distinctions. I was also an examiner and moderator of other dissertations at Warwick.

Over and above first author publications, I have collaborated on a number of research studies led by others in my own time [see Appendix D]. This includes a recent update [submitted] of a 2014 review by Kathryn Oliver on barriers and facilitators to use of evidence by policymakers (I was one of many coding screened abstracts), comparative study of dissemination practice across research funding bodies (van der Linden 2022) and input to various papers on patient safety (Martin 2024, Hibbert 2016, Lamont 2015).

Other responsibilities outside my paid work include being invited to chair study steering groups for a UKRI funded project on the impact of shielding during the pandemic and a current Policy Research Programme national evaluation of N50k (nurse staffing initiative). As chair of these study steering groups, I have been a critical friend to the research team, steering discussion with a range of policy, service and other stakeholders and helping the researchers negotiate input to shape what is investigated, who might be interested in findings and how and where these are presented.

My salaried work includes activities which require research and analytic skills which I have developed over the last ten years. This includes as senior scientific adviser to the HSDR Programme responsibility for first screening of research applications, overseeing feedback to researchers after funding committee decisions and helping to shape Programme strategic activity, for instance in recent new investments in workforce research. I am also one of the editors for the NIHR Journals Library, reviewing health services research monographs and synopses, assessing and synthesising external peer review comments and making judgements around required revisions by authors.

Spanning worlds of research funding, health policy and research

While sometimes feeling between worlds, my hybridity or ability to span worlds of research and policy or management has been helpful, including experience working in national policy roles in patient safety and healthcare audit. The worlds of research and management are less porous than research and clinical communities. A distinct contribution therefore is identifying and extracting research of greatest interest to managers while understanding the weight of evidence in relation to study design, wider bodies of knowledge and research traditions. This ambidexterity while being neither manager nor researcher perhaps speaks to interesting recent debates on the `sociology of expertise' advanced by Gil Eyal and colleagues .[170] This moves away from traditional sociology of professions and experts defined by jurisdiction and qualification towards a looser status of `expertise' in terms of relevance and usefulness of knowledge or activities to a wide range of groups. Mirroring some of the debate around liminality and knowledge brokering,[112] it is helpful to have some insights and tacit knowledge of both worlds in understanding how to optimise evidence use for healthcare managers.

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