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# Communicating research evidence to boards in health and care organisations

A scoping study

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## Summary

### Research context and aims:

Boards in health and care organisations in England play key and sometimes statutory roles in their governance, shaping strategy, direction and culture, and being accountable for organisational performance. [1, 2] In this context, it is important to ensure that board decisions are informed by the best available evidence from a range of sources, including from service evaluations, organisational performance data, research and guidelines. There is a substantial body of literature on board structure, function and relationships to organisational performance. There is also some research into how boards mobilise knowledge and intelligence more generally, such as, for example, various types of organisational performance data and data from service evaluations. However, there is a scarcity of evidence about how boards use *research* evidence to carry out their roles. We defined research evidence as evidence stemming from generalisable empirical research, rather than from service evaluations, internal reviews, experiential evidence or routinely generated data such as performance information.

Against this context, THIS Institute commissioned RAND Europe and the Health Services Management Centre (HSMC) at the University of Birmingham to conduct a scoping study on how boards use research evidence. The focus was on NHS Trust boards and the

boards of Sustainability and Transformation Partnerships (STPs) or Integrated Care Systems (ICSs). More specifically, the study aimed to explore:

- What types of research evidence boards need and use
- What sources and formats of research evidence are viewed as most relevant and helpful
- What influences the use of research evidence by health and care boards
- How the use of research evidence could be improved (if improvement is needed).

Given the importance of the COVID-19 pandemic at the time of this research, we were also asked to consider whether and how research evidence was used by boards in shaping their response to COVID-19. We focused on two areas specifically: (i) personal protective equipment (PPE) and (ii) the use of remote consultations and remote patient monitoring.

### Methods:

The principal data collection method for this scoping study was qualitative interviews with members of health and care boards. We interviewed 17 board members, from seven different boards in three main localities in England: West Midlands, Cambridge and

South East London. The interviewees included executive and non-executive board members, with diverse backgrounds. In addition, we carried out an initial brief review of academic literature to help refine the focus of the scoping study and to assist in the interpretation of findings. We also looked at a sample of board minutes but found very limited reference to research evidence.

The 17 interviews enabled us to obtain important insights into the perceptions and experiences of diverse board members in a range of roles and circumstances. However, they are not necessarily generalisable to other boards, or to individuals whom we did not interview within the boards in our study sample. Future, larger-scale studies could help build on the insights we obtained in this scoping research.

### Key findings:

The boards involved in our study all engage with research evidence in some capacity, but board members have differing views on the *extent* to which boards use research evidence as part of their activities. These views varied between board members on the same board and between boards. These diverse views may indicate actual differences in the use of research evidence between different boards or between different individuals on the same board, or it may reflect differing perceptions and levels of awareness about the extent to which the board overall (e.g. colleagues on a board) use research evidence. While it is not possible to reach firm conclusions on the levels of engagement with research evidence based on this scoping study, our insights do point to a need for further larger scale research on this issue, including potentially through methods that enable collective sense-making.

All of the board members we interviewed told us that their board did engage with

research evidence in some way, although specific examples were sparse. The types of research evidence used, and the purposes for which they are used are also diverse. Clinical research, health services and organisational and management research are all consulted. This speaks to the heterogeneity of decisions made by a board – for example, decisions may be related to novel clinical interventions, to financial management, the organisation of patient pathways and workforce planning. However, many interviewees described research evidence being used in sporadic and opportunistic ways, rather than being systematically and routinely embedded in board functions. Although interviewees described different types of evidence that can be used, the extent to which they are used is unclear, and some concerns were raised that use of evidence by boards may not always be robust.

In addition, even when research evidence is used, this happens alongside the use of other types of information (e.g. on local population needs and priorities, organisational intelligence and performance data, and data from evaluations). The use of research evidence is also context dependent. For example, during the COVID-19 pandemic, boards were forced to make pragmatic decisions quickly and in a fast-changing environment. While research evidence could be consulted on some issues, pragmatic decisions sometimes needed to be made rapidly in the light of policy developments and guidance. The emergency nature of decisions being made during the pandemic meant that there was little evidence available in some areas where boards made decisions. Interviewees suggested specific research topics that could be useful to boards in the future, in the context of recovery from the pandemic and resilience to future pandemic shocks. Most notably they sought research that can help inform how the health and care system can balance needs for

COVID-19 related care and routine care. An interest in better understanding the impact and effectiveness of remote consultations and remote patient monitoring as ways of providing care was also identified.

Boards access research evidence through different routes – both from diverse sources and in different formats. Although some interviewees reported engaging with research papers (or their authors) directly or actively seeking research-based knowledge on a particular topic through other channels (such as conversations with clinicians or consulting guidance documents), research evidence also seemed more often to be fed to the board through intermediary channels. More specifically, boards often appear to delegate the consideration of research evidence to their

sub-committees or to other organisational experts such as clinical teams, who then report back to the main board. There was also significant appetite among board members to engage with the research through simpler and more accessible formats than academic journal articles. Some examples included presentations, bespoke workshops, seminars, summaries of research, discussion papers, case studies, opinion pieces, blogs, various visuals and media articles.

We identified several influences on the use of research. As overviewed in Table 1, these relate to the nature of research evidence, the types of decisions being made, the function, structure and composition of a board and to external circumstances and events.

**Table 1: Influences on the use of research evidence by boards**

| Category of influencing factors              | Features that play a role  |
|--|--|
| Nature of research evidence                  | <ul style="list-style-type: none"> <li>• Timeliness of evidence</li> <li>• Relevance of evidence</li> <li>• Robustness/quality of available evidence (e.g. is it clear cut, is it contested, does it come from a reputable institution, is it based on robust methods?)</li> <li>• Format and accessibility (including how quickly and easily research can be translated into an accessible format, how it is communicated)</li> </ul>   |
| Type of decisions being made by boards       | <ul style="list-style-type: none"> <li>• Whether relevant research evidence is available on the topic of interest for decision makers</li> <li>• Availability of other types of evidence (e.g. organisational performance data, policy documents) can impact on whether research evidence is prioritised or not, as can the extent to which research evidence complements or challenges other types of evidence</li> </ul>   |
| Function, structure and composition of board | <ul style="list-style-type: none"> <li>• How board members understand their role within the organisation</li> <li>• How a board perceives its role in the wider health and/or care system</li> <li>• Format and workload to cover in board meetings</li> <li>• The number, role and skills of board sub-committees</li> <li>• Experience, expertise and professional backgrounds of board members, including regarding using research evidence (in relation to other types of evidence or relying on expert judgement and intuition)</li> <li>• Power structures and dynamics within boards</li> <li>• Links with research institutions</li> <li>• The nature and extent of support to the board and to its members</li> </ul> |
| External circumstances and events            | <ul style="list-style-type: none"> <li>• Pressures for urgent decision making (e.g. as with COVID-19 pandemic)</li> <li>• Policy influences (e.g. via national guidelines or mandates)</li> <li>• External pressures on the health and social care system</li> </ul>   |

Many board members expressed an appetite for improving the ways and extent to which research evidence is used at board level, and this scoping project indicates that both boards and the research community would need to play a part in facilitating this. Researchers would need to ensure that research was timely, accessible, and communicated in a way that highlights its direct relevance for boards. Boards would also need to have the skills, capabilities and supportive organisational processes in place to support the more wide-scale use of research evidence, including skills to constructively assess and, if needed, challenge research evidence alongside other types of information that inform decision making.

Although there was a general recognition that boards could improve the extent to which they engage with research evidence, there were some reservations as to whether boards are necessarily always the 'right place' within organisational structures, to embed more systematic and direct engagement with research evidence. There may be other channels within organisations that allow research evidence to feed into wider board level functions. There are questions also as to whether capabilities and capacity for engagement with research evidence needs to be built across an entire board, or within specific sub-committees of the board, to complement the capabilities in other parts of the organisation (e.g. research and development, information services) or other organisational structures.

## Reflections:

Our findings suggest some important areas for further research to refine and extend the insights we have gained through our scoping research, and which we elaborate on in the

reflections section of the full report. For example, there is a need to strengthen the evidence base on current practices more systematically and explicitly, through a larger scale study that controls for boards with different features and for different functions on boards. This could help to better understand and perhaps reconcile the variety of views that were expressed by individuals consulted for this research about the extent to which research is used. A larger scale study could allow collective sense-making to understand the real and perceived differences between boards and within them (perhaps through a combination of interview, survey and workshop or focus group methods). Further exploration would be valuable to understand how different board features related to structure, composition, size, culture, performance and incentives play a role in the extent to which boards engage with research evidence and in their requirements for such evidence.

Last but not least, there is scope for better understanding what types of improvement interventions could support board decision making to be informed by the best possible research evidence and in user-friendly ways. This includes considering improvement interventions for the accessibility of the research, as well as for building board skill and confidence levels. For research supply, key considerations might include the nature of evidence and sources and formats that reach boards. For interventions to improve the ability of boards to engage with research effectively, such interventions might include board development programmes to improve board skills, confidence and processes. They might also affect how interactions between the board and its various sub-committees and other organisational structures support evidence-based decision making at board level.

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## Abbreviations

|     |   |
|-----|---|
| CEO | Chief Executive Officer                       |
| ED  | Executive Director                            |
| ICS | Integrated Care System                        |
| NED | Non-Executive Director                        |
| NHS | National Health Service                       |
| PPE | Personal Protective Equipment                 |
| STP | Sustainability and Transformation Partnership |

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# 1

Introduction:  
Research context,  
aims and methods

## 1.1. The research context

Boards in health and care organisations in England play key and sometimes statutory roles in their governance, shaping strategy, direction and culture, and being accountable for organisational performance.[1, 2] In this context, it is important to understand how boards engage with research evidence in their decision making. Whereas the literature on how health and care boards function generally and mobilise knowledge is abundant, the evidence base on the extent to which they use *research* evidence, and how they do so, is scarce.[3] This may in part be linked to a similar paucity in the literature that examines the links between the decisions made by health and care boards and the quality and safety of care that is provided. [4] There is also relatively little research on the skills and competencies that an effective health and care board needs, and a scarcity of studies considering the theoretical aspects of pathways and mechanisms through which boards impact on patient care.[4]

Although there is literature on evidence-based decision making and on how boards use general intelligence and information,[2] such as organisational performance data and data from service evaluations to inform decision making,[5-7] there is a gap in the literature on how boards use research evidence specifically. We defined research evidence as evidence stemming from research that is generalisable, rather than from service evaluations, internal reviews and routinely generated data that is specific to individual organisations. Research evidence of different types (e.g. health services research, clinical research, management research) could be useful in informing board-level decisions, together with other considerations such as population health needs and financial considerations.

In 2020, boards in health and care organisations faced the added challenge of

responding rapidly to the COVID-19 pandemic. Along with the need to incorporate national guidance from bodies such as Public Health England,[8] boards also faced unprecedented operational challenges. They had to respond within a context of general uncertainty related to issues such as demand for services and safe ways of working and delivering remote care. The challenges were wide ranging, including increased pressures and demands on the health and care system in terms of the numbers of individuals needing care,[9] delays to elective procedures,[10] the need to move towards remote consultations and increased use of remote patient monitoring to control the spread of infections,[11] and existing workforce challenges that were exacerbated by the pandemic.[12] COVID-19 has rightly been the subject of a large number of research outputs since the pandemic began.[13] The rapid mobilisation of research brought new potential opportunities for boards to engage with the evidence base when making decisions, as well as some challenges to filtering through the plethora of information being produced and to ensuring that the evidence reaching decision making was of appropriate quality.

## 1.2. Aims

Within this context, RAND Europe and the Health Services Management Centre (HSMC) at the University of Birmingham, were commissioned by THIS Institute to conduct a qualitative scoping study on how health and care boards in England use research evidence, both in general and in relation to the COVID-19 pandemic. The aim was to gain some preliminary insights on the topic, which could be built on in potential further studies. We sought to address the following research questions:

1. What types of research evidence do boards need and use? (e.g. *research on*

*clinical effectiveness, cost effectiveness, management literature)*

2. What sources of evidence do boards view as most relevant and trustworthy? (e.g. from specific types of individuals or organisations such as from Trust clinicians, think tanks, etc.)
3. What formats of evidence do they consult and which do they view to be most helpful? (e.g. academic papers, presentations, conferences, professional magazines, etc.)
4. What influences the use of research evidence by boards?
5. What could improve the use of research evidence by boards?
6. What use is being made by boards of research evidence in response to COVID-19 and what might future needs be?

We focused specifically on boards of NHS Trusts (both acute and mental health trusts) and their local partnerships (either Sustainability and Transformation Partnerships (STPs) or Integrated Care Systems (ICSs)) in England. In relation to COVID-19, we focused specifically on the use of research evidence in the context of decisions related to (i) personal protective equipment (PPE) and (ii) remote consultations and patient monitoring, as ‘tracer issues’ against which to explore our questions of interest.

We present our findings and reflect on their implications for opportunities to improve the use of research evidence by board members, both through the actions of boards and the actions of researchers who produce research evidence. We also reflect on implications for a future research agenda.

## 1.3. Methods

### 1.3.1. Data collection, analysis and synthesis

The two main methods for this study comprised interviews with members of health and care boards, and an initial brief review of the literature on the use of intelligence and research evidence by healthcare boards.

To inform the study focus and design, we carried out an initial brief review of the literature aimed specifically at setting the scene for the work and informing research enquiries. We reviewed key documents identified by the research team as relevant, based on their significant experience in this field, coupled with snowballing where relevant, but did not undertake a systematic review.

The principal data collection method for this study was interviews with members of NHS Trust and STP/ICS boards in England. We originally intended to focus on one NHS Trust and one STP/ICS within each of three localities, Cambridge, West Midlands and London. However, our sampling strategy evolved over the life of the project, in response to the COVID-19 pressures within these localities.

For this scoping research, we interviewed board members from the following organisations:

- Cambridge University Hospitals NHS Foundation Trust (n=5)
- Cambridge and Peterborough STP (n=4)
- South London and Maudsley (SLAM) NHS Foundation Trust (n=3)
- Lewisham and Greenwich NHS Trust (n=1)
- Coventry and Warwickshire STP (n=1)
- University Hospitals of Coventry and Warwickshire NHS Trust (n=1)
- The Royal Wolverhampton NHS Trust (n=2)

The interviewees included 7 Non-executive Directors (NEDs) and 10 Executive Directors (EDs), with roles including Chief Executives, board Chairs, medical directors, and board members with backgrounds in transformation, general practice and local authorities.

Overall, we contacted 59 board members, and conducted interviews with 17 of these individuals. Those who chose not to participate were spread across different boards and different roles on those boards. We did not observe any particular pattern between an individual not participating in an interview and their role on a board. The majority who replied but declined cited workload issues related to COVID-19 as a reason.

Interviewees within each board were purposively sampled to get a mix of different professional backgrounds and experiences, and an appropriate mix of EDs and NEDs. Interviewees were contacted via email to invite them to participate in an interview, and most were then contacted twice more if they did not respond to the first invitation.

After written informed consent was obtained, interviews were conducted by phone or through voice or video calling features in Microsoft Teams between August and December 2020, and lasted up to one hour. Interviews were semi-structured and covered the following topics:

- Boards' use of research evidence, including types of research evidence consulted, and sources and formats of research evidence.
- Board dynamics and roles in consulting research evidence.
- Strengths and limitations of a board's approach to using research evidence.
- Influences on using research evidence.
- Boards' use of research evidence during COVID-19 (PPE, remote consultations and monitoring), along with other sources

of information and factors that affected decision making.

- Research needs in relation to COVID-19.

We include the interview protocol in the annex to this report. After each interview, we consulted the interview recording and wrote detailed summary notes and key messages, to capture the main themes and topics discussed during the interview, with illustrative examples and quotes to provide additional insight.

The interview notes were analysed thematically using the interview questions as the organising structure for analysing and synthesising information from across different interviewees. After all interviews were completed, research team members held analysis meetings to discuss themes that had emerged from the interviews and to agree on a structure for reporting.

Below, we report the findings from these interviews. An anonymous identifier is used to report on the insights gained, and specific quotes and examples are included where useful. Information relating to the use of research evidence during the COVID-19 pandemic is discussed throughout to demonstrate the similarities and differences in how boards use research evidence during this time of particular pressure on the health system.

### 1.3.2. Limitations

Firstly, the findings discussed in this briefing report are qualitative findings based on interviews with board members from a sample of organisations, as described above. The findings provide insight into the views of diverse board members, but they are taken from a sample of organisations only. The findings may not, therefore, be generalisable to other NHS organisations or STPs, or to other board members within the same organisation who have not been interviewed for this scoping research.

Secondly, within the scope of this work we briefly scanned a selection of published board minutes of the organisations we included, to see if they referred to the use of research evidence, but we did not review the board minutes in detail. The brief check that we carried out indicated that research evidence does not appear to be mentioned frequently, and in this scoping study we were particularly interested in board members' perceptions of the use of research evidence. Nonetheless, future work on this topic might include a more thorough investigation and analysis of board minutes.

Although our interview protocol was designed to separate information relating to the general use of research evidence by boards and the use of research evidence during the COVID-19 pandemic, interviewees often addressed both topics simultaneously during interviews. All interviews were conducted during the COVID-19 pandemic, so it may be that this contextual

factor influenced our findings, for example if boards might sometimes have adjusted their normal practices during this period. We address this limitation in this briefing report by highlighting where information was reported as specific to the context of the pandemic.

There were challenges in securing sufficient interviewees from each organisation. As discussed above, this may have been in part due to the COVID-19 pandemic and the associated workload and time pressures that board members face. To help address this challenge, we expanded our potential pool of interviewees to include more organisations than originally planned but have lower numbers of individuals than planned in some of the organisations included in our sample.

Finally, we did not conduct a systematic literature review of all possible studies on this topic, within the scope of our work.



# 2

Use of research evidence by NHS and STP boards



Research evidence can be valuable to health and care boards in a wide range of circumstances, by helping inform decisions related to patient flow management, clinical processes and organisational management. This section sets out what we learnt from our interviews, as they relate to the following themes:

- a) The extent to which board members report using research evidence (Section 2.1)
- b) The types of research evidence used and what they are used for (Section 2.2)
- c) The routes through which board members report accessing research evidence (Section 2.3).

## 2.1. There is variation in the extent to which board members report using research evidence both within a single board and across boards

The extent to which board members report using research evidence varies, and we found a diversity of views both within individual boards (i.e. from different members) and across boards. Therefore, it is **not possible to make conclusive statements** on the extent to which boards use research evidence. This variety may in part reflect actual differences in the use of research evidence, but it may also reflect individual perceptions. It is plausible that different individuals on boards have different levels of awareness as to the extent to which the board overall (e.g. colleagues on a board) uses research evidence, or its use at sub-committees, but this is not something we could gauge within the scope of our research. Overall, there was widespread recognition that while research evidence is considered in some capacity by the boards within our study, there is scope to improve the extent to which research evidence is engaged with by boards and the frequency of its use. In many cases,

interviewees described research evidence being used in sporadic and at times opportunistic ways, rather than systematically and routinely. We expand on these insights below.

All of the board members we interviewed told us that their board did engage with research evidence in some way (INT1, INT2, INT3, INT4, INT5, INT6, INT7, INT8, INT9, INT10, INT11, INT12, INT13, INT14, INT15, INT16, INT17), although specific examples were limited. Some interviewees reported that the board uses a range of research evidence to make decisions, (INT5, INT6, INT17), while others noted that judgement based on experience can be used more often than direct research evidence (INT4, INT16). According to one interviewee, 'judgement based' decision making would often build on the experience and expertise of particular board members that accumulated over time: 'NEDs trust me... when you get experienced chief execs non execs have confidence... I'm a real risk taker but non execs would say "well you get it right 90% of the time"...'. (INT 16)

The 'firefighting' role board members may assume in responding to immediate issues was also seen as one factor influencing the extent to which research evidence is used, as illustrated by one of the interviewees we consulted:

*When I reflect on my experience with boards, research evidence has been a consideration but I don't think it's the most important thing they would discuss... [for] boards it's about being responsive and problem solving in the organisation and their system. It's not about setting up a new service or thinking about delivering care... or asking 'what research evidence is there to inform this?' I am not saying that this doesn't happen... but I think that more reflective or intelligence based approach to policy making is relatively unusual... It's much more about firefighting and dealing*

*with the immediate issues in front of them looking at the data and pressure points but not really understanding how they would access that research to support them.*  
(INT 14)

Based on the interview evidence, board meetings appear rarely to incorporate engagement with research evidence as part of their agenda and process, or at least do not do so on a routine basis (INT3, INT7, INT9, INT12). Several interviewees highlighted the role of clinical divisions, clinical leaders or clinical sub-committees in looking at evidence, rather than the overall management board at its most senior level (INT2, INT3, INT9, INT12, INT13, INT15, INT16). One interviewee remarked:

*Historically, boards have used research that has been interpreted, digested and wrapped up by people who come to the board... usually it's the medical directors who know a bit about research synthesis and wrap it up for the board rather than the board synthesising it themselves... as a result I think there is very little research at board level... it's more discussion and formative evaluation.* (INT15)

Interviewees' reports of how often and how extensively the board engaged with research evidence varied significantly. Interestingly, individuals' descriptions seemed to be influenced by their own perceptions rather than necessarily specific board approaches to using research evidence, as descriptions of research use differed even between members of the same board (INT17). For example, one interviewee reported that the board received presentations from researchers in every second board meeting (INT5), while another interviewee from the same board stated that research evidence was rarely used (INT12). Perceptions may be subject to a number of influences, including the background of the board member, their skills and their expectations of what a board should be there to do.

The use of research evidence may relate more to the skill-set and professional background of the board member, as illustrated by one interviewee:

*Doctors may feel more comfortable going back to clinical research, whereas HR and accountants are less likely to.* (INT4)

Similarly, some Trust board members recalled instances of particular executives with clinical backgrounds championing research (INT5, INT15, INT16). To illustrate:

*[the chairman] he bombards me with research. I must get three emails a week from him. He trawls the world... 'Have a look at this...' And I say 'yes great, great... I've got some hospitals to run'... but it has been useful.* (INT16)

There were also mixed views about how well research evidence was used by STP boards specifically. STPs tend to have larger boards than NHS Trusts as all local health and care bodies are generally represented, and they have a significant focus on partnership working and integration of services. Some interviewees felt that this collaborative structure led to some opportunities for sharing information between different organisations. For example, one interviewee described their positive experiences of learning about best practice from areas of an STP (INT14) and another felt that:

*The STP board is more abstract in that it's an alliance, so there is far more scope to receive research evidence on what has worked.* (INT 11)

However, some other interviewees felt that there was scope for STPs to engage with research evidence to a greater extent. (INT1, INT6, INT7) One interviewee, who is a member of both an NHS Trust board and an STP board, pointed out that STPs have focused more on organisational difficulties and finances so research is lower down the priority list. Others

commented that STPs are not sophisticated enough in their use of research evidence (INT1, INT7), with one interviewee reporting:

*In general, I don't think that STP boards are very good at utilising research evidence.*  
(INT1)

Several interviewees felt that there is scope for boards to engage with research evidence to a greater extent, regardless of the nature of the board (INT1, INT3, INT7, INT8, INT9, INT10, INT13).

## 2.2. The types of research evidence and purpose for which they are used are varied

The findings from this scoping study suggest that the types of research evidence boards use, and the purposes for which they use it, are diverse. This speaks in part to the heterogeneity of decisions made by the board, and of board processes for consulting research evidence. From the interviews conducted, we did not identify any overriding type of research that has been used more frequently. Although interviewees described different types of evidence that *can* be used, the extent to which they actually *are* used is unclear, and some concerns were raised that use of evidence by boards may not always be robust.

Despite this, many different topics and types of research evidence might be of interest to a board, and interviewees provided some specific examples where research evidence had been consulted (INT4, INT5, INT6, INT8, INT10, INT11, INT12, INT13, INT14). Some examples included research on clinical processes (INT6), new services such as the use of telehealth (including those prompted by COVID-19) (INT5, INT13), new treatments such as those related to novel treatments for opiate misuse (INT5), and organisational research topics such as improvement strategies or workforce stability (INT11).

A similar number of interviewees reported using clinical or health services research (INT2, INT3, INT4, INT5, INT6, INT7, INT8, INT13) and organisational research and management literature (INT1, INT2, INT6, INT8, INT10, INT11). A few interviewees thought that clinical research evidence was more likely to be used than other types of research evidence (INT4, INT7), as illustrated by one interviewee: 'When I hear research the first thing I would want to talk about is clinical research then it would be about management and leadership research... there's the clinical stuff first and then there's how you do things' (INT17). Others, however, noted that clinical research evidence was not used very often (INT6, INT9, INT10), perhaps due to it being used by clinicians in relation to decisions that do not require board approval.

Interviewees spoke of the utility of management and organisational research around topics such as financial challenges and understanding patient pathways, behavioural and cultural change, organisational strategy, population health, workforce planning and diversity and inclusion (INT2, INT6, INT10, INT11). However, some interviewees noted that this evidence was also not used very often (INT1, INT3, INT7, INT9, INT17). According to one of the individuals we consulted, its use is growing and may continue to do so in organisations focusing on moving from an STP to the more complex requirements of an ICS (INT7) and given the increased importance of paying more attention to population health challenges (INT14). When used, research evidence can support diverse types of decisions. For example, some interviewees described it being included within business cases to support informed decisions between different options for investing in service improvements or adopting new organisational strategies (INT2, INT3, INT6, INT7, INT8, INT13, INT15). Sometimes research evidence may be quoted to support and justify, or to challenge, a decision taken by the executive or the

board (INT1, INT3, INT4, INT13). To illustrate the diversity of uses, one interviewee gave examples of using research to help a Trust improve clinical pathways and service models or to decommission procedures that were not clinically effective (INT13).

Some interviewees expressed concerns that research evidence – regardless of the types of evidence in question – may not be used and referenced in an impartial and robust way. In part, this may relate to the purpose (i.e. reason) for which the evidence is being used (INT1, INT2, INT3, INT4, INT5, INT7, INT8, INT9, INT13). For example, one interviewee stated that ‘one of the things that clinicians in particular are very good at doing is trying to persuade a board of largely generalists... that something absolutely must happen, and that all the research says X, Y or Z’ (INT13). Echoing these concerns, an interviewee with extensive experience in research commented that ‘... certainly I’ve been questioned in terms of using it [research evidence] to blind them with science, so I get my own way’ (INT8).

These concerns around the robustness of the way that boards use research evidence refer to both the nature of the research evidence that is available on topics that boards discuss, and also the sporadic manner in which research evidence reaches boards. Throughout this scoping study, we discuss the influences that impact on the robustness of research evidence use by boards (Section 3) and potential ways to improve the use of research evidence by boards (e.g. Section 4).

### 2.3. Boards access research evidence through different routes

Interviewees reported that research evidence reaches board members in diverse ways – both from diverse sources and in different formats.

There was a small number of examples of board members engaging with research papers

(or their authors) directly, or actively seeking research-based knowledge on particular topics through other channels. For example, one board member (with a clinical background) described bringing evidence from medical journals into the board room: ‘I read journals and my colleagues read journals so I would often bring these suggestions to the board...’ (INT 15). However, examples of board members reading research evidence in its direct form (e.g. a journal article or technical report) was mentioned infrequently by interviewees (INT2, INT5, INT15, INT17). Often board members may not directly seek a research paper itself, but receive and digest research evidence through a range of sources, such as in guidance documents or through engagement with clinicians (INT3, INT7, INT8, INT10, INT13).

At other times, board members chose to delegate the consideration of research evidence to sub-committees or other experts, who then report back to the board. For example, interviewees mentioned sub-committees that review research evidence related to clinical ethics, drugs, nursing, and health and safety (INT2, INT3, INT9, INT11, INT12, INT13, INT15). As illustrated by one board member: ‘It would be my expectation that they [committees below board level] would be relying on research... and that all available research will have been scrutinised’ (INT 11). Another example related to a quality governance sub-committee that looked at research evidence focused on clinical effectiveness, and passed information to the board:

*It's a bit like a pyramid. There's an awful lot of discussion that happens within the service teams and the divisions, a select bit comes up to the committee and lesser of that then goes onto the board because otherwise the board agenda would be huge. (INT13)*

Along with sub-committees, some board members viewed consulting research evidence

to primarily be within the remit of clinical teams rather than the board. This in part may depend on the type of research evidence in question. For example, one board member felt that looking at clinical research evidence was 'not part of what we do' (INT9), and another reported that the board trusts clinical divisions that sit beneath the board to make decisions without board-level scrutiny, as they have authority to do so and more knowledge of the research base (INT3).

There are also several other ways in which interviewees described research evidence reaching boards, even when board members did not read the evidence themselves. For example, one route to accessing research evidence indirectly is through consulting experts. About half the interviewees discussed accessing research evidence via this route, rather than through consulting the research evidence source itself (INT2, INT3, INT4, INT6, INT8, INT13, INT16, INT17). In addition, there were several examples provided by interviewees of boards using guidance documents, business cases or other information from external organisations that contains research evidence-based information (INT1, INT4, INT6, INT11, INT13). Interviewees saw this as accessing research evidence via an intermediary source. Several interviewees flagged the presumably evidence-based nature of Public Health England's guidelines on PPE during COVID-19 as an example of a way of indirectly consulting research evidence by following guidelines (INT1, INT6, INT9). However, some interviewees questioned the extent to which government guidance is always sufficiently nuanced in its presentation of the evidence, (especially in the context of rapid response to the COVID-19 pandemic). To illustrate with a quote from one of the board members we consulted:

*Most government guidance is sensible and... put together with good intent. ... but for most of the science I would argue that it is not unequivocal evidence. There is a tendency for people to overstate what the*

*evidence is for their case so they'll make a statement implying that it's proven on the basis of research but often if you look at the underlying research, the evidence is less clear cut than they would have you believe. (INT3)*

As introduced earlier, although some board members described engaging with academic research papers (INT15, INT17), there was also a significant appetite among board members to engage with the research through simpler and more accessible formats. The most common formats tended to be through an individual presenting research at a board meeting or running workshops and seminars, or by board members reading summaries, discussion papers, case studies, opinion pieces and blogs that reflect research evidence (INT4, INT5, INT6, INT8, INT9, INT10, INT11, INT12, INT13, INT15). Some interviewees also described research evidence being accessed by boards through the use of stories, graphics and visuals (INT5), and review articles and meta-analyses (INT4). One interviewee suggested that 'graphics are great – you get a whole lot more across than a lot of dry content' (INT 5). However, there appears to be variation across board members regarding preferences for different formats and sources.

Another format by which boards might receive research evidence is through the media (e.g. mainstream news, popular media). Media attention around a piece of research was seen as facilitating the board engaging with it (INT5, INT7, INT10), in part because media can communicate research in an accessible way and also because it may then be more likely to be perceived as a priority at the board level (INT1). One interviewee pointed to how board members used media articles as the basis for discussions, particularly on COVID-19-related issues: 'Research that has been talked about in the media has driven non-executives in particular to ask questions about our own experience' (INT10).

An abstract graphic on a blue background. It features a central gear with a circular arrow around it, and another circular arrow below it. The gear and arrows are dark blue, while the text is white.

# 3

Influences on the  
use of research  
evidence by boards

Many influences can affect the extent to which boards engage with research evidence. Based on insights obtained through our interviews,

these fall into four broad, interrelated categories, as shown in Table 2 below.

**Table 2: Factors that influence the use of research evidence by boards**

| Category of influencing factors   | Features that play a role  |
|---|--|
| Nature of research evidence   | <ul style="list-style-type: none"> <li>• Timeliness of evidence</li> <li>• Relevance of evidence</li> <li>• Robustness/quality of available evidence (e.g. is it clear cut, is it contested, does it come from a reputable institution, is it based on robust methods?)</li> <li>• Format and accessibility (including how quickly and easily research can be translated into an accessible format, how it is communicated)</li> </ul>   |
| Types of decisions being made by boards and the availability of related evidence and data sources | <ul style="list-style-type: none"> <li>• Whether relevant research evidence is available on the topic of interest for decision makers</li> <li>• Availability of other types of evidence (e.g. organisational performance data, policy documents) can impact on whether research evidence is prioritised or not, as can the extent to which research evidence complements or challenges other types of evidence</li> </ul>   |
| Function, structure and composition of board  | <ul style="list-style-type: none"> <li>• How board members understand their role within the organisation</li> <li>• How a board perceives its role in the wider health and/or care system</li> <li>• Format and workload to cover in board meetings</li> <li>• The number, role and skills of board sub-committees</li> <li>• Experience, expertise and professional backgrounds of board members, as well as preferences regarding using research evidence (in relation to other types of evidence or relying on expert judgement and intuition)</li> <li>• Power structures and dynamics within boards</li> <li>• Links with research institutions</li> <li>• The nature and extent of support to the board and its members</li> </ul> |
| External circumstances and events   | <ul style="list-style-type: none"> <li>• Pressures for urgent decision making (e.g. as with COVID-19 pandemic)</li> <li>• Policy influences (e.g. via national guidelines or mandates)</li> <li>• External pressures on the health and care system</li> </ul>  |

### 3.1. The nature of research evidence, its accessibility and its relevance influence its use as well as how effectively it is communicated

Interviewees mentioned several factors related to the nature of research evidence that may influence whether and how it is used by boards. These factors centre on the timeliness and relevance of research evidence, how research evidence is communicated

to boards (particularly regarding relevance and translatability), and the accessibility and robustness of research evidence.

As expected, it is more likely that boards will use research evidence if it is timely and relevant (INT1, INT2, INT3, INT4, INT5, INT7, INT8, INT11, INT12). Interviewees identified some key characteristics of timely and relevant research evidence, including that it is applicable to the board's local context (INT5, INT7, INT9), has a clear (and preferably demonstrated) impact on board-level issues,

and communicates how easily the organisation could implement the research with available resources (INT11).

The slow speed of translation of evidence from research to practice (INT12), and/or poor translatability (with research being out of touch with the 'real-world') can impede its use at the board level (INT2, INT7, INT12). According to an ED with a medical background, many factors influence whether research evidence can be applied in practice, and it is important to know not only the science but also the practicalities involved in translating research to practice. For example, during the COVID-19 pandemic, research evidence around PPE needed to not only consider the scientific evidence, but also logistical constraints around supply chains and the time needed to properly test PPE for good fit in a hospital setting (INT2).

How this translatability of findings, and hence relevance to a board context is communicated to board members, is also key in ensuring that research evidence is used appropriately. In order for board members to see a piece of research evidence as relevant to decision making, it is helpful to have clear and explicit explanations of translatability and relevance in research outputs (INT7, INT9, INT11). As one interviewee stated:

*The element that is missing for me is the translatability. If you go back to the primary research papers, a lot of the conclusions probably aren't succinct enough for a board to use at that level. Just the way that research papers are written, it's not designed to have bits of it taken out... I always say to my team that if you're using research you've got to explain why that's translatable to our system and what it means to us, otherwise it's just seen as an academic endeavour. (INT7)*

The availability of relevant research evidence and whether the research findings are clear cut or contested are also important factors influencing its use. Sometimes relevant and compelling research evidence isn't available to a board: 'My own view would be that in the majority of areas where the board is making decisions, there is not very much research evidence.' (INT3) For some topics, the available research may be equivocal, and several board members reported that there may be bias in the way that research evidence is currently used by boards (INT1, INT2, INT3, INT5, INT13). For instance, where evidence is used to support business cases or proposals, the process is susceptible to bias in that boards may be presented with unbalanced evidence that supports one viewpoint rather than a balanced summary of all relevant evidence.

The format in which research evidence is presented and how it is communicated also influences the extent to which it is used at board level, because this influences accessibility (INT4, INT7, INT8, INT9, INT10, INT11, INT12, INT13). We have discussed some commonly used formats earlier in this report, but even within accessible formats such as summaries and presentations it is important to adapt language and tailor messages to the intended audience (INT8, INT9, INT11, INT13). The need for easily digestible material may also be linked to other challenges experienced by the board, including time pressures, competing priorities, and a lack of research experience (as we discuss in Section 3.3).

The reputation of the institution and authors from which the research evidence stems, the journal in which it is published and the quality of research, may all also influence its use at board level (INT3, INT4, INT11). Some board members may focus on the methodological



rigour of the research (INT2, INT3, INT4), whereas others may focus more on its accessibility and its provenance (INT6, INT7).

We did not find any conclusive evidence on whether some study designs are likely to lead to research having more traction at board levels than others, although interviewees mentioned a variety of different study designs that could be useful. For example, one interviewee mentioned the use of randomised control trials (INT3), stating that these were considered to be powerful research evidence. Another spoke of systematic reviews being more useful than single research projects:

*I can't think of an example where a single piece of research would change practice at a board level – it would need to be multiple pieces of research over time. (INT4)*

### **3.2. The types of decisions being made by boards and the availability of related evidence and data sources will influence the use of research evidence**

Many further information sources, other than research evidence, including organisational performance data, national guidelines, patient experience stories, executive experience and more, may influence board discussions and decisions. Interviewees often mentioned that the extent to which research evidence is and should be consulted depends on the nature of the decisions that are being made at board level. Some decisions were perceived as requiring research evidence to be used, while others may be partially informed by research evidence, but also influenced to a greater degree by other information sources (e.g. internal performance data, benchmarking data), guidelines and regulations, and logistical or operational constraints.

For many decisions, these other types of influences may be perceived as more important and appropriate than research evidence, and therefore take precedence in a board's considerations (INT4, INT7, INT8, INT9, INT11). This may particularly be the case when there is a lack of time to consider all different types of relevant evidence, or where the insights from different types of evidence don't easily reconcile. As understanding operational and performance data is important to a board's oversight function, board members may often prioritise these data, without considering how other evidence sources may also influence performance:

*I think a lot of the time people are so focused on the operational performance element, that that's what drives the conversation. (INT7)*

National guidance is another key influence on board-level decision making, (INT4, INT8, INT11) and influences how research evidence is used. The COVID-19 pandemic brought this into particular focus. National guidance should be informed by research evidence but is also informed by other considerations such as logistical constraints, considerations around resources and the need to respond rapidly in times of intense pressure on the health system. During the pandemic, some board members reported that there was a sense of doubt among some clinicians and staff around the evidence base of national guidance regarding PPE (INT2, INT6, INT7, INT11), which was also driven by a lack of reliable supply to allow all sites of care to employ the most evidence-based procedures for PPE (e.g. by planning ahead for fit testing). One interviewee explained that 'the real-world situation of the time would not allow one to implement national best practice guidelines' (INT2). Boards followed national guidance on PPE, but at times this contributed to conflicting messages and confusion where clinicians and staff perceived

guidelines as insufficiently informed by research evidence:

*We would think extremely carefully before doing anything that wasn't in line with government, department of health, and so on guidance for several reasons. Firstly, it's hazardous in terms of staff morale if they are getting conflicting messages, and there are already major conflicting messages about PPE. We thought that adding to those messages and adding to the confusion would be profoundly unhelpful.*  
(INT3)

Similarly, interviewees referred to instances where they felt it would be inappropriate for the board to consult research evidence, such as clinical decisions where clinicians will have a more complete understanding of relevant research evidence (INT3, INT12). In such scenarios, a feedback loop is needed that gives boards assurance that clinicians are appropriately using the research evidence. This raises a need to better understand how clinicians ensure upward accountability to the board in relation to making decisions based on robust evidence, while also maintaining appropriate autonomy.

### **3.3. A board's function, structure and composition may influence its use of research evidence**

A particular board's use of research evidence depends on the individuals sitting on that board, along with other contextual factors such as the role of the board within the organisation, and the place of the organisation within the wider health and care system. This section explores influences that relate to the board's function, structure and composition, spanning how the type of organisation (e.g. NHS Trust, STP) influences the role of the board, and the competencies and backgrounds of individual board members,

who may often be board members of more than one organisation, for example, both an NHS Trust and an STP. These factors are often overlapping and difficult to disentangle. However, our scoping study insights suggest that there is a role for all board members to play in consulting research evidence, regardless of their expertise or background.

The types of individuals on boards may also play a role in their propensity to engage with research evidence (INT1, INT5, INT8, INT11). For example, some STPs do not have any NEDs, as NHS Trusts are required to have, and this difference may also contribute to the focus of the board varying between organisations (see also paragraph below in this section on role of NEDs within boards). Similarly, the mix of clinical and non-clinical representation may play a role (INT1, INT8, INT10). Individual perceptions of their roles on the board may also play a part in the use of research evidence. For instance, a board's role includes high-level organisational planning, such as maintaining financial wellbeing within the organisation, managing bed capacity and addressing health and safety issues (INT5). These functions are such that some board members may be more inclined to use operational data, hospital performance data and benchmarking data rather than to seek out research evidence on organisational management issues (INT3, INT8). Some board members do not see a clear requirement for them to directly use research evidence (INT1, INT4, INT5, INT8, INT9, INT11, INT14). The extent of reliance on other types of information besides research evidence is probably due to a range of factors, including a potential lack of evidence in key areas of board decision making and individual and collective preferences and behaviours at the board level, although it is currently unclear the degree to which different factors contribute.

Some interviewees mentioned that board members often make decisions based on

past experiences and knowledge but also sometimes based on intuition, which can either supplement or take the place of research evidence in decision making (INT1, INT5, INT9, INT16). As illustrated by an interviewee:

*This comes down to... a slightly deeper question... which is exactly how do humans make decisions? I see this in clinical practice but also particularly in board meetings. Most people take decisions on an intuitive basis. (INT1)*

The structure of board meetings also influences how research evidence is used. Several interviewees highlighted that the structure of board meetings may not be conducive to engaging with research evidence, particularly because agendas at meetings are full and structured to cover other issues, with little time to spare (INT4, INT5, INT10, INT11). Time pressures both during and outside meetings reduce the likelihood that research evidence (especially primary research sources) will be discussed (INT4, INT5), particularly for individuals who sit on multiple boards (INT10). Reading multiple primary research studies can also be 'unmanageable' (INT3) and the 'enormous amount of information' (INT4) that board members have to assimilate is an obstacle to engaging with research evidence. As illustrated by a board member we spoke to: 'You have a number of statutory responsibilities so a lot of your time for the meeting is pre-committed.' (INT11)

Specific types of boards may also face distinct challenges in using research evidence. For example, as a local partnership rather than a statutory organisation, STP boards' primary focus is often about integrated and partnership working, financial arrangements, and the need to balance the competing priorities of different members and sectors in a way that is 'diplomatic' (INT6, INT9). This focus of STP boards may leave less space for the use of research evidence, given their other priorities

of enhancing partnership working between organisations and financial arrangements:

*On, for instance, an STP board, ... I would say that most of the decisions that are taken there do not necessarily require an evidence base, so in that case the evidence is not pursued. (INT1)*

There are also wider organisational factors that influence how boards engage with research evidence. Of the organisations included in this study, a few interviewees reported that those with closer connections to research institutes used research evidence more and faced fewer barriers in using research evidence (INT2, INT5, INT8). An interviewee from a Trust board with close links to a research institute stated that education and research are 'intimately intertwined' with the Trust, contributing to a culture where the use of research evidence is encouraged at the board level (INT5). An interviewee from a Trust board described how involvement in research, staff fellowship schemes, participation in clinical and COVID-19 related trials, and having an active R&D department represented indicators of board stewardship for generating research evidence (INT16). Another commented: 'We're very lucky where we're placed... academics bring evidence to our attention if they think we need it.' (INT8)

Assurances that board governance was informed by the 'best available research evidence' were also seen by one interviewee to be connected to the 'academic profile' of boards. The appointment of NEDs who were academic professors, collaborations with universities, involvement in professorial appointments, involvement with the National Institute for Health Research (NIHR), and connections with local university medical and health professional training were cited as indicators for a research active board (INT16). As illustrated by one interviewee: 'Since adding academic non execs [NEDs] the quality of the discussion has gone up' (INT16). However, one

interviewee also commented that boards of other organisations with fewer ties to research institutes could also achieve a similar culture of using research evidence: 'It doesn't take being an academic organisation to do what we do... I think it takes asking the right questions [about the evidence base]' (INT8).

Alongside these influences, there are also factors related to board composition and the relationship between board members within the same board that influence how research evidence is used and consulted. For example, having an advocate for research on the board, or someone with experience that sees it as their role on the board to engage with research evidence, increases the use of research evidence on boards (INT1, INT5, INT8, INT11). For instance, a NED with extensive research experience described his role as a 'vehicle for tying together the hospital and research institute' to keep them informed and educated (INT5). One interviewee described their aim to 'encourage research literacy and the use of evidence' in the board (INT5), and this view was echoed by another individual we consulted (INT8).

A board member's background – in particular, whether they have worked as an academic or a clinician – may also influence their perception of the trustworthiness and the value of research evidence, and their preference as to which evidence sources are used for decision making. Although speculative, one interviewee felt that board members (particularly from the private sector, or those with a background in areas such as human resources or finance) may be more likely to want board-level decisions to be made based on internal organisational performance data (INT8). More generally, board members with a lack of expertise or confidence in using, interpreting and communicating research evidence, may be less likely to engage with it (INT1, INT2, INT4, INT7, INT8, INT9, INT10, INT11, INT13) or see it

as part of their role (INT4, INT9, INT10). As an ED from a hospital board commented, 'we can't be experts on everything' (INT4).

Although variety in expertise and experience is likely to matter, the findings from this scoping research suggest that all board members can play a role in facilitating the use of research evidence by boards. Interviewees pointed to the importance of having board members who can challenge any biased presentation of research evidence, and who will ask the right questions to help board members understand the evidence, regardless of their area of expertise (INT2, INT5, INT6, INT7). This may be, for instance, by NEDs asking difficult questions and challenging evidence and propositions regardless of their particular area of expertise. One interviewee explained the importance of both previous experience and an enquiring mind on boards:

*It is enquiring on what is the thinking on X and Y, or what is the best way to do Z, and is always appreciative of picking up tips, learning or experience from other places. There's both a composition by way of experience and an attitude point about the board generally. Because obviously if neither of those two factors are in place, if you haven't got the right people who can quite appreciate stuff or you haven't got people with the right enquiring mind, even if you give them lots of research and evidence, it might not really optimise.* (INT6)

Power structures and hierarchies within the board may also influence how boards use research evidence and which members engage with it (INT1, INT2, INT6, INT10), such that if powerful and influential individuals engage with research evidence, others on the board may also be more inclined to do so. For example, a NED felt that clinical board members may be more trusted to make evidence-based decisions based on research than non-clinical ones who

may not have a high degree of training in using research (INT3). Such concerns may influence the extent to which NEDs and individuals without clinical experience feel comfortable in engaging with or challenge research evidence during board meetings.

Wider questions were raised about whether boards' fiduciary role was still relevant and meaningful within the current COVID-19 governance arrangements and how this may influence engagement with research evidence (INT15, INT16):

*I actually think since March I haven't got a board any more, the board has gone... we haven't met since March, we do Teams board meetings, but there isn't the same interaction; it's just completely different. I might have a discussion with the Chairman... I might not... I might just get on and do it... because throughout all of this the biggest thing we have had to do is grab equipment and grab PPE when it became available and you didn't ask too many questions, you just got on with it. (INT16).*

Tensions were also expressed about how the move to incident command and control structures and the displacement of conventional structures meant that NEDs had raised concerns 'that they may not be as assured as they might usually be' (INT15).

### **3.4. External circumstances and events also play a role: learning about engagement with research evidence during COVID-19**

Given the timing of our fieldwork, we also asked several questions about the use of research evidence in responding to COVID-19. Along with providing insight into how boards operated during COVID-19, this has also provided an interesting perspective into how boards balance research evidence and other

competing priorities during times of pressure and emergency within the health and care system, and how external influences impact on boards using research evidence. The pandemic is an interesting lens through which to consider the use of research evidence by boards, because boards were forced to make decisions quickly in a fast-changing environment.

The emergency nature of decisions being made during the pandemic meant that there was little evidence available in some areas where boards made decisions, and that some decisions were made swiftly and pragmatically rather than slowing down to consult research evidence (INT1, INT3, INT4, INT6, INT7, INT11). Key bodies, including Public Health England and NHS England and NHS Improvement, issued central guidance for NHS bodies on various aspects of response to COVID-19, such as the use of personal protective equipment (PPE). According to many interviewees, NHS Trusts were obliged to follow this national guidance and were limited by the supply of PPE available within their Trusts, and therefore most did not actively seek out research evidence on PPE during the pandemic (INT1, INT3, INT5, INT6, INT8, INT10, INT11, INT13, INT16). One interviewee reported that, regarding PPE: 'We were given what we were given. There was no decision making on that' (INT 8).

Interviewees were also asked about whether boards had consulted research evidence to inform decisions about remote consultations and remote monitoring of patients during the pandemic. Some organisations reportedly consulted such research evidence, although this was often not specific to COVID-19 and built on previous actions that boards had already taken to move towards telemedicine prior to the pandemic (INT2, INT13).

One interviewee described the move to telemedicine as 'an immediate, operational one... implemented overnight rather than in a calm and considered way' (INT4).

Outside of the PPE and remote consultation and remote monitoring contexts, interviewees also described using research evidence for other COVID-19 related decisions. One example includes a board facilitating contact with infectious disease experts to help ensure that measures taken by the Trust were properly designed and based on available research (INT 6). Another board member described setting up a clinical COVID-19 committee in order to evaluate and undertake research that would be escalated to senior officials in a streamlined manner (INT15). The sub-committee was perceived to be beneficial for patients, for clinicians galvanised by the rapid translation of research evidence, and for the board to make more informed responsive decisions. The interviewee explained: 'So drugs like x... because we have a live trial of it we decided not to use. It only worked in a trial setting... so patients got a very rapid defence line' (INT15).

Concrete examples from interviewees of decisions that had been informed by research evidence were largely lacking at the board level. Rather than boards, some focused on how the COVID-19 response would draw on a range of evidence and intelligence gathered from national and international clinical networks. Intensive care was cited as an example of the rapid learning that was required about how best to treat patients. As illustrated by one interviewee: 'A lot of info and intelligence was exchanged within the clinical communities... Whether it's WhatsApp, whether it's the medical journal, or other information. I know whether it's in London or the Midlands they would be actively in touch with their peers in healthcare systems' (INT14).



4

How can the use of research evidence by boards be improved?

We identified some suggestions on how to improve the use of research evidence by boards. These suggestions relate to: (1) how the nature of research evidence itself can be improved, (2) the communication of research evidence to boards, (3) board members' skills and capabilities related to using research evidence, and (4) how board processes for using research evidence can be clarified and improved. It is important to flag that these represent the views of individuals we interviewed during our scoping study. These recommendations have not been tested, as it was outside the scope of this work to seek consensus or prioritise suggestions. We also did not study the context of wider improvement research literature.

#### **4.1. Improving the nature of research evidence to make it more usable by boards**

Interviewees recommended a number of ways through which research evidence itself can be made more usable for boards. Although a few practical suggestions were mentioned, one of the strongest messages centred around the need for timely and relevant research evidence that addresses key areas of need.

Many interviewees highlighted the importance of research evidence that takes into account real-world circumstances and draws out implications (INT2, INT4, INT7, INT10, INT11, INT12). Interviewees pointed to the importance of explicitly stating potential limitations to acting on research findings when communicating research outputs. For instance, during the COVID-19 pandemic it was suggested that research evidence around social distancing in hospital settings needed to explicitly consider physical space limitations within hospitals and recognise that implementing social distancing measures could cause harms from delaying or cancelling

non-COVID-19 treatments (INT2). One interviewee also suggested that more closely aligning the priorities of research institutes with the needs of Trust boards might be useful in improving the real-world applicability of research (INT11). Drawing out vignettes of patient stories or implications for patient experience can also be important in making the research understandable to a board (INT7).

Several ways to potentially improve the timeliness of research outputs were also suggested by interviewees, although none have been tested for feasibility (INT1, INT12). For example, interviewees suggested reducing time spent in peer review processes (INT1) and using artificial intelligence to filter through existing research efficiently and to identify relevant research for boards (INT1).

#### **4.2. Improving how research evidence is communicated to boards**

Research evidence may be timely, robust and translatable, but if it is not communicated in a way that clearly conveys this, it is unlikely to be used by boards. Interviewees suggested that one of the most important factors that facilitate boards using research evidence is a clear 'so what?' message that explicitly states why boards should pay attention to a piece of research evidence, along with publishing in accessible formats, as previously discussed in Section 3.1 (INT4, INT5, INT7, INT9, INT10, INT12, INT13). Therefore, either improving researchers' skills in communicating research evidence to boards or using an intermediary to translate the evidence may help improve the extent to which boards engage with a full range of research evidence. Based on the interview findings, it may be useful to provide training to researchers in using presentations, blogs, graphics and stories when communicating research evidence, which may be more



accessible to board members than primary research articles. Using accessible language, avoiding technical terms and jargon, and tailoring messages to the audience are also key in communicating research evidence to most board members (INT1, INT8). One interviewee suggested that it would be useful for researchers to sit in on board meetings (or their sub-committees) to help understand the needs of board members and how they use and digest evidence (INT11), but the wider scale acceptability and feasibility of such an approach has not been tested.

One interviewee also mentioned that research outputs with a long list of potential implications of research on decision making are less useful than shorter suggestions that are targeted towards particular actors and take into account real-world limitations (INT10). Others suggested a greater role for knowledge broker organisations and agencies that were established to support the translation of healthcare research into practice (INT14, INT17). Such research translation organisations could focus on synthesising research and making it more accessible to lay readers.

### **4.3. Improving board members' confidence and skill in using research evidence**

Boards, as mentioned above, are made up of individuals with varying levels of comfort, experience and expertise in using research evidence. Although not all board members will be experts in using research evidence, they can be supported by information from a wide range of sources, including public health consultants, local research departments and information services to ask the right questions to ensure that boards use research evidence appropriately.

Many interviewees identified the need to improve board members' skills in interpreting and discussing research evidence, and

particularly in critiquing and challenging research findings (INT2, INT5, INT7, INT9). Board seminars and development sessions can be important in this regard. Training on how to assess research quality, and on the critical interpretation and use of research evidence could potentially improve board members' research literacy and confidence. Doing so would help to mitigate against the risk of selectively using research evidence where it is convenient or where it supports a proposal being presented to a board. A clinical chair suggested that part of board development training should be about how to ask questions of those who understand research to ensure that what they are saying is right: *'You're not going to be able to create research training for all the people on boards at a level where they could do it, but they should be able to challenge it and to feel empowered to go back to the researchers and say actually, that sounds like a load of academic guff, what does that mean for people?'* (INT7)

### **4.4. Improving and clarifying processes for using research evidence**

There are several ways to help get relevant research evidence to board members, and to ensure that boards are configured in a way that allows them to appropriately use research evidence. A more active 'push' of relevant research evidence to boards could potentially help members who do not have time to seek out and sort through research evidence themselves (INT2, INT7). This active 'push' of evidence to the board may occur through designated board members (INT1, INT5, INT8), whose role is to bring research evidence to the board or by consulting external parties to identify relevant research evidence (INT3, INT9). Increasing clarity around the roles and responsibilities of other board members in terms of the use of research evidence was

also mentioned (INT1, INT5, INT10). Some interviewees also suggested that having sub-groups or committees that sit under the board and review research evidence in their areas of expertise can help save valuable time during board meetings and can make the best use of expertise on the board. Interviewees reported that these sub-committees are likely to be better set up to review research evidence, in terms of expectations of the board members, and their research literacy, or capability to engage with research evidence (INT9, INT13).

Lastly, changing the structure of board meetings could also potentially help research evidence to become a core part of how boards operate. Board meetings are necessarily structured and formal, and board members already have a large number of papers and standard agenda items, which may limit the time and capacity available to consult research evidence (INT1, INT12). For example, research evidence might become 'business as usual' if it were included as a standing item on the board's agenda (INT7, INT9), although it is unclear whether there would be a desire to change board processes in this way.

#### 4.5. Evidence needs in response to COVID-19

In discussing the use of research evidence, interviewees identified a number of areas where future research might be helpful in making decisions at a board level. To a large degree, these suggestions focused on what evidence might be needed as the NHS and health system continue to battle the COVID-19 pandemic, and potential research needs as they return to a 'new normal'.

Many interviewees mentioned a need for research evidence that helps organisations understand how to balance COVID-19 and non-COVID-19 risks (INT1, INT2, INT6, INT7, INT10). For example, interviewees highlighted the need

to understand the impact of COVID-19 related delays to non-urgent and elective care (INT10) and to cancer care specifically (INT7), as well as the impact of decreased hospital capacity that has occurred due to the need to maintain a social distance of two metres between individuals (INT6). Interviewees mentioned that this kind of research evidence around the true impact of COVID-19 can help them undertake risk assessments and plan both regular and pandemic-related services.

*The danger is that we are so worried about COVID, that in trying to prevent one death in COVID, we end up killing three people by delaying their treatment for cancer, for example... everyone is so worried about COVID that nobody is really doing the proper work on what are the checks and balances. (INT2)*

A need to better understand the impacts and unintended consequences of telemedicine and virtual consultations was also identified (INT4, INT5, INT7, INT8, INT9, INT10, INT11, INT13). In particular, some interviewees emphasised the importance of understanding the impact of remote consultations and telemedicine on different populations to help understand potential inequalities perpetuated by their use (INT7, INT8, INT13). It would also be helpful to understand their costs, benefits and cost effectiveness as compared with face-to-face care, to inform how care may be provided during and after the pandemic (INT8, INT10, INT11). An interviewee on a mental health Trust board provided a pertinent example of potential negative impacts of remote mental health care if an adolescent patient being assessed were to be influenced by an off-screen family member (INT8), and another provided an example of where research evidence on health inequalities and telemedicine would be useful:

*One of the things that has really come to the fore during COVID is that giving everybody the same access to the same*

*treatment doesn't give you the same outcome. What we're trying to use the population health database to do is to identify those people that need something a bit different in order to give them a better chance at getting the same outcome as everybody else. (INT13)*

Some interviewees also identified the need for more research evidence on topics relating to population health (INT5), such as those related to inequalities in mental health during the pandemic and more widely (INT5, INT12), public health analyses and research on public health topics such as the need for an increased focus on prevention in the community rather than on the acute sector (INT9).

Interviewees also mentioned the need for more research evidence around the impact of changed working patterns during COVID-19 (INT7) and on the long-term impacts of COVID-19 on cognition and mental health (INT5, INT12). Understanding the long-term mental health impacts, according to a few interviewees, could help mental health Trusts get ready for population health needs in the future (INT5, INT12).

*One aspect of all of this is seeking to understand what the actual effect on mental health of the community is as a result of COVID, in order to help plan future capacity. We are sort of witnessing some signs of increased demand, and everyone works on the assumption that there will be a psychological fall out from this but it's impossible to predict precisely how significant that will be. There's lots of evidence from previous recessions and lots of evidence from previous pandemics of a psychological impact, and here we've got a pandemic and a recession that are very much interlinked, so it's clear what's coming down the track but a greater understanding of that would be helpful...*

*at the moment it's hard to plan for what is likely to happen. (INT12)*

Given the ethical dilemmas raised by COVID-19, a suggestion was made for research evidence to support board decision making around priority setting and quality of life measures (INT16). An interviewee discussed how COVID-19 represented an opportunity to reassess how care is provided, rather than just returning to pre-pandemic care:

*If we just chase back to where we were, we've lost a whole host of potential advantages of having a six-month experiment of being able to work in a completely different way, which may be hiding some issues but actually has afforded some massive opportunities that if we can support with evidence, we should be pushing really hard to maintain. (INT7)*



5

Reflections

In this section, we offer the research team's reflections on the insights gained from this scoping study and on their implications for further work on this topic. Boards have essential roles in the running of health and care organisations as they have a duty to ensure the provision of safe and effective services, and that public money is spent efficiently and effectively. Effective boards demonstrate leadership by undertaking three key roles: formulating strategy; ensuring accountability by holding the organisation to account for delivering the strategy; and shaping a positive culture for the board and the organisation.[2]

While the literature on aspects of board structure, competency and function and on evidence-based decision making continues to expand, there is comparatively little robust evidence on how health and care boards engage with *research* evidence specifically in executing their roles. There is a pressing need to develop practical research evidence that supports boards in their decision making, oversight and accountability functions. This scoping study sheds light on an under-researched area with important potential implications for the performance of health and care organisations and the quality of care that patients receive.

### **5.1. The diversity in individual perceptions of boards' use of research evidence is striking, and there is a need to strengthen the evidence base on current practices through larger scale research**

In reflecting on our findings, we were most struck by the diversity of views on the extent to which board members use research evidence and the evidence needs of particular boards. This diversity was evident both within individual boards (i.e. among different members) and to

a lesser extent across boards (i.e. Trust board members versus STP/ICS board members).

We did not observe any clear patterns in differences of views related to the use of research evidence between different roles on a board (e.g. NEDs and EDs, clinical and managerial roles); however, our sample size was relatively small. Further exploration to understand whether and how different board features related to their structure, composition, size and culture may play a role in the extent to which boards engage with research evidence is needed. Gaining a better understanding of these influences would require a larger scale study of boards with different features and could also benefit from triangulation of lessons learnt against the wider and abundant literature on evidence-based decision making in health and care, including studies that explicitly consider different types of evidence and information.[14, 15].

## **5.2. Future research on boards' use of research evidence should look at how board roles and relationships influence the extent to which research evidence is used**

### **5.2.1. Roles on boards and the culture of interaction**

The diversity of views that we gained through our scoping study on the extent to which research evidence is used by boards may in part relate to the differing roles of individuals on boards and on how different roles interact within a board culture. Within the board, the roles of individual members differ. Some functions may be more likely than others to require research evidence, or indeed other types of knowledge and information, to execute their roles. However, based on the insights we have gained it appears that boards tend towards consulting research evidence

relatively opportunistically, and when needed, rather than having a systematic approach to embedding engagement with research evidence into decision making. The urgency of many board meetings, full agendas and the times between meetings, may also impede thorough engagement and examination of research evidence.

Our findings about how and where research evidence is used by board members resonates with Nicolini and colleagues' study of how NHS Chief Executive Officers (CEOs) make decisions and mobilise knowledge and information within their activities.[3] CEOs are viewed as individuals who make themselves knowledgeable about specific issues through different types and combinations of practices, activities and sources. This is not to say that CEOs do not ever seek information for a specific purpose. However, Nicolini and colleagues flag that CEOs often access the knowledge and information they need through mundane monitoring (i.e. as part of being present and through everyday monitoring practices) or through occasioned monitoring (i.e. prompted by particular events and experiences). They translate different types of information and knowledge into narratives that themselves evolve with time. They often make sense of knowledge and information dialogically, through face-to-face, email or phone conversations and interactions with others, usually selected members of executive teams who form an 'inner conversational circle'.[3]

Such insights about CEOs' use of information not only resonate with the findings from our interviews (in terms of how different board members access evidence) but also provide useful learning about approaches to knowledge mobilisation at senior leadership levels in the NHS more broadly (i.e. in the context of diverse types of knowledge). They also support findings from other fields regarding the limits

of direct and instrumental systematic research and the importance of diffusion exercised in more subtle ways than 'utilisation'.[16] Given the calls for greater understanding of how power and leadership can influence the use of evidence within political and social contexts,[17] our findings provide important insights into how the composition of boards and the culture of interaction within boards influences their ability and practices in relation to the use of research evidence.

### 5.2.2. Board structure and size

Evidence regarding high performing health and care boards stresses the importance of having a balance of executive and non-executive directors so that power does not reside disproportionately in a small number of individuals.[2] Such a composition is mandatory for NHS Trusts, but not currently for STP boards since these are partnerships, not statutory organisations. Indeed, many STP boards do not currently have NEDs. Such power dynamics between EDs and NEDs, or indeed potentially between clinical and managerial and finance role representation on a board, can influence a board's culture, including potentially in relation to attitudes and practices related to the use of research evidence. We also saw several examples of boards where specific additional structures or roles had been implemented that might be conducive to consideration of research evidence. For example, boards generally also have various sub-committees providing additional support, and these often include, for example, a quality committee, and an audit and risk committee.[2]

Across our interviewees, there seemed to be a general recognition that boards could improve the extent to which they engage with and are sensitised to research evidence. However, there also seemed to be a diversity of views as to whether boards are necessarily the 'right place'

within organisational structures to embed more systematic and direct engagement with research evidence. Board sub-committees and other channels within organisations may allow research evidence to feed into wider board level functions. Organisational medical directorates, alongside board sub-committees for quality improvement, for example, can also be channels through which research feeds into organisational practices, and then the question becomes one of ensuring appropriate feedback loops between these structures and the main board. The relationship between the main board and its sub-committees, including their consideration of research evidence and how this is fed back into decision making, may be an area for further research. There are questions also as to whether capabilities and capacity for engagement with research evidence needs to be built across an entire board, or within specific sub-committees of the board, to complement the capabilities in other organisational structures.

In some boards, interviewees highlighted particular roles taken on by individual board members to raise awareness and to champion the use of research evidence. While clinical representation on NHS boards has often been limited to a minority of board members,[18] our findings highlighted the importance of clinical leadership in championing particular research evidence. It would be valuable in future research to understand how the clinical background of a board member influences their views on which types of research evidence are considered most useful for a board, (as well as the relative importance of research evidence versus other types of evidence). We heard views from some interviewees that NHS organisations with strong links to research institutions were more likely to be able to access research evidence during board meetings. However, we did not come across any literature that looked at

how board priorities or links with research institutions influence their engagement with research evidence.

Similarly, there remain questions as to whether boards' systematic engagement with research evidence may be more appropriate for research evidence related to quality improvement activities, service design and organisational management decisions that span clinical areas, rather than clinical research evidence and decision making matters that may be covered by various medical directorates. There is a growing interest in research circles in the role of boards and senior organisational leaders in care quality and safety, and some evidence, based on large-scale, mixed-methods research, to suggest that NHS boards spend significant amounts of time discussing quality and safety-related issues.[5, 19] The crucial role of boards in this regard is highlighted by cases of serious hospital failings, such as at Mid Staffordshire.[6, 20-23] There is a need for further work to better understand how research evidence and engagement with it can support boards in delivering on quality of care aims.

In all the above aspects, there is scope for further research to understand whether a consistent and systematic strategy for using research evidence in boards would be desirable. Such research could also look at the feasibility of such a strategy, in light of the heterogeneity of decisions that boards make (as they relate to clinical, operational and health service design matters) and in light of the variety of influences on board level decision making (e.g. including also organisational intelligence and data from service evaluations, policy influences, intuition and other factors). It could also seek insights into how a board's requirements for research evidence may vary according to the organisation's performance.

All of these areas outlined above represent topics for further enquiry in a future research agenda and merit further investigation

across a larger sample, and with a design that deliberately controls for including boards with different characteristics in the sample, potentially through a survey and larger scale interview approach.

### 5.2.3. Moving from perceptions to collective sense-making

Many of the questions explored in this scoping research are based on stakeholder perceptions of the degree to which their board uses research evidence. In turn, these perceptions may be related to individual skill-sets, interests, experiences and expectations as much as to factual recollections of evidence use. To move from perception to verified fact would require studies that can facilitate collective discussion about the topic of interest (e.g. through focus groups or workshops with a board) to establish a way of collective sense-making and addressing potential information asymmetries or differences in awareness about how research may (or may not) feed into board level decision making. Whereas this scoping project has provided a useful snapshot of the issues that require further investigation, it has also highlighted a need for future larger scale and mixed method research.

## 5.3. Considering scope for improvement: targeting the nature of research supplied to boards and board capabilities to engage with research

Notwithstanding the diversity in perceptions of research use and on the extent to which it should be an explicit and routinely embedded aspect of board function across individuals we consulted, there was a common message throughout our work related to scope for improvement in terms of how boards overall are sensitised to research evidence and supported by it in executing their function

-- be that through directly consulting research, or indirectly, through intermediaries and via sub-committees who provide a feedback loop to allow a board to stay in touch with research developments and to ensure these are considered in decision making. To achieve these improvements requires considering both how research can be made more usable and accessible, and how boards can build capabilities and capacities to consume it. Improvements are needed on both the research supply and translation end, and on the appetite from boards to consider research.

### 5.3.1. Research translation and accessibility

In terms of making research more accessible for use at board level, there are questions related to both how research relevance is communicated in formal outputs such as journal publications, and to how it is translated and disseminated to a target audience (e.g. through other media, aside from journal publications such as summaries of evidence, presentations, etc.). The research community needs to be sensitised to present research in a way that is easy to digest and can clearly convey information to target audiences. There was a strong appetite among board members we consulted to engage with the research through simpler and more accessible formats. Understanding what makes research evidence accessible to boards is especially important if the most relevant research is to reach boards, rather than evidence from organisations with the strongest communications teams.

A second concern we discussed earlier in this report related to demonstrating relevance to a board's specific circumstances and context, but this can be challenging given that target audiences themselves can be numerous, with diverse interests and needs. The wider literature on research translation and evidence-based decision making may have lessons to



offer in this regard.[24] A relevant example is an effort by Andersen and colleagues to translate research evidence from an ethnographic study of Quality Improvement (QI) activity in hospitals in five European countries (i.e. the QUASER study) into a user-friendly guide that can be used by senior hospital leaders to help diagnose organisational strengths and weaknesses in relation to QI challenges. Andersen et al. discuss how the findings of the QUASER study were translated into a guide through a series of stakeholder workshops and work by researchers from participating countries.[19]

In terms of the board itself, some interviewees gave examples of specific roles and brokers in charge of embedding research engagement in the agenda of board meetings more formally. A research champion will likely raise the visibility of research evidence, although there may also be implications in terms of the board retaining overall responsibility. A research champion may also bring conscious or unconscious bias in the choice of evidence presented, so appropriate challenge from other board members would be important.

As part of a capacity- and capability-building agenda, there may also be scope for establishing frameworks for boards to support engagement with research evidence. General frameworks could help boards identify and assess whether they have the requisite skills, processes, roles, systems and infrastructures in place to support effective engagement with research evidence. Various tools for assessing board performance have been developed over time with the Board Self-Assessment Questionnaire (BSAQ) being the most prominent.[25] This tool assesses board performance along the following dimensions: *contextual* (referring to board awareness

and taking account of organisational culture, values and norms); *educational* (referring to taking necessary steps to be well informed about the organisation and the board's roles, responsibilities and performance); *interpersonal* (referring to nurturing the development of the board as a collective group); *analytical* (referring to board competencies in drawing on multiple perspectives to understand complex issues and ensure appropriate responses); *political* (i.e. the board's performance in terms of maintaining relationships with key stakeholders); and *strategic* (referring to the board's ability to help shape and envisage direction and a strategic approach to the organisation's future). There may be scope for considering how research readiness could be accounted for in these dimensions. In addition, there may be the opportunity for frameworks to support board level decision making on specific priority areas (e.g. types of research evidence that may be relevant to consult in a specific area such as infection control or remote consultations).

There may also be the possibility to explore the potential for a repository of synthesised and translated evidence relevant to board level decision making priorities at regional or national levels (akin to the NIHR Evidence Dissemination Centre).[26] Any such repository would need to focus on a set of shared national or regional priorities to be feasible in scope and scale and could potentially be established with the existing national evidence infrastructure. This scoping study did not draw firm conclusions about the types of research evidence preferred by boards (quantitative versus qualitative; health services research versus organisational and management research, etc.) but future research to understand this would also help to

make any such repository of maximum utility to boards.

As we discussed earlier in this report, interviewees reported that research evidence reaches board members both from diverse sources and in different formats. While there were some examples of board members directly seeking out research papers (or their authors), it seemed more common for evidence to be received through other routes such as via guidance documents provided to the board or in conversation with clinicians, or as part of business cases). Boards often seem to delegate consideration of research evidence to sub-committees or others in their organisations who would then convey insights to the board. Understanding how sub-committees and other trusted advisers use research evidence and feed it back into board decision making would be a valuable topic for further research in this area.

#### **5.4. Understanding the use of research evidence in the context of wider influences on decision making and sense-making**

The influences on the use of research evidence by boards reinforce the need for any improvement efforts to consider the nature of research outputs, as well as the nature of boards. In addition to the formats of research that matters, the timeliness, relevance and robustness of research evidence also play a role in the extent to which boards engage with it. In the context of relevance, it is important to consider not only the relevance of the topic being researched for decisions boards may need to make, but also the relevance of the findings in terms of informing *feasible* implementation of research findings in real-world implementation settings. It remains unclear how board members currently engage with research priority setting, and where they

sit in the discussions that take place between Trust representatives and collaborating research institutions, and how they feed into shaping a research agenda.

It is clear that engagement with research evidence can only ever be one part of the process of board level decision making and sense-making. Other vital factors such as organisational data and intelligence, policy developments and mandates, experiential knowledge, patient stories, pragmatic considerations related to time, skills and priorities, population expectations, guidance from national bodies and the intuitive nature of decision making behaviours will all play a role in board decisions. This was particularly evident in the insights individuals communicated in relation to decision making in response to COVID as part of our study. For example, most interviewees reported that their board had used Public Health England's guidance on the use of personal protective equipment (PPE) rather than seeking research evidence themselves. Similarly, pragmatic considerations about infection control and service delivery were a major driver in Trusts' increases in the use of remote appointments during the pandemic, particularly to replace outpatient appointments.

Others too have looked at the role of some of these alternative sources such as organisational data and intelligence in decision making. As part of a wider review of the literature and guidance on what makes for healthy NHS boards, Ramsay and colleagues discuss the important roles boards have in both shaping and using intelligence. [2] Intelligence is considered in the context of organisational performance information (e.g. financial, efficiency, workforce, patient experience, clinical quality, access and target-related) and local population health needs (and what drives them). Related to organisational performance information, several studies also

consider the use of organisational performance metrics.[5-7] Mannion and colleagues (2016) discuss how hospital boards use a wide range of hard performance metrics (e.g. on clinical outcomes, infection rates, process measures, readmission rates, medication errors) and soft intelligence (e.g. from discussions with clinicians, walkabouts, patient stories) to monitor organisational patient safety performance.[5] Millar and colleagues (2015) also point out how diverse types of intelligence can improve performance and understanding by allowing for 'triangulating different versions of organisational reality' (pp. 6–12).[6] However, as is the case with the study by Nicolini and colleagues,[3] this body of literature does not focus on the use of research evidence specifically.

Given the complexity of decision making behaviours, any efforts to embed research engagement more prominently into board functions need to be sensitive to the nexus of other factors influencing board level decision making. Such efforts also need to consider how evidence from research can be brought to bear on decisions in a user-friendly, timely and pragmatic way. The experience of COVID-19

raises a number of pertinent points in this regard. For example, it would be important to understand how boards interact with other governance arrangements established in response to the pandemic and the impact this has on current and future practices related to engagement with research. A greater understanding of how health and care boards compare with other types of social purpose boards or indeed with for-profit boards in terms of a propensity to use research would also be a worthwhile question for a future research agenda, including in the context of learning from other sectors.

Our findings provide a range of insights into the role of research evidence within current NHS board practices. In doing so, this scoping study identifies areas for further research and development to better understand the needs of boards. The review also raises important considerations regarding the nature of research evidence and how its development and dissemination can be better translated into supporting the delivery of high-quality care. We hope these findings and recommendations can support such a future research agenda.

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## Annex A. Interview protocol for board members

### A.1. General questions

1. What has been your experience of engaging with research evidence? Has this been helpful in fulfilling your board-level role?
2. What types of research evidence do you tend to consult? (For example, do you tend to consult research on issues of clinical effectiveness, cost-effectiveness, design of healthcare services, management literature)?
3. Where do you get this evidence from – from what sources and in what formats?
4. Could you give us a flavour of day to day dynamics and governance in terms of who on the board engages with research evidence (which functions)? And where and how does this happen?
5. Do you think that there are any notable strengths or limitations with the approach taken by your board in relation to seeking out, accessing, using and acting on research evidence?
6. What has been helpful in your efforts to use research evidence (as it relates to how you go about it or to the nature of the evidence itself? And what has hindered your efforts, what are some of the barriers?

### A.2. Questions relating to COVID-19

1. Has your board engaged with research evidence in the context of informing decisions relating to personal protective equipment (PPE) for staff and how has it done so?
2. Similarly, in the context of informing decisions about remote consultations/ remote monitoring/telehealth in light of COVID-19 – so for example ongoing remote patient monitoring (of people with diabetes, with COPD, pregnant women) and remote consultations: Has your board engaged with research evidence in the context of informing decisions on these issues and how has it done so?
3. Looking beyond just the PPE and telehealth aspects (so at managing the COVID crisis more generally), how far has the situation changed as a result of COVID-19 in terms of how you access and use research evidence to inform areas of decision making?
4. Have there been any types of research evidence (on specific issues), and particular sources and formats, that are important for your board in response to COVID 19? What has been your experience of this?

5. How did the research evidence and other factors interact in your board's decision making in response to COVID-19 and your board's efforts to manage the crisis?
6. Is there anything else that you would like to say about the impact of research evidence on board level decision making in relation to the COVID-19 crisis?

### **A.3. Moving forward towards a 'new normal'**

1. What types, sources and formats of research evidence would be helpful to the board in planning how to return to a 'new normal' for routine care?
2. What might influence your board's ability to engage with research evidence? Any recommendations on how to facilitate this?
3. Is there anything else it would be useful to discuss? Any other final remarks?