Research utilisation and knowledge mobilisation by healthcare managers
Research Brief (REF: KM259): CALL FOR PROPOSALS
Funded by the NIHR in England and WORD in Wales

1. Introduction

The National Institute for Health Research (NIHR) Service Delivery and Organisation programme (SDO) wishes to commission research on research utilisation and knowledge mobilisation by healthcare managers. The intention of this call is:

- To add to the evidence base on research utilisation and knowledge mobilisation by healthcare managers (both clinical and non-clinical);
- To improve the effectiveness of managerial behaviour and decision-making through better use of relevant research (in combination with other forms of knowledge);
- To explore any linkages between better use of research (alongside other forms of knowledge) and improved organisational performance (broadly defined, to encompass both the quality of clinical services and the achievement of wider organisational performance objectives);
- To promote increased involvement between the academic community of researchers and the practice community of healthcare managers and the development of links between academic institutions and NHS organisations in this area.

Our focus is on managers' use of research, and on how research interacts with other forms of knowledge within the organisational contexts in which managers work. This relates to managers' own decision-making and to the ways in which managers support and encourage the use of research (including the implementation of clinical research evidence) by others in the organisation.

By 'managers', we are including clinician and non-clinician managers and are referring here to the full range of managers and managerial activity in the health service, including, on the provider side, independent treatment centres and other private sector providers. We are interested in managers at all levels (e.g. junior, middle and senior management). We recognise that managers at these different levels have differing roles in relation to the use of research and other forms of knowledge. For example, senior managers may have the closest links to government and policy-making bodies, while middle managers may have more direct responsibility for the implementation of day-to-day operational management decisions and be more directly involved in supporting the uptake of research on clinical effectiveness.

We are also interested in managerial activity outside direct service providers, for example the processes by which commissioning and service managers in PCTs, LHBs and Boards, in private sector commissioning organisations involved in the NHS through the FESC initiative, in SHAs and in related agencies use research and other forms of knowledge to commission and oversee health services.

We have provisionally allocated a budget of up to £2.3 million for this call for proposals. At this stage we are seeking outline project proposals. Shortlisted proposals will be provided with

feedback and full proposals will be sought. We anticipate that a range of projects will then be commissioned.

2. The NIHR SDO programme objectives

The Service Delivery and Organisation programme (SDO) is one of the national research programmes funded by the NHS in England and WORD in Wales and is a constituent programme of the National Institute for Health Research (NIHR).The NIHR SDO programme improves health outcomes for people by:

- Commissioning research and producing research evidence that improves practice in relation to the organisation and delivery of health care, and
- Building research capability and capacity amongst those who manage, organise and deliver services – improving their understanding of the research literature and how to use research evidence.

The primary audience for SDO commissioned research is decision makers in the NHS in England and Wales – particularly managers and leaders in NHS organisations. We focus our research commissioning on topics and areas where we think research evidence can make a significant contribution to improving decision making, and so to improving the organisation and delivery of healthcare to patients.

Further information on the NIHR SDO programme, including a list of past, current and recently commissioned projects, can be found on the SDO website: www.sdo.nihr.ac.uk

Since April 2009, the NIHR SDO programme has been managed by NETSCC, Service Delivery and Organisation - part of the NIHR Evaluation, Trials and Studies Coordinating Centre at the University of Southampton.

3. Background to this call

3.1. The potential for research evidence to improve managerial practice

Management practice was identified by the SDO programme board as one of its commissioning priorities in June 2007. Many of the research studies commissioned by the NIHR SDO programme over the last ten years have direct relevance or interest to healthcare managers, especially those on topics such as leadership; organisational cultures, systems and processes; performance management and improvement; service delivery and reconfiguration etc. However, rather less of our past research has been directly focused on exploring the roles, work, performance, effectiveness, careers and development of healthcare managers and healthcare management itself. At the same time, there is an increasing recognition of the importance to organisational and service performance of management and leadership behaviours in public services (Meier and O'Toole 2002), of the need for organisation and management research to tackle more directly the core concerns and challenges of the management community (Tranfield and Starkey 1998; Starkey and Madan 2001) and of the potential for research evidence to improve managerial practice and decision making (Shortell, Rundall and Hsu 2007).

3.2. The policy context

This call builds on several recent policy documents. The Cooksey Report on UK health research funding (HM Treasury 2006) identified two gaps in the translation of health research:

translating ideas from basic and clinical research into the development of new products and approaches to treatment of disease and illness, and implementing those new products and approaches into clinical practice. Managers have a key role to play in addressing the second gap, whether in their capacity as commissioners, as managers playing a high-level strategic role, or as direct operational managers. The Report of the High Level Group on Clinical Effectiveness established by the Chief Medical Officer (Department of Health 2007) reviewed areas of significant variations in implementing evidence-based practice and recommended a programme of action to enhance the effectiveness and efficiency of clinical care. The report's recommendations covered a range of areas including the need for measures to promote local ownership of the clinical effectiveness agenda, with clinicians and managers working in partnership; the need for the health service to make better use of the skills and expertise available in higher education organisations; the need for increased understanding of the mechanisms that encourage the adoption of new interventions and the need for more research on organisational receptivity.

Most recently, the report of the Clinical Effectiveness Research Agenda Group (CERAG 2008) reiterated these themes in emphasising the need to develop the capacity of NHS staff to use implementation and clinical research in daily practice and the need for greater understanding of the processes by which managers and others seek out and apply implementation and clinical research when making decisions. There is also much to learn from past and ongoing efforts to spread clinical evidence aimed at service change through studying the work around, for example. NSFs and NHS Evidence.

The call also responds to the growing recognition (e.g. Walshe and Rundall 2001) that there is a research practice gap in health care policy and management. Health care policy and management – while admittedly very different from clinical practice in a range of significant ways – are lagging behind clinical practice in addressing the problems of 'overuse, underuse and misuse' in policy and management practice that have their own significant impact on quality of care and patient outcomes (Walshe and Rundall 2001). Managers need further support to enable them to make more effective use of research and other forms of knowledge.

3.3. Research utilisation and knowledge mobilisation by healthcare managers

It is well recognised in the literature that the full potential for research evidence to improve practice in health care settings - either in relation to clinical practice or to managerial practice and decision-making - is not yet being realised.

The multiple challenges involved in ensuring that health care is based as closely as possible on evidence from high quality research are well recognised (e.g. Lomas 2000; Walshe and Rundall 2001; Tetroe et al. 2008; The Clinical Effectiveness Research Agenda Group 2008). Against this background, the past decade has seen growing interest in the theory and practice of the emerging field of what can broadly be termed research use and implementation. Although there is a lack of conceptual clarity, and terms such as knowledge translation attract different definitions (Tetroe et al. 2008), there is particular interest in health services in understanding the activities commonly termed 'knowledge transfer' and 'knowledge exchange': interaction between researchers and decision-makers (e.g. clinicians, managers or policy-makers) that results in research informing health service decision-making and practice.

These insights and those from related research fields (e.g. the diffusion of innovations, (Greenhalgh et al. 2004)) have encouraged the development of various models of the research use process that represent a significant departure from traditional models that separated research (or knowledge) production from its dissemination and uptake (Landry et al. 2001; Armstrong et al. 2006). At local level, a 'sensemaking' process is evident which influences how

research is enacted in clinical practice, influenced by local context and background organisational capacity (Dopson and Fitzgerald, 2005).

There are various theoretical streams of literature which may be relevant. The interaction model emphasises the importance of formal and informal links between researchers and research users (e.g. managers) at each stage of the research process: from defining the research questions, through designing and carrying out research studies to implementing the findings in practice and determining further research questions (Landry et al. 2001; Kiefer et al. 2005). The interaction model conceptualises research use as a complex, multifaceted, iterative and dynamic social process that is facilitated or impeded by surrounding personal, professional, team, organisational and legislative factors. Engagement with research is socially and organisationally situated, problem-led and heavily dependent on local context. It is influenced by local systems of meaning in which research evidence is often only one form of evidence used by practitioners, managers and policy-makers (Bartunek et al. 2003; Lomas 2007; Nutley et al. 2007). Furthermore, understandings of 'research use' are not limited to instrumental (i.e. direct) uses but also encompass conceptual uses (i.e. when research contributes to shifts in the assumptions or understandings that underpin frameworks and discourse) (Weiss 1979).

The interaction model operates at a relatively micro level, emphasising the role of frequent interpersonal interaction in the knowledge translation process. It may be usefully complemented by more macro level perspectives. One such emphasises the importance of different social and epistemic 'communities of practice' (Ferlie et al, 2005; Swan et al, 2007; Currie et al, 2008) displayed by co-located professions and organisations within the health care field. Knowledge can easily 'stick' at such field boundaries rather than 'flow'. Knowledge may take different forms and there may be attempts to enforce 'knowledge hierarchies' which may be accepted or perhaps contested. Such boundaries and hierarchies need to be mapped and understood. Attempts to align potentially incommensurable fields (e.g. the worlds of formal academic knowledge and the more tacit world of clinical or management practice) and incentive structures may be critical, for example, by developing new hybrid roles, broadening educational and socialisation processes or altering incentive structures and financial flows.

Also at a macro level is a stream of organisational literature that considers the knowledge economy in relation to organisational forms and processes through transition to networks, downsizing, privatisation and markets *versus* hierarchy (Adler, 2001). Strategic management literature, generated by economists, considers knowledge to be a resource within the organisation or firm that is viewed as a collection of core competencies (e.g. Mesquita, 2008). In this context, knowledge transfer is a dimension of organisational performance. This 'resource-based view of the firm' contrasts with the critical management perspective put forward by Alvesson and Karreman (2001) which draws attention to a tension between knowledge (K) and management (M) and characterises KM as a tool of management control directed towards the labour force. The organisation development literature also explores change, transformation resistance and barriers to knowledge-flow (McDermott and O'Dell, 2001) with some reference to healthcare (McNulty 2002; Lin et al, 2008).

Socio-cognitive approaches, framed by sociology and psychology, treat knowledge management, utilisation and transfer as a feature of organisational learning (e.g. Ringberg and Reihlen, 2008). Philosophical and epistemological questions about how we apprehend knowledge and meaning continue to be a focus of interest in the literature, in a bid to develop typologies or syntheses of different conceptual frameworks (e.g. Grandori and Kogut, 2002; Gourlay, 2006).

Management of knowledge through information systems and technology is explored in the information science journals, (e.g. Chalmeta and Grangel, 2008) and is more empirical than

much of the conceptually-focused social science literature. Health care settings occasionally emerge in case studies (e.g. Hanlon et al, 2005).

Clinicians and managers may also be influenced by – and influence – national level institutions. National level institutions (e.g. Cochrane, NICE, NSFs) in the field of Evidence Based Medicine (EBM) have developed rapidly over the last decade. Other bodies (e.g. SDO, King's Fund, Nuffield Trust, NHS Institute for Innovation and Improvement, the US Institute for Healthcare Improvement) have been active in producing research and disseminating knowledge about the organisation and delivery of health care. Both of these types of institution may be important in structuring decisions about service delivery. How do managers use the research produced by these institutions or influence its production?

Despite the growing interest in theoretical models and literature streams and the development of major initiatives like the Canadian Health Services Research Foundation that link researchers with health policy makers and managers (Lomas 2000), there is as yet relatively little empirical research evidence to inform efforts to develop such models in real world settings (Mitton et al. 2007; Tetroe et al. 2008; The Clinical Effectiveness Research Agenda Group 2008). Considerable work has been done to identify such areas as: the barriers and facilitators to research use in health policy-making and practice (e.g. Ross et al. 2003; Mitton et al. 2007); cultural differences between practitioners and academics (e.g. Bartunek et al. 2003; Denis et al. 2003; Bowen et al. 2005); and the importance of good relationships and a high degree of trust between researchers and research users (e.g. Landry et al. 2001; Bowen et al. 2005). The nature of capacity building is now better understood: that it encompasses both factual learning (e.g. research concepts, the findings of specific research projects, how to locate and access information) and attitudinal change (a shift in how individuals and groups view research and their relationship to it) (Bowen et al. 2005). However, little is known about which strategies work best to encourage such collaborative links, in what contexts, how they work and why (Pawson and Tilley 1997; Lavis et al. 2003; Kothari et al. 2005; Armstrong et al. 2006; Hanney and Gonzalez-Block 2006; Mitton et al. 2007; Tetroe et al. 2008).

Against this background of incomplete knowledge about how best to improve research use in health care, there are particular gaps in the knowledge base about the use of management knowledge or research in health care settings. Although the interest in evidence based medicine and evidence based practice in recent years means that there is now considerable empirical research evidence about the use (or non use) of clinical evidence by health professionals, in contrast, there has so far been little empirical work in health care in relation to the use of management knowledge or research. A range of different issues may be relevant to research use by managers as opposed to clinicians. For example, differences between managers and clinicians in relation to their use of knowledge and research may arise because of a range of factors including different cultures, training, bodies of knowledge, attitudes towards the perceived or actual transferability of findings, the nature of the decisions taken, the level of individual autonomy and the timescales over which decisions or actions are taken and the results assessed (Walshe and Rundall 2001; Mitton et al 2007).

Despite these important areas for exploration, much of the existing literature on managers' use of knowledge comes from non health care settings and principally from the private sector. This research has tended to focus on a narrow definition of knowledge - i.e. what individuals know about their jobs – rather than on broader more inclusive definitions of knowledge or on managers' use of research. This research has also tended to focus on strategic uses of knowledge (e.g. managers' use of knowledge to secure competitive advantage for the organisation) and has given less attention to the broad range of other uses.

Finally, there is the important question of the extent to which research use and application improves clinical services and organisational performance in health care. That is, there is the need to address both the specific impacts of research application and the presence of any generalised 'research effect' (it has been hypothesised that research-engaged organisations may perform better beyond any specific impacts from instrumental research use).

This call therefore responds to these recognised gaps in the current knowledge about research use in health care settings that is available to inform service organisation in the NHS. The ultimate objective is to enhance the quality of care provided by increasing the knowledge base on which the NHS can draw in organising services. Our focus is on managers' use of research and how this interacts with other forms of knowledge within the organisational contexts in which managers work. This relates to managers' own decision-making and to the ways in which managers support and encourage the use of research (including the implementation of clinical research evidence) by others in the organisation.

3.4. Relationship to other SDO research calls and current projects

Applicants should be aware of the potential for overlap with SDO research calls in related areas. In particular, applicants should note the following calls and ongoing work:

SDO 220/2008 *Research utilisation and knowledge mobilisation – A scoping review* (Ferlie). Professor Ferlie (King's College, London). The draft report will be available on the SDO website from 6 July 2009 at http://www.sdo.nihr.ac.uk/sdo2202008.html

MP241 *Management Practice in Healthcare Organizations: Part V Proposals on knowledge utilisation in healthcare management.* Three relevant projects have been funded under this call, and any proposed work should take care to complement rather than duplicate:

(i) SDO/242/2008 *Increasing the motivation and ability of health care managers to access and use management research* (Dopson; Oxford University).

(ii) SDO/243/2008 *Explaining health managers information seeking behaviour and use* (Edwards; Kingston University).

(iii) SDO/244/2008 *Evidence for management decisions (EMD) – advancing knowledge utilisation in healthcare management* (Swan, University of Warwick)

CLA258 *Evaluating Partnerships between Universities and NHS Organisations: Learning from the NIHR Collaborations for Leadership in Applied Health Research & Care (CLAHRCs).*
It is anticipated that projects commissioned under this call will be listed on the SDO website during June 2009.

4. Call for proposals: main topic areas identified

This section sets out our areas of interest. Multiple themes and issues are identified. Applicants will need to be selective in choosing which areas to address, setting out clearly the rationale for their choices in terms of potential importance, potential impact or degree of research need.

Research proposals can address primary or secondary research. The purpose of primary research would be to add to existing knowledge in areas where there are important research gaps. The purpose of secondary research (research synthesis) would be to summarise and collate the existing research in those areas where there is already a substantial existing body of

work, and to make it more accessible to the management community. Secondary research could also form the first stage in a primary research project. We set out below suggested areas for research synthesis (section 4.1) and for primary research (section 4.2); these are not exhaustive and we would welcome other proposals.

4.1. Literature reviews on research utilisation and knowledge mobilisation by managers

While the primary focus of this call for proposals is on new primary research, the NIHR SDO programme is also interested in commissioning one or more literature reviews which synthesise existing knowledge about research utilisation and knowledge mobilisation by managers. Examples of questions of interest to the programme are:

- What practical lessons can be drawn from existing research on managers' use of research and other forms of knowledge and how can these be applied in management practice? Such reviews might incorporate an element of 'road-testing' these findings with the management community.

- What evidence exists on knowledge and research use by managers in fields outside health care (e.g. social care, criminal justice, education, law, architecture, management consulting) and how might these broader findings be applied in health care?

- To what extent is there potential for applying in management practice the existing evidence about knowledge and evidence use in clinical practice?

- What is already known about the role and impact of managers in supporting the use of evidence by others in the organisation (e.g. in quality improvement initiatives based on clinical evidence and/or organisational research) and what lessons can be drawn?

- What is the impact of different institutional arrangements (e.g. in other European countries, in the US) for the funding and provision of health services on knowledge and research use by managers?

- What are the national architectures (i.e. institutions, bodies, networks and mechanisms) for communication of non-clinical knowledge for managers in the NHS?

- What are the transferable lessons from psychology (for example, from cognitive and social psychology, including the psychology literature on the interaction between humans and computers) about how individuals process information, make decisions, apply heuristics etc that can be applied to understand managers' use of knowledge and research?

- What strategies aimed at increasing research uptake and impact in NHS management practice would seem to have the best suggestive evidence in support, and how might such strategies be tested as a means of consolidating the evidence base on managers' support for research use?

- What is the extent of any evidence supporting/refuting the argument that better research use improves clinical outcomes and organisation performance? To what extent are there specific and/or general effects? By what mechanisms might such effects operate? *Potential applicants should note that addressing this issue is a key priority for NIHR.*

Applicants should clearly indicate how their proposed review builds on and extends earlier work. Applicants should set out the methods they will use for undertaking the review, including how they will identify the relevant evidence and how they will synthesise the material.

4.2. Primary research

Examples of areas of interest to the programme are given below. These might form either components of a project or whole projects as appropriate. This section gives illustrative suggestions that potential applicants may wish to consider. Applicants should note:

a) that the examples of areas of interest are not intended to be either prescriptive or exhaustive and that proposals covering other areas of interest within the broad scope of this brief may be submitted;

b) that the broad questions that appear here are intended only to suggest areas of interest and should not be interpreted as research questions *per se*; proposals submitted under this call will need to include well-developed research questions underpinned by specific theory.

c) that the selection of themes to be addressed by applicants should be supported by an explicit rationale for their importance, potential impact and research need.

The themes are listed here under three interrelated and overlapping groups: knowledge source, presentation and integration; context and connections; strategies and processes. The structuring of research themes into these three broad areas reflects both general models for understanding organisational change (e.g. the content, context and process framework developed by Pettigrew and colleagues; Pettigrew 1985; Pettigrew, Ferlie and McKee 1992), and the specific development of such models for understanding research use (e.g. the 'evidence, context and facilitation' model of practice change developed by Kitson and colleagues; Kitson, Harvey and McCormack 1998; Kitson et al 2008). While most will recognise that these three areas overlap and that it may at times be hard to differentiate between them, they nonetheless provide some means of clustering research themes and ensuring full coverage. This is not to suggest that the areas can remain discretely bounded for study: indeed, it is the *interplay* between the three areas that gives rise to the dynamism of the system and it is this interplay which needs to be explored as much as the detail within any given area.

4.2.1. Research themes relating to knowledge source, presentation and integration

- *How, where and under what circumstances do managers source new knowledge and integrate it into current ways of thinking or practice?*
  This theme takes in issues of the kinds of knowledge perceived by managers to be authoritative and/or persuasive in relation to clinical and non-clinical decisions and the relative balance between authoritative or persuasive knowledge when these conflict. It could include issues of discontinuation: where new knowledge supersedes previous knowledge and results in the discontinuation of previous practice (e.g. the discontinuation of an initiative).

  It includes the range of sources used by managers (e.g. whether managers use research on management and organisational issues from national bodies and agencies, from local and distant peers, or from external agents such as management consultants). Projects under this theme might include consideration of any differences between

clinician managers and non-clinician managers in their use of different types of knowledge, and/or differences between clinician managers in their managerial role and in their clinical role.

- *Is there a recognised corpus of knowledge for NHS managers?*
  This theme considers whether there is a recognised body of knowledge for NHS managers, how it is defined and developed and by whom. Projects under this theme could explore, for example, the role of NHS management training schemes (and other training programmes used by NHS managers) in establishing core knowledge and skills including knowledge and skills relating to knowledge mobilisation and research use. Further areas of interest include the development and provision of the curricula for these programmes and the contribution that the experience of practising managers makes to these processes.

- *What role does the MBA play in education for NHS managers and what are the implications of this for NHS managers' use of management research and other forms of knowledge?*
  This theme picks up on the wider debates about the nature and purpose of the MBA and about the role of business schools in management education (e.g. Currie and Knights 2003; Starkey et al 2004; Starkey and Tempest 2005); it offers the opportunity to explore the relevance and value of these programmes to the NHS context.

- *What use do managers make of routine data on quality, safety and performance from local sources or national bodies and how do they integrate these data with other forms of knowledge?*
  As the distinction between research user and research producer becomes blurred (when, for example, managers undertake their own research through web sources or local analysis), there may be implications for the quality of the analysis underpinning decisions and the ways in which such analyses are integrated with extant bodies of more formal research or other types of knowledge.

- *What evidence is there that NHS managers are using knowledge for specific purposes e.g. to demonstrate improved productivity or to secure the organisation's competitive advantage?*
  There is a strong emphasis in the management literature on strategic uses of knowledge to secure competitive advantage. Little is known about whether NHS managers are using knowledge for this and related purposes, in what ways and with what effects.

- *What use are managers making of technology in accessing and using research and other forms of knowledge?*
  This theme considers how the increasing access that managers have to different forms of technology may be changing both the flow of knowledge through the system and the types of use that follow (e.g. strategic, political, tactical etc.)

4.2.2. Research themes relating to *context* and *connections*

- *What impact do the organisational and political structures of the NHS and of the research community have on research use and knowledge mobilisation by managers?*
  Projects under this theme could explore, for example, the impact of the funding, regulatory and incentive structures in the research community and in the NHS and how these affect research design and use.

- *What role do public health practitioners play in relation to mediating the use of research by managers and clinicians in the development of services?*

- *How can the absorptive capacity of NHS organisations for new knowledge be improved?*
  Projects under this theme could explore managers' role in the detailed processes by which ideas are *"captured from outside, circulated internally, adapted, reframed, implemented and rationalised in a service organisation"* (Greenhalgh et al 2004: 618) and could consider how these processes might be systematically enhanced in the NHS.

- *What is the contribution of 'unlearning' in managers' use of research and other forms of knowledge?*
  Projects under this theme could explore, for example, circumstances in which the adoption by managers or organisations of new practices or ways of thinking is accompanied by processes of 'unlearning' and how such processes might be accomplished (Rushmer and Davies 2004).

- *What models of research supply and synthesis might better support knowledge integration by managers as would be research-users and how do these play out in different organisational contexts?*
  Projects under this theme might consider how different kinds of messaging and messengers impact on the uptake or otherwise of research knowledge by managers in different organisational contexts and which models of research brokerage or intermediary activities seem to have the best potential to foster research use among managers. Structural and processual examinations of brokerage and intermediation are under-researched in relation to NHS managers and yet seem to offer considerable potential for new insights.

- *How does knowledge from one health care organisation (e.g. good ideas that have emerged locally, successful or otherwise implementation of national policies, 'bad' ideas etc) spread to managers in other health care organisations?*
  Formal and informal individual and organisational networks (including IT networks) may have a role in this process. Research is needed to consider further how these processes could be supported or enhanced through explicit knowledge management activities (e.g. the appointment of knowledge workers and boundary spanners), including the potential for mechanisms to prevent the spread of 'bad' ideas when necessary.

- *What is (or could be) the role of professional organisations in relation to knowledge mobilisation/research use among health care managers?*
  Research is needed to explore how education and continuing professional development for managers are linked into and supportive of knowledge accumulation and integration. A particular focus might be whether prevalent models of continuing management education pay sufficient attention to the interactive, iterative, social and contextual nature of knowledge integration.

- *How can lay people, service users and others contribute more fully to management discussions?*
  Much of the debate about knowledge and research use can lead to client experience being sidelined or down-graded, and yet taking 'knowledge integration' seriously requires that such experience be considered alongside other more formal sources of knowledge.

- *Do managers in non-NHS health care organisations use research and other forms of knowledge in different ways from their NHS counterparts? In what ways?* Projects might explore, for example, the ways in which these organisational contexts differ and the impacts that these differences have on managers' use of research and other forms of knowledge.

4.2.3. Research themes relating to *strategies and processes*

- *To what extent do different models of research use (e.g. research-based practitioner models, embedded research models, organisational excellence models; Nutley et al. 2007) co-exist in different management practice settings?*
  Explorations under this theme could examine not just the current balances of approaches but also the potential for shifts in these balances or for the development of new hybrids.

- *What can we learn from existing initiatives and practices aimed at increasing managers' research use and engagement that have developed locally in different parts of the NHS?*
  The key concern here would be to focus less on summative evaluations and more on formative evaluation of any underlying processes.

- *What knowledge management strategies are being used in the NHS and what is the role of managers in relation to them?*
  This theme could explore the extent to which these strategies presuppose a knowledge codification approach (where knowledge is codified and collated, usually electronically, for future search and use), personalisation and social interaction approaches (where expertise is passed through engagement and dialogue, shared projects and work placements etc.) or other approaches to knowledge management.

- *What models of research push, pull and linkage-exchange are in place in the NHS? How are these evolving and interlinking? What are their impacts and what are the challenges of sustainability?*

- *Is there evidence that increased use of research by managers – and their facilitation of research use by clinicians – has demonstrable impacts on organisational performance and clinical outcomes?* ***An examination of empirical evidence on this issue is of particular interest to the NIHR SDO programme.***

- *What evidence is there of a more generalised 'research effect' when managers are actively involved in research uptake and use within their organisations?*
  That is, is there any evidence that a greater degree of research engagement by managers leads to improved organisational performance and better patient outcomes, and if so, by what processes and pathways are such impacts achieved?

4.2.4. Developing an international component to new empirical research

The NIHR SDO programme is exploring with the Canadian Institutes of Health Research (CIHR) the potential for parallel funding of empirical work in Canada for some of the projects funded by the SDO under this Call. Should these discussions come to fruition, successful applicants will be asked to submit for consideration proposals for international work in two parts: (a) work led by a Canadian team to be funded by CIHR to mount parallel empirical investigations in the Canadian context; and (b) shared work on international comparisons and synergies to be

funded by the NIHR SDO programme. Applications for this international dimension to any empirical work will be requested and assessed only *after* the NIHR SDO programme has formed a view as to the portfolio of projects that it wishes to fund in this area. Successful applicants to the current SDO Call will be informed of the potential for international work, and the mechanisms for application, at the time that they are notified of the outcome of their initial application.

5. Criteria and process for proposal selection

The NIHR SDO programme is now seeking outline applications in the areas outlined above. We have provisionally allocated £2.3 million to this call. Projects may be of up to three years duration and may be funded to a maximum of £450,000 per project. Applicants should note however that this is an absolute upper limit, not a target, and that we anticipate funding a range of projects in both size and duration. For larger projects, value for money will be an important consideration and project costs will be carefully scrutinised and must always be well justified.

The application process will be in two stages. At the first stage, short outline proposals will be sought. All outline proposals will be reviewed by an SDO Advisory Panel, and a number will be shortlisted. We normally shortlist around two to three times as many projects as we expect to be able to fund, taking into account the budget for the call and the typical cost of proposals. No individual feedback will be offered on outline proposals which are not shortlisted, but all applicants will receive general feedback notes on the response to the call for proposals.

Researchers whose proposals are shortlisted will be given the opportunity to develop a full proposal, and may be given feedback on their outline proposal to help inform that development. All full proposals will be subject to external peer review, and will then be reviewed by the SDO Research Commissioning Board which will then make recommendations to the Programme Executive Group on whether to fund each proposal. All full proposals which are not funded will receive feedback from peer reviewers and the commissioning group.

The SDO Advisory Panel which reviews outline proposals and chooses which ones to shortlist is predominantly made up of practising managers working in the NHS and service users/lay representatives, though it includes some academics with relevant research expertise. The primary criterion against which the Advisory Panel assesses outline proposals is that of **NHS need – in other words, whether the proposed research will be useful to research users in the NHS, and is likely to contribute to improving decision making**. It will use four main criteria to make this judgement:

- Relevance of the proposed research to the main areas or themes set out in this call for proposals.
- Relevance of the proposed research to the needs, interests and current and future challenges for the management community in the NHS.
- Likelihood that the proposed research will produce findings which are useful to and capable of application by the management community in the NHS.
- Likelihood that the proposed research will promote the greater engagement of the academic community of researchers and the practice community of healthcare managers, and the development of links between academic institutions and NHS organisations in this area.

Shortlisted applicants will be invited to develop a full proposal, which will be subject to external academic peer review and will then be presented to the SDO Research Commissioning Board. This Board is primarily made up of academics with relevant research expertise, but also contains some practising managers and service users/lay representatives. Its main concern is the **quality of the proposed research**. It uses two main criteria to make this judgement:

- Scientific rigour and quality of the proposed research, and the expertise and track record of the research team.

- Value for money of the proposed research, taking into account the overall cost and the scale, scope and duration of the work involved

The SDO Research Commissioning Board will also draw upon the assessment of NHS need for a project made by the SDO Advisory Panel, where appropriate.

Management fellowships

Applicants should note that research teams funded under this call will be invited to apply for a management fellowship to form an integral part of their research project. Further information about these fellowships will be provided to all short-listed teams. In brief, an SDO Management Fellowship will provide some additional resources, beyond those specified in the original proposal, to enable a practising manager from a healthcare organisation involved or engaged in the research project to become directly involved as a researcher in the project.

The invitation to apply will be issued separately to funded teams once approval has been granted under this call; there is no requirement for applicants to address this issue in the proposal submitted under this call.

6. General guidance for applicants

Our main concern is to commission research which is well designed, will be effectively carried out by the research team, and will provide findings which meet the needs of the NIHR SDO programme and the NHS management and leadership community it serves. We do not require or expect any particular methodological approach, disciplinary background or expertise, research team structure or other constraints on applicants. However, experience of reviewing applications over a number of years leads us to make the following general points which we urge applicants to take into account:

- **Theoretical framing and empirical methods.** In addressing issues in a way likely to lead to the wide applicability of findings, we encourage applicants to demonstrate the sound theoretical and conceptual underpinnings of their proposals, and to show the theoretical and conceptual connections between their proposed research questions and empirical work. Empirical projects are likely to use a wide diversity of methods, including both qualitative and quantitative approaches, carefully matched to study questions and with clear understandings as to how findings from different empirical approaches will be integrated. Atheoretical, unfocused and poorly justified empirical investigations are unlikely to be funded.

- **Research team makeup and expertise**. Substantial empirical projects are likely to utilise broad teams with significant input from diverse disciplines and a commitment to developing robust inter-disciplinary approaches. However, applicants should bear in mind the difficulties of managing large and diffuse project teams across multiple

institutions, and the need to show that applicants will commit an appropriate amount of time and effort to the project. The principal applicant should generally be the person who has contributed most to the intellectual and practical development of the proposal, and who will take *de facto* responsibility for its implementation. The NIHR SDO programme will look favourably on proposals which include an element of research capacity-building.

- **Stakeholder involvement**. Applicants should demonstrate clear involvement of all relevant stakeholders (including where relevant, local communities, lay people, service users, carers and minority ethnic communities as well as health care practitioners and managers) during the design, execution and communication of the research.

- **Linkage and exchange**. Given the core mission of the NIHR SDO programme and our focus on knowledge mobilisation successful projects are most likely to involve partnership working between experienced academic teams and those more closely involved in the design and delivery of services.

- **User involvement**. It is a core concern of the NIHR SDO programme that all commissioned projects should pay appropriate attention to the needs and experiences of services users and their carers. Proposed projects should be explicit in communicating how the proposed work has potential implications for service delivery that could lead to enhanced public and community engagement.

- **Location of research**. The NIHR Service Delivery and Organisation programme is funded by the NIHR, with contributions from WORD in Wales. Researchers from England and Wales are invited to apply. Researchers from Scotland and Northern Ireland should contact NETSCC to discuss their eligibility to apply.

- **Research governance**. Applicants should ensure that their proposal complies with the Research Governance Framework. Successful applicants will be required to provide proof of research ethics committee approval for their project, if this is required.

- **Costs and value for money.** It should be noted that we will fund a range of projects in both size and duration. For larger projects, value for money will be an important consideration and project costs will be carefully scrutinised and must always be well justified. NHS R&D Programmes currently fund Higher Education Institutions (HEI) at a maximum of 80% of Full Economic Cost (except for equipment over £50,000 – 100%). For non-HEI institutions, NHS R&D may fund 100% of costs. However, the NIHR SDO programme reserves the right to award a grant for less than this maximum and for less than the amount sought by applicants where appropriate.

7. Dissemination and knowledge mobilisation

In outlining their research plans, the applicants should make clear how findings will be communicated effectively to a wide variety of academic, policy and service audiences. Researchers should bear in mind the two main objectives of the NIHR SDO programme (see section 2), and recognise that the NIHR SDO programme seeks to fund projects which show a creative and proactive approach to engaging with the NHS management and leadership community.
Researchers will be expected to deliver the following written outputs from any proposed research: an executive summary (500 words) and research summary (5000 words) with clearly

identified policy, managerial and practice implications; a full report detailing all the work undertaken; supporting technical appendices (up to a maximum of 80,000 words).

Applicants should outline plans for conference, seminar and other forms of dissemination to go alongside written communications. Where appropriate, the proposed work should be designed and delivered in a way that is likely to lead to significant high-quality peer-reviewed publications. Projects lasting more than one year will be expected to deliver interim reports on progress and provisional findings (approximately annually).

8. Application process and timetable

Any questions, queries or requests for clarification in relation to this call for proposals should be sent by email to sdo@southampton.ac.uk by 14 July 2009 with the reference number and title for the call for proposals as the email header. Responses to all questions received by this deadline will be posted on the SDO website alongside the call for proposals by 28 July 2009.

The process of commissioning will be in **two stages** and applicants should submit **outline proposals** via the SDO website by **1pm** on **Thursday 20 August 2009**. No late proposals will be considered. No paper-based only submissions will be considered although a signed paper copy will be required to be submitted within one week of the closing date in addition to the e-mailed application. Applicants will be notified of the outcome of their outline application by mid October 2009.

Shortlisted applicants will be invited to submit a full proposal via the SDO website during November 2009. Applicants will be notified of the outcome of their full proposal application by 26 February 2010. Please note that these dates may be subject to change, and any changes will be notified to applicants and on the NIHR SDO website.

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