

# **Decommissioning health care: identifying best practice through primary and secondary research**

## **Summary of Research**

Although decommissioning - defined here as the planned process of removing, reducing or replacing health care services – is at the forefront of NHS policy it remains strikingly under-researched. This project is designed to address this important knowledge-practice gap.

## ***Research questions***

The overall aim of the research is to formulate evidence-informed best practice guidance to enable the effective decommissioning of NHS services. To this end the project will address three key research questions:

Q1. What is the international evidence and expert opinion regarding best practice in decommissioning health care services?

Q2. How and to what extent are NHS organisations currently decommissioning services?

Q3. What factors and processes facilitate the successful implementation of decisions to decommission NHS services?

## ***Research design and data collection***

In order to address each of these questions the research is organised around three distinct but inter-connecting work-packages:

*Work-package one* will synthesise what is already known about implementing decommissioning in health care and other settings (Q1). It combines a narrative synthesis of recent reviews of the literature and empirical evidence, with the views of an international expert-panel gathered via a Delphi exercise. Additionally, in order to develop a detailed understanding of the NHS decommissioning context, approximately 20 semi-structured, telephone interviews will be conducted with key informants from a range of health and social care agencies. Finally, five leaders of recent decommissioning projects in the NHS will be interviewed about their experiences and their views on implementing decommissioning policies.

*Work-package two* will establish the current range and extent of decommissioning in the NHS from the perspective of local commissioners (Q2). The online survey tool will collect both quantitative and qualitative data via a national questionnaire.

*Work-package three* will develop our understanding of how NHS organisations are currently implementing decommissioning policies through a prospective, longitudinal investigation of four case-studies in the English NHS (Q3). These will be mixed-method and in-depth and a comparative cross-case analysis will enable us to draw lessons and facilitate learning with regard to the factors and processes that influence successful implementation and outcomes (e.g. in terms of service quality and efficiency and user-driven outcomes) of decommissioning.

## ***Data analysis and outputs***

These multiple data sources will provide a rich and broad understanding of decommissioning and enhance both the validity and transferability of the results. Through application of a theoretical framework drawing on the political and organisational science literatures and actor-network theory we will develop new insights into the topic as well as aiding the formulation and implementation of NHS policy and practice. There is a strong international strand to

the research and robust mechanisms for respondent validation and service-user involvement. Through active and varied dissemination activities we will make substantive contributions to policy and practice in the NHS.

## **Background and Rationale**

### ***What is decommissioning?***

In a health care context, decommissioning refers to the replacement, removal or reduction of health care services and interventions. Such interventions can range from medicines and equipment to a clinical service or patient pathway. The mechanisms and drivers for decommissioning also vary. For example, services might be *reduced* through the application of eligibility criteria, practice guidelines and other forms of service restriction and scale-back. They may be *withdrawn* as a result of in-house service closure, external contract termination, service reconfiguration and formulary delisting. Quality, affordability and cost-effectiveness are typically the key drivers of decommissioning but other concerns – such as safety, changes in demand, and political imperatives – may also be influential. For the purposes of this project, we define decommissioning as *the planned removal, reduction and/or replacement of health care services and interventions for reasons which include considerations of resource scarcity*.

This definition implies an explicit approach in which the rationale and aims are made clear to all those involved. It also serves to distinguish decommissioning from closely associated activities such as priority setting, pathway redesign and technology coverage decision making. Although each of these may be employed as mechanisms within a decommissioning programme they do not necessarily involve the withdrawal and reduction of health care interventions. Therefore, it is the explicit aim of removing, replacing or reducing existing interventions that distinguishes decommissioning from other forms of resource allocation and service improvement initiatives which may or may not be adopted as part of a decommissioning programme.

Our definition of decommissioning is therefore broad and designed to encompass related activities such as divestment, de-insurance, discontinuance and service termination (Giacomini et al. 2000; Geva-May 2004), as well as concepts such as exnovation and reverse innovation which have also been applied to describe health care decommissioning (Kimberly 1981; Department of Health 2011). The most commonly used concept in the recent health services literature is *disinvestment*. Typically this refers to decision making in relation to the removal and reduction of health technologies (as opposed to broader services and organisations) and is usually framed within a health technology assessment model applying economic principles of cost-effectiveness analysis (Schmidt et al., 2012). Whilst subsuming these activities, our definition of decommissioning also includes programme and service closure and/or relocation, and is not confined to narrow notions of value maximisation. For example decommissioning programmes driven by policy, patient acceptability and affordability concerns fall within our sphere of interest.

Decommissioning as used here, shares some characteristics of *commissioning* and the commissioning ‘cycle’ (Ovretveit, 1995). Whereas the latter refers to a series of specific functions, including needs assessment, procurement and contract management, *decommissioning* refers to programmes of activity concerned with the withdrawal or reduction in the scale and volume of services delivered. As such decommissioning may be seen as part of a continuum of activities – alongside commissioning and re-commissioning– which are often interconnected activities in the NHS (National Audit Office, 2011). For example, where an existing service or

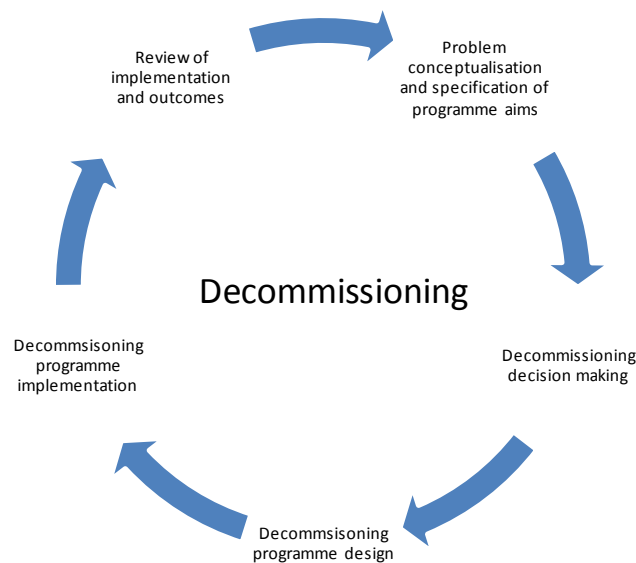
care pathway is being decommissioned an alternative may need to be commissioned in order for this retreat to take place.

Examples of decommissioning activities include:

- Reducing investment in or access to a specific treatment (for example through altering formulary listing or changing treatment protocols)
- Replacing existing services with ones deemed to provide greater cost-effectiveness or a lower overall cost (including, for example, by transferring the delivery of services into more cost-effective settings)
- Closure or discontinuation of health care programmes and organisations, for example through non-renewal of contracts and agency downgrading

Key to each of these is the need to identify the candidates for decommissioning as well as to design effective policies for the practical implementation of decommissioning programmes. Accordingly we have developed a notional model of the ‘stages’ required for a typical decommissioning cycle, including: the identification of need; processes for arriving at decommissioning decisions, and; processes of implementation and review (see Figure 1). In practice, however, progress through these stages is unlikely to be entirely predictable in terms of the exact duration and sequence of stages.

*Figure 1: Stages of the decommissioning process*



### ***The decommissioning evidence base***

Although there is only a limited evidence base on decommissioning in health care this has been strengthened in recent years and there is a small but growing body of evidence from the English NHS and other health systems (Elshaug et al. 2009; Donaldson et al. 2010; Robinson et al. 2011; Williams et al. 2011a). The lead applicant for this proposal has been involved in an international systematic review of the evidence on disinvestment in health care (Schmidt et al. 2012; 2012a). The aims of this Canadian-led review were to develop a common understanding of the terminology employed and to identify the ways in which disinvestment, broadly defined, has been tackled in health care contexts, the wider public sector, and commercial settings. This review confirms, however, that there is a dearth of directly relevant studies to the English NHS context. This is despite the growing consensus that decommissioning is something of an ‘Achilles’ heel’ for health care systems which has been

characterised as local health communities often becoming ‘stuck with the old and overwhelmed by the new’ (Elshaug et al., 2007). In service innovation and improvement programmes, this aspect is also frequently overlooked, as noted by Rye and Kimberly (2007: 262):

Understanding the process and conditions under which organizations disengage from innovations they have previously adopted is just as important, in our view, to solving cost, quality and access issues as understanding the factors influencing the adoption of innovation.

This review confirms that the primary source of research in this area derives from the study of health care resource allocation decision making and, in particular, how economic evidence and analytical tools can be used to inform disinvestment decisions (Ham & Robert 2003; Bryan et al. 2007; Elshaug et al. 2009; Cooper 2010; Donaldson et al. 2010; Williams et al. 2012). In particular, these contributions have considered the application to disinvestment of evidence such as Health Technology Assessment (HTA) and processes such as Programme Budgeting and Marginal Analysis (PBMA). This literature highlights inadequacies in the evidence base underpinning disinvestment policies and suggests that wider contextual factors may serve to hinder effective decommissioning (Elshaug et al. 2007; Karon et al. 2009; Nuti et al. 2010; Robinson et al. 2011a; Williams et al. 2011). Despite the insights yielded by such contributions, however, they typically adopt economic principles and perspectives and focus primarily on decision making processes, thereby giving more attention to the technical rather than the messy and complex organisational, political and social realities of decommissioning. As a result they shed relatively little light on the broader contextual factors that help shape the implementation of decommissioning programmes.

A number of recent research projects are beginning to address this deficit. These include an NIHR-funded study of how systematic reviews can be applied to disinvestment decisions (Shepperd et al., 2012), a study of the impact of NICE guidance on NHS programme budgets ([www.nice.org.uk/getinvolved/nice\\_fellows\\_and\\_scholars/nicefellowsandscholars.jsp](http://www.nice.org.uk/getinvolved/nice_fellows_and_scholars/nicefellowsandscholars.jsp)) and an evaluation of NICE disinvestment tools and resources in the South-West Peninsula (Gericke & Flynn, 2012). The latter project in particular will help to understand implementation processes for medicines and health technologies. Nevertheless there remains a need for process-based research into the organisational and political dimensions of decommissioning in general, and specific investigation of programmes involving wider service withdrawal, closures or mergers.

Recently the applicants have conducted a national study of Primary Care Trust (PCT) priority setting (Robinson et al., 2011a) in which it was found that 79% of PCTs claimed to have undertaken some form of decommissioning work in the period 2009-10. However, this was mainly confined to the most immediately available removal options such as treatment for varicose veins, IVF and routine orthopaedics. In contrast, it was reported that more ambitious programmes of decommissioning were planned but remained largely undelivered. In a follow-up study focussing specifically on the challenges of decommissioning and disinvestment, the reasons for these difficulties were explored in more detail (Daniels et al., 2012). Based on semi-structured interviews this study found that the scale of disinvestment projects – for example ranging from ‘substitution’, through ‘contract variation’ to more substantive ‘true’ disinvestment – was linked to levels of likely resistance, obstruction and programme failure. In other words, the programmes that promised the most gain in terms of released resources and efficiencies were the most difficult to implement. According to this study, key factors associated with successful implementation include: the importance of local-national relationships; the need for horizontal co-ordination and collaboration (within and across sectors); the benefits accrued by having professional understanding and support for

decommissioning, and; the importance of wider public perception and popular opinion. It has been noted in relation to the latter that there is a need to challenge the perception that commissioning is simply a cost-cutting exercise or alternatively an admission of service failure (Schmidt et al., 2012).

These studies have begun to explore the reasons for the relative absence and/or failure of decommissioning within the NHS context. However, a number of key questions remain unanswered and are in need of further investigation, including:

- How do macro (national), meso (local) and micro (individual) level processes and factors combine to influence the design, implementation and outcomes of decommissioning programmes?
- How can decommissioning programmes be better designed and implemented so as to be acceptable to a range of stakeholders in different local contexts?
- What, if any, forms of specialist expertise are required to support the implementation of decommissioning programmes?
- What are the unintended and dysfunctional consequences of decommissioning for local health communities and patient groups and how might these be mitigated?

Further insights can be drawn from the non-health care literature on service closure and reduction where stakeholder resistance or ‘dynamic conservatism’ has been found to attenuate the implementation of decommissioning decisions (Geva-May 2004; Bunt & Leadbeater 2012). These difficulties can be compounded by the costs of service termination which are frequently under-estimated, and the legal and financial complexities which need to be navigated (Cromb & Lamb 1980). Decommissioning is therefore a complicated and often expensive process which is likely to encounter resistance from different stakeholders at different stages of the process. Furthermore, staff morale and organisational performance may in some cases be threatened in the transitional period between current and future arrangements. Case-studies from a range of public and non-public settings suggest the importance of developing long-term implementation strategies, emphasising the positive agenda of improved service quality and outcomes, and addressing broader issues of trust and public legitimacy before embarking on substantive decommissioning programmes (O’Caithain et al. 1999; Arun & Nixon 2000; Giacomini et al. 2000; Campbell et al. 2002; Osborne & Kinder 2011; Health Foundation 2012). However pertinent such insights from the wider academic literature appear to be, there is a requirement to explore their relevance and transferability to health care contexts in general and the NHS in particular. It is also likely that lessons can be learnt from previous health and social care programmes of decommissioning such as the planned closure of many psychiatric hospitals in the 1990s and long-stay care homes in more recent years (Trieman & Leff 1998; Serrant-Green et al. 2009; Robinson & Glasby 2012).

Drawing on the evidence base outlined above it is possible to hypothesise a series of key factors and processes that may impact on the success or otherwise of decommissioning programmes (see Table 1). However, there is a lack of empirical evidence on the role and interplay of these factors at the three levels (macro, meso and micro) in influencing successful implementation and the outcomes of decommissioning policies and programmes.

*Table 1: Determinants of successful decommissioning*

<b>Tiers and settings</b>	<b>Determinants</b>	<b>Decommissioning programme characteristics</b>
Political and/or market contexts (macro)	Public perception, Market interests, External interest groups, Government priorities	Level of profile/scrutiny, Level of likely/expected conflict, Communications strategy, Political

		acumen and appraisal
Institutional and organizational forms and contexts (meso)	Funding arrangements, Governance and reporting, Legal responsibilities, Size and structure System complexity, History of change/ stability, Resources (technical, fiscal, information), Partnership working, Culture and 'connectedness' (Williams & Ham, 2009)	Scale and complexity of decommissioning programme, Compatibility with institutional context, Leadership and clinical buy-in, Resources to support change, Analytical and evidence capacity, Networks and knowledge management, System understanding and mapping
Teams and sub-units (micro)	Project management, Information skills, Staff perceptions	Microsystem mapping, Staff buy-in and support, Review and progress monitoring, Feedback loops, Decommissioning training, Team champions

***Insights from the political and organisational sciences***

As well as the small but growing evidence base around decommissioning itself there is scope to generate further insights by drawing on the disciplines of political science and organisational studies in order to develop more robust theories and concepts in this area.

***Insights from policy studies into the ways in which public policies and programmes are designed and implemented***

Although direct studies of decommissioning policies remain rare, the importance of the role of interests, institutions and ideas in shaping policy and programme outcomes is well documented in the political science literature (Hall, 1999). This has been recognised in recent analysis of priority setting and resource allocation decision making involving the applicants (Smith et al., 2012). With regard to decommissioning this implies the need to consider the following:

- How internal and external groups not formally responsible for decommissioning decisions (seek to) influence decision making processes and the formulation of policy
- How institutional contexts (e.g. funding arrangements, governance and regulatory regimes, legal mandates) serve to constrain the range of policy options available to those designing and leading decommissioning programmes
- How ideas, for example in the form of evidence, values and policy 'frames', inform and shape the design and implementation of decommissioning programmes (Rein and Schön 1993; Nutley et al. 2007)

A political science lense suggests that in order to be robust, any analysis of decommissioning in health care contexts needs to take into account each of the aspects identified above and to understand how these cohere and interact in local contexts. Furthermore, theory and research into the success and failure of public programmes has drawn attention to key dimensions of programme design and implementation. For example, in relation to programme formulation, much of the evidence from the policy sciences suggests that 'successful' public programmes are based on a clear conceptualisation of the problem being addressed as well as a firm theoretical and empirical basis for assuming that the proposed programme will be effective in addressing such problem (Parsons 2003; Vedung 2009). This requires evidence to support the causal efficacy ascribed to the programme in meeting its aims, as well as a grasp of the technical and political feasibility of putting the programme in place

(Wolman, 1981). This links to later research which seeks to make explicit the theories of change that underpin public programmes so that these can be evaluated and tested in a variety of settings (Pawson & Tilley, 1997).

The study of public programme success and failure also requires a consideration of the policy *implementation* literature. This highlights the importance of factors such as the structural aspects of programme implementation, level of resources (for example in terms of finance, personnel and technology) required for implementation, the cultural aspects of service change, and mechanisms for programme management and control (Hill and Hupe 2009; Mannion et al. 2011; Dickinson & Mannion 2012). Other key considerations include how the extent of ambiguity and conflict surrounding a policy can mediate and constrain approaches to implementation (Matland, 1995). For example, implementation of decommissioning in the NHS - given the political sensitivities involved - is likely to be characterised by high levels of conflict as well as ambiguity over the different priorities and criteria that should inform and guide decisions (Williams, 2011).

Although formulation and implementation can be understood as different phases in the policy cycle, in practice they overlap and, as a result, the design of one phase will necessarily influence the success of the other. In the words of Anderson (1975: 98) 'Policy is being made as it is being administered and administered as it is being made'. Therefore as well as being subject to the effects of institutions, interests and ideas, the success or failure of decommissioning programmes is likely also to be influenced by the approach to formulation and implementation and the extent of compatibility between these.

#### *Insights from organisational science into processes of decommissioning*

Decommissioning is not a term encountered in the broader organisational science literature although organisational researchers have studied related processes of 'withdrawing', 'closing' or 'terminating' an organisation or service in two main ways (see below). However, even here, it is important to note that whilst much has been written about why organisations 'die', little research or conceptual work has focused on how the process of organisational closedown unfolds (Wigblad & Lewer, 2007).

The first major stream of organisational science research relevant to this proposal is best exemplified by Van de Ven and colleagues (1999) classic 17-year Minnesota Innovation Research Programme, which took a life-cycle approach and studied 14 innovations adopted in a range of organisations mostly in the commercial sector. The researchers observed that innovations did not progress in a linear manner but were instead subject to unexpected 'twists and turns' in a complicated and apparently unpredictable journey from their inception to their final outcome of implementation or abandonment. They explored whether this might be more than just random and contingent but rather the result of a 'non-linear dynamic system'; in other words, whether one might be able to identify the components in both the innovation and its environment that might help one predict, and therefore perhaps control, the 'twists and turns'.

As in later NIHR-funded research which studied the 'journeys' of NHS Treatment Centres (Bate et al. 2006; Pope et al. 2006; Gabbay et al. 2011), they found fault with the conventional wisdom that an innovation was a stable entity, maintained and developed over time and carried in a linear fashion through stages of development, testing, adoption and diffusion. Their fieldwork revealed a very different picture and the 'innovation journey', as Van de Ven and colleagues depict it, has a number of components that – while not necessarily happening in a predictable and orderly sequence – take it from an initiation period, through a development period, to implementation or termination in which it either becomes part of the mainstream or is closed. However, these studies paid relatively

scant attention to the final termination phase, in keeping with the earlier finding that only one of 10 life-cycle models of organisations includes a decline phase (Quinn & Cameron, 1983).

A second stream of organisational science research began when Sutton (1987) coined the term ‘organisational death’ in his qualitative and inductive study of eight organisations in Michigan in the early 1980s. The term has subsequently been used to refer to a wide range of organisational change events (including site closures, business or project failure, downsizing, restructuring, mergers and acquisitions). Sutton proposed a process model of dying organisations that followed a sequence of efforts to avert demise, announcements that death will occur, disbanding, reconnecting, statements that death has occurred and parting ceremonies, and outcome of death. But as Wigblad & Lewer (2007) note, academic understanding of closure remains limited and fragmented; it is still the case that very little research has been published which analyses the closure process from time of announcement until its final day. Even in this context, Bell & Taylor (2011) critique the ongoing dominance of psychological stage theories in this topic area and argue for new pathways for research and practice.

Significantly in the context of this proposal little quantitative and qualitative research has been published which analyses how organisations manage closedown periods (i.e. the time from an announcement until the final day) although Wigblad & Lewer (2007: 4) note that ‘when closing an organisation management generally exercises relatively unfettered power in determining the closure strategy and the range of services and benefits to be made available to those being displaced’, and that whilst decision making may be affected by state-imposed controls and union resistance, ‘more data is needed to test the effects of agencies such as trade unions and community coalitions on closures’.

It is clear that the process by which health care organisations decommission services has not been well studied to date. We therefore lack a firm evidence base on which to ground guidance and recommendations for health care managers charged with overseeing and implementing such processes. The broader organisational science literature offers few additional clues. There is therefore a need for rigorous, longitudinal and qualitative studies in order to develop better explanatory, and context-specific, models. Such models will provide a better understanding of the organisational processes that shape the outcomes of decommissioning services and enable the design of interventions aimed at improving decision making and implementation strategies. Importantly, such models should take full account of significant contextual variables as they pertain to the organisations under study. Given the nature of the gaps in the existing evidence base we plan to employ Actor-Network Theory as our broad methodological approach in this proposal (see below).

#### *Actor-Network Theory as applied to decommissioning processes*

Actor-Network Theory (ANT) describes the interactions between human and non-human elements in a specific organization and wider social context and argues that it is more helpful to consider the relations and generative power of the socio-technical network as a whole than to focus on any human or technological actor in isolation (Latour 1987; 1997; 2005). As previously described by one of the applicants on this proposal (Robert et al., 2010), ANT is a largely descriptive approach with some affinity to complexity theory. Its main driving question is ‘what is the network and what is emerging from it?’ It can be applied to the study of decommissioning processes in the following ways:

- as a mapping tool to describe the multiple interacting actors and influences in a series of complex case-studies



- as a framework to help consider why such actors and processes appear to ‘behave’ differently in different settings or at different times
- as a means of drawing attention to the unintended consequences of decommissioning processes (as well as the anticipated ones)

ANT has recently been forwarded as a framework for investigating technology implementations in health care settings (Cresswell et al., 2010) and exploring the effectiveness of quality improvement interventions (Broer et al., 2010). Applying an ANT perspective in the context of our proposed study will also help us to explore several common themes which appear to impede successful outcomes of decommissioning processes:

- that one or more interest groups may feel threatened by substantive change
- that external actors may feel insufficiently consulted and involved in decision making processes
- stalemates between coalitions of interests
- the role of power and politics

We therefore propose applying an ANT perspective to our qualitative case-studies as it will help combine dimensions from both the political and organisational science fields (see above) and inform the development of contextualised, best practice guidance for health care managers. In drawing on ANT, we will need to ‘follow the actors’ and to analyse how these actors themselves define what is going on (Latour 1997; 2005), hence our proposed choice of fieldwork methods (see below).

#### **Evidence explaining why this research is needed now**

Although the architecture of the NHS in England is undergoing substantial change – not least to the commissioning function – this has neither reduced nor delayed the requirement on local systems to improve performance. In particular, the NHS is required to make efficiency savings of approximately £20 billion by 2014-15 and is facing severe financial challenges for the foreseeable future. Part of the strategy for meeting this challenge involves the replacement or discontinuation of outmoded, unaffordable or cost-ineffective services. As a recent NHS strategy document on innovation notes:

There is an important role for ‘reverse innovation’ – decommissioning activity that is shown to have no added value or that has been replaced by something new or better. (Department of Health, 2011)

The importance of this role is not just in reducing inappropriate spending but also in creating ‘space’ for newer and more effective ways of delivering services (Mannion et al. 2009; Mannion 2011). However, in the absence of effective decommissioning practice the danger is that blunt and unsophisticated instruments are employed leading to unnecessary turmoil and with little guarantee of positive outcomes (Donaldson et al., 2010), or that decommissioning is simply avoided:

‘It’s a brave new world for some people. People are used to adding and never taking away.’ (PCT commissioner cited in Bunt & Leadbeater, 2012)

There is currently a lack of robust evidence and guidance to inform design and implementation of decommissioning programmes. Therefore, developing better understanding of how decommissioning programmes unfold in the NHS and elsewhere is a crucial first step towards providing evidence based guidance for the successful implementation of decommissioning in the NHS. Furthermore, in conducting this research now we will be able to feed into equivalent debates taking place in policy and academia across the developed world. The research team have strong links with recent and ongoing research projects both in the UK and elsewhere and are

therefore well placed to ensure complimentary and maximise contribution (Gerdvilaite & Nachtnebel 2011; Gericke & Flynn 2012; Schmidt et al. 2012; Elshaug et al. 2012).

### **Aims and Objectives**

The primary aim of this research is to formulate best practice guidance for health care managers by identifying and studying the key factors and processes that influence the implementation and outcomes of decommissioning in the English NHS and other health systems. The study will address the following research questions:

- What is the international evidence and expert opinion regarding best practice for decommissioning in health care?
- How and to what extent are NHS organisations currently implementing decommissioning?
- What factors and processes influence the implementation and outcomes of decommissioning?

The objectives of the research are:

- To synthesise the existing international, cross-sector evidence and international expert opinion on implementing decommissioning in health care
- To establish the extent and nature of decommissioning across the NHS by means of a national survey of NHS commissioners
- To carry out in-depth case-studies of decommissioning in the English NHS
- To develop evidence based guidance on decommissioning for policy-makers and senior managers

### **Research Plan/Methods**

The study comprises a multi-level investigation of decommissioning policies and programmes structured into three distinct but inter-connecting work-packages. In this section we outline how our theoretical framework has informed the design of three work-packages and how data will be collected, analysed and synthesised during the course of the research project.

#### ***Theoretical framework***

Decommissioning programmes combine multiple, inter-locking processes and decision points and the aim of this project is therefore to investigate the range of decisions and processes associated with decommissioning. Drawing on previous research and theory, the over-arching theoretical framework for this project will cover:

- The influence of ideas, interests and institutions on decommissioning decision making and implementation
- The stages of decommissioning programme design and implementation and how these influence outcomes
- The complex processes of organisational change required to carry out decommissioning
- The role of actor-networks in the formulation and implementation of decommissioning programmes

To facilitate this analysis we will develop and apply a heuristic model of decommissioning stages (see Figure 1). Based on the evidence outlined previously as well as on decommissioning ‘stories’ retrospectively gathered in preparation of this application (see work-package one for more details), Table 2 extrapolates the range of possible activities, stakeholders and settings associated with each of the notional decommissioning stages (although clearly this is indicative rather than definitive at this stage). This has formed part of the rationale for our sampling strategy and will be refined and tested throughout the lifetime of the project. However it is important to note that

no two decommissioning journeys are likely to be the same and peculiarities of context will determine how each of the stages is negotiated (Williams, 2011a).

*Table 2: Decommissioning stages, activities, stakeholders and settings*

<b>Stages</b>	<b>Activities</b>	<b>Stakeholders</b>	<b>Settings</b>
Problem conceptualisation and specification of programme aims	Assessing needs, Horizon scanning, Identifying options, Developing proposals and consultation documents	Local government, Commissioners (health and related), Clinical opinion, Research experts, Third sector	Health economy, Local public sector, Media and wider society
Decommissioning decision making	Option appraisal, Decision modelling, Consultation, Deliberation	Commissioners, Provider organisations, Patients and public	Health economy, Inter-organisational decision bodies
Decommissioning programme design	Clarifying legal power and responsibilities, Developing project plans, Identifying resources for implementation, Ensuring management and control functions, Maximising support	Local government, Commissioners (health and related), Clinical opinion, Research experts, Third sector, National advisory bodies, Regulatory and legal bodies	Health economy, Inter-organisational decision bodies, Health and Well-Being boards
Decision programme implementation	Communications strategy, Whole-system impact assessment, (clinical) leadership, Project/ change management, Governance arrangements, Transition planning, Risk assessment	Local government, Provider organisations, Overview and scrutiny committees, Third sector, Patient and service-users, Public, Media	Health economy, Local public sector, Media and wider society
Review of implementation and outcomes	Audit, Implementer feedback, Outcomes measurement	Local government, Commissioners (health and related), Clinical opinion, Research experts	Health economy, Inter-organisational decision bodies

### ***Work-package one: Scoping and knowledge synthesis***

Work-package one will address the research question ‘*What is the international evidence and expert opinion regarding best practice for decommissioning in health care?*’ Numerous literature reviews have been commissioned and/or reported on this topic (see Table 3) and we do not propose to duplicate this work. In order to build on work already underway we therefore propose the following scoping and knowledge synthesis activities:

*a) A review of reviews*

We will collate and synthesise evidence and learning from the published academic and professional literature reviews (see Table 3). Existing reviews will be analysed thematically in order to address the following questions:

- How are terms such as ‘decommissioning’ and ‘disinvestment’ employed in the literature?
- What are the current and previous levels and types of health care decommissioning as reported in previous studies?
- What are considered to be the main determinants of successful decommissioning programmes?
- What models and frameworks are available to guide decommissioning and how have these been evaluated? (see for example Greenhalgh & Peacock 2005; Ibarгойen-Roteta et al. 2010; National Audit Office 2011)
- What are the remaining knowledge gaps in terms of evidence and practice?

Our synthesis will incorporate non-health sources inasmuch as these are included in existing reviews of the literature. Through a comprehensive, narrative synthesis (Mays *et al.*, 2005) we will achieve the following outcomes:

- A clear and detailed summary of the evidence base on decommissioning and how this relates and applies to the specific context of the English NHS
- Identified knowledge gaps and unanswered questions to be pursued in subsequent phases of the research

*Table 3: Examples of previous reviews of the literature*

Authors	Review type	Data sources	Sectors	Search terms
Schmidt et al. 2012	Systematic	Medline Embase Business Source ABI-Inform PAIS ERIC	Health Other public Commercial	Disinvestment Discontinuation Decommissioning Termination
Bunt & Leadbeater 2012	Narrative	Information not provided	Health Other public	Information not provided
Pearce-Smith & Gray 2012	Bibliography	Medline Embase NICE NHS Evidence Google	Health	Disinvestment decommissioning priority setting
Leggett et al 2012	Awaiting publication	Awaiting publication	Awaiting publication	Awaiting publication

b) *Delphi study of expert opinion*

A three-round, online Delphi study (Linstone & Turoff 1976; Robert et al. 1998; Robert et al. 1999; Mullen 2003) of national and international experts drawn from a developed-country context (including Australia, Canada, New Zealand and the United States) will be used to elucidate consensus on current 'best practice' relating to the decommissioning of health care services.

The content and structure of the Delphi study will be informed initially by the results of the literature synthesis (see above). Delphi studies build consensus by collecting data from a panel of experts through iterative questionnaires and are effective in establishing consensus in complex topic areas (de Meyrick, 2003). Participants will be asked to consider, define and rate factors and processes (partly derived from our literature synthesis) that shape the outcomes of decommissioning programmes by means of three iterative rounds. They will be asked to complete each round within one week and to provide examples of 'best practice' throughout the process. Analysis will be iterative and thematic across the three rounds and consensus will be statistically operationalised by testing for heterogeneity and inter-quartile range dispersion. Three key stakeholder groups, each comprising 10 people, will be purposively selected for their expertise in studying, leading or implementing decommissioning programmes. The three groups will comprise:

- academics/researchers
- policy-makers and regulators
- commissioners and providers of health care services

In round one, participants will be asked to nominate up to five factors or processes that, in their view, shape the outcomes of a decommissioning programme. The online questionnaire will provide examples of possibly

significant factors and processes from the results of the literature synthesis. Open-comment fields will allow participants to provide explanations and justification for their suggestions and to raise any questions or issues relating to the aims of the Delphi study. The anonymised, cumulative responses will then be fed back to the whole Delphi panel to inform round two.

In round two each of the suggested factors and processes from round one will be defined by the project team (based on participant responses) and then ranked by participants as to their importance in shaping the outcomes of a decommissioning programme on a scale of 1 (low) to 5 (high). Open comment fields will allow participants to explain why they rated particular factors or processes as particularly high or low. The anonymised, cumulative responses will then be fed back to the whole Delphi panel to inform round three.

In round three participants will be asked - taking into consideration the summarised comments from all the other Delphi participants - to nominate (5 points for top priority, 4 for second priority etc.) their suggested top five factors and processes from the ranked list that are most important in shaping the outcomes of decommissioning programmes. For these five each participant will be asked to suggest any examples of 'best practice'. The final outcomes from rounds one to three will be fed back to all participants and further comments invited.

*c) Mapping the decommissioning landscape*

In order to develop a thorough appreciation of the current decommissioning 'landscape' we will carry out a mapping exercise based on a review of the terms and remit of agencies with a legitimate interest or role in decommissioning, including:

- The National Institute for Health and Clinical Excellence (NICE)
- The National Commissioning Board (NCB)
- The National Innovation Centre (NIC)
- The National Institute for Innovation and Improvement (NHSiii)
- The NHS Independent Review Panel (IRP)
- The NHS Confederation
- The National Quality Board
- The National Clinical Advisory Team
- The Office for Government and Commerce
- NHS Right Care
- Disease-specific national bodies such as the National Cancer Action Team
- Royal Colleges (medical and nursing)
- Networks including the Foundation Trust Network (FTN)
- Local authority Overview and Scrutiny Committees (OSCs)
- Health and Well-being Boards
- Service-user organisations such as Disability Rights UK
- The Care Quality Commission
- Monitor
- HealthWatch
- The Department of Health

A single telephone interview will be identified (drawing on expert knowledge of the team, advisory board and secondary sources) and conducted with a representative of each body and these will be augmented with a search for relevant information from websites and official documents. The aims of these exercises will be to establish:

- Current roles and responsibilities with regard to decommissioning
- Current and planned activities and projects
- Perceptions regarding the challenges facing those leading decommissioning programmes
- Good practice guidance and other resources

These outcomes will inform design of subsequent research activities and help to frame analysis of the case-studies conducted in work-package three. Interview data will be gathered, stored and analysed in accordance with best practice outlined in the section ‘data storage and analysis’ below.

*d) Qualitative decommissioning narratives*

To augment these assessments of the published research, expert opinion and the decommissioning landscape, we will compile a sample of decommissioning ‘stories’ which will be gathered through retrospective accounts from individuals who have led recent decommissioning programmes within health and local government contexts in England (Sandelowski, 1991). These will number approximately five in total and will be designed to:

- Refine our decommissioning ‘stages’ model by exploring the stages and activities involved in a sample of recent decommissioning journeys
- Identify the key actors and agencies involved in local processes of decommissioning to inform sampling for case-studies conducted in work-package three
- Gain additional insight into the challenges, contexts and determinants of contemporary decommissioning processes in the NHS (and related service areas)

We have already conducted one of these interviews – with a leader of multiple NHS decommissioning programmes in both primary and secondary care - in preparation of this proposal. Drawing on our established networks we have been able to identify and recruit the following further interviewees:

- A Director of Public Health responsible for leading a review which eventually resulted in the removal of an Accident and Emergency department from a local hospital
- A Medical Director (commissioning) responsible for leading a recent primary care service termination (walk-in centre)
- A local government social care member involved in leading an ongoing review and reorganisation of mental health services in a locality

These interviews will be semi-structured so as to enable key issues to be covered whilst allowing new themes to emerge. Interview data will be gathered, stored and analysed in accordance with best practice outlined under ‘data storage and analysis’ below.

***Work-package two: National survey***

Work-package two will address the research question ‘*How and to what extent are NHS organisations currently implementing decommissioning?*’ This will be tackled via an online national survey of NHS commissioners in England. This will target Clinical Commissioning Groups (CCGs). The aim is to achieve as close as possible to 100% coverage of CCGs in England. To achieve this we require one questionnaire to be completed per CCG. By

the time the survey is administered (month 10), CCGs will have completed authorisation and we will be able to establish the precise number of required respondents. Potential responding individuals from within CCGs include:

- Chair
- Clinical Lead
- Accountable Officer
- Chief Finance Officer
- Senior Management
- Board members

The aim of the survey will be to provide a picture of the types of decommissioning activities planned and underway across England and to derive self-reported data, where possible, on the implementation and outcomes of previous decommissioning programmes. A structured survey will be developed to cover key themes, including:

- Extent of current engagement with decommissioning
- Current/recent decommissioning programmes
- Aims and intended outcomes of decommissioning
- Challenges and key determinants
- Attitudes, experiences and competencies

The survey will be developed with guidance from the project advisory group and will be informed by previous activities described in work-package one.

The survey will be piloted with local CCG representatives before being implemented. The data collection instrument will combine tick boxes and attitudinal questions rated according to Likert scales, with additional opportunities to provide free-text responses. The survey will be administered electronically as a first phase using an online tool such as survey monkey to build the questionnaire. Response rates will be monitored and telephone follow-up will be employed to encourage response. The survey will be completed by telephone where a preference for this approach is expressed by respondents.

Quantitative data from the questionnaires will be subjected to a range of descriptive statistical techniques and qualitative free-text responses will be categorised into emergent themes and reported alongside the quantitative data in line with the approach adopted in Robinson et al. (2011a).

### ***Work-package three: Case-studies***

In combination with work-packages one and two, work-package three will address the research question '*What factors and processes influence the implementation and outcomes of decommissioning?*' We will use a comparative case-study design across multiple study sites, to generalise theoretically from within and between cases (Yin 1984, 1999), to map the multiple interacting actors and influences and to uncover the intended/unintended consequences of decommissioning initiatives. While each case will have its own integrity in terms of theory building and potential to generate policy recommendations, we will also develop common themes across case-study sites using comparative case-study methods and pattern-matching (Yin 1984; Ovretveit 1998; Eisenhardt 1989).

#### *Case selection*

The work-package will incorporate four case-studies of local health (and related) sectors where a planned and explicit approach to decommissioning has been adopted. In each case these programmes will involve replacement, removal and/or reduction of health interventions and services. Case-study decommissioning programmes will be at varying stages of progression (as mapped against the stages model). This will enable us to explore, within the 18 months data collection phase, decommissioning journeys from initiation and development through to implementation and, where possible, direct and indirect outcomes.

We will select cases to capture diversity around four key sampling criteria:

1. Geography: cases will be selected to include programmes implemented in both rural and urban settings in England, as a proxy for a range of potentially important social and demographic variables
2. Scale and complexity: the sample will include decommissioning programmes that vary from the relatively simple (e.g. implementation of NICE disinvestment guidance) to the highly complex (e.g. re-organisation of services across organisational and sector boundaries)
3. Conflict: cases will include programmes with a high degree of stakeholder buy-in and support and others where there is currently (or it is anticipated that there will be) high levels of resistance and stakeholder challenge. This links to the concern with power & politics and how resistance to decommissioning can be overcome.
4. Programme instigation: we will study decommissioning programmes where national bodies such as NICE have played an important role and others that have been instigated and led entirely by local organisations such as CCGs and local government. This will enable us to explore the benefits and drawbacks of central mandation in determining the success of decommissioning programmes.

These sampling criteria are provisional and may be amended and/or updated in light of findings from work-packages one and two. Based on these provisional sampling criteria we propose the following candidate case-studies:

*Case-study one: Children's congenital heart network*

Following the Safe and Sustainable review of NHS heart surgery, significant changes are planned which will include concentration of child heart surgery in a smaller number of hospitals and decommissioning of these services from other organisations ([www.specialisedservices.nhs.uk](http://www.specialisedservices.nhs.uk)). The transition will be led by regional Network Boards overseen by NHS commissioners who will be advised by the national Implementation Advisory Group. This case-study will follow the implementation process in one of the regions implicated. The research team have made initial contact with individuals involved at a national level, for example Dr Chris Clough, Chair of the National Clinical Advisory Team, is a member of our project advisory group. We will pursue local contacts should the research application be successful.

*Case-study two: Investment and disinvestment decision making in Surrey, UK*

Since 2010 Surrey Primary Care Trust has undertaken a programme of disinvestment and re-investment called 'Fast, Steady, Stop'. Further decommissioning activities are expected to occur at CCG level as part of the ongoing QIPP programme. We have secured written agreement from the Director of Public Health (jointly employed by NHS Surrey cluster and Surrey County Council) to be involved as a potential case-study site should we select them.

*Case-study three: Implementing NICE decommissioning guidance*



The National Institute for Health and Clinical Excellence is increasing the volume of its guidance on disinvestment in cost-ineffective health technologies (Garner & Littlejohns, 2011). This case-study will investigate the processes of implementation of an example of such guidance within a local health economy. We have formal agreement to carry out this case-study from the head of NICE’s disinvestment work programme (Paul Chrisp). This case-study will be designed to generate comparison with results emerging from a pilot study of implementation of NICE guidance in the South West Peninsula, UK (Gericke & Flynn 2012).

*Case-study four: CCG-led decommissioning programme*

As part of their ‘Right Care Right Here’ programme of service improvement, Sandwell & West Birmingham CCG have a five-year plan to meet NHS QIPP financial targets and in the process to strengthen services provided in a community setting. They will build on successful recent cost reduction initiatives by implementing a more ambitious and far-reaching change programme. This will involve decommissioning of selected acute hospital services and partial reinvestment of resources into the community services infrastructure. Sandwell & West Birmingham CCG has consented to be named as a possible case-study in the research.

Table 4 indicates how these case-studies are intended to enable comparison of decommissioning programmes according to our sample criteria as well as capturing data at different stages of the typical decommissioning process.

*Table 4: Case-studies and sampling criteria*

	Case-study one	Case-study two	Case-study three	Case-study four
Geography	Urban	Rural	Rural	Urban
Scale and complexity	High	High	Low	Low
Conflict	High	Low	Low	High
Programme instigation	National/regional	Local (CCG)	National (NICE)	Local (CCG)
Stage of decommissioning at data collection	Programme design and implementation	Decision making and programme design	Programme implementation	Programme design and implementation

*Data collection*

For each case-study the primary unit of analysis will be the decommissioning process itself and we will compile narrative accounts and visual maps of the programme of work intended and/or underway. Where the programme is in its early stages (e.g. case-study two) we will employ non-participant observation techniques as used successfully by the applicants in previous research (Williams et al., 2008). Detailed field notes will be taken to identify the processes through which decommissioning plans are identified and drawn up and the role of decision making tools and frameworks in this. Data will generate areas of interest that will be explored further in semi-structured interviews with a sample of those involved (n = 10). A second round of interviews will be conducted approximately 12 months after the decision making phase (n = 10). These will serve to update the research team on subsequent programme progress and will enable exploration of issues arising.

For case-studies in the implementation phase (e.g. case-study three) the primary focus of a first round of interviews (n = 10) will be on design and enactment of the implementation plan. After 12 months a second round of interviews (n = 10) will explore progress against implementation aims and timescales and any issues arising. In summary we will undertake a total of approximately 90 interviews in work-package three with two rounds of data collection split evenly across each case-study site. The one exception to this will be case-study one where the

larger scale and complexity is likely to necessitate additional interviews (n = 30) (see Table 5 for an indication of interview sample for each case-study). In all case-studies the interview sample will comprise individuals involved in the design and implementation of the decommissioning programme.

*Table 5: Case-study interviewees*

Case-study one	Case-study two	Case-study three	Case-study four
Safe and sustainable review team, Regional board representatives, Local implementation leads, Local commissioners, Local provider organisations (including acute and third sector), Partner organisations, Patients and service-users, Community groups <i>Total 30</i>	Local commissioners, Local formulary/priority setting bodies, Local provider organisations (including acute and third sector), Partner organisations, Patients and service-users, Community groups <i>Total 20</i>	NICE disinvestment and implementation teams, Local commissioners, Local formulary/priority setting bodies, Local provider organisations (including acute and third sector), Partner organisations, Patients and service-users, Community groups <i>Total 20</i>	Programme leads (including lead clinician), Local commissioners, Local provider organisations (including acute and third sector), Partner organisations, Patients and service-users, Community groups <i>Total 20</i>

The interviews will seek to obtain a 360-degree appraisal of the decommissioning activities, taking into account the experiences of a range of stakeholders and groups with an interest in decommissioning policies. They will enable us to develop a rich and nuanced picture of:

- The origins, aims and intended outcomes of the decommissioning programmes
- Decision making tools and other information used to inform decommissioning programmes
- The web of relationships between internal and external actors and influences in decommissioning design and implementation processes
- The role of key interest groups in decommissioning including politicians, clinicians and the public
- Outcomes, experiences and attitudes towards future decommissioning

*Data storage and analysis*

Using process flowcharts we will plot the parallel, multi-level processes involved in the decommissioning programme and how these interact to either impede or facilitate successful implementation (Langley, 1999). Informed by our theoretical framework outlined above, we will inductively analyse interview data to explore participants’ perspectives and experiences. Analysis will involve comparative case-study methods and pattern-matching (Ovretveit 1998; Eisenhardt 1989; Thomas 2011). In order to facilitate internal validity (Lincoln & Guba, 1985), all interviews will be fully transcribed and we will use qualitative coding software (NVIVO) to support data storage and retrieval during the analysis phases. At least two members of the research team will be involved in building coding frames for themes from qualitative data and will compare independent coding of a subset of data to identify and address coding differences and ensure consistency. All identified themes will be discussed at regular meetings of the core project team. External validity and transferability of analysis will be addressed through detailed description and data-triangulation between work-packages (Lincoln & Guba, 1985).

*Integrating across the empirical strands of the study*

The various stages of the project will be integrated fully. Work-package one will inform the foci of the national survey and four case-studies (work-packages two and three). The case-studies will enable us to explore gaps and

unanswered questions identified in work-packages one and two. Furthermore, work-packages one and two will give a context to analysis of findings from work-package three enabling reflections on transferability of findings.

### **Dissemination and projected outputs**

Outputs and activities will include:

- a plain language executive summary
- a short document detailing the key findings and implications for local NHS commissioners and managers in England
- a final report to HS&DR specifications, suitable for peer review
- research papers in practitioner and academic journals
- presentations to key stakeholder audiences and conferences (including EURAM, NHS Confederation, OBHC)
- individual feedback to the case-study sites on the key findings and implications for decommissioning within their areas
- feedback events with service-users and patients

As partners in the research NICE and the National Institute of Innovation and Improvement will help to ensure dissemination of the results throughout the NHS. Our international research links will facilitate cross-national comparison and dissemination as well as providing opportunities for future collaborative research. The Health Services Management Centre (HSMC) at the University of Birmingham holds the contract to deliver educational components of the NHS Management Training scheme (MTS) and the findings will inform the learning and teaching on both this programme and other education programmes run by HSMC and King's College.

### **Patient, service-user and public involvement**

The involvement of patients, services users and the public (PSUPs) is integral to the aims and design of the research. This is reflected in the composition of the research team which includes a PSUP expert (see section 'Expertise and justification of support required') whose role will include overseeing an integrated plan of PSUP input from project inception through to data collection, analysis and write-up. We have also recruited a further PSUP specialist to the project advisory group, Roz Dixon (see 'project advisory group'), who will provide an independent patient advocate/public view over the life of the project.

Guided by the expert advice of these two members of the project team and advisory group, we will design and deliver PSUP feedback and discussion events in which early research findings will be discussed and our final report will incorporate the outputs and learning derived from these events.

Further involvement work will be conducted as part of the case-studies described in work-package three (see section 'Research Plan/Methods'). We anticipate that service-user input will feature in each of the decommissioning programmes selected as case-studies and that public engagement or consultation will feature in a subset of these. We will therefore identify site specific mechanisms for involvement and build upon these activities by collecting additional data on the views, experiences and suggestions of those involved. We have also secured support for the research from Disability Rights UK who have developed user-led models of decommissioning in a social care context.

We are conscious that methods and purposes of patient/service-user input can differ from those applied to citizens and the public (Abelson, 2009). For example, perspectives of the latter group may be especially important in decommissioning programmes that are high profile, involve questions of social value, and/or have clear implications for local communities, above and beyond the concerns of specific service-user groups affected by service decommissioning. Where appropriate we will therefore conduct involvement exercises separately between these different roles and relationships.

Through these means we will ensure that PSUP considerations are brought to bear upon: overall project design; specific examples of decommissioning and; results of our research prior to final write-up.

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