# *Opening the 'black box': A study of the process of NICE guidelines implementation*

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# Table of contents

## List of figures



## List of tables

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# ***Abstract***

Providing rigorous evidence about the effectiveness and efficiency of healthcare interventions is not sufficient to account for whether they are introduced into practice or no. This study informs 'evidence-based' implementation by using an innovative methodology to provide further understanding of the implementation process. Within the English National Health System the 'new public management' (NPM) has spawned new arrangements for the healthcare delivery and one manifestation of these is the National Institute of Health and Clinical Excellence that develops clinical guidelines to set standards of care, which are centrally monitored. The aims of the study was to explore the nature of the implementation process by which 'new' interventions are implemented in the healthcare sector and identify factors that may influence the shape of the implementation process using NICE guidelines as exemplar case studies. A conceptual framework was developed based on the analysis of the theoretical, policy and empirical literature on the implementation process and drew on theories of professionalism, managerialism and power. A comparative case study was adopted to study the process retrospectively, prospectively and longitudinally. 74 face–to-face informal interviews were conducted involving clinicians and managers between 2007 and 2009. The implementation process might be characterised as linear and staged to begin with but becomes 'non-linear' as it moves from the planning phase to adoption in every day practice. While, national priorities determine the context for implementation the shape of the process is influenced by the power relations between doctors and managers. The findings suggest that structuralist and post-structuralist theories of power have limited explanatory value. A new conceptual framework is proposed that bridges 'structural' and 'relational' power and constitutes a hybrid position that suggests that even though professionalism qualifies, it does not fully denies, the transformative power of the NPM to move beyond 'traditional' forms of organizing clinical work.

# ***Chapter-1: Introduction***

One of the most significant current questions in healthcare delivery is how new scientific evidence is integrated with practitioners` expertise, values and practices. It has been suggested that new evidence may become *'diffused'* (Rogers, 1995) into everyday practice by way of an unplanned, untargeted and *ad hoc* process, commonly initiated by enthusiasts, whereby ideas spread spontaneously. This is distinctly different from a process of *'implementation'*, whereby ideas are spread by planned activity. Implementation is a rational, controlled process based on decisions made by policy-makers or people acting on behalf of policy-makers, and involves planned approaches to encourage the introduction of a new policy or intervention according to pre-defined criteria, *viz.* strong evidence of cost-effectiveness; evidence of improvements in service safety and quality; priorities within an organisation; and resources available, to improve their utilization. This thesis will explore the process of the implementation of scientific evidence in the healthcare sector.

Many countries experienced during the 1990s fundamental reorganizations of their public sector services (Boyte, 2005). A core element of this reorganization has been the introduction of a new managerialist rationality to the organisation of public services drawing together the principles of efficiency, efficacy, and 'contractualism' (Rhodes *et al*, 2008). These principles were believed to offer a more logical approach to improve performance in the public sector when combined with evidence based decision making (Kessler and Dopson, 2008). For example, it is now common for governments to set up independent agencies whose decisions are based on evidence of cost-effectiveness rather than political influences (Moran, 2007). Within the context of the English National Health System (NHS) the National Institute of Health and Clinical Excellence (NICE) was established as an independent government agency to perform the function of rationing, to consider the evidence base of new interventions, and to develop cost-effective guidelines for best practice (Rawlins, 1999;Goodman, 2000). The aim of this study was to track the implementation of published NICE clinical guidelines in exemplar case studies in order to understand the implementation process. This involved an examination of how clinical guidelines were introduced, received and used by front line providers; an assessment of their impact on clinical practice in

different clinical settings; and an identification of features that account for their success or failure in their context. The objectives of the study were to identify variations in the uptake of NICE clinical guidelines by clinicians and health services managers in different organisational settings; to find out whether clinical guidelines were implemented as planned and to determine the intended and unintended consequences of guideline implementation.

This study used an innovative methodology to explore the implementation process, which should shed some light on the nature and shape of the implementation process. The emphasis was placed on understanding the nature of the implementation process itself, how is it characterised, and what factors influence its shape.

The approach taken in this study was to explore the interrelationship between different interests groups i.e. managers and clinicians and their ability to exercise judgement in local contexts influenced by national health policy demands for Evidence Based Medicine (EBM) to see if it may have an impact on the structure and nature of the implementation process.

Addressing research questions related to the implementation process under the 'rubric' of EBM and New Public Management suggests that there is a need to attend the details of the policy context within which the implementation process was studied. The introduction of general management, managerial autonomy, quasi-markets, the principles of performance management and EBM manifested in the form of NICE guidelines in the English NHS were important aspects of the macro context that need to be discussed. Hence, following this brief introduction the chapter discusses how managerialism, performance management and EBM manifested in the form of clinical guidelines emerged in the context of the English NHS. Beforehand the structure of this thesis is presented.

**Chapter two** presents a narrative review, which is in two distinct parts. The purpose of the first part of the narrative review is to explore the empirical health services research literature in order to ascertain what is already known about the nature and shape of the implementation process. The purpose of the second part of the narrative review is to examine the empirical literature on the implementation of clinical guidelines in order to explore what is already known about the process by which clinical guidelines are implemented in practice.

**Chapter three** has three sections. The first part draws insights from the theoretical literature on public policy implementation. Top-down and bottom-up approaches to implementation may be useful for understanding the nature of the implementation process. In the second part of this chapter it is argued that following the introduction of managerialism

within the English NHS, the interaction of actors – clinicians and managers – with different values, beliefs and with different ways of organizing their work may influence the shape of the process by which clinical guidelines are implemented. Hence, it is necessary to review key bodies of sociological literature on professionalism (and professional power) and bureaucracy (bureaucratic power), drawing on Freidson's views on professional power and Weber's ideas on bureaucratic power respectively. However, drawing on these theories to explain possible ways in organizing healthcare work was of some value. An important limitation was that they led to conceptual problems regarding how power may be identified and researched within the healthcare organization. For these reasons, the power perspective was further explored using sociological approaches to power informed by Foucault and Lukes.

The main argument of the thesis is that given the different interests, values and beliefs between clinicians and managers it seems that what occurs in every day practice in relation to the implementation of NICE clinical guidelines depends upon power relationships between them. Thus, based on this argument the conceptual framework that informed this study – and its methodology – is presented. This framework challenges earlier empirical work on guideline implementation - *informed primarily by Rogers theory of diffusion of innovation* - based predominantly on the individual attributes of guidelines or the characteristics of doctors, while it emphasizes the whole system perspective in analysing the implementation process incorporating essential factors stemming from the governmental/political and the social environment of the individual or the organization within which the implementation process is studied.

**Chapter four** sets out the methodology. It presents the rationale behind the research design, it sets out the methods used for this research, discusses how data were obtained and steps that were taken to ensure the quality of the data collection and analysis. A comparative case-study design was used involving four organizational settings (two Primary Care Trusts [PCTs] and two acute hospital Trusts) in two different geographical areas of South England. Finally, the chapter presents in detail the selection criteria for choosing two distinctly different - in terms of scope and complexity - clinical guidelines and the healthcare organizations for the fieldwork.

**Chapters five and six** discuss the data gathered in the two case studies and outlines the main conclusions drawn from each case study. In keeping with the overall inductive approach

of this thesis the conceptual framework developed by the key concepts of the relevant literature was assessed in an iterative way (Checkland *et al*, 2007) in that after the first case study was completed the framework was assessed and modified in the light of the evidence and the revised framework was explored in the next case study. Towards the end of the sixth chapter a cross case comparison takes place in order to explore the similarities and differences between the two cases in implementing the two NICE guidelines, to what extent do the differences in both case studies provide an explanation of the different implementation outcomes and summarizes the factors that were found to influence the decision to adopt the NICE guidelines across both case studies.

The **final chapter** discusses the empirical findings and the relationships to previous empirical research, identifies the limitations of the research, it also discusses the implications of the findings for theory and policy and it sets out an agenda for further contribution of this research to new knowledge.

## *1.1 The context of this study*

### *1.1.1. General management in the NHS*

From the inception of the NHS in 1948 until the 1980s the State relied almost completely on the medical profession for delivery of healthcare – what Klein called the 'politics of the double bed' referring to the mutual dependency between the government and the medical profession (Klein, 1990). This arrangement rested upon a largely implicit-tacit agreement separating the State's and the medical profession's respective regulatory domains (Fenton and Salter, 2009). During those years general practitioners (GPs) were an isolated group with little or no professional development, dominated by their colleagues in hospitals (Calnan and Gabe, 1991).

Since the 1980s, however, the NHS has increasingly become influenced by principles of general management adapted from business organizations (Flynn, 1992). The increased political attention paid to the management of the NHS has been marked by the growing legitimacy and/or popularity of managerial theory and practice (Thomas and Davies, 2005). The Griffiths report and the introduction of general management principles into the NHS which were based on private sector management that led to the introduction of private sector management and market-style principles. These reforms sought to alter the traditional style of

public administration toward a more efficient management that granted executive power to general managers – appointed on the basis of managerial hierarchy and authority rather than professional skills and capabilities (Lunt and Coyle, 1996) – on the grounds that health professionals were not able to facilitate significant improvements to cost-containment in the provision of healthcare services. The transition to general management was driven by a number of factors, from the neo-liberal ideology of the Thatcher government, which aimed to break professional monopolies resistant to market forces, to the later eminence and popularity of scientific management principles in the public services generally (Mclaughlin *et al*, 2002) and the information revolution in managing complex organisations (Harrison and Pollitt, 1994).

The introduction of general management entailed that management became an alternative career for many doctors, who decided to get involved in the management of healthcare (Gabe *et al*, 2004). This, however, had unforeseen consequences for the medical professional, leading to the fragmentation and restratification of the medical profession (Freidson, 2001), inasmuch as the co-option and synchronisation of managerial with clinical objectives was not universally accepted within the profession (Disken *et al*, 1990).

In the early 1990s the NHS was further transformed from a hierarchical system in which the State monopolised providers of secondary care to an '*internal market*' that separated 'purchasers' (districts) from secondary care 'providers' (who became semi-independent NHS Trusts). This was meant to introduce competition and offer incentives for efficiency between the purchasing districts and the providing trusts (Bevan, 2006). In this respect the NHS and Community Act of 1990 signalled the arrival of *quasi-markets* where *contractual* relationships became the dominant means of controlling performance, quality and standards. In essence, the market mechanism was meant to abolish the traditional professional elites who had dominated service delivery up till then, and to encourage performance-driven modes of service delivery fully responsive to market competition (Pollitt and Bouckaert, 2000;Pollitt, 2002). But the introduction of the quasi-market led to systemic organisational changes as well.

First, the NHS became a more primary care-led health service, with GPs in particular positioned in more powerful roles through fundholding. More specifically, the fundholding scheme meant that GPs were given a budget in order to purchase elective secondary care for their patients from hospitals. In addition, the NHS quasi-market concept of the late 1980s and 1990s was particularly noteworthy for the key role played by GPs in the management of

scarce specialist services, which had traditionally been organised without reference to GP views (Mays *et al*, 2001;Calnan and Gabe, 2002). It was argued that this gave GPs responsibility for referral and prescribing decisions in hopes of reducing variations in these decisions and encouraging the efficiency and responsiveness of hospital services (Maynard *et al*, 1986).

The second rationale for introducing quasi-markets was to build upon the discretion given GPs over the allocation of scarce resources. Self-governing NHS hospital Trusts were set up and administrative, managerial and financial functions were delegated from the centre to Trusts' management executive teams. This was supplemented by tighter accountability practices in the form of audits and performance management (Power, 1997). Before 1991 all NHS hospitals had been managed by a general manager, who was supervised by NHS Health Authorities.

Finally, the election of New Labour to government in 1997 led to a major reorganisation of the NHS. The reforms of the early 1990s that had purchasers expressly negotiating with providers laid the foundation on which the Labour government installed new governance mechanisms, including accountability for both fiscal and clinical performance (Tuohy, 2003). In 2002 the, following the National Health Service Reform and Health Care Professions Act 2002 NHS Health Authorities were merged to 28 Strategic Health Authorities and GP fundholding was abolished. Primary Care Groups, later to become Primary Care Trusts (PCTs), were created to integrate clinical and fiscal decision-making over a population of approximately 100,000 to 300,000 (Secretary of State for Health, 1997). PCTs became compulsory associations of General Practitioners and other independent contractors, which were defined on a roughly territorial basis and subjected to performance management by the NHS management hierarchy *via* a PCT Chief Executive and an Executive Board reporting to an intermediate hierarchical level (the Strategic Health Authority) (Dowswell and Harrison, 2002).

The Labour government also developed National Service Frameworks (NSFs) charged with laying down health service development pathways and setting national targets for primary and secondary care respecting specific health problems and patient groups (Burton and Jackson, 2003). The implementation of NSFs was delegated to PCTs and performance-managed externally. Later on, PCTs were given a variety of further responsibilities and functions centred on delivering primary care; on commissioning specialised services from secondary care; and on promoting public health interventions. Most GPs remained self-

employed and contracted with their PCT to provide primary care services. Responsibility for commissioning health services and for determining priorities for their populations was granted to the PCTs' Executive Boards, which were made up of NHS managers, GPs' representatives acting with managerial capacity, nurses, pharmacists and other health care workers. The long-standing power differential between GPs and hospital consults came under review and may be affected by the 'Shifting the Balance of Power' agenda (Department of Health, 2001), whereby GPs' status relative to hospital doctors is to be enhanced, inasmuch as many GPs play a leading executive role within their PCT (Klein, 2006); with the upshot that GPs now have more, possibly predominating, influence over decisions that used to be made by hospital consultants (Harrison, 2002).

Finally, with the introduction of performance management and the language and implementation of national targets, which are to be monitored centrally by governmental agencies, the importance of management within the NHS has increased and managers have come to be seen as key stakeholders in the achievement of these targets (Cutler and Waine, 2000), even though they rely on doctors to deliver these targets. Consequently, stricter controls on healthcare spending and more comprehensive fiscal and performance management approaches have been introduced for the everyday running of the NHS. These organisational changes have created a radically different environment where managers have begun (in theory) to challenge health professionals within the NHS while incorporating them into the structures of control (Wood, 1999;Flynn, 1992;Harrison and Pollitt, 1994).

Within this context of managerialism, developments have pushed Evidence Based Practice (EBP) manifested in the form of cost-effective clinical guidelines, to the top of the health policy agenda; resulting in Evidence-Based Medicine (EBM) emerging as a dominant *discourse* for the delivery of significant improvements to the quality and cost-efficiency of healthcare. The next section provides a brief description of the essential aspects of EBM and then proceeds to discuss the policy context within which EBM emerged as a dominant healthcare policy in the English NHS.

### *1.1.2 The concept of EBM*

EBM is amongst the most significant modern initiatives committed to the redevelopment and remodelling of biomedical reason and practice (Mykhalovskiy and Weir, 2004). It stems from the recognition that an important gap has historically existed between the findings of clinical research and their implementation in clinical practice (Dopson, 2005). One of the

most widely used definitions for EBM is given by Sackett and colleagues, who assert the centrality of scientific rationality in medicine by declaring that:

> '...EBM is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients...'
>
> (Sackett *et al,* 1996 , p.71)

In the view of Eddy (2005) EBM may be conceived as the integration of two distinct but related approaches to clinical decision-making. The first was evidence-based individual decision-making (EBID), which used intuitive and personal methods to render decisions for individual patients more scientific during their encounter with the doctor (Eddy, 2005). It is believed that this was the primary matrix from which EBM developed. The second approach was the development of evidence-based clinical guidelines (EBCG) by multidisciplinary teams using rigorous research methods to address the needs of classes of patients. According to Cochrane (Cochrane, 1976), the long-standing and well established autonomy of clinicians to set clinical standards has meant that, when different clinicians have made decisions about the effectiveness of the same intervention they have often arrived at different conclusions. Cochrane's solution was to subject treatments originating in clinical settings to randomised-controlled clinical trials (RCTs). Armstrong (Armstrong, 1977) reported that evidence from clinical trials performed by the medical elite have become an alternative approach to the construction of medical knowledge, manifested in the form of clinical guidelines, purporting to make clinical decision-making more 'scientific' as distinct from the experiential knowledge of clinicians derived from everyday practice.

Thus, the emergence of EBCG can be seen as the outcome of the consolidation of RCTs as the dominant research technique for the production of medical knowledge (Marks, 1997;Harrison, 1996). This was augmented later by the establishment and consolidation of health technology assessment and quality improvement studies by the sciences of economics and regulatory management. These studies were linked particularly to the production of clinical guidelines (May *et al*, 2006) the common aim of which was to achieve universality of medical practice through standardisation, so as to guide and also to *govern* clinical practice (Berg, 1997). In this context, however, Sackett *et al*, the premier exponents of EBM, have argued that *'external clinical evidence can inform, but can never replace individual clinical*

*expertise'* (1996:71). In some respects EBM should entail an integration of internal and external sources of knowledge (Basford and Slevin, 2003).

The twin forks of EBM may be pictured by the model developed by Harrison (Harrison, 2002), who integrated four different models of medical practice (see Figure 1).

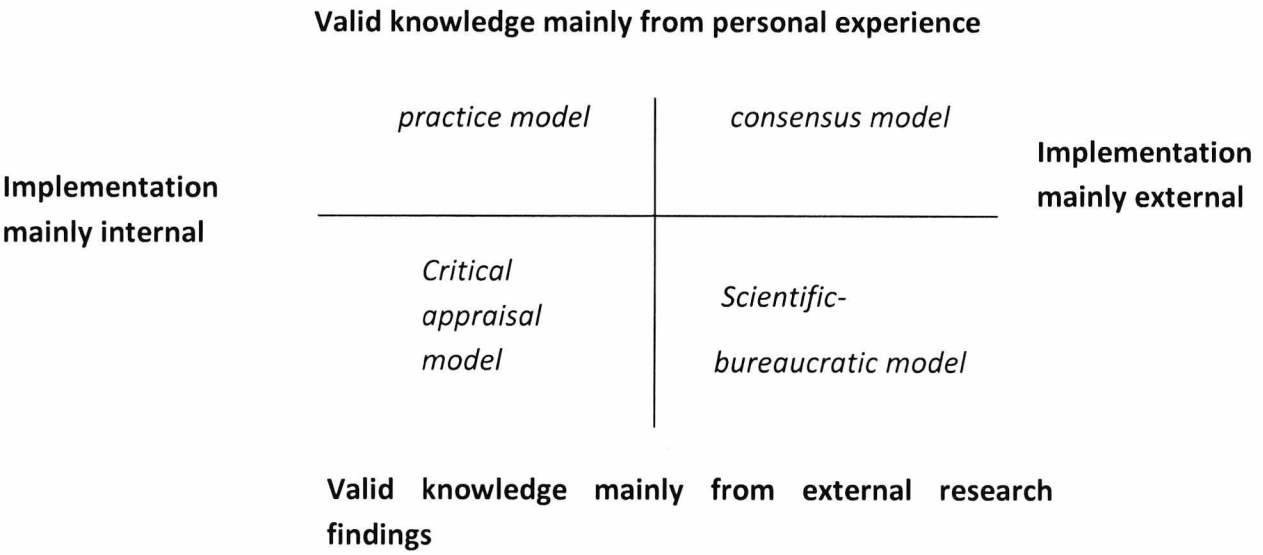


**Figure 1**: four models of medical care practice (Harrison, 2002).

The *reflective practice* model was founded on the idea of Argyris and Schon (1977) that doctors should reflect upon their personal experience and thereby generate the evidence that is to inform their practice. Indeed, clinical practice has traditionally been described as 'empirical' and informed by 'tacit knowledge' derived from doctors' self-reflective patterns of behaviour during the everyday encounter with their patients (Harrison and McDonald, 2003).

The *professional consensus* model was founded on the previous model and theorises an interaction amongst the professional elite conceived as a process of exchanging personal experiences that collectively generate the evidence base to inform their practices. This gradually achieves a professional consensus that influences the clinical decision-making of peers.

In contrast to the previous two models, the *critical appraisal* model was founded on what

Sackett *et al,* (1996) call 'external clinical evidence' and the 'hierarchy of evidence' as an authoritative classification of the validity of research findings. Although this model distinguishes the importance of external knowledge, it nevertheless presupposes that doctors have the extra internal skills required to search the literature, to evaluate the various papers, and to put the conclusions to clinical use (Greenhalgh, 2006).

Finally, the *scientific-bureaucratic* model was also informed to some degree by certain of the principles of the critical appraisal model, but took the concept a step further with the production of *clinical guidelines*. Harrison ( 2002) has suggested that clinical guidelines may be conceptualised as bureaucratic rules, and in this sense the model has been labelled 'bureaucratic'. This model highlights the authoritativeness of scientific evidence reliant on external specialist knowledge, but also features formal strategies for implementation driven more by managerial control processes than by professional judgement. As a result, and despite the fact that EBM was originally driven by professional motives, over time politicians and non-clinical managers interested themselves in EBM and took it up as the key to challenging existing clinical practices and to improving healthcare quality (Dopson *et al,* 2003), to the 'unfairness' of the way in which health services varied between different providers which had led to the 'postcode lottery' across England (Department of Health, 2000) and possibly to contain the escalating cost of health care delivery. For instance, the UK Department of Health (DoH) strategy for the English NHS, and the US National Institutes for Health and Agency for Healthcare Policy and Research in the USA have both introduced EBM into practice (Pope, 2003).

Within the context of the English NHS it has been suggested that EBM has manifested itself primarily in the form of Scientific Bureaucratic Medicine (SBM) (Harrison *et al,* 2002). One example of SBM is the establishment of NICE and the systematic introduction of clinical guidelines, developed in part by medical elites, to set centrally monitored standards of best practice. This form of EBM is characterized as 'scientific' inasmuch as it relies on externally produced specialist knowledge, and 'bureaucratic' because it relies on rule-based implementation (Harrison *et al,* 2002).

It has been occurred that the introduction and adoption of SBM as the predominant manifestation of EBM in the English NHS happened in two phases, during which the Conservative governments legitimised the scientific element of SBM in the early to mid-1990s, while their successors (New Labour) legitimised the bureaucratic element (Harrison

and McDonald, 2008). The scientific element was embodied with the establishment of a research and development program for the NHS, which was then fully integrated into the NHS management structure to lay a 'scientific basis for the NHS' (Peckham, 1991) by generating, collating, synthesising and disseminating evidence on clinical effectiveness (Peckham, 1993). The establishment of institutions such as The Cochrane Collaboration and the NHS Centre for Reviews & Dissemination widened the amount of authoritative research knowledge about classes of patients (manifested in the form of clinical guidelines) that was readily accessible to healthcare workers, including managers, doctors, nurses, and other healthcare professionals (Sheldon and Chalmers, 1994).

The bureaucratisation of EBM was aided by the policy of 'clinical governance' that was developed in the 1990s following a number of media-amplified scandals about doctors' performance, which suggested that the medical profession was source of risk that needed to be more tightly regulated. Subsequently, the Labour Government transformed clinical governance into a statutory duty of the NHS, and NICE was set up to perform the function of rationing, to make recommendations for both the clinical effectiveness and the cost-efficiency of particular interventions, and to assist the drive for high-quality, cost-efficient care by producing clinical guidelines to be disseminated to front-line clinicians (Littlejohns *et al,* 2004).

It is contested whether NICE clinical guidelines represent a top-down form of governance. NICE itself has recommended that clinical guidelines should be disseminated to front-line clinicians in a manner that does not override clinical autonomy (National Institute for Health and Clinical Excellence, 2000). By contrast, according to the publication 'Standards for Better Health' of the UK Department of Health (2004), NICE guidelines are to be understood as top-down governance performance standards that are centrally prescribed and monitored. NHS Trusts' adherence to NICE guidelines has historically been reviewed externally by the Healthcare Commission (HC) – even though this has been subject to change (Department of Health, 2008)[1] – which has determined which Trusts are to be considered for 'Foundation Trust' status. This appears to be a form of devolution of operational control to NHS Trusts through 'earned autonomy', based on the principle that the highest-performing NHS trusts – in terms of meeting the national performance targets – are to be allowed more local self-government (Mannion *et al*, 2005). One implication of such a policy is that high-performing

1 The Healthcare Commission has been superseded by the Care Quality Commission in 2009, which will be given greater powers of enforcement than those held by its predecessor.

NHS Trusts escape the top-down hierarchies of control originating with the DoH. This is an incentive that could influence NHS managerial use of NICE guidelines in their organisations and motivate them to encourage clinicians to put them into practice. The corresponding disincentive is that low-performing trusts will be subject to the Strategic Health Authorities' micro-management, which of course limits local managerial discretion.

The increasing calls for enhanced efficiency and accountability by the NHS have led to the introduction of clinical governance, spawning the new arrangements for governing the performance of doctors and challenging their authority. In theory, they are now accountable to managers for their provision of healthcare services (Gray and Harrison, 2004;Gabe *et al,* 2004; Calnan and Gabe, 2009).

The changes discussed so far signify important change in the organization of the NHS and in the form of evidence that clinicians were expected to use in practice. In the next chapter the literature relating to the implementation of evidence in medical practice will be discussed in order to highlight what is already known about the implementation process in health care.

# Chapter-2: understanding the implementation process, a literature review

## 2.1 Introduction

The aim of this thesis is to track the fate of published NICE guidelines through exemplar case studies in order to understand their implementation process. This entails characterizing this implementation process and understanding what factors influence its shape. More specifically, the research objectives are, by identifying variations in the implementation process, to determine whether they are implemented as planned; to explain variations in their uptake by clinicians in different organisational settings; and to investigate the intended and unintended consequences of guideline implementation.

To further the aim and objectives of this thesis it is desirable to explore and then to build on what is already known about the implementation process in the healthcare sector. It is the purpose of this chapter, therefore, to review the empirical literature on the implementation process in healthcare in general. A narrative literature review was considered more suitable for this purpose than a systematic literature review. Because the narrative review is more descriptive and less explanatory than a systematic review, it addresses a broad range of issues related to specific subject areas and brings these together in an overview; as opposed to focussing on a single specific question, which is the main task of the systematic review (Jones, 2007;Sim and Wright, 2000). The narrative review will thus be used as a tool to explore the empirical literature for what is already known about the implementation process in healthcare in general and more specifically about the implementation process of clinical guidelines.

This chapter is divided into two sections. The first section provides a narrative review of the empirical literature on the implementation process in the healthcare sector and the second provides a narrative review of the empirical research that focuses on the implementation of clinical guidelines.

## *2.2 Characterising the implementation process*

The first sub-section provides a definition of 'implementation process'. The second sub-section presents the terms and concepts that are frequently used to characterize the implementation process in healthcare in general as to its main features. The third sub-section presents the research that has already been undertaken into the general nature of the implementation process.

### *2.2.1 Defining the implementation process*

The aim of the proposed research is to inform 'evidence-based' implementation by providing further understanding of the process of introducing and using scientific and technological developments in practice. This suggests that the terms of diffusion and implementation are important for this project. However, the concepts of diffusion and implementation are rarely explicitly defined in the literature and there is little agreement about what these terms mean. For instance, Rogers (1995), perhaps the most widely cited researcher in this field, argues that diffusion can be planned and unplanned, whereas Greenhalgh *et al,*(2004) make a distinction between diffusion and implementation where:

> *'the various influences that help spread the innovation can be thought of as lying on a continuum between pure diffusion (in which the spread of innovations is unplanned, informal, decentralized, and largely horizontal or mediated by peers) and active dissemination (in which the spread of innovation is planned, formal, often centralized, and likely to occur more through vertical hierarchies'* (p.17).

Greer, takes a similar approach to Greenhalgh et al and suggests that diffusion is unplanned, but the integration of the innovation into practice requires a planned activity (Greer, 1988). Battista (1989) studied the diffusion process in medical technology innovation and suggested that the complexity and perhaps lack of clarity which surrounds the concept of diffusion and implementation is attributed to the fact that at least three distinct bodies of literature deal with it from a different but complimentary perspectives

Lomas (1994) takes a similar perspective about diffusion and implementation but he does not focus on the actual characteristics of the process but rather on the actual outcomes of it and suggests that the literature on communication makes a distinction between communications that could be used to enhance awareness and those that actually could facilitate changes in practice.

For the purpose of this research *implementation* is defined as a controlled activity aiming to introduce and encourage the uptake of a new policy or intervention that embodies pre-defined criteria (*e.g.* strong evidence of cost-effectiveness, priority areas and resources available). This definition implies a distinction between ideas that are diffused and spread spontaneously and ideas that get spread by deliberately planned and specified activities that count on and consist of effective and controlled cooperation, coordination and consensus within a team or organization.

### *2.2.2 Theoretical concepts: characterizing the implementation process*

Two distinctly different approaches have been used to describe and define the nature of the implementation process (Calnan *et al*, 2006;Ferlie *et al*, 1999;Greenhalgh *et al*, 2004). The first one is called the *staged* approach and seems to accord with the definition given above [see section 2.2.1]. Here the process is seen as a linear progression of activities or as the linear model of a sequence of deliberate actions, such as planning, organizing or evaluating outcomes. It usually requires monitoring and feedback loops as means of gathering information about whether the planning and organizing have been adequate for the success of the implementation. The linear stages usually encompass the steps linking the initial decision to put the policy/intervention into practice to the end-result of integrating it into everyday practice (Wallace *et al*, 2007). The linearity of the stages are believed to fit in with the rational model of decision-making posited by Simon (1957) and with the normative ideologies of control introduced by USA-style managerial discourse. Greenhalgh *et al*'s systematic review (2004) of healthcare implementation has identified several implementation models that share the linear, rationalist conceptual framework. In these models innovations are perceived to be a 'thing', adoption is conceptualized as an 'event', and the implementation is a rational process that occurs as a sequence of 'stages' and is amenable to

planning according to pre-defined criteria and monitoring against pre-defined targets. Such models assume key stakeholders involved in the process are capable of controlling the stages effectively and efficiently – the key to implementation.

Linear models also assume that the decision to adopt a policy/intervention is the starting point of the implementation process. A large body of literature reporting empirical research into the UK healthcare system (Faulknera and Kent, 2001;Rosen and Mays, 1998;Fitzgerald *et al*, 2003), but also into the USA system, where facilities are largely financed and operated by the private sector (Grigsby, 2007), have echoed this assumption, describing healthcare organizations making 'adoption decisions', whereby organizational units with potential to adopt a policy/intervention decide to proceed (or not) based on pre-defined, rational criteria. These studies often cite Rogers`s work on diffusion of innovations (1995), which proposes a theoretical framework used by many researchers in different contexts to explain the adoption of innovations, which conceptualizes implementation as the last stage of a 'diffusion' process. This linear progression of stages follows closely the pattern described by McKinlay (1981), who mapped the career of medical innovations from conception to becoming standard procedure.

The stage of planning an appropriate implementation strategy and the stage of evaluation follows 'the decision to adopt', as depicted below [see Figure 2 below]. In the first of these two stages a course of action is designed that is supposed to effect implementation by building local organizational capacity for using the policy or intervention, whether collectively and individually (Grol *et al,* 2007; Mendel *et al,* 2008).

Decision to adopt ⟶ Planning ⟶ Evaluation

**Figure 2:** *the 'staged' approach to the implementation process*

Lomas (1994) broached the concept of *implementation strategies* that utilize organizational and practical activities to aid clinicians in introducing new information and ideas into their practices, especially by addressing individual, group, organizational and environmental barriers to change. This concept resembles the model developed by Zmud (1984), who developed an *implementation process theory* to study the adoption of six modem software practices. Zmud concluded that top management attitudes regarding the adoption of innovations - six modem software practices- influenced the organization`s receptivity toward

change and underlie the implementation process. Similarly Greer`s (1984) American study on the implementation of medical technology in hospitals has found that hospital board tended to perceive it as their role to take ownership for strategic and/or 'big-ticket' investment decisions.

Lomas`s *implementation strategies,* Zmud`s ` *implementation process theory* and Greer`s findings are premised on the assumption that potential adopters resist adoption until prompted and supported by their managers. A linear link between managerial support and the deployment of incentives and sanctions is considered crucial. Accordingly, in the context of healthcare, responsibility for the overall implementation of a programme, policy or project rests with the organization's management systems. Managers are portrayed as key stakeholders who monitor and control the stages of the implementation process.

The staged approach to implementation has not been found universally acceptable. Some researchers have suggested that adoption (and non-adoption) of innovations is not always a rational process, nor is adoption a single decision or event (Greenhalgh *et al*, 2004), and that any analytical stages should be conceptualized as not being strictly sequential in nature but rather more dynamic and messy (Ferlie *et al*, 2000). Ferlie and colleagues studied the relationship between research evidence and clinical behaviour change in the English NHS. Four clinical areas were studied using a comparative case study design and semi-structured interviews with key informants. The results of this study confirm a more complex relationship between evidence and its implementation; a professional dominance model of clinical behaviour change, where 'tacit' knowledge, which emerges through everyday practice, was a key power resource that determined the way research evidence influenced clinical practice. Consequently, the authors concluded that linear implementation of health interventions rarely happens but it is a complex and contested process consistent with the interactive model of policy implementation developed elsewhere (Lipsky, 1971) but not so far obvious in the EBM literature, which they concluded is less sanguine about the implementation process and has been more concerned with the identification of effective 'levers' that may influence change of clinical practice.

This school of thought emphasises intra-organizational relationships and negotiations between key stakeholders, and the iterative and/or back-and-forth transition between the several stages in the adoption/implementation process (Van de Ven, 1992). It implies that the implementation process features less control and rationality than the term 'process' implies; that it is characterized by bargaining and negotiation; and that, rather than being staged,

smooth and straightforward it is actually more interactive and 'messy' (Grimshaw *et al*, 2004;Van de Ven, 1992;Gabbay and Le May, 2004;Harrison *et al*, 1990). These considerations of the implementation process shift the focus onto the interaction between stakeholders and away from abstractions like 'stages'. Finally, there is also evidence that the implementation process may be multifaceted and lengthy, and that it will be necessary to follow it across time to understand how it unfolds (Bradley *et al*, 2004;Ferlie *et al*, 1999;Fitzgerald *et al*, 2002;Hannes *et al*, 2005).

It is possible to summarize the different views regarding the uncontrolled nature of the implementation process in the following figure [see Figure 3]. This represents the non-linear approach to the implementation process, especially as depicted in cyclical form. It includes as well as the decision to adopt, planning, and evaluation another analytical element consisting of subsequent, fed-back reflection on the initial decision to adopt.

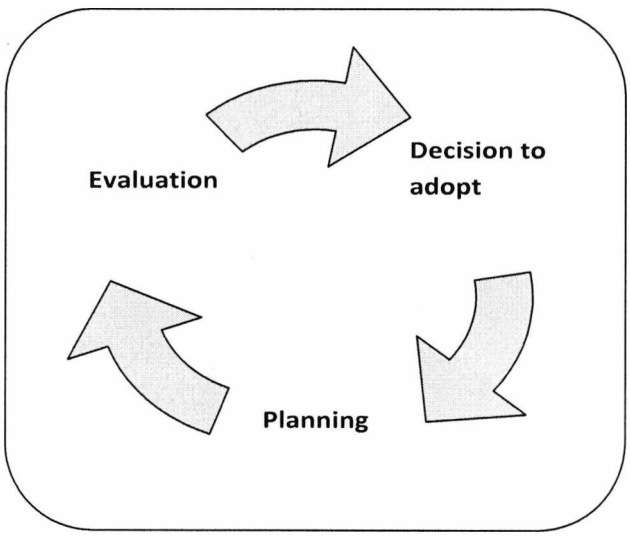


**Figure 3:** *the non-linear approach to the implementation process*

Figures 2 (page 20) and 3 (above) diagram two markedly different conceptual approaches which have been used in the empirical literature to theorize the nature of the implementation process in healthcare. On the one end of the notional spectrum it is possible to locate the empirically oriented, rationalist tradition, consisting of stages, that seeks to maximise the effectiveness of an intervention, and on the other, a counter-perspective of non-linearity which stresses that the implementation process is not strictly controlled. It can be argued that these two approaches offer different insights gleaned from different perspectives on the same phenomenon, which in itself ranges from planned to unplanned and linear to non-linear; or

that it demonstrates a lack of consensus between researchers about the fundamental nature of the implementation process.

### 2.2.3 Methodological approaches key empirical findings

This sub-section first addresses the methodological tensions that have been identified in this field. Greenhalgh and colleagues (2004) argue that the staged, planned and sequential approach to the implementation process constitutes a 'positivist' model of implementation, while the non-linear approach constitutes an 'interpretivist' model, where engagement, involvement, communication, commitment and values are important factors that may influence the shape of the implementation process. In the first model, little attention is paid to human agency as such, while organizations are conceptualized from a rational-systems perspective as formalized instruments with an explicit structure depicted in form of a hierarchy designed to attain specific pre-defined goals (Scott, 1998). 'Rationality' as here understood refers not necessarily to the selection of goals but to the way they are supposed to be implemented. By contrast, in the second model, a symbolic interpretive perspective to organizational research is taken. In this scenario, potential adopters do not behave purely as rational economic actors, but, in addition, as subjects with multiple interests and values. They tend to behave more as an informal group of individuals sharing the same values and beliefs than as a formal organization (*Ibid*).

Another methodological tension found by Greenhalgh et al (2004) is that some researchers favoured experimental studies as the most appropriate research design for the evaluation of implementation strategies, while others argued against experimentalism because it tends to be blind to the influence of the social and organisational context. Others have voiced similar concerns (Calnan and Ferlie, 2003;Dopson and Fitzgerald, 2005) and have criticised previous research for being insufficiently cognisant of the context. In their view, a misleading theorised layering of the social and institutional context into macro, meso and micro levels imposes a unidirectional view of causation whereby human beings are treated as passive receptacles, while, in addition, characterizing the context as static rather than evolving and changeable over time (Kessler and Dopson, 2008;Dopson and Fitzgerald, 2005).

Having completed this discussion of methodological tensions, the subsection will here proceed with the review of key findings from the empirical research on the implementation process within the healthcare sector.

### 2.2.4 Key empirical findings

A range of controlled strategies have been developed and utilized to implement planned changes in clinical practice in different healthcare systems, irrespective of the system of finance and organization. The relationship between these strategies has been further investigated by identifying implicit or explicit theoretical conclusions about how and why clinical change may or should be implemented through these strategies (Grol, 1997) [see Table 1].

| *Strategies to implementation* | *Theoretical underpinning* |
|---|---|
| *Educational strategies* | Change is driven by an internal striving for professional competence; therefore, strategies for improving practice focus on stimulating this motivation |
| *Epistemological strategies* | Humans are rational beings who make decisions on the basis of balancing rational arguments |
| *Marketing strategies* | The trick is to develop and market an attractive product or message which meets the needs of the target group and helps them to achieve their goals |
| *Behavioural strategies* | Based on (classical) theories on conditioning and controlling practice. Human practice is seen as primarily influenced by (external) stimuli before or after a specific action. |
| *Social interactive strategies* | Learning and changing are achieved through interaction with and under the influence of important others |
| *Organisational strategies* | Transfer focus of implementation efforts onto the organisation as opposed to the individual |
| *Regulatory strategies* | Change through command and control and the pressure that exerts |

**Table 1:** ***Strategies and theories to change as described by Grol (1997)***

Assessment of the effectiveness of these different strategies has received considerable attention (Bero *et al*, 1998), and some strategies have been found more effective than others (Haines and Jones, 1994;Lomas, 1994). Systematic reviews of the effectiveness of these implementation strategies have shown that that multiple interventions were usually needed to achieve actual changes in clinical practice (Grol *et al,* 2005). In addition, it has been suggested that strategies closely linked to clinical decision-making processes were more likely to be effective (Davis *et al,* 1995;Grimshaw *et al,* 1995), while multifaceted strategies, such as those including reminders and interactive educational meetings, were consistently more effective than simple approaches (Bero *et al,* 1998).

One potential limitation of these studies is that they offer little evidence that the controlled strategies developed and utilized for implementing planned changes in clinical practice were actually the causative factor that brought about any changes in practice, while the studied interventions were generally not described in sufficiently detail to allow others to reproduce the same study (Ovretveit and Gustafson, 2003). It is therefore believed that conclusions from these studies should be drawn with caution.

A second limitation with this body of the literature is that the vast majority of the studies focused on the decision to adopt a new intervention, while neglecting its sustainable uptake. Determining whether the implementation of a new intervention has been sustained will thus depend on the study design. Hence, conclusions regarding the nature of the implementation process and the factors that may influence its shape should also be treated with caution, given that sustainability is not sufficiently understood. It may be necessary to study the implementation longitudinally in order to articulate all of the attributes and complexities of the whole process.

For example, Geljns and Rosenberg (1994) have suggested that new technologies are rarely implemented at their optimum effectiveness and lowest cost; rather, they develop in situ as clinicians master new techniques and the new technology is tweaked and modified to suit the clinical context. These authors contrast a dynamic, multi-causative model with the linear model of medical innovation that is still so deeply ingrained in the policy discussions of many health systems, contending that adoption is only the beginning of a long-running process in which vital redesign takes place. The latter may happen a considerable way down the implementation pathway. Orlikowski`s (1992) study on the adoption of technology by

organizational members found that the use of 'technological frames' – the term used by Orlikowski to explain how key stakeholders think about the new technology – plaid an important role in adoption and suggested that changes in 'technological frames' across time facilitated its adoption. Orlikowski used the concept of 'technological frames' in order to explore the relationship between intended and unintended implementation outcomes and identified three types of outcomes. The first was intended processual changes and were related with changes in work routines and practices. The second type of change was intended technological changes and was related with changes in technological properties. Finally, the unintended changes were structural and were related with changes on organizational properties such as social structures and systems. As a result the implementation process was seen as being dynamic in nature and contextually embedded. Similarly, Edmondson and colleagues (2001) have suggested that embedding change into routine practice requires the development of common sense of healthcare interventions and technologies, whereby protocols of best practice are developed, adapted, re-invented and negotiated locally between key stakeholders. Ideally, the study of these processes would feature longitudinal study designs and resources (Dopson *et al,* 2010); but this is not often possible because many researchers do not have access to adequate resources to fund such studies (Buchanan *et al,* 2006).

Two studies have used longitudinal designs both of which took place in the USA healthcare system. The first study explored the adoption of an evidence-based, multifaceted, innovative program in nine hospitals setting, with particular attention to issues that promoted or impeded its implementation, using a qualitative study design based on in-depth, open-ended telephone interviews with physician, nursing and administrative staff involved in the implementation process every 6 months during implementation until the end of the 2-year study period (Bradley *et al,* 2004). The study used the terms of diffusion, implementation and dissemination interchangeably giving the impression that they were part of the same process, but did not provide any evidence of the nature of the implementation process. The study concluded that the translation of research into practice, through new clinical program implementation, was not simple and required substantial organizational change. The second study was a three year longitudinal, qualitative study that explored the success factors in sustaining the adoption of an innovative program over time at 13 hospitals. The authors found that some sites were better equipped to overcome uncertain consequences of implementation.

Some sites terminated the programme and provided less information about sustaining the implementation of the program. In contrast, in hospital sites that clinical leadership and funding as well as the inevitable modifications of the programme promoted the effectiveness of the dissemination team and the sustainable uptake of the program into practice (Bradley *et al,* 2005). Although the comparative analysis highlights the uncertainty and variation inherent in implementing and the uncertain consequences of implementation once again, the authors did not explain the nature of the implementation process.

Another theme that several studies have been concerned with was the organizational 'capacity to implement'. These studies have been performed in different contexts and are comparable only insofar as they shared this concern. It seems that widespread agreement among researchers exists regarding a possible association of the organizational capacity to implement with a 'receptive organizational context' for change (Newton *et al,* 2003;Van de Ven and Schomaker, 2002;Pettigrew *et al,* 1992) that could explain implementation success or failure, and may influence the nature of the implementation process. Several characteristics associated with a receptive organizational context were found to influence the 'capacity' to implement.

First was the presence or absence of strong leadership and visionary staff to set the tone for achieving the objectives of implementation (Dopson *et al,* 2002). For example, the involvement of opinion leaders in the form of 'product champions' has attracted considerable attention in the implementation research. Here a distinction has been made between expert and peer opinion leaders, who were found to play important but distinct roles (Gerada *et al,* 2002;Locock *et al,* 2001). More specifically, studies of the introduction of new healthcare interventions found that experts performed the role of champions of change and acted as knowledge brokers during implementation, where the new idea was rolling within the organization; endorsing the necessary knowledge and translating it into a form that was acceptable and understood by the 'laity' *i.e.* the *non-expert healthcare practitioners* (Locock *et al,* 2001;Grol, 1997). In these cases the process was conceptualized as planned and controlled implementation, so that the presence of enthusiastic clinical leaders if it was the driving force of implementation, may suggest that the process was controlled.

In contexts where the implementation process was perceived to be uncontrolled, however, inadequate leadership was found to be a significant factor in the low success rate of implementation initiatives (Beer and Nohria, 2000;McKinsey Quarterly, 2008). On the other

hand, it has been argued that there has been insufficient consideration and poor understanding of other aspects of leadership, such as the role of 'informal' opinion leaders who operate outside the formal hierarchy and are neutral or hostile to a new idea (Locock *et al,* 2001). Furthermore, the tendency of research studies to explore the earlier stages of implementation meant that the concept of leadership often was viewed as being fixed and static, to the neglect of 'processual studies of leadership' that might have inquired into the context and/or into the process through which leadership may be practiced by wide variety of potential stakeholders at different (notional) stages of implementation. One exception to this neglect was a qualitative, longitudinal case study of multidisciplinary primary health teams operating across organizations in a Canadian province, which showed that the ability to initiate, to influence, and to implement change was dispersed across the system and that no single agent (individual or group) had the full authority, resources, or expertise to lead the change. This point to a distributed change-leadership model (Chreim *et al,* 2010).

A second factor related to a receptive organizational context that implementation research has revealed to be important is the potentially large number of different stakeholders involved in the implementation process (Greer, 1984;Rosen, 2000). Thus 'receptive context' may involve a multiplicity of stakeholders with different interests, values and beliefs interacting over implementation (Buck, 2006). It has been also suggested that an important part of the receptive context (Greenhalgh *et al,* 2004) may be the social construction of, and the process of negotiation over, the value of new healthcare interventions carried on within an adoption unit, and the contribution that this negotiation makes to the implementation process. For example, the introduction and implementation of a pre-booking administration system in a big hospital unit in the UK showed that receptiveness differed between individuals and teams across the same organisation, and that this contributed to the differential pace of implementation in different units (Buchanan *et al,* 2006). This implies that the experiences and input of all involved stakeholders may influence the nature of implementation. A retrospective, qualitative study investigating the implementation of evidence-based practices in child welfare work in the USA found that the process was complex and often fraught with unanticipated events and conflicts, and that the nature of the process was conceived to be different, depending on the perspectives and experiences of whichever stakeholder group was consulted by the researchers (Aarons and Palinkas, 2007). Thus, stakeholders may define the nature of the implementation process according to their own experiences, values and beliefs. This suggests that to better understand the implementation process in the healthcare sector, it

will be necessary to explore the different perspectives of a whole range of stakeholders with diverse and sometimes competing interests, values and experiences.

The third factor related to a receptive organisational context was the finding that the ability of different stakeholders to impose their own agenda varies according to the organisational structure in which they operate (Blume, 1992;Ferlie *et al,* 2000) and it has been argued that the influence of these different stakeholders may also vary according to factors independent of organisational structure, such as the cost of the technology (Rosen and Gabbay, 1999). For instance, two studies that explored the implementation of health technologies in the hospital sector and took place in the in the USA and the other in the English NHS respectively, have shown that clinical discretion is at its greatest for the low cost technologies, whereas more costly *'big ticket'* technologies are more closely controlled by management and can involve a range of different stakeholders (Greer, 1985;Rosen and Mays, 1998). Both studies provide a rich picture of the challenges posed by the attempt to implement new technologies and suggest that the responsibility for overseeing the overall implementation process in such cases should rest with the organisations` management systems, so that managers should be seen as key stakeholders who supervise and control the several stages of the implementation process, reflecting on strategic considerations and undertaking facilitating actions at various (notional) stages of the process.

It follows that the introduction into healthcare organisations of new interventions is often characterized probably by different agendas and power struggles between actors operating at the same level. Such goings-on are often followed by only incremental change or no change at all in clinical practice. The introduction of managerialism into healthcare is believed to have led to a doctor-manager divide and to the emergence of an 'us *versus* them' culture. Such a state of affairs implies the development of unequal power relations, despite the fact that an analysis of power relations appears to be absent from the research literature on implementation in healthcare delivery.

The literature does suggest, however, that within healthcare organisations, at least in England, the front-line clinician has the most power to advance or to subvert changes in clinical practice (Ham, 2003). Harrison *et al.* (1994) provide an example of Lukes`s (1974, 2005) third-dimensional view of power in a case study that questions the use of 'manipulations' used by managers to shape other people`s perceptions. May and Ellis's (2001) work on the implementation of tele-medicine has adopted a Foucauldian approach to show how power is mediated through knowledge and affects clinical decision-making

through what Foucault calls 'discourses'. The interaction of actors with different knowledge led to the emergence of contests and conflicts that were ultimately related to the production and definition of adequate knowledge. More recent empirical work by Addicott and Ferlie (2007) on managed clinical networks in the cancer services features more complex models of power derived from three different political science theories – pluralist, structuralist and post-structuralist – that dominate the literature on decision-making in healthcare organizations. The complexity of power relations discovered to be inherent in the provision of healthcare services suggests the advantages of an effort to understanding how 'internal' dynamics or micro-politics could affect the implementation process in healthcare.

By contrast, in the United States, Annandale's (1989) case study on the organization of maternity care in hospital units in the USA found that obstetricians were unable to prevent changes in the delivery of services provided historically by the hospital that challenged the professional hegemony physicians had enjoyed previously, owing to profound institutional changes taking place in the organization of health care in the United States.

Another underlying theme in the implementation research is the importance of medical professionals' participating in the planning of changes to practice (Markus, 1984;Ives and Olson, 1984). It may be unreasonable to expect medical professionals to change their practices unless they are involved in the process of deciding what should be done and why (Hunt, 1980;Wallin *et al,* 2006). Thus, the effectiveness of different implementation strategies may depend upon who takes 'ownership' of the changes (Grol, 2001), and upon how far 'ownership' of the change is vested in potential adopters (Harvey and Kitson, 1996;Kitson *et al,* 2008;Nzinga *et al,* 2009).

***Summary of this section***

The foregoing section of this chapter narratively reviewed the empirical literature on implementation in the healthcare sector to explore the key concepts used to describe the implementation process, the methodological tensions, and the key empirical findings. The differing positions adopted by theorists and empirical researchers suggest that different conceptual frameworks have been deployed to characterize the nature of the implementation process in healthcare. It would seem that the process by which particular healthcare interventions and technologies are implemented and sustained (or not) in particular settings have been influenced by factors that have not been well studied, inasmuch as the focus of most of the studies reviewed has tended to focus too much on the early (notional) stages of

implementation, neglecting to explore how the process unfolds over time. In addition, the nature of the implementation process may also be influenced by the organisational capacity to implement and the contextual receptivity to change. These findings underscore the need for more information about the implementation process, particularly in its latter (notional) stages. It has been found necessary to study the process across the whole time of implementation and to seek an in-depth understanding of how contextual factors influence the unfolding of the implementation process over that time.

The point that this thesis here emphasises is that, because the institutional context may be seen as an enabler of and/or constraint on the actors involved in the implementation process, it is necessary, if one would understand how that process unfolds across time, to account for contextual factors, in particular the collective decision-making. This line of argument, serving as the theoretical underpinning for this thesis, will be discussed in more detail in the next chapter. The overarching argument, of which that argument makes a part, is that key stakeholders' interactions at the level of service delivery ultimately depend upon their interests, values and beliefs, which in turn stem from the position they occupy within their organisations and which probably, do 'exert' an influence on the shape of the implementation process.

The following section reviews the empirical literature on the implementation of clinical guidelines.

## 2.3 *The implementation of clinical guidelines*

As was explained in the first chapter, this study used cost-effectiveness as its predefined criteria. It has thus focussed on the implementation of such health interventions – in the form of clinical guidelines – as have been demonstrated to be cost-effective. The purpose of this section, then, is to discuss certain findings on the implementation of clinical guidelines. This section is divided in two main subsections. The first describes the theories that have been used to explain the implementation of clinical guidelines followed by the research that has already been undertaken to observe their implementation. Before these, however, a definition of clinical guidelines is provided.

### *2.3.1 Defining clinical guidelines*

Clinical guidelines can been defined as systematically designed statements that summarise the findings of research into best practice, the better to assist healthcare workers and patients in deciding the most appropriate care for particular clinical conditions (Field and Lohr, 1990), in reducing variation in healthcare outcomes and costs (Borowitz and Sheldon, 1993), and ultimately, in improving the quality of patient care (Feder *et al,* 1999). The use of clinical guidelines as a means of disseminating best practice is extensively recognized, and it has been suggested that they can influence practice if developed, disseminated and implemented appropriately (Effective Health Care Bulletin, 1994). Yet the uptake of guidelines into practice is low or uneven (Eve *et al,* 1996;Sheldon *et al,* 2004). This unevenness in implementing guidelines highlights an ongoing concern that too much emphasis is given to the policy formulation in the abstract introduction of EBM and cost effectiveness in healthcare at the expense of a proper concern for what happens afterwards.

Research about the implementation of clinical guidelines in healthcare organisations have been approached from different theoretical perspectives related to several scientific disciplines. These different theoretical approaches are discussed in the following subsection.

### 2.3.2 Theoretical approaches: clinical guidelines implementation

There is a vast international literature on the implementation of clinical guidelines in everyday practice. Although the focus of these studies varies, some consistent themes are evident, particularly the identification of barriers to and facilitators of the introduction of new clinical guidelines into clinical routine. With some notable exemptions, most studies made limited use of theoretical concepts to inform research, with empirical findings generally not linked to wider conceptual frameworks. This finding inevitably highlights the lack of theoretically informed research in the field and the potential difficulties in developing a body of knowledge of the possible factors that may influence the shape of the process; and the need for appropriate use of explicit theoretical concepts if the process is to be explored any further.

Studies of guidelines implementation tend to have drawn explicitly or implicitly on Rogers's (1995) theory of diffusion of innovation. Rogers identifies several characteristics or 'attributes' intrinsic to innovations that may influence an individual's decision to adopt or

reject an innovation; namely: 'perceived relative advantage' (how much an individual thinks s/he will be benefited or disadvantaged by adopting the innovation), 'compatibility' (of the innovation with existing values), 'complexity' (how difficult the innovation is to understand and use), 'trialability' (whether the innovation can be tried before adoption), and 'observability' (whether the innovation's beneficial outcomes can be observed by others). In addition, according to Rogers, innovations take time to be adopted.

In understanding the diffusion-implementation process Rogers theorises linear stages, commencing with agenda setting that implicitly determine the process through rationalist decision-making. Following that initiation point (agenda setting), according to Rogers, the stages of adoption, implementation and confirmation point to a planned process of 'testing' whether the innovation matches the needs of the adopting unit. This resembles the 'staged' approach to implementation discussed earlier. It requires strong champions to drive change; further redefining/restructuring, which means either/both re-defining the innovation to meet the adopting unit's needs or/and restructuring the adopting unit to accommodate the innovation; and clarifying/routinizing (or not) the innovation's deployment, which by then should have become institutionalised or incorporated into the workaday practices of the adopting unit – and the diffusion-implementation process is complete. The characteristics of the innovation and of the adopting unit are therefore important and may influence the adoption decision.

Drawing on Rogers's theorisation, Grilli and Lomas (1994) and Foy *et al.* (2002) have used regression analyses to assess the strength of any correlations between adherence to clinical guideline recommendations and *perceived relative advantage*. More recent studies have preferred to deploy qualitative approaches to gain an in-depth understanding of the determinants of guideline adherence as perceived by clinicians informed of Rogers's theory. The key message from these studies was that the clinical guidelines were rejected in cases where clinicians developed unfavourable opinions about their potential value to improve clinical care outcomes, while guidelines compatible with the clinicians' own values and requiring few if any extensive changes to fixed routines correlated with greater uptake.

Despite the wealth of empirical studies drawing on it as a central point of reference, Rogers's diffusion theory has received some criticism. Some theorists have argued that it should be seen as a descriptive tool of limited explanatory utility, in that it cannot predict whether implementation efforts will work in particular circumstances (Greenhalgh *et al,* 2004) and cannot explain why the expected/observed pattern of the adopting unit exists in the

first place (Lindbladh *et al,* 1997). Similarly, from a sociological perspective, the whole notion of 'innovation attributes' is contested. Is it the 'objective' attributes of the innovation that determines adoption and implementation or, rather, are the organisation's members' perceptions the basis for differentiating attributes? Rogers's theory would seem to ignore this (Wilson *et al,* 1999).

A large and growing body of the literature has been deploying such conceptual frameworks of organisational change as 'clinician practice change' models and social marketing approaches (Flanagan *et al,* 2009;Tushman and Anderson, 2004), as well as psychological theories exploring factors observable in the behaviour of healthcare practitioners, such as planned behaviour theory and social cognitive theory (Ajzen, 1991;Bandura, 1998;Michie *et al,* 2005). The implicit assumption in all of these conceptions is that clinical guidelines are 'innovative', that they deliver new knowledge that clinicians do not already possess, so that introducing interventions into practice needs to be planned to facilitate the change. However, it appears that knowledge may be operative at several levels of conscious awareness, such that the 'tacit' knowledge which emerges through everyday practice, and how it may inform changes in clinical practice, have been underemphasised (Ferlie *et al,* 2000).

Recent primary-care research informed by the 'symbolic interpretive' perspective, which is associated particularly with Weickian terms of sense-making within particular work-settings, has suggested that the organisational factors identified in previous research as 'barriers' were in fact emergent properties of the complex interactions that together create the organisation and its structure (Checkland *et al,* 2007). This study supports the view that a better understanding of workplace-contextual factors is needed to improve organisations' 'receptive context' and ought to be considered for implementation projects. In addition, it is underscored that empirical research that neglects contextual factors may be flawed if the microenvironment where implementation takes place and the values of healthcare workers are as influential as this research indicates (Checkland *et al,* 2007).

Another body of the literature here reviewed has focused on the social construction of knowledge itself (Ferlie *et al,* 1999). Some authors have argued that the level and nature of evidence may influence its implementation. Evidence may be presented unsystematically, anecdotally, and descriptively (low evidence), or rigorously and systematically in quantitative or qualitative evaluations (high evidence) (Kiston *et al,* 1998). However, providing rigorous evidence about the effectiveness of scientific and technological developments is only to some

extent dependent on the actual quality of the underlying research, and is often influenced by other factors which, as the organisational perspective would predict, may vary according to context (Checkland *et al,* 2007). This seems to have been neglected. Other factors influencing evidence quality may include its sources; interactions and negotiations between professional networks; and the level of trust between distinct professional structures (Fitzgerald *et al,* 2002). Indeed, in the view of Dopson *et al.* (2002, 2010) there is no such thing as 'evidence' or 'a body' of evidence; instead, there are several competing bodies of evidence that have usually been socially constructed. Different individuals, professional groups and hierarchies accept different forms of evidence in diverse ways and differ on what constitutes credible evidence (Ferlie *et al,* 2000). Many tend to rely as much on trusted peers as on the scientific evidence as such (Van de Ven and Schomaker, 2002).

Accordingly, knowledge production has been described as a complex social process influenced by participants' subjective interpretations and negotiations within their organisational hierarchies and the inter-organisational networks (Greenhalgh *et al,* 2004). In the UK context, for example, Primary Care Trusts and Hospital Trusts have become involved in disseminating, implementing, and evaluating local clinical guidelines (Secretary of State for Health, 2000). Accepting evidence and changing clinical practice remains a complex matter, however, as the views expressed by health professionals in primary care as to what constitutes credible evidence have been found to differ markedly from their colleagues in the hospital acute sector (Fitzgerald *et al,* 2003); suggesting again that organisational structure may influence the adoption decision, and demonstrating that guidelines implementation may sometimes be more complicated that development (Grimshaw *et al,* 2001).

With regards, then, to the implementation of NICE clinical guidelines, a well-recognised distinction is to be observed between objective evidence – the research evidence, as evaluated by medical elites, economists and policy-makers – and pragmatic and experiential evidence in the eyes of frontline practitioners. This distinction bears on what may influence the shape and nature of the implementation process. Before exploring these perceptions in more depth in the next chapter, it will be necessary to explore the key messages emerging from that research undertaken to date which has actually observed the implementation of clinical guidelines.

## 2.3.3. Empirical findings of clinical guidelines implementation

This section summarises the insights to be gleaned from a narrative review of the empirical health services research literature on the implementation of clinical guidelines. It features systematic reviews and other high-quality overviews that summarise the empirical issues surrounding the implementation of clinical guidelines in everyday practice. As mentioned above, the vast majority of empirical literature on clinical guidelines implementation has focussed on the identification of barriers to or facilitators of implementation (there being a dearth of processual studies inquiring into the context and process of implementation). Accordingly, this section has been divided in two main parts: the first discusses barriers to the introduction of new medical practices and knowledge into clinical practice. The second treats of the uptake of guidelines in practice and facilitators for change.

### *2.3.3.1 Barriers to clinical change*

#### Methodological issues

Most studies of guidelines implementation have been carried out in a controlled environment, usually using experimental (mostly randomized control trials) or quasi-experimental research designs (surveys) that evaluate implementation strategies and identify factors that may impede or facilitate implementation. The vast majority of studies assume that the key stakeholders and decision-makers are primarily clinicians (Tetroe *et al,* 2008;Grilli *et al,* 2000;Graham *et al,* 2001). However, within the UK policy context (where the present study took place) one may expect that managers should have some influence on the implementation of clinical guidelines, given the emergence of the 'new managerialism' and the primacy of management to organisational changes to the public services in the last decades (Clarke and Newman, 1997), including healthcare (Harrison and Ahmad, 2000). The role of managers seems to have been neglected in the literature to date.

#### Key empirical findings

Barriers at the individual, organisational and national levels may influence the implementation of clinical guidelines. Doctors' receptiveness to change emerged as the

primary finding, while non-clinical factors may also affect implementation. Organisational receptiveness to change and systemic barriers at the national level have also been identified. The following section will elaborate on these findings.

- Doctors' receptiveness to change

The vast majority of empirical research reviewed here implies that doctors' receptiveness to change is the main barrier to successful implementation. Several studies reported that clinical guidelines were criticised by doctors for their perceived attributes. For example, studies performed across several healthcare systems identified as common reasons for resistance to uptake of guidelines that they rely on a narrow definition of evidence; ignore the uncertainty and variation inherent in treating patients, whose unique context makes adherence to guidelines problematic; fail to accommodate and respond to patient values; and push an inappropriate reliance on epidemiology and statistical methodology, particularly a dogmatic adherence to the randomised controlled trials that lacks empirical justification (Miles *et al,* 1997;Tanenbaum, 1993;Panella *et al,* 2003;Larme and Pugh, 1998;McKinlay *et al,* 2004). However, it has been suggested that these are not the only barriers, but that resistance to 'evidence-based' procedures is something more fundamental, implicating different ways of thinking about medical practice; *viz.* the role of tacit knowledge and intuitive experience in clinical decision-making; the question of the legitimacy of clinical judgement; and the mismatch between the values and cognitive world of clinical practitioners as compared with laboratory researchers (Dowie and Elstein, 1998;Eraut, 1994). Here the focus is on what constitutes valid medical knowledge, who uses and how is it implemented

A number of factors may be explanatory. For example, the deployment of clinical guidelines to control clinical decision-making is perceived by some physicians as a devaluation of the 'art of medicine' and a threat to their professional/clinical autonomy (Tracy *et al,* 2003). As such, it has been suggested that guideline characteristics as perceived by doctors are the main cause of their low receptiveness to change. For example, Grol (2001) overviewed the reasons for the ineffectualness of intervention studies to promote and sustain the implementation of 'evidence-based innovations' inside different healthcare organisations. He identified guideline characteristics as an important determinant of implementation success, showing that many 'evidence-based' guidelines were perceived by doctors to be

ambiguous or confusing. Often the guidelines did not allow for a holistic clinical decision, in that they covered only part of the sequence of actions in clinical consultation and their implementation depended on changes in the wider healthcare system.

Given that one of the key features of medical professionalism is clinical autonomy, changes in clinical practice will result, at least in part, from individual decisions. This may explain why clinicians are more likely to follow guidelines that do not change their current practices (Ellrodt *et al,* 1995). From this perspective, the view has been put forward that guidelines as such do not undermine doctors' autonomy so much as the manner in which their implementation has been imposed, particularly as it followed the introduction of a range of governing instruments that emphasised the importance of public accountability (Burau *et al,* 2009) and took active policy steps toward increasing management control and monitoring of clinical performance (Harrison and Ahmad, 2000).

On the other side, it has been argued that different occupational groups will adopt new ideas differently. A study of doctors and nurses working together in teams found that GPs rejected guidelines as tools for enhancing the safety and quality of their clinical practice, while nurses appeared to favour their use (McDonald *et al,* 2005 ). This confirms the theory that occupational groups of lower status than doctors value interventions that attempt to explicate and codify tacit knowledge, since this, if successful, could enhance their status inside their work settings (Berg, 1997). The difference in perspective between doctors and nurses may condition their receptiveness to change and thus their engagement in the implementation process, consequently influencing its nature and shape.

- Organizational receptiveness to change

Another body of the literature suggests that an important determinant of implementation success is the organisational context and the general 'receptiveness' to change, which may influence specific attempts to change clinical practices (Pettigrew *et al,* 1992) and may be at least as important as individual attitudes (Michie *et al,* 2004). In the context of general practice in the UK, where clinical autonomy has traditionally been strong, there is evidence that practices change might be a product of social and organisational circumstances (Armstrong, 2002). Rowe and McDaid (2007) have suggested lack of awareness or familiarity with guidelines, lack of agreement and lack of outcome expectations, inertia, competing local priorities as influences upon implementation. Cabana *et al.* (1999) reviewed barriers to physicians` adherence to clinical practice guidelines and found that the majority of

surveys focused on only one type of barrier, be it lack of awareness, or familiarity, or agreement, or self-efficacy, or outcome expectancy, or ability to overcome the inertia of previous practice. They concluded that studies of physician guideline adherence may not be transferable, since barriers in one setting may not be present in another. Foy *et al.* (2001) identified 41 types of barrier, categorising them according to the characteristics of the guidelines to be introduced, to the individuals required to change practices, and to the organisation or environment in which the change is to occur.

Several studies of the implementation of clinical guidelines in primary care have shown that it is variable, and that to influence clinicians' practices clinical guidelines need to be constructed taking into account the specifics of a given organisation's structure and values (Harrison *et al,* 2003;Armstrong *et al,* 1996). Problems with internal communication were important contributing factors as well (Flottorp *et al,* 2003;Checkland and Harrison, 2004). Checkland (2004) has suggested that the internal realities of the practice and/or organisation, rather than individual preparedness, influence receptiveness to change. On the other hand, it has been argued that the empirical research to date has failed to understand the contextual factors that influence implementation; thus, research on barriers thereto may be misleading and should be interpreted with caution (Checkland *et al,* 2007).

A recent national study examining the implementation of NICE guidance has shown that it is also variable in the hospital acute sector (Sheldon *et al,* 2004). The findings from this study showed that the existence of a convincing evidence base influences the likelihood of guidances being adopted; or more specifically, the uptake of guidelines of single interventions. Other factors were at work, too, such as strong professional support and adequate funding, the degree of isolation of the professionals involved, and the organisational establishment of good systems for tracking implementation. Another study investigating the implementation of 'clinical governance' (in the form of clinical guidelines) in the hospital sector showed that the organisation was good at generating paperwork for external consumption and promoting uniformity and standardisation; however, all this disguised the fact that the organisational effort was not actually improving the care of patients (Staniland, 2009).

It would seem that empirical research has generally been restricted to a single level of analysis, such as a single organisation, and has not managed to address interactions between different levels; *e.g.*, how different organisational settings across primary and secondary care

may influence implementation. It is thus not only necessary to follow the implementation process across time (as argued in the previous section), but also to explore the process in a variety of settings where clinical decision-making and diagnostic practices may differ and the application of guidelines may be more subject to negotiation(McDonald and Harrison, 2004) .

As a concluding note, the literature on guidelines implementation suggests that the barriers for implementation are influenced by various factors, both inside and outside healthcare organisations; from system barriers at the national level to the organizational context to guideline characteristics to the perceptions of clinicians. Most studies tried to identify implementation strategies that might be recommended for overcoming resistance to change. There is a dearth of studies addressing the contextual complexities, particularly at the local level, that influence the implementation process in a variety of settings across primary and secondary care.

- System barriers at the national level

There have also been studies that found non-clinical factors may affect the implementation of guidelines. These include system barriers at the national level, such as funding and reimbursement systems and national frameworks setting priorities, as well as vested interests, all of which could militate for or against change (Harrison *et al,* 2003). *Hidden agendas* behind the use of clinical guidelines has been suggested as another impediment, especially if guidelines are perceived by doctors as being politically or economically motivated (Dowswell *et al,* 2001) and most especially if doctors perceive the influence of the pharmaceutical industry (Tracy *et al,* 2003). Such guidelines were found to be seen as inappropriate to clinical practice.

### *2.3.3.2 Facilitators for clinical change*

Studies have been carried out to identify factors that may influence the implementation of guidelines in healthcare organisations and facilitate adoption (Grimshaw *et al,* 2001). Most studies in this category have also drawn explicitly or implicitly on Rogers's (1995) diffusion of innovations theory, and have discovered the interplay of several factors, particularly the role of *opinion leaders* and *social networks*. It was also discovered that *organisational and*

*national-level interventions* can influence the pathways of change and expedite the implementation of evidence-based practices.

- Organisational level interventions

The involvement of opinion leaders or 'champions for change' have been found to be crucial for overcoming specific barriers such as lack of awareness and familiarity with guidelines, lack of outcome expectations and competing local priorities (Rowe and McDaid, 2007). The influence of opinion leaders or champions for change may be able to bridge the worlds of guidelines, policy and practice (Greer, 1988;Locock *et al,* 2001 ). For example, it has been reported that doctors are receptive to the concept of using clinical guidelines provided they enhance medical practice and quality of care. Several studies have concluded that doctors are more likely to adhere to clinical guidelines if developed by their own local professional networks than if developed by others (Harrison and Dowswell, 2002;McDonald *et al,* 2007), and that doctors value more the use of experiential knowledge based on everyday practice than codified knowledge manifested in the form of nationally developed guidelines and protocols (Champagne *et al,* 1991;Harrison, 2002;Newton *et al,* 2003;Fitzgerald *et al,* 2002).

Given that doctors respond most readily to peer influence, peer comparison and peer example (Dopson *et al,* 2003;Locock *et al,* 2001), the implementation of EBM, manifested in the form of national clinical guidelines could (in the end) be subject to strong professional leadership to support their implementation. However, evidence suggests that opinion leaders appear to be 'monomorphic' *i.e.* the credibility of each leader is confined to one issue, so that different leaders are needed for different issues. The recruitment of opinion leaders is unlikely to be an efficient general strategy across all settings and professional groups (Greenhalgh *et al,* 2004), while at the same time difficulties may arise over agreeing who is the opinion leader and how much policy-makers and other interested parties should try to direct opinion leaders in how to influence clinicians (Curran *et al,* 2005). Most studies on opinion leadership that were identified for this review tend to view the use of opinion leaders as a strategy to aid with the implementation of interventions.

On the other hand, opinion leaders may always emerge informally and in an uncontrolled way within local networks, and may facilitate or impede implementation. But this seems to be

neglected by the current literature (Locock *et al,* 2001). Kitson *et al.* (1998) proposed that opinion leaders played a key role as facilitators in helping individuals and teams to understand what they needed to change and how they needed to change it, to translate evidence into practice. The facilitators involved used a range of interpersonal and group skills to achieve the desired change. Sheldon *et al,* (2004) suggest that such facilitation could be considered a distinct implementation intervention (just like audit and feedback or educational outreach) which seeks to develop an interactive problem-solving culture to support implementation projects. Robertson and Jachelson (2007) undertook a literature review on interventions that change clinical practice which concluded that more research on the impact of local opinion leaders is needed. They argue that the exact role of local opinion leaders remains unclear in those studies that have assessed their effectiveness, which makes comparison and general conclusions difficult. This seems to corroborate the finding of Greenhalgh *et al.* (2004) that it is usually unclear how to identify local opinion leaders. They call for more research to clarify this and to identify the circumstances in which opinion leaders are likely to be most effectual.

Research into guidelines implementation indicates that overcoming the low receptiveness to implementation requires strong leadership which provides support and commitment, and reinforces already existing organisational policies and goals consistent with the evidence-based care to be implemented (Gifford *et al,* 2006). Moulding *et al,* (1999 ) suggest that those tasked with the success of guideline dissemination and implementation ought to be enabled to direct their strategies to target groups more effectively. Moulding *et al.* emphasise the need for pre-implementation assessment of the readiness of clinicians for the introduction of guidelines into practice; of barriers to change as experienced by clinicians; and of the organisational level at which interventions should be targeted. Despite the fact that this study takes account only of clinicians to the neglect of other possible stakeholders, it does suggest that assessment and planning may identify issues that play important roles in actual implementation success. Such assessments might focus on the characteristics of the guidelines, the organisational context and the external environment (Kitson *et al,* 2008;Rowe and McDaid, 2007), rather than on individual clinician receptiveness to change.

- National-level interventions

Financial payment systems were also believed to possibly influence clinicians` receptiveness to change. Robertson and Jachelson (2007) reviewed the literature on

interventions that change clinician behaviour and found that the differences between existing payment schemes affect how changes to the payment system impact clinician behaviour. They concluded that fee-for-service payment may encourage primary care doctors to maximise the quantity of care to increase their income, while capitation and salaried payment may contain cost per patient, as primary care doctors will alter their practices in order to reduce their costs and increase their income.

***Summary of this chapter***

The literature on guidelines implementation provided further – yet still limited – insights into the variation in clinical guidelines implementation. The majority of studies thereon have been performed in controlled environments (mainly using randomised controlled trials); there is a dearth of studies exploring the process of transferring scientific knowledge to practice in an uncontrolled environment. In addition, the vast majority of studies assume that the key stakeholders and decision-makers are primarily healthcare practitioners; although, as has been shown, the extent of clinicians' autonomy and discretion varies according to the organisational context and other factors. Other stakeholders, such as managers involved in the implementation process, may well have been neglected. Studies have also been carried out to facilitate adoption and to identify other factors that may influence guidelines implementation in healthcare organisations. In addition, exploring the impact of guidelines is indicated across a variety of organisational and clinical settings (such as primary care) where decision-making and diagnostic practices may differ and the review of practice and the application of guidelines may be more negotiated than in secondary care (Gabbay and le May, 2005; McDonald and Harrison, 2004) given that GPs are independent contractors that value their degree of clinical autonomy

It seems that from the literature discussed so far that the implementation of clinical guidelines is problematic, and that there is a dearth of processual studies on guidelines implementation. The literature seems to imply that the relations between the local and national contexts, the role of the government and its relationship with local decision-makers and the engagement of professional groups all may influence the implementation process. On the one hand, it is claimed that primarily the medical profession has controlled the translation of EBM (manifested in the form of clinical guidelines) into clinical practice (Armstrong,

2007); while on the other hand, the introduction of managerialism into the NHS in the early 1980s has raised questions about the medical profession's autonomy from management and whether the power-relations between medicine and management have undergone any shift (Harrison and Ahmad, 2000). The interaction of different actors – doctors *vs.* managers, with distinctly different ways of organizing their work and different values and beliefs, as well as the relative distribution of power and the ways organisational decision-making is influenced by this – may entail a different perceptual grasp and interpretation of the context where the implementation of [NICE] guidelines was taking place; thus ultimately influencing the nature and shape of that and similar implementation processes. On the other hand, NICE guidelines are increasingly seen as part of clinical governance policy emerged as a health policy in the context of the English NHS as discussed in the introductory chapter.

The next chapter discusses in more detail the theoretical literature on policy implementation and will cover key sociological literature that is critical to the study of professions and bureaucracy. Given the different ways in which doctors and managers organise their work, what will happen in everyday practice to the implementation of nationally agreed clinical guidelines - defined as barriers to change clinical practice- will depend on the power relations between these two groups. Therefore, theories of power will also be reviewed.

# Chapter 3: Theoretical perspectives and the development of a conceptual framework

## 3.1 Introduction

The foregoing narrative review of the empirical research literature on the health services identified two distinctly different approaches to describing the process by which healthcare innovations are implemented in everyday practice. Each was shown to have some empirical basis in describing the nature of the process, but not in explaining why it takes this shape. Thus, this literature provides only limited understanding of the nature of the process and the factors that influence its shape. The narrative review of the empirical literature on the implementation of clinical guidelines provided further yet still limited insights into the variation in implementation, and was found to be by no means straightforward. The vast majority of studies assumed the key stakeholders and decision-makers were healthcare practitioners; thus, other stakeholders in the process, such as managers, may have been neglected. It was suggested that well-designed studies of clinical guidelines implementation are still somewhat limited and often lack methodological rigour.

The purpose of this chapter is to explain the conceptual framework that has been used to inform the foregoing research. The chapter is divided into three sections. Because NICE guidelines are an integral part of national health policy, the first part reviews theories of public policy implementation to find out whether they hold any clues for understanding the nature of the implementation process, and whether any linkages subsist between the policy implementation literature and the health services research literature. The 'top-down' and 'bottom-up' approaches to public policy implementation are reviewed in the first section of this chapter. It would seem that the top-down approach resembles the linear model of the implementation process found in the health services research literature; whereas the bottom-up perspective would seem to chime with the messy and non-linear model. It will be argued that both approaches exhibit limitations when actually deployed to explore the implementation process, so that it would seem better to seek guidance simultaneously from both approaches together when endeavouring to understand the nature of the guidelines implementation process.

Following the historical introduction into the English NHS of managerialism, in the form of the New Public Management, the interaction of clinicians and managers with different ways of organising work may have influenced the shape of the clinical guidelines implementation process. Hence it is necessary to review key bodies of the sociological literature on professional work and bureaucracy. The main argument of this thesis is that, given the different and often incompatible values and beliefs that doctors and managers bring to the organisation of clinical work, what happens to the implementation of the NICE clinical guidelines in everyday practice depends on the power relationships between the two. Thus, theories of power are central and must be reviewed.

## *3.2 The theoretical literature on public policy implementation*

A review of the literature reveals that two basic approaches to the process of public policy implementation have been widely accepted as explanatory. The early development of this scholarly field was done by Pressman and Wildavsky (1973), who in examining various factors influencing public policy implementation established the 'top-down' approach. Other scholars later founded to the 'bottom-up' approach (Lipsky, 1978). Ever since, the contest between the top-down *versus* bottom-up approaches has been at the heart of the debates over the process of implementing public policy. The two approaches have been used either to describe the implementation of this or that policy, or else to explain why an 'implementation gap' subsists between policy objectives and what happens in practice – with a particular bent toward explaining 'implementation failure' (Barrett and Fudge, 1981;Hill and Hupe, 2002). The rival schools of thought make very different assumptions about the nature of the process. They each emphasise different key stakeholders as well: top-down theory emphasises the importance of the State, official policy-makers, and state bureaucrats; whereas, bottom-up theory points up the power of 'street-level bureaucrats' and their discretion to address their own needs while implementing public policy (Lipsky, 1971). The theoretical underpinnings of both these approaches will be reviewed here, too.

### *3.2.1 The top-down approach to implementation*

The top-down approach recognises policy implementation as a distinct field of study in its own right. The main assumption of this approach is that policy and its consequences are initiated and conducted by central governments. Consequently, policy-makers are in complete

control of the entire policy process; a clear distinction exists between policy-making and policy-implementation; and implementation follows a rational model *via* (*inter alia*) 'forward mapping' of the implementation process (Pressman and Wildavsky, 1973). This would seem to parallel the linear model of implementation that was found in the empirical literature on the health services. It is not clear, however, whether these two bodies of literature differ in any distinct way, or whether they are (in effect) the same literature. This may be the product of the explicit underlying theory that has been used to portray the implementation process as a linear model of a sequence of linked decisions and planned actions.

Pressman and Wildavsky postulate a linear relationship between policy objectives and their implementation in practice; identifying 'the complexities of joint actions' as the main barriers to successful implementation, leading to 'implementation failures' (Pressman and Wildavsky, 1979). The *complexity of joint action* refers to the general problems encountered in the implementation of public policy when that requires the interaction of the experience, expertise and ideas of different stakeholders engaging in collaborative action to manage the implementation. According to Mazmanian and Sabatier (1989 ), politicians and bureaucrats involved in policy making are the key stakeholders influencing the implementation process; they are portrayed as the 'panacea' for resolving 'implementation deficits' – the gap that usually exists between the desired policy objectives and the 'real' policy outcomes ensuing upon the introduction of the specific policy. This emphasis on the role of central policy-makers led DeLeon (1999) to characterise top-down implementation as a 'governing elite phenomenon'. Weberian notions of bureaucracy and the predominant use of hierarchical command-and-control structures of authority (Dunsire, 1978) are thus seen as pre-requisite to ensuring that policy objectives are delivered as desired and that the 'complexities of joint actions' are successfully overcome.

To overcome these complexities of joint actions, those who favour the top-down approach have developed sets of criteria or guidance to facilitate policy implementation in practice. These may be divided in two main areas. The first set of criteria identifies the key characteristics that policy-makers should have if they would ensure policy implementation. Policy-makers' interest in, responsibility for, and commitment to the implementation of policy objectives, and their skills in utilising available, sufficient economic and human resources are critical to successful implementation (Sabatier, 1986;Van Meter and Van Horn, 1975). Policy-makers must understand, accept and believe in the policy objectives and goals

(Van Meter and Van Horn, 1975; Sabatier, 1986). It is also theorised that financial resources are important underpinnings of policy-makers' capacity to guide the behaviour of local implementers (Sabatier 1986). All this suggests (rather paradoxically) that the organisations responsible for implementing policy have only a modest influence on its implementation (Pressman and Wildavsky, 1973).

The second set of criteria implies that the characteristics of policy and the policy process may influence implementation. For instance, those favouring the top-down approach recommend that policy goals should be clear and consistent (Van Meter and Van Horn, 1975; Mazmanian and Sabatier, 1983). Equally important is a clear distinction between the several stages in policy formulation, decision-making and implementation – even though Sabatier himself believes that the 'stages heuristic has outlived its usefulness' (1999) and raises concerns about its uncritical acceptance. In addition, the application of a variety of control mechanisms and institutional arrangements to the implementation process is crucial to delivering the policy objectives, according to this view. Centralization of the planning of public policy implementation is necessary; decentralization of control to the local level may negatively impact implementation due to poorly trained staff; lack of effective monitoring systems within decentralized functions (Mazmanian and Sabatier, 1983); and the autonomy of local implementers (Van Meter and Van Horn, 1975). Additionally, it is critical to involve a limited number of key stakeholders in policy implementation (Pressman and Wildavsky, 1973), while limiting the extent of change proposed by the new policy makes more likely its implementation in practice (Van Meter and Van Horn, 1975; Mazmanian and Sabatier, 1983).

The top-down approach has been criticized for its presumption that the policy process is linear and uniform and for its obsession with policy-makers' role in the implementation process, while other key stakeholders such as 'street-level bureaucrats' (Lipsky, 1971) have been neglected; a neglect that implies that whose discretion can be controlled and that policy-makers and street-level bureaucrats have similar interests. As a result, it has been argued that the top-down approach *overpredicts* a lack of conflict between policy-makers and implementers (Peters and Pierre, 2003). In answer, Bardach (1977) has propounded the more sceptical view that features 'implementation games' that happen after 'a bill becomes a law'. This spotlights the nature and extent of conflicts that may develop between different parties involved in the process of implementing policy. The types of 'game' different stakeholders play during implementation to meet their own interests may influence the way policies are

implemented. This is the major tenet of the bottom-up approach to implementation discussed in the next section of this chapter.

### *3.2.2 The bottom-up approach to implementation*

The bottom-up approach has emerged as an alternative to the top-down one, and assumes that a better understanding of the complexities of the implementation process may be gained if one places the stakeholders responsible for policy delivery at the centre of the analysis. This assertion is supported by two main considerations. First, public policy is developed with objectives in view that are never fully explicit but inevitably involve irreducible ambiguities. Secondly, any one goal may and probably will at some point conflict with other goals of the same or different policies, and most importantly may conflict with the norms and motivations of street-level bureaucrats (Birkland, 2005). The seminal work of Lipsky (1971) on 'street-level bureaucrats' portrays them as key stakeholders in the implementation process. His term refers to those public agency employees responsible for actually performing the actions necessary to implement a given public policy. On this basis bottom-up theorists reject the top-down assumption that policies are wholly defined at the central government level, because street-level bureaucrats have greater knowledge of local situations and are, thus, better positioned to implement policies in ways that serve their own interests as much as or more than the central government's (Bernan, 1978;Hjern, 1982;Hjern and Hull, 1982). One of the key themes to have emerged from the bottom-up approach is that when studying the implementation process it is useful to acknowledge the multi-stakeholder and inter-organisational character of the policy implementation process.

Another important tenet of the bottom-up approach is that local contextual factors, particularly if linked with street level bureaucrats' discretion, may predominate over rules of action created at the centre (Matland, 1995 ); thus, policy-makers will have limited capacity to control the implementation process. Consequently, unplanned and unanticipated policy implementation outcomes may eventuate. This finding seems to parallel the non-linear shape of the implementation process theorised in the health service research literature. It also pinpoints the considerable power and discretion street-level bureaucrats have to determine how to organise and carry out their work to cope with everyday problems (Lipsky, 1971). This discretion, necessarily independent of policy makers, empowers them to make resource decisions that significantly affect how policies are actually implemented.

### *3.2.3 Top-down* versus *bottom-up approaches*

In their comparative overview of top-down and bottom-up approaches Puzll and Treib (2007) identified several features that distinguish between them. One was the incompatible conceptualisations of the nature and character of the implementation process. Top-down theorists define the implementation process as 'the carrying out of a basic policy decision' (Mazmanian and Sabatier, 1983), and characterise it as a rational, apolitical administrative process wherein the power lies with central policy-makers. By contrast, bottom-up theorists characterise the implementation process as political because influenced by various and often unequal power relationships that develop between street-level bureaucrats and central policy-makers.

In addition Puzll and Treib (2007) have suggested that both approaches serve different analytical goals. For example, top-down theory tends to focus on developing a general theory of implementation that may also serve as a guideline providing important recommendations to policy-makers as to how a policy is likely to be implemented more effectively. Here the analysis is rather concerned with compliance (Birkland, 2005). Bottom-up theory, by contrast, tends to focus on the empirical investigation of problem solving interventions deployed by street-level bureaucrats (and other possible stakeholders) who exercise discretion over work-related matters and who typically work on policy implementation at much lower hierarchical levels than policy makers. Here the goal of analysis is to understand how conflict is actually handled through bargaining and sometimes compromise (*Ibid.*).

It has been proposed that both approaches oversimplify the complex nature of the implementation process (Parsons, 1995); others emphasise that the lack of a universal analytical framework applicable to the implementation process in a variety of policy areas is an important weakness in the field. Scholarly work in the field has too rarely proposed means for filling this gap (Bayraka, 2006). It is a state of affairs that probably reflects the complexity of such phenomena. Several theorists have suggested that capturing the complexities of the implementation process may necessitate integrating perspectives from both approaches. Indeed, a synthesis of their strengths has increasingly been seen as desirable (Goggin *et al,* 1990; Sabatier, 1986).

Matland (1995 ) has summarised two research models of the implementation process that attempt to do just that. The first was concept of *forward* and *backward mapping* proposed by Elmore (1985). He defines 'forward' mapping as the precise determination and description of all of the policy objectives and outcomes, and 'backward' mapping as an inventory of the

practices that need to be changed at the local level in order to comply with the policy. This framework has been criticised as providing guidance yet lacking explanatory power (Matland 1995). The second model identified by Matland as synthetical is the *advocacy coalitions* framework proposed by Sabatier (1999), who argues that 'advocacy coalitions', or groups of policy advocates and opponents who have like-minded views and interests on policy objectives, problems and solutions, should be the main unit of analysis in the study of the policy process. Sabatier's framework for understanding implementation initiates analysis by laying a foundation from the bottom-up, in that researchers analyse in depth all of the local stakeholders involved in the implementation of a given policy so as to understand the perspectives different stakeholders bring to the process. But Sabatier brings top-down analysis in as well, by taking account of the structural influences on policy identified as significant by top-down theorists (Birkland, 2005). Jenkins-Smith and Sabatier assert that their advocacy coalition's concept provides a framework for explaining policy change over time. One premise among others that they assume is that policy advocates and opponents, *i.e. actors* and their beliefs rather than abstractions like process-stages, are the most fruitful units of analysis for explaining the nature of the implementation process (Jenkins-Smith and Sabatier, 1994). Despite what may be a potential strength, it seems that advocacy coalitions if kept within the local context (the healthcare organisation) may prove not very useful in capturing the multi-stakeholder and inter-organisational character of healthcare implementation. The main reason is that using the belief systems of advocacy coalitions within the local context as the critical vehicle for understanding the role of policy analysis does not specify a theoretical basis for explaining the interdependence among multiple stakeholders. Consequently it was perceived to be too thin analytically for the purpose exploring the contextual micro decision-making processes and to capture the dynamics of policy implementation

Finally, it has also been proposed that both top-down and bottom-up approaches seem to distinguish between government and governance. It is indeed this distinction – hitherto neglected – that must be incorporated into research on the implementation process so as to include governance along with implementation (Hill and Hupe, 2002). According to O'Toole (O`Toole, 2000), incorporating the concept of governance into implementation research is crucial because it identifies the manifold 'rules of action', stemming from both the macro- and the micro-context, that may influence performance at the operational level. This does not

mean that the purpose of the present thesis is to explore the implementation of 'governance' per se. Instead, 'governance' herein means the manner of governing or organising work (specifically clinical work). Based on this interaction between the macro and micro context Lindblom (1959) became one of the early advocates of incremental decision-making or 'muddling through' approach to decision-making processes as the most effective mode of policy-making.

Following the discussion so far it seems that the key assumptions of top-down theory have informed contemporary policy making and implementation decisions in the NHS. In the context of this study, EBM manifested in the form of implementing NICE guidelines in clinical practice, highlights this point, where the division of responsibility for formal policy making stays with NICE, while policy implementation becomes the main task for local NHS managers who are performance managed. In this respect, a synthesis of top-down and bottom-up approaches to implementation may facilitate better analysis of the implementation process since it brings together aspects of organizing healthcare stemming from the macro context complemented by different modes of organizing clinical work that may be applicable in the local (micro) context and in different stages during the implementation process.

Ultimately, changes in the organization of the NHS following the introduction of general management and bureaucratization of EBM give rise to some fundamental questions. If the new managerialism and the bureaucratization of EBM are implemented as intended, then the implementation of NICE guidelines should be a linear and straightforward process. In this instance, however, historical developments within the NHS, where medicine has been portrayed as an agent of social influence and control, suggest that the medical monopoly over clinical decision limits the influence of NICE clinical guidelines into everyday practice. Thus, it is necessary to establish whether and how NICE clinical guidelines are implemented as intended by national health policy and what are the effects on healthcare workers and their organizations. Following the introduction of managerialism, clinical work became organised in two different ways under different modes of governance. The first way organises clinical work according to professional values and norms derived from the principles of medical professionalism. The second way organises work according to managerial values and norms derived from bureaucratic practice. Theoretical literature on professionalism and bureaucracy seemed of critical relevance to the present thesis, and are discussed in the following section

## 3.3 Theoretical literature on professionalism and bureaucracy

The gist of the argument about professionalism and bureaucracy is that the different values and norms availed of by medical professionals and managers to structure their work may influence the shape of the clinical guidelines implementation process. These two different ways of organising work entail different principles of legitimacy and may constitute different means of reconciling competing interests within healthcare organisations.

From a neo-Weberian standpoint, medicine is to be modelled as an ideal type of dominance and expertise (Freidson, 1970). But competing models of professional power also exist. For instance, earlier functionalist theorists working within their *central value system* taxonomy portrayed professionals as possessing relatively high social and economic status in exchange for non-exploitative control of knowledge important to the welfare of society (Goode, 1957;Barber, 1963;Greenwood, 1965).

Weberians emphasise professional *dominance*, whereby professional power is exercised over other interest groups in society. From a neo-Weberian framework it is argued that the power of the medical professions manifests in the form of an institution able to establish and maintain economic, political and clinical autonomy (Elston, 1991;Jones, 1999). In the context of the English NHS, for example, control of health-services quality at the macro-level historically was a function of professionalism: professional bodies like the General Medical Council and the Royal Colleges have provided their own quality assurance by way of controlling the training to become a doctor and practises medicine (Harrison *et al,* 1990). At the micro-level as well, so it has been argued, doctors' clinical autonomy has been justified by Argyris and Schon's precept that doctors deserve a 'licence' to reflect upon their unique personal experiences and subjective judgments, and to act accordingly (1977). After all, clinical practice has traditionally been described as 'empirical' – derived from doctors' self-reflective patterns of practice and judgement (Harrison and McDonald 2003).

Doctors' professional monopoly rests upon their powerful tradition and/or reputation for mastery over a specialised and abstruse body of knowledge (Freidson, 1994). Basing himself on a tenet of the power of expertise, Freidson argues that doctors have the exclusive authority to assess patients' health status, identify the causes of disease, and determine treatments. Doctors' autonomy results from the complex and discretionary nature of the tasks that have to be performed during patient encounter. The explanatory utility of many of Freidson's claims lies in the fact that medical knowledge is socially constructed in the sense that it emerges and

is spread through the informal professional peer networking that spans 'formal' organisations (Freidson, 2001), and this becomes the main vehicle for the establishment of the normative values that underpin the organisation of medical professionals' work. This implies that they may organise that work in similar ways based on these normative values, because the formal education they receive represents these values as legitimately working for the benefit of society.

Given that doctors' training is linked to the assessment of individual patients' health and to the doctors' individual level of knowledge, experience, judgement, and discretion, the responsibility for their work has been conceptualised as being too complex to be supervised by non-medical professionals and so must be subjected only to individual-expert or maybe peer evaluation. Day and Klein assert that what defines a doctor is 'the fact that he or she is accountable only to his or her peers' (1987). Freidson (1994) has also spotlighted how the etiquette of collegiality and intra-professional relations influences doctors working ethics. Control of access to a specialised body of knowledge empowers medical professionals to define their own work, assess their own performance, and so maintain their autonomy, even from politics and administration. An outsider aspiring to evaluate medical performance will find it difficult if not impossible due to the inherent uncertainties of the necessary individualisation of treatments (Freidson, 1970). With respect to the implementation of NICE clinical guidelines, professionalism theory suggests that doctors will pay limited attention to this form of knowledge and, more importantly, will not be receptive to non-medical interference in their work.

Critiques of Freidson's past and present views on the medical profession indicate that the profession has been seriously challenged if not actually demoted from a position of power to a position where it has become 'corporatized' (Bury and Gabe, 2004;Harrison and McDonald, 2003) by a number of challenges both external and internal to the profession (McKinlay and Arches, 1985). These challenges may be interpreted in multiple ways using different theoretical perspectives. For example, the deprofessionalisation thesis, taking a neo-Weberian perspective, defines professional bodies as monopolists seeking to structure their market in their own interest (Saks, 1983), and identifies threats to this monopoly from growing external lay involvement in clinical care regulation and deskilling (Calnan and Gabe, 2009) from the introduction of new professional projects and new kinds of professional, such as nurse practitioners (Barton *et al,* 1999). In contrast, the Marxist perspective holds that the medical profession has been involved in the surveillance and

reproduction of labour power (Calnan and Gabe, 2001). Marxists have arrived at a proletarianisation thesis that argues that professional work is becoming devalued and undergoing a transformation, bringing experts under administrative control, which treats them as common workers (Watson, 2003). Coburn *et al.* (1997) argue that medical power does not exist in a political vacuum but in dynamic relation to the State. Thus, in the Canadian context of escalating healthcare costs medical expertise has become much reduced in scope, confined to the content of care but not how care is organised. It is argued that medical research, manifested in the form of clinical guidelines that have been produced by health service researchers, has been redirected to the task of reducing 'unnecessary' care and containing costs. This has undermined doctors' exclusive claims to expertise. Nevertheless, Coburn *et al.* concur with Freidson (1994) that some medical elites have conserved their power, a phenomenon that Freidson calls restratification.

Freidson's theory of restratification offers a different perspective (Freidson, 1994 ), which asserts that the medical profession has retained its power rather than seen it decline, despite external pressures for control. Professionalism is about control or, more precisely, institutionalised or disciplinary control of professional practices by peers as opposed to 'outside worlds' (Abbot, 1988;Noordegraaf, 2007;Fournier, 1999). Freidson argues that organisational changes to service delivery have transformed some doctors into 'administrative elites' who have distinctly different roles and duties from 'rank and file' colleagues (Freidson, 1994). Finally, Foucault's notion of governmentality implies surveillance and alignment with managerial principles (Flynn, 2002), and it also suggests that the distinction between the State and the professions has become blurred (Johnson, 1995).

In the UK context contemporary challenges to the medical profession from institutional constraints and bureaucratic principles may have led to new types of professionalism. There is evidence that a new type of general practitioner has emerged, like street-level bureaucrats who mediate between pressures to adhere to clinical guidelines and the actual professional practice of everyday medicine (Checkland, 2004). Others have suggested that doctors have been semi-transformed into 'neo-liberal hybrids' embedded in a regime of 'openness', the operation of *'capitalist logics'* and the desire to pursue *'value for money'* provision of healthcare (Dent, 1995). On the other hand, there is evidence that exposes that turning clinicians into managers has created tensions and difficulties in striking the right balance between managerial and professional discourses (Bolton, 2003;Preston and Loan-Clarke,

2000). Hybrid clinical/managerial professionals may find their ability to trust and be trusted by their colleagues has been affected, which reflects changes in the distribution of power (Calnan and Rowe, 2008). Calnan and Gabe's analysis of contrasting sociological perspectives on professionalisation strategies in primary care raises questions about the emergence of 'public service entrepreneurs' within medicine, seeing these as a hybrid of self-interest, the will to power, and status-seeking, as well as altruism (Calnan and Gabe, 2009). Harrison asserts that commodification in the UK health context and the normalisation of new financial incentive schemes – like the Quality and Outcomes Framework and Healthcare Resource Group may lead to a medically qualified 'administrative elite'(Harrison, 2009); a development that Freidson argues has also happened in the United States (Freidson, 1994).

However, following the introduction and implementation of the Griffiths report and the institutionalization of mechanisms by the central governmental agencies to ensure the implementation of NICE guidelines within the healthcare organization seem to parallel with an approximation of Weber`s ideal type of bureaucracy (Weber, 1947). This depends on rational-legal and hierarchical authority, which provides the 'glue' holding together the organisational structure termed 'bureaucracy'. The core concepts in Weber's theory of bureaucracy are (1) formal rules, which may be agreed or imposed from above; (2) bureaucratic power; (3) hierarchy and (4) standardisation of practice. It is apparent, according to Weber, that the concept of 'bureaucratic mechanism' may be as efficient as a machine, and may be superior to other modes of organising, inasmuch as it enhances effectiveness through formal rules about work procedures and protocols. Such rules have been theorised as a form of legal domination and a formal division of power that enables the enactment of policies. On this view, more formal organisational systems compatible with Weberian terms may ensure the top-down implementation of policies, for which it is crucial that the implementation process is based upon output measurement, process specification and standardisation.

According to Weber's definition of bureaucracy, professionals are accountable to their managers and should structure their work in ways that are accessible to managerial control. In Weber's view a distinction and conflict subsist between 'formal' and 'substantive' rationality (Weber *et al,* 1948). Formal rationality seems to imply the decision-making that is the product of objective 'calculable rules' and values 'without regard for persons' (Weber *et al,* 1948, p. 225). Formal organisation is a critical part of controlling decision-making in order to pursue bureaucratic goals and objectives, although it neglects individual choices, interests

and values. In contrast, 'substantive rationality' seems to imply attention to social values, which stand in conflict with 'formal rationality'. It would seem, then, that 'professional or technical rationality' resembles Weber's substantive rationality and may be conceived as lying opposite to managerial or bureaucratic rationality along one continuum. It is evident that in the one case work is structured according to professional rules, whereas in the other, work is structured based on formal rules of standardisation. This may well lead to conflicts and tensions between managers and professionals.

While Weber laid out the key principles of an ideal-type bureaucratic organisation, Fayol's (1947) classic work is more directed at management *per se*. According to Fayol's managerial theory, management has five core roles within bureaucratic organisations: to forecast and plan; to organise; to command; to co-ordinate; and to control work (Buchanan and Huczynski, 2007). Forecasting and planning is the act of predicting the future and acting accordingly. To organise is to develop the organisation's resources, both material and human, by allocating tasks to different departments and individuals. To command is to initiate functions that direct the organisation's actions and processes. To co-ordinate is to arrange various groups' efforts towards the overarching organisational goal in a harmonised way. Finally, to control means to monitor the progress of the previous activities to ensure that they are performed in accordance with the applicable rules and procedures. The key assumption is that managers are unable to perform the professional work, but are accountable for the allocation of scarce resources and the standardization of the work conducted by professionals.

Managers' power makes part of a pre-defined authority by virtue of their formal positions within a vertically organised hierarchy, and not necessarily by virtue of their skills or competence. Performance management is increasingly a tool that managers deploy to assess the effectiveness with which work has been organised, and is based on functions that include planning, setting targets, and monitoring performance and progress toward these targets. It follows that it is their duty to become paramount in making decisions for policy enactment, with the corollary right of supervising professionals' work in the organisation. Consequently, professionals face pressures to formalise their decision-making processes and the overall management of their work, the better that managers may succeed in pursuing the organisational goals within the constraints placed on the organisation by external regulation.

Weber noted that 'real' bureaucracy will be less optimal and effective than his ideal-type as embodied in 'machine bureaucracy' (Mintzberg, 1983); bureaucracies, as they consist of human beings, may not be enough like machines. In Mintzberg's view machine bureaucracy

relies on authority of a hierarchical nature, while a professional bureaucracy needs authority of a professional nature, that is, the power of expertise.

The current NHS approach described in the previous section of this chapter suggests that the NHS is a hierarchical system with an increasing focus on standard rules and procedures and an increasing desire to control professional discretion and reduce professional autonomy. Consequently, the hierarchical authority structure that is the basic mode of bureaucracy and that has been imposed by national health policy dominates the way healthcare managers structure their work. Indeed, the authority embodied in formal hierarchical organisational structure is instantiated in managers' working 'reality', so that it may become difficult for them to see or experience reality in any informal way. Professional and managerial values and beliefs about organising clinical work are therefore themes of particular interest for this thesis, given different and possibly conflicting structural interests (Alford, 1975) and professional associations (Harrison and Pollitt 1994). Guidance from Freidson's ideas about professional power and from Weber's about bureaucratic power has proved useful to a certain extent in trying to explain the possible ways of organising healthcare work; however, they may lead to conceptual problems regarding how power may be identified and researched within the healthcare organisation. An exploration of power is a key element in this thesis, and requires a clear conceptualisation of what power is, how it is manifested in practice, and how it ought to be studied.

## 3.4 Conceptualising power

The literature on power shows that the concept has, over time, evolved from a conception of power as a resource unequally distributed, in the sense that an agent may have or not have it, to a more complex, relational conception as a relationship between forces (Introna, 1997). Thompson (1998 ) argues that power has been conceptualised in markedly different ways using distinctly different conceptual frameworks that offer contrasting and incompatible understandings of power. It can be argued that power is related to resource dependency and, thus, exploring the activities that generate power is important. It has also been suggested that power is best defined through relations rather than actions (Asimakou, 2009). Key writers on this subject include Foucault (1977; 1986), particularly on discursive and self-disciplinary power, and Lukes (1974). Foucault conceptualises power as embedded in social relations,

while Lukes conceptualises it as resulting from social actions. The work of these authors will be critically discussed in the following section.

### *3.4.1 Foucault*

Foucault (1973) theorises that the ways in which people perceive and speak about 'reality' are products of wider, dominant historical conditions and power relations. The predominant mode of discourse of society at any given time shapes and conditions the knowledge base, whence power through discourse may play a positive, productive and transformative role that constitutes facilitation. In Foucault's view power must be considered something that exists merely as an act within social relations; he challenges the concept of power as an entity held by an actor (Foucault, 1986). In contrast to the Marxist perspective, which conceptualises power as coercive and negative, something used to exclude and oppress, Foucault advances an analysis of power as a facilitating and enabling influence (Gilbert, 1995). Foucauldian theory affords sophisticated accounts of how power and knowledge are inescapably and fully intertwined, so that the one implies and requires the other (Foucault, 1977); such that power inheres in structures of knowledge instead of being held by this or that actor. Power is everywhere and comes from everywhere. Foucault is also concerned with the relationship between language, power and knowledge. In his view knowledge is the outcome of meticulous social practices that have come to be established, and through which the world has become represented as 'truth' based on discourses (Foucault, 1972). For Foucault power is a creative and liberating force that can be used by people to produce conceptions of 'reality' through the use of discourses, which have been defined as a set of concepts, ideas and meaning that enable the production of forms for how reality is depicted interpreted and understood. (Burr, 1995 ; Gergen, 1994). Through the usage of discourses, Foucault theorises the 'power-knowledge' nexus as embedded in social relations and practices that may produce self-surveillance and self-control, thus enhancing the facilitative role of power.

From the Foucauldian perspective, knowledge is interconnected to power such that they potentiate each other through rules of exclusion or inclusion (Lynch and Cruise, 1998) and through discourses. In the case of professionalism, the knowledge-power feature, viewed form a Foucauldian perspective, implies that professional knowledge is malleable and expandable and bears the possibility of being given new forms and of being reconstituted so as to claim new expertise (Malin, 2000). For example, the discourse of professionalism plays

an important role in legitimising status, power and control (Evetts, 2006). Similarly, following the emergence of the New Public Management, the use of discourses has been normalised with contemporary ways of organising work and is especially visible in the activities of managers and not only professionals (Flynn, 1992;Newman, 2005). Thus, managerial, like professional, discourses may influence the shape of the process by which clinical guidelines are implemented within the healthcare organization. In this respect, the organization of work is shaped by what managers and doctors 'imagine' being the reality of their circumstances based on the prevailing discourses and hence, power is not assimilated to structural determination, nor does it reside in human agency. (Hence it is seen that power is neither assimilated to structural determinism, nor does it reside in human agency.)

The main criticisms of Foucault's theories is his neglect to consider power as an aspect of human agency (Elliott, 2009;Jermier *et al,* 1994), his inattention to structural determinants of power, and his implicit denial of people's capacity to empower themselves through the exercise of individual choice and self-determination (Habermas, 1987). Merquior (1991) argues that the operation of discourses and practices may have powerful effects; however, the fact that these are assumed to be unattributable to any individual's acts or intentions is rather a starting point for debate. He challenges its uncritical acceptance.

For the purpose of this research, it is assumed that in choosing a particular approach to organising their work, the social structure- *that is the social context within which doctors and managers operate*- provides basic means for social interaction between doctors and managers which determine their goals or interests. As such doctors and managers are motivated by differing interests, values and beliefs; thus, the concepts of individual choice and power as an outcome of human agency and structure seem important to understanding the implementation process in this context. A theoretical framework derived from the work of Foucault offers little scope for understanding the interplay of agency and social structure in organising clinical work and so will not be used as an explanatory tool.

### 3.4.2 ***Lukes's three-dimensional view of power***

Lukes proposes three dimensions of power, which he asserts is a theoretically and politically radical view of power implicating a range of key sociological debates over the relationship between power, agency and social action. His proposal is based on an agency-oriented view of competing interests as manifested in the relational concept of *power over*;

whereby '*A* participates in the making of decisions that affect *B*' (1974:16). This brings about significant (side-) effects, specifically by furthering *A*'s own interests at the expense of *B*, or by indirectly affecting the interests of *B*, intentionally or unintentionally.

Lukes criticises what he defines as one- and two-dimensional conceptions of power. The one-dimensional conception, Dahl (1957) derives from pluralist behavioural approaches to power normally found in the context of collective bargaining. Power is the result of observable, open conflicts of subjective interests, preferences, goals or the distribution of scarce resources between several interrelated interest groups within society. This reflects what is called the 'zero-sum' or 'constant-sum' game, wherein one person or class of persons cannot gain more power without other person(s) losing a corresponding amount of power. Power is conceived as intentional and active and is held by a variety of self-interested groups in society some of whom are more powerful than others. According to Lukes, this conception of power may be criticized as blind to the fact 'that interests might be unarticulated or unobservable and above all, to the idea that people might actually be mistaken about, or unaware of, their own interests' (Lukes, 1974:14).

The two-dimensional view (or second face) of power consists of agenda-setting and of Bachrach and Baratz's notion of 'non-decision-making' (Bachrach and Baratz, 1970). The gist of this conception of power is it interdicts select issues from emerging, being expressly posed and getting fairly addressed *via* 'mobilisation of bias' – a process whereby agendas are set just to exclude items not reflective of the values, interests and priorities of influential elites (Schattschneider, 1960). Such power is used to maintain the *status quo* by creating or reinforcing nescience and taboo against issues and interests that run contrary to those of the elites. Elites may also use this power of evading decision by introducing some aspects of a policy while keeping other aspects of the same policy off the agenda. Lukes believes this second face of power is stronger than one-dimensional power; however, the crucial weakness remains that it cannot transcend the behavioural, since it depends on overt conflict of subjective interests and thus on witting action by agents who may be 'caught red-handed' and exposed.

The explanatory insufficiency of one- and two-dimensional power led Lukes (1974) to develop a 'three-dimensional' conception of power as a better method of investigating power relations. Here the exercise of power, intentionally or unintentionally, is 'managed' in such a way that conflict seems as though it did not exist in the first place. According to Lukes, this

should be considered the most insidious and most far-reaching (and overreaching) form of power.

Lukes's argument is centres on the concept of *latent conflict*, insofar as the interests of the power elite and the 'real or objective interests' of those excluded – which remain hidden from themselves– subsist in contradiction. The foundational assumption that all social interactions involve power relations over self-interesting decisions is powerfully explanatory. Lukes argues, first, that interests are always at work behind perceptions, actions and decisions, and secondly, that those subject to power remain unaware of their interests or even that they have been infringed. This kind of conflict is not empirically evident. It follows that power is most effective when interested parties are not even aware when they are being dominated. The three-dimensional power concept challenges the Weberian notion of rational legal authority: Lukes seems to imply that those who wield power to suppress conflict within an organisation may not necessarily be the same persons as those who have been designated its formal leaders. This reflects the situation where social values express and reinforce a dominant view of 'reality', shaping preferences such that all interested classes come to accept this dominating viewpoint without challenge – with all that this implies for policy and practice. Predominant values create a structure of domination, intentionally or not, which is uncritically accepted. Lukes seems to predicate that such values must be 'hegemonic', and must be sustained across space and time to exert any dominant influence. The following table summarises examples of the types of power identified by Lukes.

| Dimensions of power | Type of power | Use of power |
|---|---|---|
| First | Pluralist behavioural approach to power (intentional) | • Power in decision-making over overt conflict<br>• Exercised through formal institutions<br>• by the outcomes of decisions |
| Second | Agenda setting (intentional) | • Agenda-setting; interdiction of issue emergence<br>• Institutional and informally influential<br>• extent of informal influence |
| Third | Predominating social values (intentional or unintentional) | • Shapes preferences *via* values, norms, ideologies<br>• All social interaction involves power because self-interested ideas are always at work behind perceptions and actions, even when conflict is not empirically evident |

Table 2: Types of power, developed by Lukes (1974:10-25)

In contrast to Foucault Lukes's three-dimensional view of power is agent-oriented and supports the duality between human agency and social structure. Power is linked to human agency since Lukes's primary frame of reference remains human action; nevertheless, it is also linked to structure, such that individuals, groups, classes and organisations have some power to act distinctly yet are limited by broader, more powerful societal forces to which they are subjected (Braynion, 2004).

The Lukesian account of domination may be criticised for failing to theorise adequately the contradiction between agent power and structural power (Clegg, 1988 ). Nevertheless, Clegg and Haugaard have admitted (2009) that Lukes's reasoning seems to imply the existence of

some kind of agency associated with three-dimensional power, which he identifies in his latest publication as the 'power to mislead' (Lukes, 2005 . p, 145) dominated agents about their 'objective interests' – what Marx called 'false consciousness.' According to this line of reasoning power is a *capacity* or *ability* grounded in the action of an agent, and includes both the ability to mobilize and allocate scarce 'resources' and 'exercise' influence or manipulation of others.

It is also admitted that in his latest publication Lukes seems to acknowledge a distinction between 'power to' and 'power over'(Bernhagen, 2007) – (even though his earlier publication had focussed exclusively on 'power over') – such that not all power is negative or zero-sum ('power over'). Some forms of power exercised within relations of dependency can be positive, productive and transformative (Swartz, 2007). Foucault's influence in particular seems to be at work here. Lukes theorises power as a resource that may be used to repress but also to liberate in a sense that invokes the intimate connection between power and knowledge as derived from Foucault's concepts of discipline and governmentality (*Ibid.*).

This late conception may be seen as a 'fourth dimension' of power that is deployed by Lukes to supplement the limitations of the lower-dimensional conceptions. Knights and Morgan (1990) argue that a crucial limitation of the conception of 'power over' as theorised by Lukes within his three-dimensional analysis of power is that it is conceptualised as a resource in the possession of agents (individuals or organizations) who exploit it to their advantage; thus, 'value-dependent' considerations about an agent's 'real interests' become the dominant theme. In Lukes's view power's 'definition and any given use of it, once defined, are inextricably tied to a given set of value-assumptions which predetermine the range of its empirical application' (Lukes, 2005:30). This implies that power is a contested concept, its very definition depending upon not just theoretical but even value orientations (Lukes, 1974). It does not adequately explain situations in policy implementation where the actual differs from the intended outcome (*unintended consequences)* (Knights and Murray, 1994). In this respect Lukes's consideration of power as the ability to impose 'internal constraints *[that possibly impede intended changes]* under historically changing circumstances' is referred to as the conceptualisation of power that 'addresses the power of the system' (Hardy, 1994), where the power in question flows from monopolising the norms, values and principles – *i.e.* the discourse – underpinning a given institutionalised behaviour pattern that governs social, political and economic life (Leftwich, 2007).

A key aspect of this dimension of power is the drift away from the 'intentional stance of action' and the unseen influence of the 'unconscious acceptance of rules, norms and values of how the organisation does things with the combination of structural and non-structural mechanisms of the system' (Berghout *et al,* 2005, p. 33). Here the 'how the organisation does things' seems to refer to Lukes's internal constraints that determine action.

From the analysis so far, it would seem that a theoretical framework derived from the work of Lukes is compatible with the aims of this study and may offer scope for understanding the operation of human agency in organising clinical work. Accordingly, it is adopted for use as an explanatory tool. Lukes himself, however, is critical of his own work and points out methodological and operational difficulties with investigating hidden domination: 'how can one study, let alone explain, what does not happen?' (Lukes, 1974:38). This implies that Lukes`s conception of power may not be amenable to empirical verification, particularly because third-dimensional power erodes the intentional stance of action and implies the outworking of power as an unconscious 'vector' of social action. An empirical analysis of power in this form would thus demand investigation of both decision-making and non-decision-making. It would also suggest exploring subjects' perceptions, cognitions and preferences to spot hidden forms of power as domination and/or facilitation.

## 3.5 Conclusions: The conceptual framework of the study

The need at this preliminary stage is to adopt a logical approach (it will be inductive) and a loose theoretical framework based on propositions derived from the analyses of different bodies of literature in Chapters Two and Three, which are designed to exhibit the key elements of the implementation process in the healthcare sector. In Chapter Two it was argued that the empirical health-services research literature describes the implementation process as either linear or non-linear. The vast majority of this literature focusses on barriers and facilitators to changes in clinical practice; although it may well be that such conditions may result from (unobservable) 'internal realities' of individual and group experience and practice. It was noted that well-designed empirical studies of the clinical guidelines implementation process which explore the role of the context are still somewhat limited. The vast majority of studies have moreover assumed that the key stakeholders and decision-makers are healthcare practitioners, and that guideline characteristics are the key 'barriers' to

implementation; even though it has been shown that the breadth of clinical autonomy and discretion varies according to organisational context and other factors. Consequently, other stakeholders, such as managers involved in the process of implementation, may have been neglected.

Given the limitation of the health-services research literature in explaining what influences the implementation process, it was thought best to review in this chapter a broader literature on implementation. Top-down and bottom-up causation was discussed, concluding that the limitations of both approaches recommend, instead of a mutually exclusive choice between the two, a synthesis of both perspectives. It has become increasingly evident that this is the optimal foundation for a loose conceptual framework to inform this study.

According to the theoretical literature on professionalism and bureaucracy, two ways of organising clinical work co-exist within the English NHS. Clinicians may prefer a mode of organising clinical work that is informed by the tenets of professionalism; managers, on the other hand, see themselves as responsible for providing services according to bureaucratic tenets of cost-efficiency, thus, they will not always support professionals. A third class of key stakeholder, according to Sabatier's framework, are 'knowledge brokers', who resemble the opinion leaders theorised in the health-services research literature. It has been concluded that investigating the implementation process must entail exploring empirically these sometimes competing perspectives on organising clinical work: it bids fair to show how activities related to the implementation of NICE guidelines are organised and managed at different organisational levels.

Key stakeholders and their interests in organising clinical work must be incorporated into the conceptual framework to facilitate exploration of the acts (and inaction) of professionals and managers during the implementation process. In this respect, the bottom-up component of the conceptual framework will specify the key actors and interests which may influence the process at this level. The key assumption of the conceptual framework is that the specific interactions between health professionals, knowledge brokers and managers will create both barriers and facilitators – or in Lukes's terms 'internal constrains' – that will significantly influence the success of implementing guidelines and change.

In light of the discussion in the last section of this chapter, the attempt to correlate the pattern of interactions of stakeholders having different interests with third-dimensional power is the theoretical basis for researching the clinical guidelines implementation process. According to Lukes, decision-making in a context of conflicting subjective interests, beliefs

and values may entail a form of power that 'dictates' who determines the process, setting the agenda, manipulating conflicts, and exerting social influence (Lukes, 1974). This will surely influence the shape of the implementation process, as depicted in Figure 4.

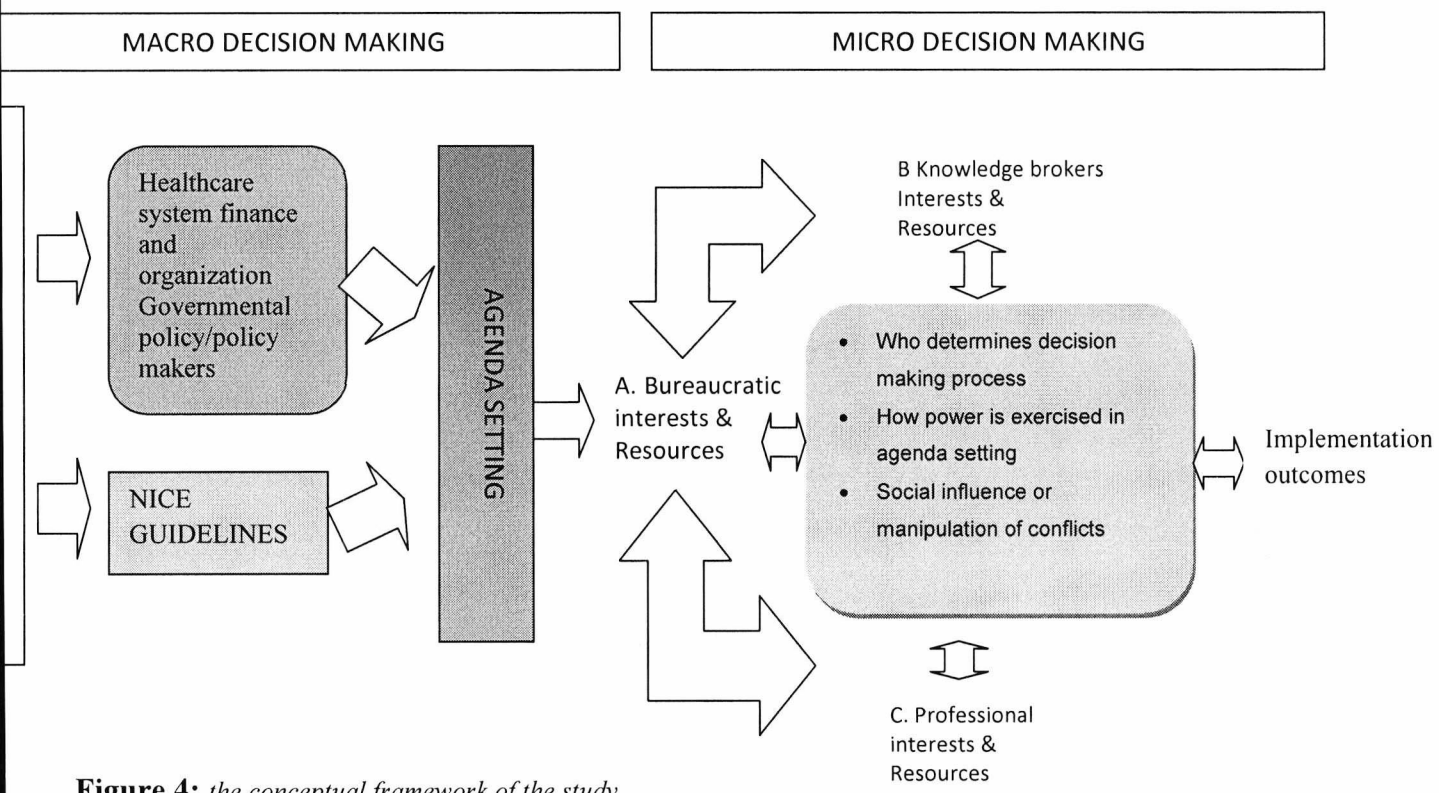


**Figure 4:** *the conceptual framework of the study*

Although the conceptual framework includes *a priori* elements like structural interests and Lukes's three-dimensional conception of power, in keeping with an overall inductive approach based on a loose conceptual framework it will be assumed that doctors are keepers of specialist knowledge and hence may 'dominate' (in Lukesian terms), consciously or unconsciously, the shaping of the thoughts and perceived interests of non-medical stakeholders like managers and nurses. In this respect the interests of those involved in the implementation of NICE guidelines will be influenced by professional knowledge. Consequently, the presumption at this point is that the process by which NICE guidelines are implemented is uncontrolled and non-linear, and that professional knowledge is a source of power that may prove useful in explaining the shape of the process.

This loose conceptual framework will be deployed to answer two research questions:

1. How may the implementation process be characterised?
2. What shapes the implementation process?

The following chapter will describe in detail the methods applied in turning the research questions into research findings.

# Chapter four – Research Method

### *4.1 Introduction*

The aim of this thesis is to inform 'evidence-based' implementation with further understanding of the process by which scientific and technological developments, manifested in this case by NICE clinical guidelines, are introduced into and used in everyday practice. This study explores the way in which clinicians and managers perceived the nature of the implementation process in order to shed some light on the nature of this process and understand whether or to what extent it is staged and linear, messy and negotiated top-down or bottom-up and what factors influence its shape. This will require the understanding of how local health care providers and organisations respond to nationally agreed clinical guidelines and the examination of the nature of the process by which clinical guidelines are implemented, how they are introduced, received and used by front line providers, assessing their impact on clinical practice in different clinical settings and identifying features that account for their success or failure in their context. More specifically the objectives of this study were to identify variations in the process of implementation of guidelines, to explain variations in uptake of guidelines by clinicians, to examine and explain variations in uptake of guidelines in different organisational settings. Finally, it was anticipated that by determining the intended and unintended consequences of guideline implementation it may be possible to arrive at an understanding of how power relations operate in practice what skills are associated with using power, how it is manifested in practice and how it becomes institutionalized in healthcare organizational settings and embedded in certain groups or individuals.

In order to do address these aims and objectives the previous chapter has explained the loose, conceptual framework that was built to inform the data collection. The framework integrates the macro and micro processes and moves from the macro level to the micro one in order to explore how the interaction of different stakeholders - such as managers and clinicians- with different interests, as alluded to by Lukes, may influence the nature and shape of the implementation process as it depicted in the previous figure.

This chapter will present the research methods used in this work to address the revised aims and objectives of the thesis. The first section will elaborate the research design: the data collection process, the sampling methods, the analytical process, and the criteria used to assess quality. The subsequent sections elaborate the criteria for selecting guidelines and organisational settings for study; the profile and characteristics of the NHS Trusts that took part in the fieldwork; and the ethical approval process.

## 4.2 Methods

### 4.2.1 Research Design

It has been argued that the implementation process is ideally studied *via* a prospective, longitudinal design (Kimberly and Evanisko, 1981;Van de Ven, 1992;Dopson, 2005;Bradley *et al,* 2005). The strength of this design is that it enables the researcher to explore 'continuous processes in context' and over time (Pettigrew, 1995, p. 97) to assess how structure and agency interplay influence the implementation process. This design is more likely to yield an overall 'picture' of the implementation process, and of its intended and unintended implementation outcomes. It helps the researcher collect evidence ongoingly as it happens, to 'capture reality in flight' (Pettigrew, 1995, p. 92), rather than collecting evidence from past experiences, which is subject to personal bias and the decay of memory. In addition, the longitudinal design may also enable to capture emerging patterns of implementation that may influence the sustainable uptake of an intervention which seems to have been neglected from the implementation research

Previous studies have also studied the implementation process retrospectively (Sheldon *et al,* 2004;Checkland *et al,* 2007). The retrospective design may pinpoint important factors that may not be capturable by the prospective design. For example, in this case the retrospective perspective may reveal which key stakeholders have historically had the power to determine decision agendas, and whether their agendas long preceded NICE guidelines. There is a need for at least a historical contextualisation – meaning a timeframe going back several years and, in the context of this study, probably before the publication of the NICE guidelines. On the other hand, a potential limitation of retrospective design is that it may fail to capture the influence of the historical context over emerging patterns of implementation. It may be concluded that combining both designs may be advantageous, given that they do

complement each other, even though it seems that there is a dearth of empirical studies that have used both perspectives.

In addition, systematic review on the implementation process of Greenhalgh *et al.* (2004) suggests that it should be studied from a 'whole-system perspective', which has been neglected by the literature. However, this review can be criticized on the grounds that the authors fail to provide an adequate definition of 'whole system'. This may be because it is not easily defined in the sense that one might provide several interrelated interpretations. For example, it may imply the necessity of considering the process as a whole, as opposed to considering each 'stage' in isolation. Or it may imply the necessity of exploring the operation of the whole health system, which involves understanding the policy-making process, the potential interest groups involved in policy making, and their influence over implementation in both macro and micro political contexts. At a less macro level 'whole system' may imply the whole process of health care delivery from primary to secondary to tertiary care, characterised by its manifold negotiations between semi-autonomous agents, often with competing interests, values and beliefs. This thesis ought to adopt a research design that will, one way or another, enable study of the implementation process from a whole system perspective. For purposes of this thesis a whole system perspective must enable an in-depth understanding of the overall 'context' involving all key stakeholders.

Most studies on guidelines implementation have been carried out in a controlled environment, usually using experimental (*viz.* RCT) and quasi-experimental (*viz.* questionnaire) research designs to evaluate the effectiveness of guideline implementation strategies, and focussing on isolated events, or 'snapshots'. By contrast, this study sought to explore the process of 'transferring' scientific knowledge into practice in an uncontrolled environment in order to capture an overall picture of the factors that affect implementation success or failure. There is a dearth of empirical research that studies the process in an 'uncontrolled' environment.

It has also been claimed that *case studies* can yield rich empirical data, enabling the understanding of complex phenomena (Checkland *et al,* 2007), and may be better positioned than surveys or experimental designs (Locock *et al,* 2006 ) to capture the context as well as the experiences of the key actors. According to Yin (the most widely cited scholar in the field of case study design), the purpose of the case study is to explore a complex phenomenon in a 'real life context' (Yin 1994:23), where the boundaries of the phenomenon under study and the context within which it transpires are blurred. At the same time, multiple sources of

evidence may be used, including both qualitative and quantitative data (Eisenhardt, 1989;Yin, 1994). It has been argued that the case study ought to be the preferred research design for investigating the *how* and *why* of complex social phenomena in a real life context where the researcher has limited control over what takes place. The case study design with an interpretive stance was considered the most suitable approach for fulfilling the research aims and objectives of this thesis: enabling an in-depth exploration of the operational activities in organising clinical work, in creating knowledge, and in the interactions between key stakeholders.

Finally, review of the literature on implementation research revealed that comparative case studies on implementation in healthcare are rare. It is therefore concluded that a comparative design may enable exploration of the implementation process in a more systematic way, insofar as it may enable understanding of multiple stakeholder perspectives, or of the nature of the implementation process and the factors that shape it in guidelines in a variety of organisational as well as clinical settings (Buchanan and Bryman, 2009). It may also allow unexpected differences and similarities to emerge and be compared in such a way as facilitates generalisation. In this respect, the comparative design may overcome the potential weakness of single case studies, particularly transferability, which may become especially problematic if findings are only found to a single case (Hammersley and Atkinson, 1995).

In sum, it was decided to deploy an innovative research design that would explore the implementation process in an uncontrolled environment and longitudinally (retrospectively and prospectively), from a whole system perspective relying on case studies of comparative design. The review in Chapter Three of the empirical literature on the implementation of clinical guidelines showed that such a design has never before been used. It has entailed tracking the fate of published NICE guidelines, examining the processes by which they were implemented by local providers since their publication, while following up at different phases of the process to explore how it unfolded over time. In this respect one of the objectives of this thesis has been to assess whether this design has indeed offered a better understanding of clinical guidelines implementation, the nature of the implementation process and the factors that may influence its shape

It was argued in Chapter Two that it was necessary to explore the impact of guidelines in a variety of organisational and clinical settings, inasmuch as in primary care, for example, clinical decision-making and diagnostic practices may differ from, and the review of practice and application of guidelines may be more negotiated than in secondary care (Gabbay and le

May, 2005; McDonald and Harrison, 2004). Ideally, if time and financial resources had allowed, a comparative case study would have been undertaken covering all Strategic Health Authorities across the country in a variety of clinical settings, the better to assess whether and how regional factors influence the implementation process. However, pragmatic necessity confined this study to what was feasible. Given the resources – (time and funding) – allocated to this study, too many case studies would have precluded an *in-depth* exploration of the implementation process.

It was concluded that a more in-depth exploration of the implementation process relying on fewer case studies would enhance the knowledge available in this field more than a more superficial exploration over more case studies. It was decided to explore the implementation process in two different urban areas in southern England with two different Strategic Health Authorities. The choice of location is more extensively discussed in a subsequent section of this chapter. Each case study involved one Primary Care Trust (PCT) and the Acute NHS Trust commissioned by the PCT to provide acute health services.

For this thesis it was critical to determine how many phases each study should have and what the optimal time should be that is left between different phases. For pragmatic reasons it was decided that each case study should have two phases, and that the implementation of NICE guidelines should be followed prospectively for a period of six months to observe how the implementation process unfolded. The duration of six months emerged after discussion with key stakeholders in implementation, who suggested that six months is a minimal time frame for observing potential changes with health service delivery. Correspondingly, each case study featured a first phase during which the guidelines implementation process was explored retrospectively since the time of publication, first in the PCT affected, and then in the associated Acute NHS Trust. In the second phase of each case study a second round of unstructured interviews with the same stakeholders was conducted (whenever possible) to explore the implementation process further.

In addition, a longitudinal study ought to be carried out involving the same research informants. The advantages of deploying longitudinal design discussed earlier diminishes appreciably with high attrition rates (Pout and Hungler, 1991;Magnusson and Bergman, 1990). In this research project it was not possible to retain all the informants during both phases of each case study. Five informants could not be interviewed a second time due to time limitations and non-responsiveness. Three informants were on maternity leave during the second phase, and it was not possible to obtain interviews from those who replaced them

due to time limitations. Three informants left the job and were not replaced, or, though due to be replaced, never actually were during the second phase. Four new informants were identified in the second phase and interviewed, but only once. However annoying, this is to be expected in a longitudinal study in a 'real life' context and in an uncontrolled environment where the researcher must accept that informants 'move on' with their lives. At the same time, this very turnover may be an early finding in itself and one of the factors influencing the shape of the implementation process, particularly as managerial work in the NHS provides opportunity for fast career development. In total, 74 interviews were carried out over both phases. Table 3, below, diagrams the study design and the number of informants interviewed for each phase. The drop-out between rounds of interviews may 'threaten' the representativeness of the findings, as it is difficult to assess whether those not re-interviewed might have responded in a way that would have significantly altered the findings. On the other hand, most informants directly involved in the implementation of the two NICE guidelines were interviewed twice.

| **Organizational context** | **Case study one** | | **Case study two** | |
|---|---|---|---|---|
| | Phase one | Phase two | Phase one | Phase 2 |
| **PCTs** | 13 interviews (n: 13 informants) | 9 interviews 2 new informants | 12 interviews (n: 12 informants) | 8 interviews 2 new informant |
| **NHS Hospital Trusts** | 11 interviews (n: 11 informants) | 8 interviews 1 new informant | 7 interviews (n: 7 informants) | 6 interviews |
| **Total** | 74 interviews/ 48 informants | | | |

**Table 3:** Study design with number of informants interviewed at each phase

Following Yin (2009), case studies may be either holistic or 'embedded' – as occurs when a single case study involves more than one unit of analysis; for instance, a study of a single NHS Acute Trust may constitute a single 'case', but individual departments within this Trust

might be embedded units of analysis. Or, a study of a single PCT may also be a single case study, but the individual GPs contracted by the PCT and the individual departments of the Acute Hospital Trust commissioned by the PCT might likewise be embedded units. Applying this logic to the design of this thesis, it follows that each case study might have involved multiple embedded units of analysis. To avoid needless complexity and for analytical purposes, it was assumed for each case study that the PCT, the GPs contracted by it, and the associated Acute NHS Trust were one unit of analysis. This unit of analysis also constituted the micro- or local context within which the implementation process was studied.

Finally, following Checkland *et al.* (2007), the explanatory power of the loose conceptual framework was assessed in an iterative way, in that, after each phase of a case study was completed, the framework was assessed and revised in light of the evidence and the revised framework deployed to explore the next phase. In this respect, findings emerged from both case studies regarding the implementation process may be used to inform new theory and policy related to innovation implementation in healthcare by making linkages to theory (Langley *et al,* 2003). Yin calls this method of development 'analytic generalisation' or theory-building: '...in analytic generalization, previously developed theory is used as a template against which to compare the empirical results of the case study...' (1994:31).

The following diagram (Figure 5) maps the case studies' analytical design.

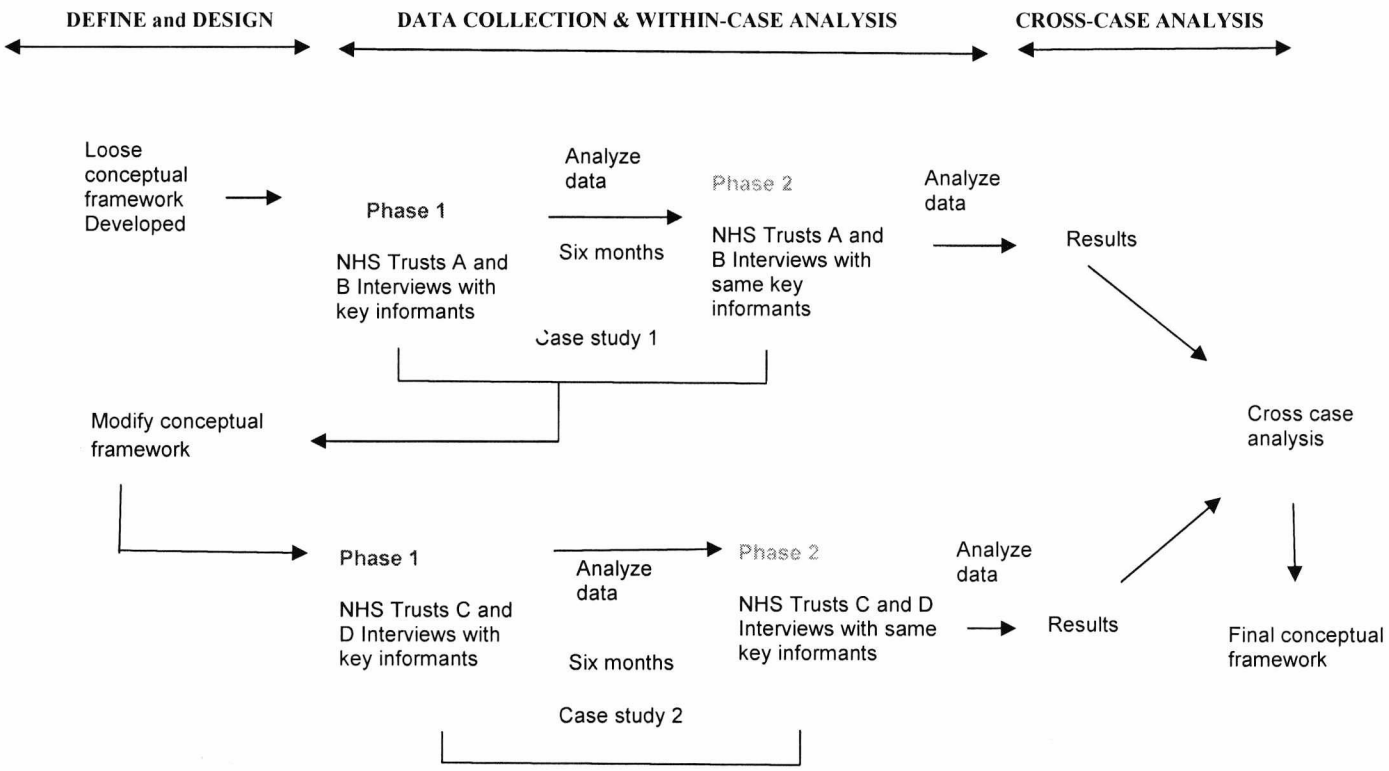


**Figure 5:** *the study design*

Cross-case comparison will also contribute to constructing a description of the specific shape of the implementation process in healthcare as well as to generalising (part of) the conclusions beyond the level of two case studies. The potential impact of managerial and professional interests in shaping the implementation process in different organisational settings will be assessed as well as the process mechanisms that explain not just what gets done but also how easy or difficult it is to bring about change, what acts as barrier and facilitator, and what processes may be distinguished as critical not just incidental to the success or failure of implementation. These mechanisms might include: organisational levers such as formal and informal planning and monitoring processes used by managers with local responsibility for NICE guidance, or dissemination measures used to raise clinical awareness; social levers such as initiatives driven by professional opinion leaders, including use of social networks to facilitate knowledge-sharing and engagement of key staff; and economic levers such as employee and organisational incentives and rewards to support adherence to guidelines. In terms of outcomes, most research aimed at assessing the success of implementation has focussed on how much innovation is accommodated in 'business as usual' (Bate, 1994). Data will also be collected on intermediate outcomes, including

satisfaction with how guidelines were introduced, with implementation processes, and with the consequences of implementation initiatives.

### 4.2.2 Data collection

This section considers the methods actually used in this research project to collect, sample and analyse data, and the steps taken to check up on the quality of that data. It was argued above that understanding the implementation process within an organisational context calls for a 'whole system' approach that explores how key stakeholders operate and interact with each other as well as how they construct and negotiate meanings (Greenhalgh *et al,* 2004). The *local context* is important because it may enable unpacking the dynamics between organising clinical work, knowledge-creation, and knowledge-application in everyday practice. Accordingly, the overall research design had to capture what Marshall and Rossman have described as 'confusing, messy, intensely frustrating and fundamentally non-linear' events (1998, p.21) which must be operationalised in their natural, uncontrolled settings (Miles and Huberman, 1994).

Researchers in the field are forewarned by a study examining the implementation of NICE guidance on the use of certain drugs in the acute sector, which showed that simply relying on quantitative data about use of the drugs was insufficient to identify the uptake of guidelines (Sheldon *et al,* 2004).. Qualitative interviews and assessment of patient records revealed that, although prescription had increased, the new patterns of prescribing were not necessarily in accordance with guidance (*ibid*).

In light of these findings, it was decided that qualitative methods were more suitable for process analyses like the one undertaken for this research (Calnan and Ferlie, 2003) than an experimental/quantitative approach. Qualitative methods are more fitted to exploring the meanings that individuals attach to their experiences and how they make sense of the world (Pope and Mays, 2006). Informal or unstructured face-to-face interviews were preferred to structured interviews because, being spontaneous and conversational (Radcliff *et al,* 2007) and consisting of open-ended questions followed by probing based on the informant's responses (Rothwel, 2009), they enabled a more in-depth understanding of a complex phenomenon (Saunders *et al,* 2009).

It has been suggested that exploring power relations by deploying a variety of data collection methods may enable the researcher to cross-check the understandings developed from these different methods. This is also known as *triangulation. Participant observation* of clinical practice may furnish further occasions for spotting exercises of power and deeper structures and balances of power – the rules of the game (Erasmus and Gilson, 2008) that determine particular ways of organising clinical work – which may complement data obtained through interviewing informants. Ideally, this research should have involved such direct observations through attendance of key events selected for their 'window' onto various phases of the implementation process; *viz.* meetings at the highest management level, to observe original decision-making; educational workshops provided by the teams responsible for the implementation of NICE guidelines, to observe the training methods developed to actively disseminate the NICE guidelines to potential adopters; and the clinical practices of doctors and nurses, to observe actual adherence (or not) to NICE guidelines. Such participant observation might have been complemented by audit data, to identify outliers and to review current practice. Given the fact that this study was conducted across several departments within four NHS Trusts, however, longitudinal observation of meetings, events, workshops *etc.* was not feasible within the budget available to the researcher.

Loose topic guides linked to the conceptual framework (see Appendix 1, page 237) were developed to give some structure to the interviews. *Different topic guides were developed for managers and for health professionals.* The key topics explored in interviews related to: bureaucratic and professional interests in the organising of clinical work; the perceived value of NICE guidelines; the perceived successes of implementing NICE guidelines; what possible phases the implementation process might have; the strategies and key resources utilised; other organisational characteristics (time, communication) utilised in implementation; what levels of change were suggested by NICE guidelines; the role of leadership and of champions of change; the role of power and authority. The intention was to capture the key stakeholders' understandings of implementation in general and specifically of the NICE guidelines chosen for this project. Data collection was carried out between September 2007 and March 2009.

### 4.2.3 Sampling

Qualitative research uses non-probability sampling for selecting the population for study. Samples are deliberately selected to reflect particular features (Ritchie *et al,* 2003). Thus, purposive sampling (Pope *et al,* 2000;Strauss and Corbin, 1990) was done to identify a set of

key informants who constituted a source containing multiple perspectives from different organisational levels. The conceptual framework presented earlier suggested that health care professionals, local managers/commissioners responsible for delivery and/or commissioning of health services, and knowledge brokers would be the key influencers of the process of implementing NICE guidelines. Accordingly, a sample of informants who could be thus categorised was selected based on their potential involvement in the implementation of the specific NICE guideline. 'Theoretical saturation', a point in the research process where no new themes emerge during coding of data was used in each case study as a guide to deciding whether the recruitment of new informants was complete.

Guidance from the implementation literature also suggested the 'snowball technique' (Robson, 1993), whereby informants recommend other potential informants to be recruited, as a useful sampling technique. Its advantage is that it facilitates identification of the key stakeholders involved in a process and, possibly, a deeper understanding of how informal and formal implementation structures – (*structure* meaning the 'rules of the game') – developed around a specific policy/programme (Hjern and Hull, 1982). The snowball technique was in fact deployed in this research to construct a sample that included stakeholders from a range of different occupational backgrounds and organisational levels, the better to explore the perspectives of those of diverse and sometimes competing interests. This also meant that data were collected from multiple sources (Calnan and Ferlie, 2003). According to Peters and Pierre (2003), the snowball technique dictates starting with those informants who are most directly exposed to the issue under investigation, then gradually identifying more informants who are interacting with the first set around the issue under investigation.

Considering that the implementation process is subject to both top-down and bottom-up causation, the snowball technique was used in two different ways across both case studies. In the first case study a senior manager from NICE introduced the present research to medical directors in both NHS Trusts. In subsequent meetings with these directors, to whom the present research was presented in more detail, they identified key informants whom they thought would be involved in the implementation of NICE guidelines in general and of the guidelines chosen for this research in particular. The directors then introduced the present research to the key informants they had identified, who were then individually contacted by your researcher by phone or email to arrange an interview. Once in the field your researcher identified further key informants. In this respect the sampling process proceeded from the top of the organisation to the bottom. Using contacts from the university, the second case study

was introduced to clinicians responsible for the implementation of the two NICE guidelines, and once in the field, further recruitment proceeded up the chain of responsibility to the top of the organisations in question.

In total, 65 informants were invited to participate in the present research project; 48 informants did participate, including 16 doctors and eight GPs (of whom two had a special clinical interest in cardiology, one in obesity, four in practice base commissioning, and one in public health); eight hospital consultants (four practicing solely in clinical settings, two cardiologists, one endocrinologist, one gastroenterologist, and four Trust professional executives with managerial duties); 18 senior or middle non-medical managers; 10 nurses; and two allied health professionals. Twenty-eight informants were interviewed twice and eighteen only once. Seven informants never responded and ten declined the invitation to participate in the project due to time limitations. Table 4 provides a breakdown of the informants' occupations.

| Occupational background | No. |
|---|---|
| <u>GPs</u> | |
| o GPs with clinical interest in cardiology | 2 |
| o GPs with clinical interest in obesity | 1 |
| <u>Hospital consultants</u> | |
| o Cardiologist | 2 |
| o Endocrinologist | 1 |
| o Gastroenterologist | 1 |
| <u>Doctors involved in management</u> | |
| o Public health doctors | 1 |
| o GPs involved in commissioning | 4 |
| o Hospital consultants in senior management | 4 |
| <u>NHS managers</u> | |
| o Senior and middle NHS Trust Managers | 18 |

| | |
|---|---|
| Nurses and allied health professionals | |
| o Nurses with clinical duties for the prevention of obesity | 1 |
| o Nurses with clinical duties for the management of CHF | 1 |
| o Nurses with clinical and managerial duties in the management of CHF | 3 |
| o Nurses and allied health professionals with managerial duties only | 7 |

**Table 4: Breakdown of informants' occupations**

The snowball sampling method used herein to identify key stakeholders has been claimed to be efficacious in reaching 'hard to get' informants (Greenhalgh, 2006), such as busy GPs and specialist hospital consultants who would not have been identifiable by your researcher if not introduced by peers. However, the snowball technique has limitations. Most importantly, because informants were not chosen from a sampling frame (Ritchie *et al,* 2003), snowball samples may be subject to numerous biases; *e.g.* more sociable informants may have many shared interests are more likely to be recruited into the sample (Anheier and Katz, 2004) by a non-random sampling technique; thus, it is never certain how much bias snowball samples may roll up (Weintraub and Pinkleton, 2001). Another source of bias is that recruited informants are likely to tip off the researcher to potential informants in their own network, who are therefore likelier to share the same interests, values and beliefs. Thus, it is impossible to guess whether other informants might have perceived the implementation process differently.

### 4.2.4 Coding and analysis

Transcripts of each interview were anonymised and a code number was assigned to each for identification purposes, and the process of reading, coding, categorising, re-reading *etc.* was undertaken (Miles and Huberman, 1994). Coding has been defined as the conceptual label that can be attached to words, phrases, themes and concepts that commonly emerge from the data, which are then to be analysed to pinpoint underlying patterns, relationships and effects (Strauss, 1987). Each interview was transcribed and coded in the course of the

fieldwork. This method provided mid-course guidance for subsequent interviews. Themes that emerged in preceding interviews were explored in-depth in subsequent interviews, as suggested by Strauss and Corbin (1990). Using common coding techniques, an initial coding frame was developed to analyse transcribed initial interviews (Miles and Huberman, 1994). This was then expanded and refined iteratively through review of subsequent interviews. The coding naturally laid strong emphasis on professional and bureaucratic interests, and on control, agency and structure. The coding process included adding, merging and modifying codes as new concepts emerged, and identifying new relationships between concepts. In this respect, the prevalent logic was induction from the data rather than deduction from a pre-existing theory (Locke, 1997 ). Atla.Ti. software was deployed for data-handling: to assist in reporting recurrent themes; and to store, select, index/code, and annotate large numbers of transcripts (Miles and Huberman, 1994).

Data analysis was carried out inductively and thematically, using the constant comparative method of Grounded Theory (Glaser and Strauss, 1980;Strauss and Corbin, 1990;Strauss, 1987). The analysis took place in tandem with coding as this enabled formation of more conceptual categories and development of a better-rounded understanding of the data (Locke, 1997 ). In this respect, constant comparison allowed synopsis of implementation problems that informants reported as common across personnel classes and departments, and of strategies they used to address them. Newly gathered data were continually compared with previously collected data and its coding in order to refine the theoretical categories; to identify emergent relationships between data; and to explore emerging concepts.

Data analysis was ongoing while data was still being collected, in order to achieve a satisfactory level of understanding of how the implementation process unfolded across time in each case. Each individual interview was analysed separately, and cross-case analysis of all interviews was carried out at the end of the fieldwork. Following Wolcott (2001), written reporting of case study results started as early as possible and before the data analysis was complete. This required repeated iterative correspondence between reporting and data analysis, which enabled both a better understanding of how different informants understood the implementation process and a better grasp of the emerging themes and concepts.

Data were analysed using the framework approach for ordering and summarising data (Ritchie *et al,* 2003). The key themes and related subtopics identified during the analysis of and familiarisation with the data of each case study were summarised within a thematic framework. A number of matrices were compiled, each exhibiting one theme, where each

column represented a different sub-topic and each row represented the interviews with one informant (see appendix two for a sample matrix, page 240). This referenced sub-topics across quotes from each interview within the same theme, allowing the compaction of a large volume of data from each case study into one dataset and rendering the comparative analysis easier and more systematic, while also facilitating a more structured constant-comparative analysis.

### 4.3 Assessing the quality of the study

Yin (1994) specifies criteria for evaluating the quality of a qualitative case study design, and he underscores the necessity, when conducting case-study research, of considering issues of reliability and validity, particularly internal, external and construct validity. However, Yin has been criticised for his blurry conceptions of reliability and validity, and his tendency to let quantitative issues creep in, such as whether constructs are 'valid' (Hunter and Schmidt, 1990). His criteria have been found unpersuasive insofar as they situate quality assessment within a positivist framework in terms of replicability; which is more suitable to experimental or quasi-experimental designs. For example, Yin defines reliability as testable by the criterion 'that the operations of a study such as the data collection procedures can be repeated, with the same result' (Yin 1994, p.33). One ought to be sceptical, however, of trying to replicate a qualitative study, given the complexity of the social world under study and the possible impact of 'different contexts' (Lincoln and Guba, 1985). It is rather the meanings attached by research informants that might be 'replicated' (Lewis and Ritchie, 1994); it being believable that if research informants who share similar values and beliefs are asked similar research questions about the use of NICE guidelines, then probably similar meanings attached by them would re-emerge. Thus, Yin's criteria were rejected for assessing the quality of this study as not being pertinent to qualitative inquiry (Altheide and Johnson, 1998).

Guba and Lincoln's (1985) approach to assessing the quality of a qualitative research design seems more pertinent to the nature of qualitative inquiry. They recommend that quality should be assessed empirically; arguing against quality checklists, as suggested by Yin, such as those used in the experimental paradigm. Similarly, Pope and Mays (2000) recommend that, irrespective of the many checklists that exist for assessing the quality of the qualitative research, one should avoid following definitive set of quality guidelines.

Commonly cited criteria, as suggested by Guba and Lincoln (1985), relate to the concept of 'trustworthiness' and show aspects of credibility, transferability, dependability, and confirmability. The present research design could not meet the criteria of dependability and confirmability, as this would have required an external evaluator to examine the several stages of the study, and to review the raw data and the decision process to determine that appropriate logical inferences were drawn. The steps actually taken by your researcher to assure the trustworthiness of the present research design through the criteria of credibility and transferability are next presented.

***Credibility of research methods***

- ***Research design***

The approach taken to assuring the credibility of the research design consisted, first, of exploring what research designs have been used to study the phenomenon under investigation by others, then building a design based on the strengths and avoiding the weaknesses of those designs. This led to an innovative design which, however, had to be applied in practice within the limits of what was materially feasible. The longitudinal design also enhanced credibility because it enabled your researcher to collect data over a longer timeframe to assess how the implementation process unfolded in the long term and to minimise the biases possible with retrospective reporting by informants. The case for employing qualitative rather than quantitative research methods was explicitly established as appropriate for addressing the aims and objectives of the present research project.

- ***Data collection***

Topic guides were compiled to assure that relevant themes were brought up with the informants. Topic guides were 'tested' before the research began by a pilot study that involved informal face-to-face interviews with GPs and managers. This allowed your researcher to assess proposed topic guides for the accuracy, relevance and fitness of the themes explored. Following these pilot interviews, your researcher asked his informants their opinion of the questions and whether any relevant topics had been neglected. The informants'

responses during the interviews and subsequent informal discussions laid the basis for further refinement of the topics guides by your researcher.

All interviews were recorded on a digital recorder to assure the quality of data recordation and its recording in its natural form (Legard *et al,* 2003). Prior to each interview the research project was presented in detail to the individual informant on information sheets describing the objectives of the study. It has been recommended that research informants are given adequate information about the research to inform their consent to their participation (Polit and Beck, 2004). Thus, while consent was being obtained from each informant, the opportunity availed to encourage the informant to discuss matters touching the research before the interview began. (On the other hand, your researcher was careful to avoid responding to informants' inevitable questions about his opinion of the value and benefits of NICE guidelines, lest he affect their responses.)

All interviews were transcribed verbatim by the researcher, either on the day of the interview or the next day, the better to facilitate adequate analysis of their content. As for 'who is going to do the transcribing' it was necessary for the researcher to immerse himself in the data for the sake of better analysis (Bumard, 1995). This meant that issues that emerged in each interview could be explored in more depth in subsequent interviews.

Purposive, snowball sampling was resorted-to to enhance the credibility of the findings. It was crucial purposively to select groups of stakeholders and to build further contacts once in the field, as this enabled collection of data from informants more closely involved with the subject of research. Finally, to assure that conceptual – (in lieu of statistical) – generalisations could be made, 'theoretical saturation', that point in the research process where new data or themes cease to emerge during coding (Glaser and Strauss, 1967), was relied-on to guide the decision that recruitment of new informants was complete in each case study.

- ***The interview process***

Steps were also taken to assure the quality of the qualitative interview. Each interview began with questions about the informant's characteristics (professional and educational background, job title, years with the organisation, total years of experience, what informant liked and disliked in the job and what was difficult to achieve, *etc.*). This was necessary to capture important contextual information. The loose topic guidelines were important resources, too, because they helped combine structure with flexibility during interviews by

signposting the researcher toward the key themes to cover in a given interview, while at the same time allowing the researcher to explore emergent issues related to the implementation of NICE guidelines raised spontaneously by informants in the interviews.

- ***The transcribing process***

To assure the credibility and accuracy of transcribing, each transcript was checked against the original recording by the researcher before it was subjected to analysis.

- ***Coding and analysis***

Data collection and analysis were conducted simultaneously as an iterative process that moved back and forth between analysis and data collection. Thus was your researcher able to assure that the process was rigorous and systematic, in that new themes emergent in the ongoing analysis of the data could be used to adjust and refine what was to be explored in subsequent interviews.

Ideally, inter-coder triangulation, that is, coding of the same content by more than one coder so as to check whether the same codes get produced (Seale, 2004), would have been deployed to assess the reliability of the coding, but this was impossible as your researcher was the only one involved in coding. However, your researcher did double-code a segment of data from each case study at widely separate times as the next best way to assess the reliability of the coding (intra-code reliability) (Boyatzis, 1998;Miles and Huberman, 1994). Frequent peer debriefing was resorted to throughout the course of the research, particularly after each phase of each case study, where a draft report was presented to one of the PhD supervisors to lead up discussion of issues of methodology and data quality.

To strengthen the credibility of the research methods used, the data were triangulated by comparing the results of data analysis with the outcome of the analysis of official documents either found on the internet, such as local NHS Trusts' policies for NICE guidelines implementation, or provided by informants such as clinical auditors, whose findings were compiled for use for this purpose – (although it was taken into account by the researcher that these documents were not produced for research purposes whence content analysis was conducted cautiously).

Another way the data were triangulated was by asking similar questions to informants from different contexts but from similar backgrounds - different informants in different organisational settings in terms of formal rank, years of experience, clinical interests. This was aimed to clarify meaning and probe the likely replicability of an interpretation. What informants said about the same issues at different times was triangulated as well, to check for the consistency. Finally, data collected from interviews with clinicians were triangulated with those from managers to identify patterns of convergence that might support an overarching interpretation. Pope *et al.* (2000) argue that this form of triangulation may be seen as promoting comprehensiveness and encouraging a more reflexive analysis of the data not necessarily to produce an objective account of the phenomenon under consideration. Instead the purpose was to produce a coherent and illuminating description of a phenomenon under consideration that is based on detailed study of this phenomenon(Ward-Schofield, 1993, p.202).

- ***Quality of reporting – transferability***

To assure the trustworthiness and credibility of the reporting, a major goal of the data collection and analysis was to provide a 'thick' description of the key actors implementing NICE clinical guidelines in context and report that in sufficient detail (Patton, 1985). Sufficient data are presented, using quotes as evidence, for *purposes of illustrating* themes transpiring from a wide range of informants and perspectives, so as to enhance potential transferability of the findings. An inductive approach was adopted to facilitate analytical generalisations covering both case studies. The constant-comparative design furnishes the groundwork for discussing the generalisation and transferability of the findings to similar contexts.

### *4.4 Selection criteria for guidelines and organizational settings*

#### 4.4.1 Selection criteria for guidelines

Attention was given to NICE clinical guidelines only, as they appeared to be more detailed than technology appraisals. Appraisals normally assess a single intervention, whilst clinical guidelines cover the comprehensive management of specific diseases (Littlejohns *et al,*

2004). They have been neglected in previous implementation research. Selection of the NICE guidelines to be studied was guided by the following criteria:

- ***Guidelines that fall within the National Service Frameworks*** *(NSFs)* as suggested by DoH, namely: Coronary heart disease; Paediatric intensive care; Mental health; Older people; Diabetes; Long-term conditions; Neurological medicine; Disease management; Case management Cancer.

There were two major reasons for using NSFs as one of the selection criteria. First, it was assumed that NSFs reflect national priorities, so that resources will be more likely to be made available to implement them; thus easing access by researchers.

Secondly, it was also assumed that, from the Trusts' viewpoint, local decision-makers, managers and commissioners have been pressurised to implement guidelines serving national priorities as suggested by the DoH; thus the pace of implementation might be quicker. According to the DoH, NSFs and NICE guidelines are integral to a standards-based system, in that they have a key role in supporting local improvements to service quality (Department of Health, 2001). Organisations' performance will be assessed not just on how well they meet national targets, but increasingly on whether they have been delivering services to a high standard across a range of domains, including NSFs and NICE guidelines.

- **Cost implications**

The literature suggested (Rosen and Gabbay, 1999) that, when implementation implicates higher costs, decision-making is likelier to involve senior management, whereas guidelines with lower cost implications go along with the decision-making being delegated straight to clinicians. Because of the breadth and complexity of the guidelines, recommendations with different cost implications, *i.e.* those that require additional resources to implement or that will generate savings, may constitute a selection criterion.

- **Complexity of change**

The literature on implementation theorises that adherence to guidelines depends on the level and complexity of the change intended; therefore, guidelines implying different levels of mandated change ought to be compared. However, to assess levels of change may require an understanding of current practices, which may need to be based on retrospective reports.

- **Withdrawal of services/practices**

The literature on implementation tends to dwell on implementation of innovative practices. But implementation includes withdrawal of technologies, practices and services; a dimension hitherto neglected by scholars. NICE has begun to consider developing guidelines requiring withdrawal of services proven to be cost-inefficient. Therefore another criterion for selecting guidelines may be that they recommend the termination of services.

- **Guidelines that apply to both primary and secondary care**

Guidelines the implementation of which involve different organisational settings (*viz.* primary care and secondary care) were assumed to be more complicated than guidelines that involve one organisational setting only. Ideally, the present research would have compared only the implementation of guidelines applicable to both organisational settings.

- **Timing of published clinical guidelines**

The present research project aimed to follow the process prospectively and understand the processes and mechanisms by which host organisations receive, communicate and implement newly published guidelines. However, focusing on 'newly' published guidelines may be problematic, because:

- The number of clinical guidelines that are published by NICE annually is limited
- The involvement of a researcher, at least in the early stages of the implementation process, may influence behaviour and outcomes.
- The longest-standing guidelines may be given higher priority than recently published ones, according to the Healthcare Commission, since the Trusts' performance in relation to NICE guidelines will be assessed mainly by their progress in implementing the former.

Consequently, exploring the implementation process of only recent guidelines may import subtle biases into the research.

Of the clinical guidelines published by NICE since 2003 10 had recommendations that met most of the selection criteria (see table in appendix three, page 249). These were the

guidelines on Obesity (December 2006), Parkinson's Disease (June 2006), Obsessive-compulsive disorder (November 2005), Type 1 Diabetes (July 2004), Self-harm (July 2004), Chronic Obstructive Pulmonary Disease (February 2004), Type 2 Diabetes – footrace (January 2004), and Chronic Heart Failure in adults in primary and secondary care (June 2003).

Due to limited resources, it was decided to explore in depth the implementation process for two NICE guidelines since their publication: (1) the most recent ones, on Obesity (NICE, 2006), and (2) the longest-standing ones, on Chronic Heart Failure (CHF) in primary and secondary care (NICE, 2003). These represent two distinctly different types of guidelines: the recommendations in the Obesity guidelines encompass system changes across healthcare, local authority and lifestyle-change; while the CHF guidelines only involve changes to clinical services and practices. In the Obesity guidelines for example NICE recommendations cover a broad area, including interventions for treatment, prevention and management of obesity; they cover system changes across healthcare, local authority and lifestyle-change and are presented over a number of distinct sets of clinical guidelines. In contrast, in the case of the CHF guideline, NICE recommendations cover the management of patients with CHF and so are focused on CHF treatment, specifying changes to clinical services and practices only, which are presented in a single clinical guideline. Table 5 summarizes key characteristics of the NICE guidelines.

| NICE guidelines characteristics | CHF | OBESITY |
|---|---|---|
| CLINICAL CHANGES Primary & secondary care | V | V |
| SYSTEMIC CHANGES Local authorities | X | V |
| IMPORTANT FINANCIAL IMPLICATIONS | X | V |

***Table 5**: key characteristics of the two NICE guidelines*

The empirical literature on the implementation of clinical guidelines theorises that the different characteristics of these guidelines may influence their uptake and implementation. Thus, one may expect that the implementation of the CHF guidelines will be less problematic compared to the implementation of the Obesity guidelines. Similarly, because the CHF guidelines are the longest-standing ones, having been published long before the Obesity guidelines, one may expect that the implementation process should by now have reached the stage of sustaining and integrating it into everyday practice or to influence every day practice.

### 4.4.2 The selection of the location depends on the following criteria:

Criteria were also developed for the selection of the organisation settings to be studied:

- **Types of organisational settings**

Attention was given mainly to primary and secondary care organisations, since the NICE clinical guidelines selected cover these two types of organisational settings.

- **Financial Resources**

The literature theorises that financial resources play important role in the implementation process. There were two ways (which may be interrelated) that resources may influence implementation.

First, the cost implications of guidelines or guideline recommendations may influence who is involved in decision-making within an organisational setting.

Secondly, the availability of and use of financial resources, at the Trust level, may influence what can be done. However, the availability of resources may influence the priorities of the NHS Trust and impact on the pace of guideline implementation as well as on the existence, size and responsibilities of NICE implementation teams (if any). It may be that NHS Trusts with fewer financial resources do not have implementation teams, or do not prioritise the implementation of NICE guidelines, or they prioritise the less costly recommendations of the guidelines.

The health commission rating may be used as an indicator of how well a Trust is performing in the use of resources and the quality of services. Ideally, organisations may be selected for study according to how they perform on these indicators.

- **Level of decision-making**

The literature theorises that the level of decision-making is important in the implementation process. It has been assumed that, when decision-making is centralised in a department-speciality within the same organisational setting, implementation may be simpler; in contrast to the case where decision-making is decentralised amongst several organisational settings and providers, as in primary care. Ideally, the implementation process should be studied over multiple degrees of centralised/decentralised decision-making.

- **Location**

Geographical location may have an important influence on the implementation process. By virtue of being involved in research, teaching and training, some NHS Trusts may quicken the pace of implementation as compared to other institutional settings. In densely populated areas the implementation process may be more complex. This may be attributed to several factors: in densely populated areas there may be greater demand for health services, which will probably be covered by larger, more specialized organisations. This implies that more stakeholders will be involved in the implementation process, and thus that communication and decision-making will be more complex. Ideally, multiple organisational settings covering Trusts serving different populations in terms of size and demography would be studied, generating significant comparative data.

- **Accessibility**

Given the scarcity of resources for this research project, it was necessary to be pragmatic and focus on geographical areas accessible to the researcher. As your researcher lives in London, settings in close proximity had to be selected for the fieldwork. Discussions with the implementation team from NICE revealed that London is an atypical setting wherein to study implementation, due to the population density, the many referrals from outside London, and the general structure of the services. It was therefore decided to study the South West and South East of England.

Finally, organisational research requires access and one organisation declined the invitation to participate in this research because participating was not a priority for them. Even if the researcher gains access to an organisation, however, that does not necessarily

entail access to all individuals who make part of that organisation. In the event it proved difficult to negotiate access to all the key 'gatekeepers' – such as senior managers and heads of departments – and several key informants did reject the invitation to participate in this research. In this respect, studying organisations entails a complex process of negotiation and renegotiation of access at sundry levels (Munro *et al,* 2004) and with sundry people. This is time consuming and probably influences the quality of studies.

### *4.5 Profile and characteristics of the NHS Trusts that took part in the fieldwork*

**First case study, PCT-1,**

The PCT-1 was responsible for the development, commissioning and delivery of local health services, covering a population of over 186,000. In addition to directly providing care for local people, the PCT commissioned and funded services working closely with providers; *viz.* GP practices (28 in total), community services, hospital trusts, social services, and mental health services. This PCT was managed by a Trust Board consisting of a chairman, six non-executive members, a director of resources (accountant), a chief executive (accountant), a clinical governance lead (GP), a director of public health (doctor), and the chair (GP) of the Professional Executive Committee (PEC).

The PEC was led by an acting chair (GP) and was made up of GPs, nurses, and other health and social care professionals. Its role was to work closely with the PCT Board to help develop and plan the future direction of the PCT. The PEC was also the forum where health professionals could have influenced the PCT board to take into account professional developments and clinical governance requirements.

Historically, the PCT has had a poor track record in meeting national targets, while financial targets were being met, at least according to audits conducted by the healthcare commission. The following table (Table 6) was taken from the website of the Care Quality Commission, which took over from the healthcare commission. It presents the PCT's overall performance rating for the period 2005-09. It shows that while the PCT's financial performance was good, performance against both new and old national targets needed improvement. The assessment was based on a range of services, including ambulance response times, clinical governance, waiting times for hospital treatment, and other primary care and mental health services.


**Table 6: PCT-1's overall performance rating (Care Quality Commission, 2009 )**

### Hospital NHS Trust-1

NHS Trust-1 was a district hospital that provided acute treatment and care for a catchment population of around 500,000 people. It was managed by a Trust Board which consisted of a chair, five non-executive and four executive directors: a chief executive (historian), a medical director (consultant), a director of nursing (nurse), and a finance director (accountant). The Trust provided specialist services commissioned by four PCTs. There were three divisions covering medicine, surgery, and clinical and support services, each of which had a chair, a divisional manager, and a head or lead nurse.

Historically, this NHS Trust has had performed poorly in meeting either core standards or existing national targets, including financial targets. However, the Trust did make significant improvements compared with the previous year and in 2007-08 the Trust performed to an adequate standard. It was seen to have managed its finances adequately and made improvements to its weak performance of the previous two years.

Thus, poor performance in meeting national clinical and financial targets and standards had dominated the history of both Trusts. This was emphasised by almost all informants, who explained that decision-making processes had become prepossessed by the goal of achieving national performance and financial targets, so that considerable resources had been targeted at these.

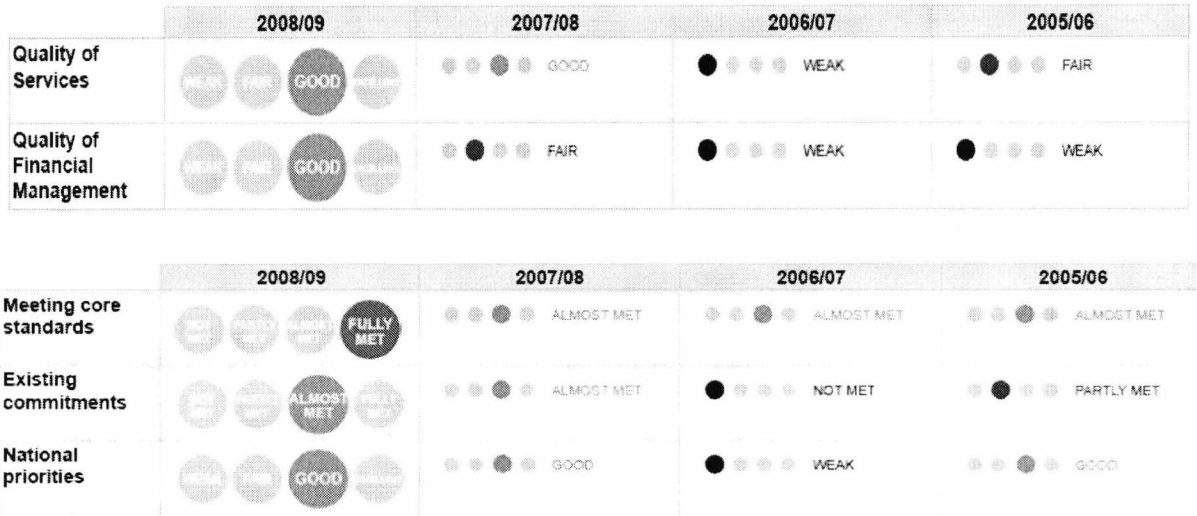


**Table7: Acute Hospital Trust's overall performance rating (Care Quality Commission, 2009c)**

**Second case study, PCT-2**

This PCT had been established in April 2002 and was working with a range of local statutory and voluntary organisations to improve health and social care for the local populace. The Trust provided healthcare services to the people of five catchment areas in the South East of England and the surrounding areas. Among these services were: health visiting, district nursing, and specialist community services like stroke care and heart care. The championing of these specialist services was a centrally driven initiative to improve community services. Services were provided in GP surgeries – comprising around 70 practices hosting 300 GPs, – in clinics in health centres, and in two main NHS Trusts' hospital sites, as well as in palliative care facilities. Most of the hospital care for local people was commissioned from the local NHS Trust, but there were service agreements with other acute Trusts in the South East of England, with London teaching hospitals, with treatment centres, and with other specialist providers. Almost all informants emphasized the PCT was in a safe financial position. According to the ratings of the Healthcare Commission (HCC), the Trust did achieve a 'fair' in quality of services, a 'fair' in the use of resources, and a 'fair' for performance in meeting national targets. The PCT underwent slight boundary changes in 2004 and 2006, which made it fully co-terminous with the Local Unitary Authority /Council.

The PCT Board comprises a chairman, executive and non-executive directors, and the Professional Executive Committee led by a health visitor, which was made up of GP's, nurses, and other health and social care professionals.


**Table 8: PCT-2's overall performance rating (Care Quality Commission, 2009b)**

### Hospital NHS Trust-2

This NHS Trust had recently acquired Foundation Trust status in April 2008 because of a long history of meeting national targets. Foundation Trust status meant that the Trust was able to meet all national performance and financial targets. All informants from this Trust emphasized that the Trust had a good reputation in meeting these targets. The Trust provided specialist services to a catchment population of around 400,000 people, commissioned by four PCTs.

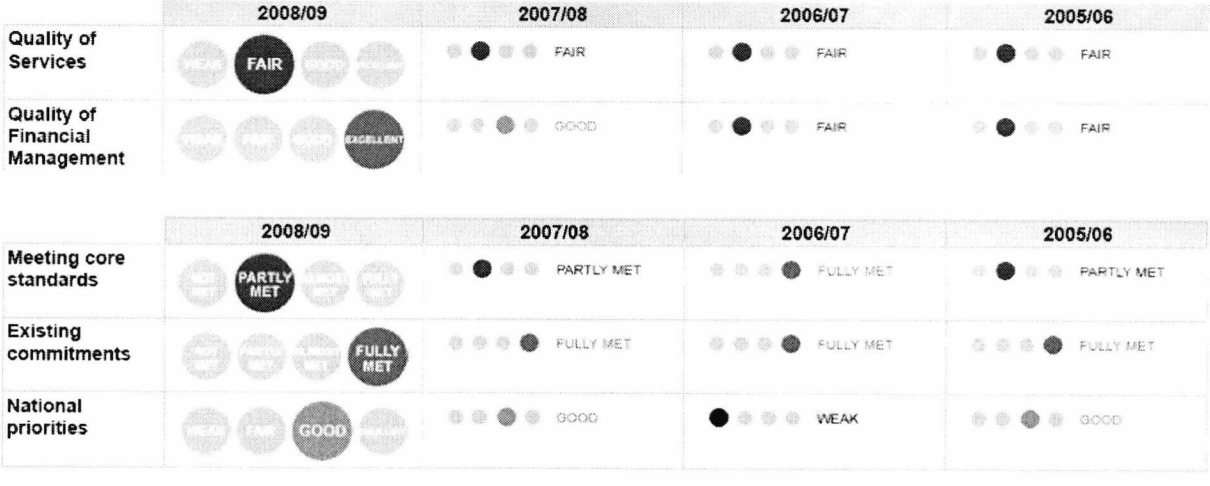


**Table 9 : Foundation Trust's performance rating (Care Quality Commission, 2009a)**

### *4.6 Ethical approval process*

The present research was conducted according to all legal and ethical requirements. Ethics Committee and Research Governance frameworks require approval for all research involving any healthcare professionals (Department of Heath, 2001); hence ethical approval was sought from and granted by the Wiltshire Research Ethics committee in April 2007. Furthermore, before any fieldwork was carried out, key representatives for research governance were approached and separate applications for local ethical approval were submitted to and approved by each NHS Trust under the national regulations for research governance. As was explained earlier, during each phase of each case study all informants were provided with information sheets about the research project so that they might be developed to give informed consent, and in addition were asked for their consent in writing to the audio-taping of their interviews. The transcripts of interviews and reporting of results have been handled in a way that assures confidentiality and anonymity.

### *Chapter summary*

The purpose of this chapter has been to explain the rationale behind the research design, to review the methods used in this research, and to discuss how data were collected – rendering a full account of the research project from its initial design to publication of the results. The many choices made in the design of this project have now been aired and discussed, as well as the particulars of data collection and analysis; complemented by a justification of the steps taken by your researcher to assure the quality of the entire research process. Having described the methodology of the present research, the following two chapters present the results.

To summarise: according to the sociological theories discussed in the previous chapter, clinicians and managers will organize their work in distinctly different ways, based on distinctly different beliefs and values. Thus, the issue of control over the way clinical work is organised is important, given that organisations have to exert some kind of control over their employees in order to achieve organizational goals and objectives (Newman, 2006). Accordingly, the basic approach taken was to investigate the perceptions of stakeholders from several occupational groups about the use and value of NICE guidelines in practice; to explore what successful implementation might look like and how it might be defined; and, finally, to look for possible conflicts that might arise because of conflicting perspectives.

# *Chapter Five – Findings: case study one*

### *5.1 Introduction*

The purpose of this chapter is to present those themes emerging from the analysis of the findings of the first case study which seem most relevant for drawing conclusions about the nature of the implementation process in a healthcare context and the factors that shape it.

In the analysis that follows, the focus must therefore be on the following questions:

- **How is the implementation process to be characterised and how does it differ as between the two NICE guidelines?**
- **What factors shape the implementation process?**

### 5.2 *How is the implementation process to be characterised*?

In total 23 informants participated in the first case study. Twelve of these were senior and middle managers across both NHS Trusts who were involved in the implementation of NICE guidelines. They described it as a complex process. The data suggested the process might be characterised as strategically planned to begin with, but becoming 'messy' and subject to negotiation as the guidelines moved from the planning phase to adoption in everyday practice. It was also possible to distinguish between top-down and bottom-up approaches. For example, all senior managers from both Trusts emphasised top-down approaches to the implementation of NICE guidelines, as summarised in the following quote:

> *... NICE guidelines are is not optional; once a guideline has become a NICE one then there is no choice about it, we have to follow what NICE says taking into account our local needs.* (CEO, PCT-1)

This hints that senior managers and the PCT Board of Directors, although unable to ignore national directives, balanced the dual roles of implementing national priorities and catering for the peculiar needs of their own populations, and without ignoring the 'healthy' operation of their organisation. This meant that implementation of NICE guidelines and other national targets were subject to the local priorities of the Trusts. Change was mandatory, but the speed of change must be aligned with the existing local priorities, as was succinctly described by one PCT's senior manager:

*I want the autonomy to say that given that there is a limited amount of capacity and energy I wanted to focus on our local needs, it is the conflict between the local and national needs. And you have to be able to say that and that's why priorities are important, because the speed of change and the way you change becomes important but not the ultimate end. (Director of Commissioning, PCT-1)*

Informants from the Hospital Trust also pointed out the top-down influence, emphasising the role of the Strategic Health Authority in determining priorities, and that this was more powerful than the performance management targets created by their PCT commissioners:

> *The external pressure exerted through the strategic health authority to deliver the centralist targets is really more important for us and to a lesser extent the performance management targets from the PCTs.* (Assistant medical director, Hospital Trust-1)

But bottom-up influences on implementation were also important. It was felt that in order to increase the uptake of NICE guidelines by clinicians, each clinical directorate had to take the initiative for the implementation of NICE guidelines:

> *The top-down bit will help the clinical department to focus, but the delivery has to come from the clinical department, because otherwise change will not happen.* (Assistant medical director, Hospital Trust-1)

The implementation process for NICE guidelines was also perceived by different people as having different characteristics. For example, the introduction of NICE guidelines to the NHS Trusts was described by senior managers as a linear process, where guidelines were conceived as flowing directly from NICE or the DoH to potential adopters:

> *We have someone who works for our provider and does a monthly distribution of what NICE publishes, which are distributed around the PCT. Also we all get the Chief Executive Bulletins that come out from the DoH on a weekly basis and they always tend to have anything new like guidelines.* (Senior Manager-4, PCT-1).

Furthermore, evidence for controlled approaches to implementation came from senior managers' propensity to use 'champions' (a concept broached by Rogers, 1995) to influence their peers and increase the uptake of NICE guidelines:

> *We have a number of champions to talk about their subject in order to influence the clinical behaviour of their peers. (*Senior manager-1, PCT-1)

An executive nurse who monitored the implementation of NICE guidelines emphasised approaches to implementation that were subject to managerial control rationality. For example, horizon scanning and benchmarking procedures did stand out as potential 'stages' were necessary to ensure that all NICE guidelines were implemented:

> *The organisation does monitor the NICE website to see if relevant guidelines are coming out for any of our services. New guidelines are always scanned and then people are told that guidelines relevant to their service areas are coming out; how far away are we from that; and if we are far away from that, then this will become a priority for us.* (Executive nurse, PCT-1).

It was emphasised that benchmarking between current clinical practices and newly published NICE guidelines was integrated into the planning stage of implementation, followed by action plans that supported their dissemination to clinicians. This was a responsibility of those informants who were involved in clinical governance:

> *Each time a NICE guideline is published, a benchmark process takes place to compare and contrast compliance with the guideline and check that people know about it and prioritise it. This is one of my responsibilities.* (Head of clinical governance, Hospital Trust-1).

Forward planning was another 'stage' characterising the implementation process. It was described as subject to managerial controls and financial planning, and was usually devolved by senior managers to local implementation teams. These teams were commonly led by a clinician who had managerial responsibilities to champion the implementation of NICE guidelines:

> *When there is a guideline that it is in an area that the PCT is working, then the PCT will have an implementation group usually led by a doctor. The group has to come up with the financial planning for the year, working out the financial resources to be devoted to implementation.* (Clinical governance lead, PCT-1).

All senior managers felt that the implementation process was controlled; by contrast, four middle managers who were directly involved in the implementation of the CHF and the obesity NICE guidelines clearly felt that the process was only controlled to start with, but became 'messy' and uncontrolled as it moved from the planning phase to adoption in everyday practice, particularly because of the limited control over the practices of doctors:

> *We are talking about individuals with strong clinical autonomy; it is not easy to have access to their practice. I am not sure if we are able to control the implementation of NICE guidelines [...] we have to negotiate with them for every change that we want to introduce.* (Project manager-2, PCT-1)

Finally, it was also emphasised that the implementation process was subject to non-linear negotiations, particularly for clinical guidelines that required coordination between many organisations:

> *The cross-organisational guidelines are more challenging. Thrombolysis is an example where everybody agreed we should do it, but the how to do it and the practicalities of it were difficult and required a lot of back and forth, negotiations, planning strategies and trying to stick to them, revising them when not delivering the required outcomes.* (Chair of the implementation group, Hospital Trust-1)

Table 10 summarises the characteristics of the implementation process as perceived by the informants:

| **Approaches to implementation** | **Top-down**<br>• **National policy priorities**<br>• **NICE authoritative body** | **Bottom-up**<br>• **Clinical departments responsible for delivery** |
|---|---|---|
| **Characteristics** | Controlled stages<br>• Horizon scanning<br>• Forward planning<br>1. important stage for the implementation of NICE guidelines<br>2. Anticipate future costs linked with training and dissemination | Uncontrolled stages<br>• Negotiate uptake of NICE guidelines with clinicians<br>• Back and forth movements between planning and adoption, particularly for cross organisational guidelines |

**Table 10:** Approaches and characteristics of the implementation process

It seems, then, that different informants had different perspectives regarding the actual shape of the implementation process, as is depicted in Figure 6 below.

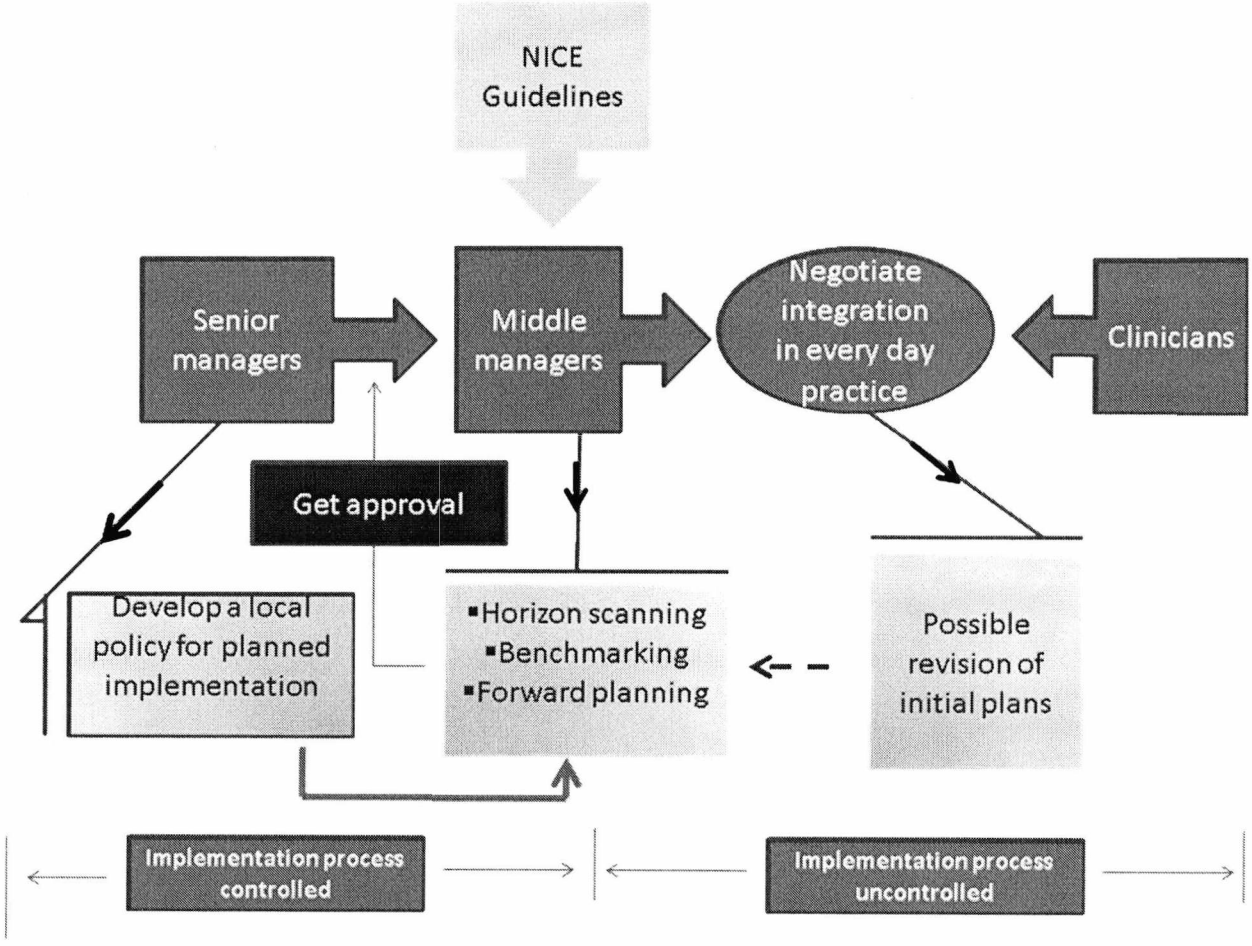


**Figure 6**: *Key stakeholders' perspectives on the implementation of NICE guidelines*

Also, it appeared that both NHS Trusts had similar processes for the implementation of all NICE guidelines. The next section will compare the implementation of CHF and Obesity guidelines in order to identify similarities and differences in the process.

### 5.2.1 Does the implementation process differ between the two guidelines?

Discussions with the informants revealed that the implementation of both guidelines was similar, despite the fact that guidelines were different in terms of scope, complexity and the stakeholders concerned. Table 11 summarises key characteristics of the NICE guidelines.

| NICE guidelines characteristics | CHF | OBESITY |
|---|---|---|
| CLINICAL CHANGES Primary & secondary care | v | V |
| SYSTEMIC CHANGES Local authorities | x | v |
| IMPRORTANT FINANCIAL IMPLICATIONS | x | v |

**Table 11:** Key characteristics of two NICE guidelines

Data analysis demonstrates that, due to the requirement to follow the national policy agenda, the implementation of the two NICE guidelines was organised in similar ways. The key initial stages of the process were portrayed as staged and linear in nature, and included: development of local guidelines; forward planning, including dissemination of the local guidelines; training/ educational events; and estimation of future costs.

**The CHF guideline**

It might have been expected that the CHF guideline would have been more likely to have influenced everyday clinical practice, since they were published some time before the Obesity guidelines. The following table summarises the key recommendations of the CHF guideline.

- Streamline the CHF treatment pathway between primary and secondary care
- Introduce clinics led by primary care professionals who should take the lead in the treatment of CHF patients in collaboration with hospital consultants
- Ensure that CHF patients are on β-blockers
- Ensure that echocardiographic examination for assessing CHF patients is available
- Introduce and improve palliative care
- Decrease hospitals' length of stay

Table 12: NICE CHF guideline, key recommendations

The above table lists the key recommendations of the CHF guideline, but the crucial element is the introduction of clinics by primary care professionals (point two), as the other recommendations depend mainly on the implementation of that.

Seven informants out of the total sample of 23 were directly involved in the implementation of the CHF guideline, including one clinical leader (GP), one hospital consultant, two project managers, and three CHF nurses. The data from the first phase of the case study suggested that the process started out controlled and staged. Forward planning was important for the implementation of the CHF guidelines, including production of the local guidelines and local dissemination plans. Developing a local plan was crucial for the local team responsible for the implementation of the CHF guideline, as it was the only way to attract the PCT's financial support for implementation. A GP with specialist knowledge and clinical interest in cardiology was responsible for championing implementation of the guideline, and was supported by two CHF nurses, a project manager, and a cardiologist consultant.

> *Once it was agreed that CHF was a priority for the PCT, forward planning was important. The GP wrote the local guidelines and we agreed a dissemination plan as well. So it was like a steering group to develop action plans, presenting financial elements to the PCT board and the professional executive committee in order to support us.* (CHF nurse-3, PCT-1)

Following publication of the guideline, existing clinical services and pathways of care for patients with CHF were subject to change in accordance with the CHF guideline:

> *We introduced a primary care clinic to get all the CHF referrals from the hospital and the GPs. We introduced a service for echocardiographic examination for assessing CHF patients here.* (*CHF* nurse-1, PCT-1).

Nevertheless, all seven informants emphasised that the implementation process involved less managerial control toward the later stages. The uncontrolled aspect of the process made it difficult to gauge GPs' adherence to the guidelines. Managerial planning for the dissemination of the local guidelines to GPs as well as educational events were utilised to increase GPs' awareness of the new services to be offered by the PCT; nevertheless, planning was seen as inadequate to assure effective uptake. A key issue raised by the two CHF nurses who were involved in the implementation of the CHF guidelines was the uncontrolled aspect of the

process across time, due to the local implementation team's inability to sustain the changes in clinical services and practices. It was felt that potential barriers to implementation of the CHF guidelines included the lack of clinical leadership across time and the temporariness of arrangements, particularly in the financial support received by the PCT:

> *In the early stages of the process there was more control. We had our dissemination and training plans well organised. But I think when it goes further down it is diluted. There was a uniform practice for patients, but now the implementation team is disbanded, the GP is not leading the service anymore, and attention has moved away. Now GPs [have] started to send referrals back to the hospital, we are not aware of patients' management plans, we don't review them often enough.* (*CHF* Nurse -2, PCT-1)

In the second phase of the case study the same informant further emphasised the uncontrolled aspect of the implementation process. The initial strategic intention to invest in the implementation and sustainable uptake of the new CHF services dissolved. This may well betray the presence of different – possibly competing – interests and politics within the implementation process. It also shows that the CHF guideline was supposed to alter existing organisational arrangements, and that the nature of the process was itself shaped and transformed by the very dynamics it was supposed to transform:

> *We have to review our echocardiogram service and take that to the PEC. They will decide how we are going to do it and decide either if we are going to do it all in the clinic or give it back to the hospital [...] We struggle to get funds from the PCT to implement many of the things we initially agreed to do. Also the case of cardiac rehab is another example that would go the same way. We agreed to move it to the community. But the hospital has it and it might stay there. We do not know.* (*CHF* Nurse -2, PCT-1).

It was emphasised that the provision of financial incentives to GPs to change clinical practices was important because of the complications involved in starting patients with new medications: for example, beta blockers for CHF patients, another key recommendation of the CHF guidelines. Interviews with the local implementation team revealed that formal communication mechanisms for the dissemination of the guidelines were utilised to promote the effectiveness of new developments. Face-to-face meetings and educational and teaching

workshops were held, in which all GPs were invited to participate. The remit of these events was to increase GPs' awareness regarding use of the medication. However not all GPs attended these events.

> *So, after developing the local guidelines and launching the service, we run a number of training sessions, inviting GPs, district nurses, and practice nurses to come along and hear about our services. We show evidence of what we do, we audit ourselves and show figures to people so they know what we do and justify the patients need and support. However, usually GPs with clinical interest in cardiology attended these events but we needed those GPs who were lees interested in the subject in order to increase their awareness* (GP-1, PCT-1).

The PCT, however, did not support the local implementation team's request to provide financial incentives to GPs. This was felt to be the reason GPs' uptake of the guidelines was low. It was explained that adherence to the CHF guideline required extra work by GPs and it was unlikely to happen without any financial incentive to promote changes in practice:

> *I still [January 2008] get referrals from GPs who are not on beta-blockers, and I suspect part of the issue is that beta-blockers are not part of the QOF framework, so there isn't that incentive to do it. If the PCT allowed us to provide some incentives I think we would be in a better place.* (GP-1, PCT-1).

The longitudinal research design and the prospective collection of data also illustrated the uncontrolled nature of the implementation process. For example, in the second phase of the case study planning was perceived to be inadequate and difficult. The unpredictable patterns of relations between the PCT and the local hospital Trust were of particularly importance:

> *Since your last visit the numbers of referrals to the community CHF service went down. We are in the process of reviewing what we want to do with the echocardiogram service, whether we want to carry on with it or give it back to the hospital, since our commissioners argue that this is not feasible for us. This was not planned and we are not really too sure the way that the service is going.* (Project managers-PCT-1)

The following figure depicts what has happened since the publication of the CHF NICE guidelines.

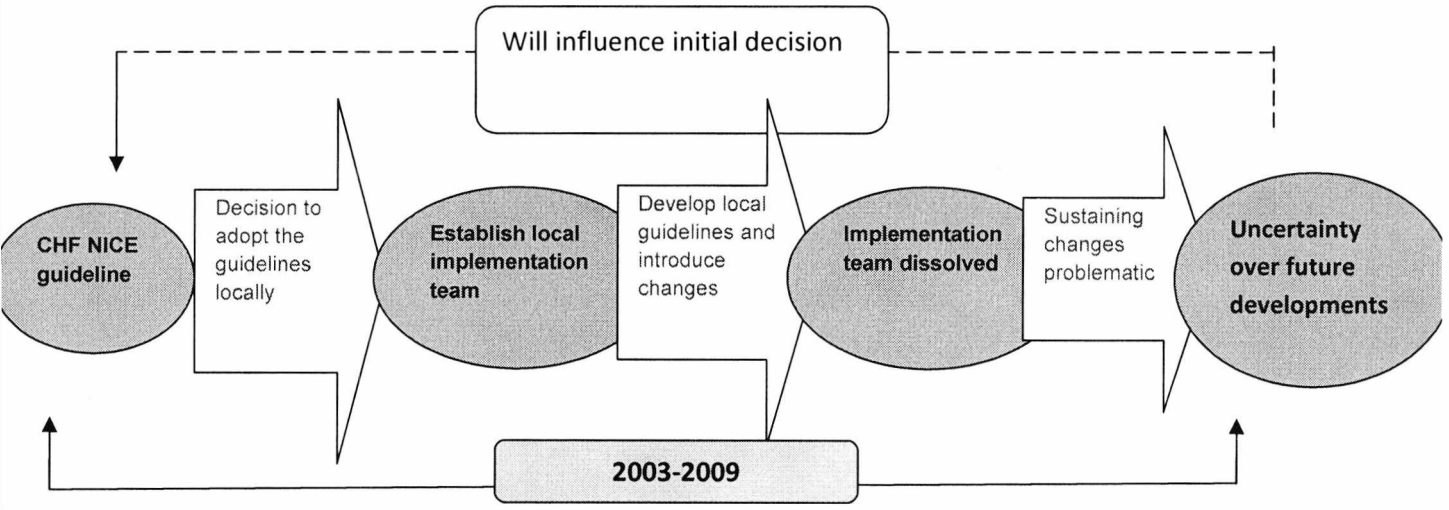


**Figure 7**: *Impact of the CHF NICE guidelines on everyday practice (case study one)*

The findings so far suggest that the diffusion of responsibilities for the implementation of the CHF guidelines among stakeholders and directorates across primary and secondary care units increased the power dependencies between them. That afforded them all a position from which they could negotiate with each other the implementation of the CHF NICE guideline across time.

**Obesity guidelines**

Respecting implementation of the Obesity NICE guidelines – please refer to Table 13 below for a summary of the guidelines' key recommendations – analysis of the data also confirms the incremental nature of the implementation process. Five informants out of the total sample of 23 were directly involved in the implementation of the Obesity guidelines, including the Director of Public Health (PCT), the Assistant Director of Public Health (PCT), the Director of Commissioning (PCT), a Chief Dietician (PCT), and one hospital consultant from the local hospital.

- Ensure that GPs promptly measure all patients' body mass index (BMI)
- Provide weight management training to practice nurses
- Develop services for the prevention of child and adult obesity involving professionals from primary and secondary care and the local authority
- Develop services for the treatment of child and adult obesity including bariatric surgery

Table 13: NICE Obesity guidelines, key recommendations (implications for the PCT)

As the Obesity guidelines were published in December 2006 while the case study did commence in September 2007, it is not surprising that the implementation process was at the

stage where different actors and teams dedicated to implementation were making sense of and translating the guidelines into local policies and practices. Following publication of the Obesity guidelines, a number of changes were introduced to primary care interventions for the *prevention* of obesity in adults and children. 'Forward planning' meant proactive, rational and strategic arrangements that were crucial for the implementation of the Obesity guidelines and concerned identifying the right information to introduce the primary care interventions, even though NICE's recommendations for the *treatment* of obesity were somehow neglected:

> *Anticipating and planning how to do that and allocating for myself a number of jobs, and thinking of the kind of information I need to collate and put together, was crucial for the implementation of the Obesity guidelines. We have commenced with training practice nurses for weight management, but we didn't want to become an obesity treatment programme, so attention has been focused on prevention only. We have financial plans to expand the number of practices that could participate over the next three years.* (Senior manager-2, PCT-1)

Anticipating the future implementation costs of training and of the upgrading of the skills of potential adopters, such as practice nurses, was part of forward planning as well:

> *We have to do a strategic plan assessing training costs and put that up in your costs, or you then have to find more creative ways of actually doing training with individual practices.* (Assistant director of Public Health, PCT-1*)*

The same informant emphasised – during the second phase of the case study – that following the successful introduction of some services within the boundaries of the PCT for the prevention of obesity in adults and children, it behoved to generate implementation plans that would support systemic changes involving a wider range of stakeholders beyond primary and secondary care:

> *Our next step is to develop a workplace programme involving leisure centres, local authority, public protection teams for food safety and look at that, a lot of interventions with community centres, to teach them how to cook and other dietary information and food work. So financially we have plans to expand the provision of that. There is a nice raft of health-trained food workers and community activators being active at the community promoting and supporting healthy lifestyles.* (Assistant director of Public Health, PCT-1*)*

However, it has transpired that, despite the high 'receptiveness' of the PCT to upgrading the skills of potential adopters and subsequently promote the implementation of the Obesity guidelines, 'barriers' arising from the complexity of the needful collaboration and interaction

with other local stakeholders were emphasised. It was pointed out that the implementation of interventions to address public health issues required the integration of the PCT with the local Council:

> *The local authority and local government are not quite as indoctrinated with the evidence basis for change that we are, so when we talk about NICE and how important it is for things that we do, it takes quite a bit of explanation before they understand. And it matters, because we have joint managers. So looking, let's say for example, how district nurses work in the doctors' surgeries and how important it is that they adhere to NICE guidelines, you are talking to a manager that might not have heard of NICE before, because he or she is with the local government. And I think their reality and our reality is dominated by our priorities and our perceptions. Local government people seem to have a much more customer-orientated ethic, someone pops up with a need and there is not any thought about how well it will work for this person. Whereas that is very much now engrained in the health-service people, they are very conscious and we deliver the service because it works. We don't deliver that service because we think it does not work.* (Director of Public Health, PCT-1)

On the other hand, and particularly during the second phase of the case study, another informant emphasised that the process was less controlled that was thought during the earlier stages of the process. She claimed that forward planning of the implementation of the Obesity guidelines was not enough to increase their uptake, emphasising that the uncontrolled aspect of the process arose from the open and ongoing negotiations between the sundry doctors and managers who were affected by decisions. Negotiations were crucial for implementing some of the NICE guidelines' recommendations and this could lead to unexpected implementation outcomes. For example, it was important to negotiate contracts with GPs to provide a more structured approach to measuring patients' body mass index (BMI):

> *We negotiated with the PEC about introducing a target around that indicator, wanted 70% of GPs' patients with the BMI recorded but for some reason it was all dropped.* (Assistant director of Public Health, PCT-1)

The impact of Obesity guidelines in everyday practice is graphed in the following figure (Figure 8).

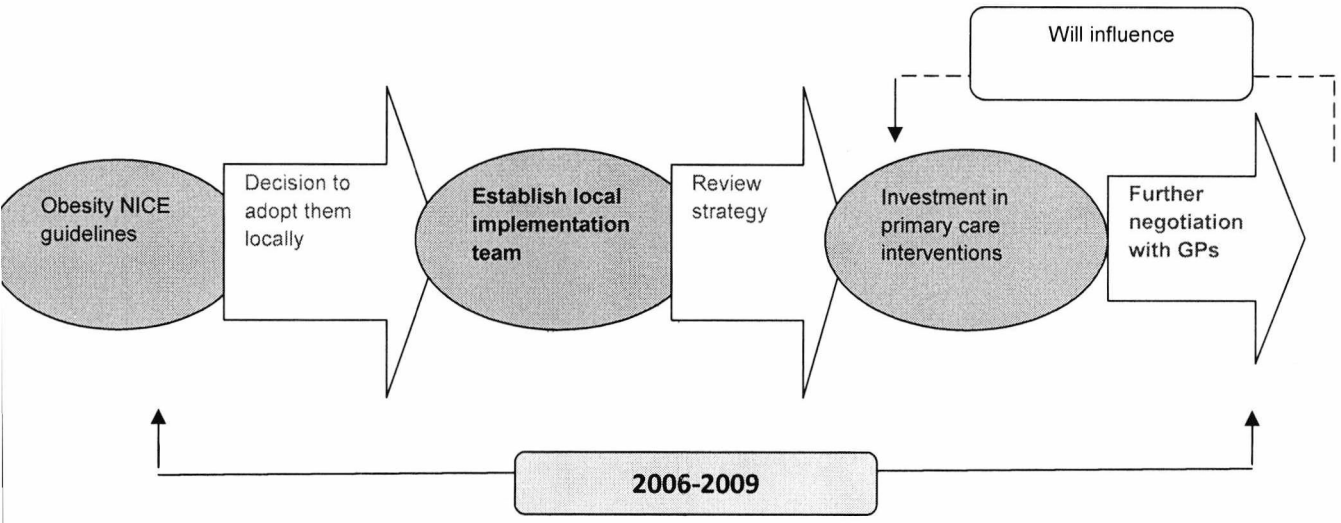


***Figure 8:*** *The implementation process of the Obesity guidelines in everyday practice*

One finding that seems to emerge from the analysis so far is that the implementation process of both sets of NICE guidelines shared most of the same characteristics; nevertheless, it was possible to distinguish some differences as well. One explanation of the differences that was given was that the knowledge available about the best ways to treat and manage CHF and obesity differed. CHF is a well recognised disease and its NICE guideline was clearly structured with specific action plans, procedural pathways and diagnostic tests. By contrast, obesity is relatively 'modern' as a life style '*disease*', and that was reflected in the NICE guidelines as well. One informant involved in the implementation of both sets of guidelines opined that the Obesity guidelines reflected the general lack of knowledge about the best interventions to prevent obesity, and that such lack had influenced their implementation.

> *I have to say that the CHF guideline is very precise, almost numerically structured with thresholds above which you treat or you don't treat and very specific actions. The Obesity guidelines are very vague at parts. They are telling you the direction to go but not the particular sort of services to do. They are very general and although the work behind them is very good and quite exhaustive it reflects that we do not know too much.* (Director of Public Health, PCT-1)

Thus the implementation approach to the Obesity guidelines was to pilot certain interventions in a small number of general practices over the course of three years, instead of immediately launching new services in general practices, as was the case with the CHF guideline:

> *We have a number of primary care projects, we wrote to every practice to introduce them all and select the ones that expressed an interest to participate* or *practices where we think we have got high prevalence of BMI. The programs are piloted until 2010. Most of them are funded until 2010, but financially we plan for all of them to continue, all people will be in post until 2010, and then will see which of those posts are going to be successful.* (Assistant Director of Public Health, PCT-1)

Another difference was the national health policy's requirements for the procurement of secondary care services. In the case of CHF the local hospital was responsible for the provision of the requisite care. This necessitated negotiations between the PCT and the local Hospital Trust. In the case of the Obesity guidelines, historically, the commission of bariatric surgery was the PCT's responsibility. However, this changed and the commission of bariatric surgery was devolved to a specialised commissioning team responsible for the commission of other specialised services on behalf of the PCT. This entailed a formal tendering process involving preferred providers rather than direct negotiations between the PCT and the local NHS hospital.

> *Historically, we used to be responsible for the commission of bariatric surgery but we did not commission it from the local Trust. Now the government has established specialised commissioning arrangements. The proposed arrangements enable PCTs to risk-share the commissioning of specialised services. In total we are four PCTs and have delegated authority to commission services on behalf of all of us and they will go through a formal tendering process to determine who will provide the service. They oversee and manage that process for us.* (Director of commissioning, PCT-1)

The following table (Table 14) summarises the key characteristics of the implementation process of both NICE guidelines.

| ***Characteristics of the implementation process*** | ***CHF*** | ***OBESITY*** |
|---|---|---|
| *Controlled phase* | √ | √ |
| *Use of implementation team* | √ | √ |
| *Use of NICE guideline* | √ | √ |
| *Use of local guidelines* | √ | √ |
| *Benchmarking processes* | √ | √ |
| *Business case/ financial planning for the PCT* | √ | *X* |
| *Forward planning* | √ | √ |
| *Negotiations* | √ | √ |
| *Unplanned outcomes/challenges* | √ | √ |
| *Pilots* | *X* | √ |
| *Specialized commissioning* | *X* | √ |

**Table 14:** *The key characteristics of the implementation process of both NICE guidelines*

### 5.3 What shapes the implementation process?

This section focuses on the key factors that shaped the implementation process of both NICE guidelines. Analysis of the data yielded several themes, which further analysis showed should be grouped under bureaucratic interests and professional interests

*Bureaucratic interests*

The delegation of authority from the Department of Health to NHS Trusts empowered senior managers to prioritise issues that reached the decision agenda. From a senior manager's perspective the Trust's ability to comply with national policy objectives was crucial. In this respect, all senior managers interviewed clearly felt that the regulatory dimension of national policies directly influenced the local context within which the implementation of NICE guidelines took place:

> *The NHS is very heavily regulated at the moment and while we try to implement national policies and NICE guidelines, it is implicit that we have to maintain financial stability and hit key financial targets. This ultimately means that we have to prioritise.* (Director of Finance, Hospital Trust-1).

In addition, it was emphasised that some national NHS policies were considered to be inevitably incompatible with each other and integrating them was not possible. Consequently,

the implementation process was affected by policies perceived to be conflicting, creating barriers for the systematic monitoring of NICE guidelines implementation:

> *We still do not systematically monitor their implementation, even though it is a big thing that is coming from the Department of Health. I hate to say it, but I think it is a by-product of the target driven policy.* (Executive nurse, PCT-1)

The existence of conflicting national policies was also emphasized. The co-existence of top-down demands for clinical governance and the traditional self-regulation of the medical profession as the two dominant modes of governance in the NHS was given as an example:

> *Policies come down from the Department of Health could be conflicting with each other. A policy that has come down says one thing and another is in direct contrast to policy that has recently come down. And you end up with a lot of different policy frameworks and you try to make sense of how performance could be assessed and how we could monitor it and evaluate it. A very good example is clinical governance and professional self-regulation.* (Medical director, Hospital Trust-1)

It was further claimed that the reality of local policy making for the implementation of the CHF and Obesity NICE guidelines was that their implementation did not occur in a fiscal vacuum and thus prioritisation was important and inevitable:

> *But if I have 15 sets of national guidelines to implement, then the decision isn't about implementing them, the decision is about the timescale-priority you give, let alone the other priorities we have.* (CEO, PCT-1)

The political dimension as a constituent of the macro-context and its direct influence on the decisions and priorities of the Trusts was also cited by senior managers. Local politicians' influence was important in determining priorities:

> *But when you work in an organisation like the NHS that is influenced a lot by politicians, you need to make sense of that by providing good service to your local population.* (CEO, PCT-1)

One informant from the Hospital Trust also emphasised that local political initiatives influenced local priorities and organisational decision-making:

> *I would say that occasionally we get more of a driver from outside, politically. We had a letter from the local MP that said that the Trust was expected to go on and do so-and-so. It was kind of an immediate reaction.* (Head of clinical governance, Hospital Trust-1).

The way informants (mostly senior managers) portrayed the role of the macro-context raised concerns about how high on their agenda the implementation of NICE guidelines

actually was. The necessity imposed on Trusts to comply with more important national targets – (*i.e.* financial targets) – might suggest that implementation of NICE guidelines had waned from the local agenda. It was crucial, therefore, to include all these concerns about compliance with national targets as potential agenda items before beginning the actual implementation negotiations. Seven out of the 13 senior managers interviewed were involved in planning and commissioning new clinical services. They were receptive to the use of NICE guidelines because they felt NICE made their job easier and could enhance their assurance and accountability as well. NICE guidelines were perceived as a great substitute for any lack of clinical knowledge or experience:

> *Commissioners are bombarded with examples of good practice, so when we are looking at commissioning a new service, if there is a NICE guideline about, we look at that before we start planning the development of the service. You know that you can't go wrong with NICE.* (Director of commissioning, PCT-1).

However, senior managers' approach was dominated by their Trust's priority of meeting key centrally imposed performance targets given the context of meeting the needs of the local populace. Thus, historical circumstances seemed important. When discussing what influenced priorities, evidence emerged pointing to the need for a historical contextualisation going back at least a decade or more; for example:

> *After 14 years failing financially we broke even this year, so when we had started looking to NICE guidelines, because we had this major focus on finance, there was a limit on how many priorities we could have, so I would think that as a Trust we were perhaps slower than other Trusts in making sure that we are implementing NICE guidelines.* (CEO, Hospital Trust-1)

Similar was the PCT's situation:

> *And this affects our implementation approach, depending on what your PCT financial position is and how you may judge a particular set of guidelines or service area with relation to one and another and what are the relevant priorities. There are incredible variations between PCTs and how people apply those. Would I be better positioned to implement NICE guidelines with more resources? I think I would.* (Director of commissioning, PCT-1)

From an organisational perspective, successful implementation outcomes were integrated with the broader organisational focus on performance management. Providing documentation demonstrating performance in complying with NICE guidelines was paramount:

> *When it comes to NICE guidelines we have to ensure that the right documents are in place, because as an organization we are performance-managed externally, so we have to get the documentation right.* (Project manager, PCT-1)

Because of the priority of meeting key centrally imposed performance targets, middle managers involved in the implementation of NICE guidelines were under pressure from senior management to assure that these targets were met, which primarily involved producing evidence that they had the appropriate documentation related to the implementation of NICE guidelines:

> *We turned to the tick box approach so you can come and check it and of course the healthcare commission checks as to whether the process is correct, and this is enough for them, although I don't think that we or any organisation with the hand on the heart could say that yes we are complying.* (Senior manager-2, Hospital-1)

Meeting financial targets was identified as a success factor for the Trusts and became the 'norm' for many informants, including clinicians in managerial posts who were serving the interests of their organisation and possibly acting against their interests as medical professionals:

> *We got in the habit of becoming very parsimonious with our resources; we have seen some particularly nasty financial deficits, although we are well out of that now and in a very good financial position now. In the past we had to save money and one of the traditional ways to save money is to cut back on training.* (Director of Public Health, PCT-1).

Clinicians from the Hospital Trust also emphasized that the increased attention being paid to delivering on demands from government policy has led to the development of 'strong vertical structures' that could assure compliance with the more important top-down driven targets, such as financial targets. Change of practices and compliance with NICE guidelines call for strong horizontal organisational structures, but these have been neglected:

> *We have developed strong vertical structures that do not necessarily support the implementation of practice change and guidelines, which I see very much as a horizontal linkage. There is a great deal of energy and effort put on those vertical things. Issues that have to do with quality and clinical effectiveness have been neglected. And this structure, I think, is chosen in order to deliver [on] the external pressures.* (Assistant medical director, Hospital Trust-1)

The following quotation also illustrates how some clinicians were influenced by bureaucratic interests. For example, six out of the nine doctors (GPs and hospital consultants) interviewed were in senior managerial posts and seemed to be receptive to the implementation of NICE guidelines. One perspective that was emphasised was that NICE guidelines were helpful for developing investment plans:

> *As far as NICE guidelines are concerned, the view we take is that NICE guidelines are just one of the drivers towards our development plan and investment proposals.* (Director of Public Health, PCT-1)

Evidence from the Hospital Trust also supported this view. One senior doctor in a senior managerial post has evaluated the 'target-driven culture' currently dominant in the NHS as an initiative that could deliver benefits to patients. Complying with these targets was interpreted as a 'good and legitimate' thing to do:

> *It is easy for doctors to say that targets are politically driven, but I don't want to leave you with the impression that I am against that kind of thing, because I think that a lot of the more recent targets have focussed on issues that do matter to patients. They come across to me as an initiative that could improve services and patient safety. It made sense to support it and promote it.* (Assistant medical director, Hospital Trust-1)

It was discovered that some doctors were more receptive to engaging with the Trusts' executive structures and to taking on jobs with managerial duties in senior- and middle-managerial posts, such as medical director at the Hospital Trust, or chair of the PTC's professional executive committee, or as GPs involved in practice-based commissioning and clinical governance. Some of them were more receptive than others to performance-managing their peers. An interview with a GP who was leading the clinical governance directorate illustrates the point:

> *Most of my clinical governance time has been taken by underperforming clinicians. I do performance issues to ensure that the work is done before payment is made to a practice. There are thoughts to include some of the NICE guidelines in the QOF. It's a great idea; it will make implementation of NICE guidelines easier because GPs will be paid to comply with them.* (Clinical governance lead, PCT-1)

While this quotation seems to expose an attitude of power that may warp professionals' perceptions and preferences, there is also room for interpreting it from a different and possibly contrarian viewpoint that views power as liberating individuals. For example, professionals

who were receptive to financial management were able to shape and control the local policy agenda, which occasions greater discretionary power for clinical consultants:

> *Meeting financial targets has been an earned gift because we control the money, so we allow clinical leaders more freedom to run their own budget in their department and in the way they want.* (Medical director, Hospital Trust-1)

As a consequence, senior doctors in managerial positions were also found to be receptive – (to a certain extent) – to the implementation of NICE guidelines. But it was also felt that they did mediate between managerial and professional interests, allowing a degree of discretion in clinical decision-making and also underpinned the role of doctors' training. The following example illustrates the point:

> *NICE guidelines are essential guidelines; it is important for us to demonstrate that we are NICE compliant [...] it is reasonable to step outside the guidelines and use your judgement [but] I think it is quite difficult for doctors and it is a fundamental problem, in that when we were trained, we were trained to put everything else outside, apart from the one patient you are dealing with. You are expected to be professional and to give patients the full attention and to do the best for them. But when we are looking after the overall running of the hospital or a department we have got to look at how we get the best value at the best quality and the best care for the population for what is inevitably to a degree a limited amount of money.* (Medical director, Hospital Trust-1)

Taking this contextualisation into account, the analysis will embark upon demonstrating the role of bureaucratic interests in shaping the implementation process of both NICE guidelines, starting with the CHF guideline. This was published in 2003; however, their importance had been recognised in the National Service Frameworks (NSFs), published in 2000, for chronic disease management, which included coronary heart disease. It was suggested that the nationally recognised importance of modernising primary- and secondary-care services did focus senior management's attention on complying with NSFs: – these were imposed on NHS Trusts as top priorities. While compliance with the NSF in coronary heart disease and the CHF NICE guideline was perceived as important for the PCT, many informants emphasised that the PCT was already interested anyway in developing new services to address the needs of the local populace:

> *We had an interest three or four years ago in CHF. It was part of the NSF and we were interested in developing it, because*

*there wasn't anything beforehand.* (Director of Public Health, PCT-1)

Around the same time the selected Hospital Trusts' senior managers had also been keen to invest in CHF services in primary care, because this initiative was seen as an effective way to reduce high NHS waiting times, which could have adversely affected the hospital if not reduced:

> *One of the reasons that our service was supported by the Hospital was because their waiting list was so long. That was one of the reasons.* (CHF-1 nurse, PCT-1)

Thus, a receptive context for the CHF community service had already been created before the publication of the CHF NICE guidelines:

> *Four years ago I set up the community heart service ... really tried to implement standards across the PCT ... at that time the biggest standard was the NSF on chronic heart disease rather than the NICE guideline, because it was a national guideline, a must-do thing that we had to put together around 2000. It was important for me as a specialist and also for the PCT. They were keen to see the service developed, and that most of their agenda seems to run from what they are told by the DoH is important. The hospital was also interested as well because of their high waiting list.* (GP-1, PCT-1)

Nonetheless this receptive context for the implementation of the CHF guidelines was not sustained over the long haul. It was emphasised that managerial interpretations of compliance with the NICE guidelines influenced the implementation process:

> *I think that the PCT has successfully passed the national audit on CHF, and I think priorities changed and influenced implementation. It was perceived that the CHF service complied with the NICE guideline, which was enough for the PCT.* (Project manager, PCT-1)

Some informants thought this influenced the receptiveness and motivation of 'key people' to engage in the implementation of NICE guidelines, and as such the CHF implementation team lost its status:

> *I think the CHF team has lost it status. We had a lot of changes in our managers since we started, and also because the PCT's priorities have changed. The structure of the team has changed as well: five years ago CHF was a huge priority. There was a local group that met that had a variety of clinicians, and managers from primary and secondary care attended as well. There was a huge amount of work done, but in the last couple of years the local group was dissolved, so the local GP is not as active.* (Project manager, PCT-1)

This belief was supported by another informant who explained that once the clinical leader realised that scope and resources were no longer available to develop the community CHF service in accordance with his clinical interests, he deliberately disengaged from further efforts to sustain implementation of the NICE guideline. One view put forward was that the GP left the service for more interesting activities, leaving operational tasks that did not require highly specialised knowledge to be delegated to other health care workers, notably to CHF nurses:

> *We used to have one GP as well, who was more involved in the service and that is not the case anymore, because the GP felt that there wasn't anything else to do. He developed different priorities because he felt that he was not making the best use of his time. I think there wasn't there the work to do, so that's why he left it, so he could do more interesting things. We are now responsible for the development of our CHF local policy, the dissemination and the management of the CHF service.* (CHF Nurse-1, PCT-1)

When the GP was asked about it, he claimed changes in his status as a leader in cardiology within the PCT diminished his receptiveness to (and/or satisfaction with) being involved in the implementation of the CHF guidelines:

> *I used to make recommendations for changes and systems and how we could do this and that. People seemed to take notice. But after a point I felt increasingly powerless, really, because we didn't have the commissioners on board with us from the PCT and secondary care. Because inevitably it was enough for them to comply with the basic recommendations of the NICE guidelines and the NSF. This was not enough for me, so I am not involved in updating our local guidelines etc., disseminating them around etc. These days nobody is doing that.* (GP-1, PCT-1)

As a result, support and planning tools to sustain the development of the CHF guidelines were perceived to be inadequate:

> *The GP was very tentatively involved in terms of writing protocols and things like that. I don't think we receive adequate support to plan and promote the service. I think they [the PCT] would like to think that they are brilliant supporting us. I think that they say the right words but they don't actually act upon that.* (CHF Nurse-2, PCT-1)

The development of different priorities across collaborating organisations and the differently perceived success of the outcomes of implementing NICE guidelines have led to discontinuity of practices, and have influenced the shape of the implementation process. This

is summarised succinctly in the following quotation, which also illustrates the uncertainty inherent in the implementation process and how implementation is better understood when followed across time. The priorities between the two Trusts changed over time, and support for maintaining the service changed as well; highlighting the negative outcomes that may obtain with the implementation of guidelines, such as the fragmentation between primary and secondary care of responsibility for the treatment of CHF patients:

> *Since your last visit the local hospital's waiting times have been improved, so the GPs started to refer back to them and not to our service, which is in accordance with the NICE guidelines [...]. Our referrals were going down and the PCT asked us to review our service [...]. The PCT has passed the audit from the healthcare commission, and I think our service is not a top priority. And we struggle to get funds from the PCT to implement many of the things we initially agreed to do. There is a possibility that our service will not exist in six months time.* (CHF Nurse-1, PCT-1)

Setting priorities was, thus, an important factor influencing the implementation process. Senior managers perceived that the implementation of NICE guidelines should happen in line with the overall organisational strategy to attain and maintain a fiscal balance:

> *Obviously the implementation of NICE guidelines is important, but we cannot ignore financial balance and other financial targets, which means that we are given resources by the Department of Health to meet imposed priorities. And we don't exceed those resources, simply because my job would be under threat.* (Assistant director of finance, PCT-1)

One of the selection criteria for prioritisation that transpired were the implications for the Trusts of implementing such NICE guidelines as called for major fiscal investment:

> *I think that some guidelines are easier to implement than others, and those will be done. The ones that require particular financial investment I think will move at the back.* (Chair of NICE implementation group, Hospital Trust-1)

The example of bariatric surgery, an expensive procedure for treating obesity, illustrates this. One bariatric surgeon explained that the surgery was not commissioned from the local hospital by the PCT due to the heavy investment that was required to comply with the Obesity guidelines. The argument put forward was that the local PCT had kept the issue off the decision agenda:

> *The difficulty that we experience is that the provision of the service that would be regarded as complying with NICE*

> *guidelines is partly down to money. The money was not there to spend. So if you do not address the problem you do not have to spend the money ... the worry, I think, for the PCTs is that if they do address the problem, then they would have 1000 patients that have to consider if they are entitled for surgery, and nobody in the country can afford that, so there is a real dilemma on how to – I don't want to use the word, but that is what it is – how to* ration *and how you select the patients, and nobody wants to make that decision.* (Bariatric surgeon, Hospital Trust-1)

Given that the treatment of obese people according to NICE guidelines required major fiscal investment, it might be suggested that senior commissioners decided to keep the issue off the agenda for a time, feeling that open admission of obese patients to the local hospitals might be prejudicial to their fiscal position and ability to meet fiscal targets. Open admission might also require rationing in terms of how to choose patients, and this might have attracted negative local and/or national media attention. It was also suggested that bariatric surgery should not be seen as a legitimate option for treating obesity, and thus it was neglected:

> *Obesity is a lifestyle disease: you cannot address the issue with medical treatment. In order to help these people you need to change their lifestyle. So we are focussed on prevention of obesity, education of patients and change of their lifestyle, and not bariatric surgery.* (Director of Public Health, PCT-1)

Similarly, it was asserted that support from senior figures in the PCT was channelled toward the development of preventative services, which influenced implementation:

> *It is clear that there is a gap in the services we offer to obese patients that we have to address. My understanding is that primary care interventions have delayed some patients from going for surgery. But it has been less of a priority for us because we are focussing on prevention.* (Director of commissioning, PCT-1)

In addition to senior management support it was also emphasized financial incentives were also given to GPs in order to influence the implementation of preventative services

> *The new GP contract does try to incentivize GPs to prevention. So for example you get extra pay for picking up people with high blood pressure and treating them. There are thresholds which give GPs more pay and most of them are happy to follow that. I guess it make sense to them, because it will deliver their payments. (director of public health-PCT-1)*

The need to meet national targets was cited by many informants, particularly middle managers, as an important 'barrier' to the implementation of NICE guidelines. There was a dimension of power which enabled senior managers to favour their interests at the expense of others, notably middle managers. Decision-making took place in a context where strategically important resources were allocated by senior managers to meet key fiscal targets. This foreclosed the chances for middle managers to further their interests, who lacked critical access to decision-making processes. This exemplifies the differing degrees of influence over decision-making that were regularly encountered. The following quotation reveals the difficult position that middle managers found themselves in, due to senior managers' power to determine their organisations' agenda (which also influences the implementation of NICE guidelines):

> *Our biggest problem is that we try to implement with limited resources and it makes things difficult to deliver. In the past we were hampered by our financial situation and so bringing in support for the implementation of NICE guidelines and get it done was not an option, because we were in a position that our priorities were to try to break even. So, me going to the board and saying we need to have an implementation NICE manager, their response was that that was the least of our problems.* (Head of clinical effectiveness, Hospital Trust-1)

Finally, analysis of the data suggests that managers delegate power to doctors. For example, under necessity to hit key targets, senior managers acted strategically and used doctors to achieve those targets, allowing them certain degree of clinical discretion:

> *The GP used to be involved in the CHF service. I think he achieved as much as possible and I think priorities changed. The GP wanted to improve the service beyond the NICE guidelines, but he felt powerless, really, because the commissioners were not engaging with us.* (CHF nurse-3, PCT-1)

To summarise the analysis so far, bureaucratic interests were important determinants of the implementation process. The need of Trusts to comply with more important national targets – *i.e.* fiscal targets – was, in general, interpreted by managers as being legitimate and probably good for the populace as well as for their organisations, and probably more important than the implementation of NICE guidelines. As such, the implementation of NICE guidelines may have faded from their local agenda.

*5.3.2 Professional interests*

Professional interests were also important influences on the implementation of NICE guidelines. Professional interests mainly manifested in the form of clinical autonomy.

**Clinical autonomy**

While the previous section emphasised the role of history in setting organisational-bureaucratic priorities, this section examines the role of doctors' clinical autonomy, which is associated with the history of the NHS and the powers granted to doctors some time ago. These historical circumstances have influenced the way doctors have organised their work well before the publication of the two NICE guidelines. Clinical autonomy is manifest in doctors' –

- authority to self-control and self-regulate their practice and their performance
- autonomy in pursuing their clinical interests
- low receptiveness to complying with management demands, and
- ability to influence non-medical professionals

- **<u>Autonomy to self-control and self-regulate</u>**

Traditional freedom and control in the provision of clinical services has been maintained by the medical profession, according to many informants. 'Clinical autonomy' refers to doctors' power to make their own professional judgements in determining the course of medical interventions and to set their own professional standards of practice. In making medical judgments, most informants emphasised that doctors provided moral reasons to support their judgements, as being affected by the particular circumstances of their patients rather than by performance management:

> *Most clinicians say to me that, 'I am using my clinical judgement, and I am acting in the interest of the patients and therefore I am not going to do what you are asking me, and because we are performance-managed this does not mean I am going to do it'.* (NICE manager, Hospital Trust-1)

Clinical autonomy refers also to doctors' right to regulate their clinical performance as well. It transpired that despite organisational policies requiring clinical practice to submit to the control of clinical governance, this was more rhetoric than the reality. The notions of professionalism and expertise stood out:

> *If you look into our policy, it says that doctors will be held to account by the operational governance committee, so they will be expected to report to that committee and they will need to produce evidence that they are doing it. But it never happens, because I could never understand their practices. We rely on them as professionals and experts to say whether they comply or not with NICE guidelines.* (NICE manager, Hospital Trust-1)

Articulations of self-regulation of clinical care were popular with all doctors – GPs and hospital consultants – who were interviewed. This was reinforced by the dominant notion of professionalism, since doctors deliberately strove to escape from the pervasive features of top-down driven modes of performance control and possible governance. These features were perceived as unacceptable restraints on their professional right to exercise clinical judgement and exclusive access to and application of medical knowledge. Most doctors preferred to operate within individualised critical appraisal approaches consisting of formal scientific knowledge supplemented by multiple social interactions with peers when necessary or desirable. The following quotation may be seen to exemplify the medical profession's propensity to self-regulate the assessment of the quality of their services:

> *Evidence comes from different things. I would not solely rely on guidelines on how to treat a patient. My evidence comes from personal experience, assessing my performance, doing my own research as a way of assessing the quality and outcomes, my colleagues' experience and what they think. Where people have the service up and running, it is really helpful to see them and observe their methods. It then comes from tertiary centres' experience, so you draw on collective experience of local experts. Beyond that, I draw on national guidelines, other surgical groups' guidelines, but a lot of things that we do are not covered by NICE guidelines, and what I have to do is find the evidence myself with the ways I described so far.* (Bariatric surgeon, Hospital Trust -1)

As a consequence, professionalism was seen the underlined mechanisms that influenced doctors' behaviour and communication with others:

> *Communication is important but I guess the most important issues here is the professional ethic that underlies the sense of work that comes with the perception of being in the position of power over other individuals.(Assistant director of public health, PCT-1)*

On the other hand, using NICE guidelines to safeguard against medical negligence claims was one incentive to facilitate adherence, although maybe more so for the less experienced staff. Out of the total of 16 doctors interviewed, one younger doctor with limited clinical experience saw NICE as a step in the right direction to reduce inappropriate care, and as a useful defence in case of complaint:

> *Well, if you follow NICE guidelines, you have strong reasons to defend your practice. NICE, because they are part of national standards and are acknowledged by all bodies – they might have some adverse publicity, but if your practice follows NICE guidelines, it is very difficult that you could be blamed.* (GP-2, PCT-1)

Clinicians receptive to NICE guidelines were also those who wanted to attract funding to develop new services in their expertise. Because of this they showed general enthusiasm for bureaucratic accountability and commitment to adhere to NICE guidelines:

> *I felt that the Obesity NICE guidelines were very good because I felt empowered when I tried to develop the service. Rather than say 'in my opinion' you could use NICE. You feel that you have a friend there supporting you.* (Bariatric surgeon, Hospital-1)

However, the drivers of change in clinical practice were typically perceived as coming from 'within the profession' rather than through bureaucratic control. A 'bottom-up' approach to development of new services was emphasised, where doctors established local professional networks with peers with whom they shared similar clinical interests. Trust and motivation were the underlying factors that influenced doctors willingness to engage in the implementation process of NICE guidelines.

> *I like the guidelines that are coming from the rank and file people who come in touch with the suffering population. The fact that NICE guidelines are produced by experienced colleagues is not important for me.... It has to do with motives; the motivations of that person who produces a guideline...the motivations of the PCT to implement them... it has to do with the person you are trusting. From my point of view, if I knew them I would have some faith of them. I suppose that it has to do with trust more than anything else. I am aware that most medical research is one way or another influenced by biotech industry, the pharmaceutical industry, the needs of the politicians, the*

*needs of the academic institutions... so it make sense to trust local guidelines. (GP-3, PCT-1)*

A common characteristic of such networks was that they were led by local experts. Doctors were able to form their own rules of governance; it was felt that their specialist expertise enabled them to be more innovative, while national guidelines were seen as increasingly redundant:

> *There was a problem in our PCT: that it was an 18-months' waiting list to have a colonoscopy. We worked with the consultants who were responsible for providing the service to see what we could do in order to make sure that colonoscopy was available for the more needy [...]. They were the experts in the area we were interested in, so they created guidelines. They were approved by the Royal College of Surgeons but not NICE. We felt more comfortable to work with rules that were devised by our own professional group.* (GP-3, PCT-1)

Guidelines produced by Royal Colleges were seen by doctors as more legitimate forms of knowledge; thus, doctors were more receptive to them than to NICE guidelines. However, it is part of the explanation that adherence to NICE guidelines was perceived to enable a greater degree of centralised control over medical work and to spearhead the possibility of sapping its autonomy; hence, guidelines produced by NICE were not seen as important:

> *I never heard a clinician arguing that their Royal Colleges' guidelines are not right. They do accept them. If I say that NICE says that, they start arguing [...] they do not like to be controlled. They will tell you, 'why [do I have] to fill forms, since I am doing this?' That is the battle; it is not so much getting clinicians to pay attention to the guidelines.* (Project manager-2, Hospital-1)

Other informants, by contrast, emphasised that the decision to adopt and implement NICE guidelines was discretionary, and was devolved to clinicians themselves rather than being within the role of managers:

> *I don't think necessarily it is me that needs to tell the surgeons, 'we have this guideline coming from X body, would you like to read it?' There is degree that we must expect clinical leads and specialists within their own area to be up to date with their own areas, and part of doing [this] is through the appraisal process, through the department's own governance processes.* (Senior manager-3, Hospital-1)

Thus, all nine doctors interviewed were more receptive to a mechanism operating through self-regulation and self-surveillance at the individual level, even though the six out of nine with managerial responsibility were also receptive to managerial rationality. Consequently, non-medical professionals emphasised that it was rather difficult to engage in the assessment or control of medical professionals' performance:

> *They do not like to be controlled. They will tell you, 'yes we'll do it, we have looked into this guideline and we will implement it'. And then you will say, 'actually how can you prove that?' And to me, I can understand a clinician telling me that I do create more work for him: 'If I am doing it, why do I have to prove it? Why do I have to fill in forms, since I know that I am doing this?' That is the battle, if you like, it is not so much getting clinicians to pay attention to the guidelines, because if you talk to them, they do know, they have read them, it is not like they have just ignored them. The battle is engaging them with the assurance process which proves that they are doing the job.* (Head of clinical effectiveness, Hospital Trust-1)

Likewise, the maintenance of significant clinical autonomy in general practice was valued highly by GPs. The following quotation evidences that autonomy was perceived as a pre-requisite for a long-term medical career:

> *To carry on a long-term career as a GP, you have to have strong belief in your own autonomy: 'I am in charge of this place and I can pretty much do what I want'.* (GP-3, PCT-1)

Those who engaged in the implementation of NICE guidelines were more receptive to redesigning and modifying the guidelines to reflect local circumstances. There were also other sources of evidence that were thought could complement NICE guidelines:

> *They [NICE guidelines] are not so good at looking at practicalities and tailoring them to the local context, which local guidelines will do. We developed our local protocol guidelines, looking into other sources because the [NICE] guidelines are very good at setting up principles, but they do not provide the how-to-do.* (GP-1, PCT-1)

However, it was not possible to discern whether modification of NICE guidelines was made on altruistic grounds of concern with patients' needs, or whether there were hidden agendas and motives, such as doctors' will to dominate local policy developments.

Finally, it was not only doctors' will to professional autonomy that made the NICE guidelines implementation process messy and uncontrolled. 'Non-medical clinicians' with a

specialised knowledge base appeared to be striving for professional status and for ways of practising with considerable autonomy

> *It is all about developing professional expertise, professional status and professional autonomy that hinder this. The more skilled non-medical clinicians are, the more they like to do it their way. So if you look at speech-therapists or physiotherapists they are have some of the characteristics of the GPs, quite difficult to persuade that this is what the evidence says, this is what you should do. They often will reject that, and they will say, 'in the way I work, this is how I do it', like GPs.* (Senior manager-5, PCT-1)

- ***Low receptiveness to managerial demands***

High discretion and low receptiveness to orders were dominant themes in the informants' perspectives on doctors' behaviour. It was pointed out too that doctors were more likely to enter into negotiations than semi-professionals were, because they had more powerful status. This view is captured well in the following quotation:

> *On the clinician side there is resentment that anyone could tell them (GPs) what to do. It is all about their professional status and professional autonomy that hinders this, so you have to negotiate with them any changes you want to initiate.* (Director of Public Health, PCT-1)

Thus, changing doctors' behaviour was seen to be a major challenge, as reflected in the following from an informant nurse who was responsible for developing new protocols in the treatment of CHF patients, yet who felt powerless to initiate changes in the clinical practices of GPs:

> *We can't tell the GPs to refer to the hospital. We are talking about people with great autonomy. It is the case that some GPs don't want to change and despite the fact that the PCT wants to implement the service, it is up to them to use it or not.* (CHF-1 Nurse, PCT-1)

A similar tale was told by informants from the Obesity Strategy Group – engagement with interventions to prevent obesity was up to the discretion of the GPs:

> *There is no obligation for any GP to take [up] any of this at all. We come up with this proposal; what we can offer to support their patients. It is their decision.* (Assistant director of public health-PCT-1)

- ***Autonomy to pursue their clinician interests***

Clinical autonomy also refers to doctors' right to pursue their clinical interests and the freedom to make decisions about their own training:

> *We have negotiated with GPs, I think it is called protected learning time, which means that our contract allows them to shut down their operations to a minimum bank holiday style once a month but during a weekday, and they undertake CPDs. The choice of CPDs, courses and the arrangements of events are left to them: they have the right to pursue their clinical interests.* (Director of public health, PCT-1)

Doctors' right to pursue their clinical interests, however, opens up different perspectives on power. Once again, the concept of delegating power or authority emerged. For example, it was found that GPs were keen to hand over to practice nurses responsibility for the operational tasks involved in the provision of interventions to prevent obesity. It might be that GPs were receptive to relinquishing this responsibility to nurses so that they could perform tasks that GPs were not interested in. Many informants pointed out that GPs ignored new interventions for the prevention of obesity services, while practice nurses became key stakeholders and expanded their knowledge and skills base in these interventions:

> *I think GPs are interested more in treatment and not terribly well disposed to any kind of prevention. So they are not interested in prevention, but they allow us to set up preventative measures and do it separately using nurses who we have trained. So it is not them who deliver in practice. Usually it is the practice nurses. They are more key stakeholders in preventing obesity.* (Assistant director of public health-PCT-1)

Another important effect of the doctors' autonomy to pursue their clinical interests was the high level of fragmentation , where self-interested doctors competed against each other. This was an issue particularly important for primary care because GPs' control over resources did strengthen their bargaining power over hospital consultants. For example, one consultant was keen to stress the heightening profile of general practitioners due to recent policy developments stemming from the centre's will to institute a primary-led NHS:

> *I think consultants find it difficult these days to initiate changes because of the financial structure of the health system. GPs have always the freedom to develop their services as they like, particularly those involved in practice-based commissioning.* (Consultant cardiologist, Hospital Trust-1)

The lack of common clinical interests and clinical knowledge was also an important factor that inhibited effective communication or active engagement in any communication process, particularly between doctors from different organisations. The case of the disengagement between cardiologist consultants and GPs was singled out. The different clinical interests in heart-failure management created challenges for effective communication and co-ordination between hospital consultants and GPs:

> *I mean, our communication with primary care here is still not great in terms of heart-failure management, it has to be because GPs have different interests and knowledge.* (Cardiology consultant, Hospital Trust-1)

The competition for scarce resources and manpower within primary care was perceived to contribute to a fragmented medical profession. The point is illustrated by the following comment of a senior PCT executive, answering a question about the potential effectiveness of social influence and social marketing techniques for improving adherence by GPs to newly developed obesity-preventative interventions:

> *It is increasingly the case these days that we are not dealing with a group of professionals; GPs are quite heterogeneous and they tend to communicate with their peers that share similar interests.* (Director of public health, PCT-1)

There were also instances where the perception of what constituted a successful outcome of the implementation of NICE guidelines varied markedly. For example, a senior doctor with managerial duties thought that the PCT had effectively complied with the CHF NICE guideline. This was the desired successful outcome:

> *Now we have a CHF service which exists in the community, which has personnel, investigative machinery (echocardiograms and so on), and specialist GPs [who] see patients and advise colleagues on how to manage different patients. And broadly, that service conforms to the NICE guidelines.* (Director of public health, PCT-1)

This perspective, however, was not shared by one of his colleagues, who used to be involved in the implementation of NICE guidelines. For him, a successful outcome was the development of *local* guidelines, the constant evaluation of compliance with local guidelines, and developing and sustaining best practices:

> *A successful outcome is to ensure that NICE guidelines fit with our local context. Developing local protocols is necessary. I used to update our local guidelines* etc., *disseminate them around* etc. *These days nobody is doing that [...] Primary care*

*prevention is also important for me. I struggled to sell the importance of primary care prevention to the PCT to get them to invest funds, and we still struggle these days.* (GP-1, PCT-1)

One of the CHF nurses also emphasized that perceived successful outcomes from the implementation of the NICE CHF guideline were different for what the PCT perceived as successful.

*We passed a national audit of CHF and the PCT sees our service that it is complying with NICE and this is enough for them, but not for me. We can still improve the service, but it is not a top priority for the PCT.* (CHF Nurse -1, PCT-1)

Similarly, while primary care CHF nurses were keen for the community CHF service to develop, their peers in secondary care were not entirely supportive. It seemed that professional gain was an important factor here as well:

*It depends how you see the community service. If you see it as a screening service, which I do, then that would always be an option for GPs – to use that service to have patients [about whom one may] have suspicions to have extra diagnostic tests. Whereas the hospital now, you could say, is more for acute providers. It does not have to make the community service redundant. We can complement each other by having an appropriate placement.* (CHF nurse, Hospital Trust-1)

However, the competition between professionals resulted in an increasing tendency to develop strong 'alliances' between doctors with similar vested interests. The following example of the professional executive committee illustrates how dominant interests shaped the agenda. Central to the agenda-setting process is controlling access or the power to influence decision-making processes by forcing some issues off the agenda. This leads on to another theme linked with agenda-setting: the concept of *hidden agendas*. The following quotation from a senior manager, answering a question about potential barriers to sustaining obesity-preventative measures, captured the strategic reasoning behind agenda-setting processes:

*We have a professional executive committee but the GPs that represent that are more interested in their own world. It is amazing how some issues in their world are given more attention, more capacity, more interest, and that is reflected in the results as well. When you say something, they are all keen and interested, but the reality is that trying to roll something out is very different.* (Assistant director of public health, PCT-1)

Doctors' influence over managers was another way that power was manifested:

> *We have realized that there is no alternative rather than allow the GPs to carry on with their jobs. And if they would like to treat people with a long-term problem or true primary prevention within their setting, we will set it up and do it separately.* (Director of Public Health, PCT-1)

The social and cultural status of doctors as monopolists of expertise was on many occasions perceived by informants to be an important factor that demonstrated and thereby reinforced doctors' influence. One reason given was the traditional respect for medical training and knowledge. The view of a senior executive is illustrative:

> *Senior clinicians are very much respected by other members of staff, by managers, by patients. They do have such a high respect from people simple because they are doctors, and I think people don't have such a high respect for managers.* (CEO, PCT-1)

Of note here is the symbolic legitimacy accorded to doctors, who are trusted to carry out the appropriate practices and produce the best outcomes for their patients; whence managers trust them too, and deploy flexible mechanisms to monitor their work. Senior executives from the Hospital Trust also assumed that consultants were receptive to best practices; thus, there was little control of clinical targets or monitoring of clinical standards. Doctors were found to have the ability to influence their managers, preventing conflicts from even emerging:

> *We are not going back and checking, and this is because we assume that clinicians by large will carry on implementing best practices and [will] audit themselves all the time.* (CEO, Hospital Trust-1)

However, this viewpoint was not shared by doctors, who felt it was possible to distinguish between managerial and clinical outcomes, and that these were to be measured in terms of the divergent standards of economic and clinical effectiveness within both Trusts. This created conflict between managers and clinicians:

> *For me, a successful outcome is to improve patient outcomes and patient care, which require time to assess, though. However this would be for a clinical point of view and managers might have a different thing in mind. It would be measurable. When it comes to successful outcome expectations, managers I also think have a large range of targets and processes that they have to get right, and that they get pressure from the top that targets need to be delivered, be cost effective or potentially face the axe.* (Chair of the implementation group, Hospital Trust-1)

Also, middle managers were keen to emphasise that consultants' power to access and use specialised knowledge that could not be accessed by non-medical staff positioned them as the

key stakeholders in leading change in quality improvements within their speciality. By the same token, enthusiastic, motivated clinicians engaged with the changing of clinical practices were perceived to be the 'evangelists' and the 'champions of change':

> *Within their specialty they know better than anyone else, so they should drive change. I do believe that when clinicians are motivated in driving change you are getting more change quicker. You could have all the nursing or managerial will in the world to change something, but if the consultant is against it we are going to have trouble; whereas, if you have a consultant on board and convince him/her that it is safe, it will get done.* (Business development manager, Hospital Trust-1)

Access to and power over specialised knowledge was also perceived to undergird doctors' discretion to dispense with NICE guidelines whenever they deemed it necessary. By monopolising access to specialized knowledge, doctors were able to manipulate and direct managers strategically in the service of their interests of clinical effectiveness, as opposed to cost-effectiveness:

> *If it is not in the interest of the patients to follow NICE guidelines, they can depart from it. So therefore, the power the doctor has to a certain extent is right because the clinician is the person looking into that patient and has the knowledge to decide any course of treatment under uncertain circumstances.* (Middle manager auditing compliance with NICE, Hospital Trust-1)

The 'they know better' perspective was reinforced by another manager. It confirms that doctors' competence to treat the individual patient influenced managerial perspectives, which suggested that doctors should not be primarily concerned with compliance with guidelines or with cost-effectiveness:

> *I don't think the application is all about acceptance of the guideline, the art is in appropriately applying it to the individual. So just because the guideline exists and we would like our figures to look good, is not a reason to follow it.* (Director of finance, Hospital Trust-1)

The scope and level of medical training was perceived by some senior executives as an important and acceptable reason for most doctors not to be receptive to scientific bureaucratic approaches to medicine, despite managers' interest in such approaches:

> *If clinicians are being trained in a particular way, you are asking them to undo the way they have been trained. It is not the right thing to do, and I think that the medical profession, they do come through their career having learned, observed and ... read. But they do need their opinions and at the end of the day in*

> *terms of their reliability, they are very keen to continue to practice the way that they understand works for them, so if you ask them to change a particular way or procedure they might resist.* (Director of Nursing, Hospital Trust-1).

The nonlinearity of the implementation process was clearly influenced by doctors' power to impute a competency gap between themselves and managers. This was due to the ongoing emergence of new forms of knowledge, which showed up at various times in the process, and was obtained either through critical appraisal of published literature or through experiential knowledge acquired while practising or socialising with peers. Hence, it was necessary to move back and forth between planning and evaluation:

> *But the problem with that is that there are lots of new things happening in medicine that are not in the guidelines. And you could argue that we should be practising those. That is why I can't rely on guidelines. I do an awful lot of reading on a variety of things that I have to implement, I read a lot of clinical journals, constantly assess the evidence [that] I use, and update my practice.* (Cardiology consultant, Hospital Trust-1)

Thus, professional interests were also powerful in influencing the implementation of NICE guidelines. Using professional discretion to organise clinical work was, in general, perceived by many informants – both professionals and managers – as being legitimate, and probably good for their patients as well as for their organisations, and more important than the implementation of NICE guidelines.

**Communication between stakeholders with different interests**

As a result of divergent priorities and interests, there were signs that pro-active, planned inter-organisational patterns of communication between the implementation teams and the providers did not suffice to raise awareness and facilitate guidelines adoption. Lack of communication meant also that people were not sure about their roles and responsibilities:

> *It has never been the public health team's responsibility to implement the NICE guidelines across the whole of the practice. I am not sure who is going to be doing the acute end of the treatment. There must be other people who are responsible for disseminating the guidance.* (Assistant Director of Public Health, PCT-1).

Informants from the Hospital Trust also displayed this perspective:

> *People will assume that that is somebody else's responsibility, so you end up in a situation that nobody is doing anything,*

*because everybody is assuming that somebody else is doing that.* (Head of clinical effectiveness, Hospital Trust-1)

Such confusion over stakeholders' roles and responsibilities can lead to local policy inaction and gridlock, or could function primarily as a pretext for stakeholders hoping to legitimise inaction; or to legitimise the 'translation' of the initial 'message' (whatever it may be) according to their own preferences, values and priorities. The following quotation illustrates the point:

> *Communication can be difficult, because we could believe that we communicate well and that communication is good, but we rely on our clinical leads in passing information down to their departments, and that people understand their roles and responsibilities. So that could be a stumbling-block to good communication, because the message coming down to each might not necessarily be the same, because peoples' perspectives, values and understanding of what is required from them or asked from them differ. And of course perspectives are influenced by different motivations to want to change, and perhaps will be different by different professions. It can be very difficult to get your messages to the right people.* (Chair of the NICE implementation group, Hospital Trust-1)

Despite the existence of communication lines, providers were not always aware of new developments:

> *As an organisation we find it difficult to find an effective channel to communicate with GPs, and I think it is not just us. We have a GP monthly newsletter; we have meetings with practice managers* etc. *We sent letters directly to senior partners, but actually we quite often find that people don't know that services have been set up or established.* (Director of commissioning, PCT-1).

This theme was also explored in subsequent interviews with informants from the Hospital Trust. Once again, it was found that effective communication about NICE guidelines across organisations was challenging because of adopters' different receptiveness to engaging with the several communication processes. Markedly different organisational priorities also stood out as an important factor:

> *We certainly have got policies and strategies which are publicised, but I am not sure whether people quit understanding them or whether they are aware of them ... there are some logistical difficulties with bringing everyone together to talk about things outside their organisations, possibly there are*

*different priorities between different organisations.* (Chair of implementation group, Hospital Trust-1)

This quote is particularly noteworthy, in that 'different priorities' were perceived as key 'barriers' to effective communication, rather than the communication medium itself. This is grounds for concern over any potential tendency of stakeholders to conceal their low receptivity to engaging in implementation processes, confounding that with the alleged difficulty of finding an effective channel for communicating with each other.

### 5.4 Summary of the chapter

This case study dealt with the implementation process of NICE guidelines, particularly the Obesity and CHF NICE guidelines, and explored the nature and shape of the implementation process and the organisational and individual factors that may influence that shape.

The data suggests that the implementation process is characterised as having two distinctly different phases. The data consistently exhibits a contrast between a non-linear, dynamic shape of implementation resembling the bottom-up approach of public policy theory and the linear, top-down model of health policy-making that is still so deeply ingrained in the NHS.

Generally speaking, the findings from this case study confirm what was suggested in the loose conceptual framework regarding the interaction of key stakeholders who have various professional and bureaucratic interests. As a result of these interests, perceptions of successful outcomes in the implementation of NICE guidelines were markedly different between managers and professionals. These perceptions were shown to have influenced their receptivity to engage (or disengage) with organisational initiatives for the implementation of NICE guidelines, and, consequently, influenced the shape of the implementation process.

From an organisational perspective, successful outcomes were integrated with the broader organisational project of performance management. Senior managers felt the implementation of NICE guidelines should be carried out in line with the overall organisational strategy for fiscal balance. Senior managers associated the economic meaning of effectiveness with evidence-based medicine. Senior clinicians in managerial posts supported this perception, but also highlighted the importance of doctors' training. Most clinicians defined successful outcomes markedly differently to most managers: clinical meanings of effectiveness were attached to evidence-based medicine. Compliance with NICE guidelines was not important in itself.

The findings so far suggest that the diffusion of responsibilities for the implementation of NICE guidelines among different stakeholders and directorates across primary and secondary care increased the possibilities for directorates and stakeholders with different levels of knowledge to interpret NICE guidelines their own way and to apply them to accommodate local interests, priorities and agendas. That led to subsequent negotiations over both implementation and the definition of successful outcome.

The divergent interests and differently perceived outcomes discovered in the data suggest that the structure-agent relationship at the time in question was crucial to the implementation process. However, the data also suggest that this relationship was not static, but rather one that evolves and calls for historical contextualisation. The history of social arrangements, manifested today in the several forms of social interactions and social relations between key stakeholders involved in the implementation process, is important.

Historically given circumstances – *e.g.* a Trust's fiscal position, – along with opportunities *via* incentives and resources to engage in the implementation of NICE guidelines, resulted from actions taken in the past. For example, implementation of the CHF NICE guidelines was uncontrolled toward the latter stages of the process because the GP who led implementation, and who was able to influence organisational arrangements up to a point, believed he could not retain an important power base throughout the implementation process. It would seem that the interaction between social structure and key stakeholders stands in a temporal relation with the dominant priorities at each point in time. In short, the historically established social structure seems to have influenced actors' current priorities and actions, which in turn exerted a significant influence on the established social structure, organisational arrangements, and, consequently, on the nature and the shape of the implementation process as well.

At the same time, predominant organisational priorities were also subject to change and influenced key stakeholders' receptivity and motivation to adopt or engage in the adoption of NICE guidelines. For instance, the informants' experience of implementing the CHF NICE guideline suggests that changes to the CHF team's management structure, combined with changes of organisational/bureaucratic priorities, were of paramount importance for the status of the CHF implementation team. Individuals' (and organizations') power to challenge and discontinue established priorities affected existing power balances. The data encapsulated in the quotations presented above imply that interactions of key stakeholders with bureaucratic and professional interests led to continuity or discontinuity in building up and sustaining

implementation approaches. As a result, their receptivity and motivation to engage in implementation were subject to change, and may be conceived as the product of power relationships between the key stakeholders with power to decide to continue with their routines or else to discontinue some of their working arrangements.

The analysis so far has portrayed 'interests' as managers' and health professionals' subjective policy preferences and wants; however, in certain circumstances it was possible to discern unarticulated interests. For example, it has transpired that both managers and health professionals responded in ways contrary to their stated or assumed interests, as when managers were receptive to professional self-regulation or when health professionals adopted managerial discourses for organising their work or the work of their peers. Key stakeholders and their agencies were able to 'influence or be influenced' individually and collectively. Their motivation to engage/disengage in the implementation of NICE guidelines varied, and was an important factor that is believed to have influenced the shape of the implementation process.

### 5.5 Revising the conceptual framework

The data does not support the linear model of the implementation process, as depicted in Figure 2, page 19, even though planning an appropriate strategy is necessary to design a course of action that promotes effective implementation. Dissemination and monitoring were found to be key 'stages' of the process but not necessary sequential. By contrast, the data support theories of the 'non-linear', uncontrolled nature of the implementation process, as depicted in the Figure 3, page 21, as a cyclical process involving the decision to adopt an intervention, planning, evaluation, and reflection on the initial decision to adopt – all standing to each other in a highly uncertain, non-linear sequencing.

The data suggest that the initial conceptual framework still holds up to some extent, given that the different objectives the informants pursued were profoundly influenced by national policy as well as their own interests, values and goals – ranging from rational-legal authority, resting on rules and formal regulations, to informal professional authority resting on 'tacit' knowledge and expertise. These caused constraints that limited cross-boundary collaboration and communication, and affected managers' and professionals' receptivity to engaging in implementation efforts. According to the findings, however, the perspective on receptivity needs to be widened. Receptivity did not vary specifically with the CHF or the Obesity NICE

guidelines (or any other NICE guidelines) *per se,* but with the particular (and unpredictable) mixture of influences on the organisation of clinical work. This was decisive in determining whether organisational and/or individual capacity was perceived to exist and whether it was actually provided for purposes of supporting local organisational initiatives to implement NICE guidelines irrespective of their characteristics.

The data confirmed that planned, programmed, top-down implementation strategies may face low receptivity not only from doctors, but even managers. An important limitation of the initial conceptual framework is that it presented professional and bureaucratic interests as if they existed independently. However, whilst they may be analytically distinct concepts, the findings suggest that to represent them as autonomous is to misconceive the complex reality of organising clinical work. It is suggested that professional and bureaucratic interests are fuzzy and interdependent. Classical top-down implementation is based on the assumption of relatively uncontested managerial control. The data, however, suggest that senior managers' power to control change cannot be assumed, and likewise that medical professionals are not almighty either.

Given the range of distinctly different perceptions of implementation success described above, the sources of evidence used by doctors and mangers to organise their work varied across a wider range than the evidence associated with NICE guidelines. Clinical, fiscal and organisational objectives were pursued by both managers and professionals, whose attention was given over to inventing and maintaining rules they perceived as legitimate to achieve these objectives. However, the data suggest that in order to fully fathom the nature and shape of the implementation process, historical contextualization of the structure-agent relationship is necessary. The initial conceptual framework did not address this, and the literature on EBM seems to have neglected it. The data suggest that doctors and managers faced social structures the product of actions taken in the past. The historically given social structures underpinning the social arrangements set up to pursue their objectives determined, to some varying degree, the actions of doctors and managers who were part of these structures. Likewise, pursuing their objectives (intentionally or unintentionally) led feedback-wise to the reproduction of these structures. This finding implies an understanding of the implementation process that takes into account the interplay between structure and agency. The changing organisational arrangements and dominant interests (professional and bureaucratic) identified in the data may be explained as the result of this interplay. The following figure depicts this interplay and represents the modified conceptual framework.

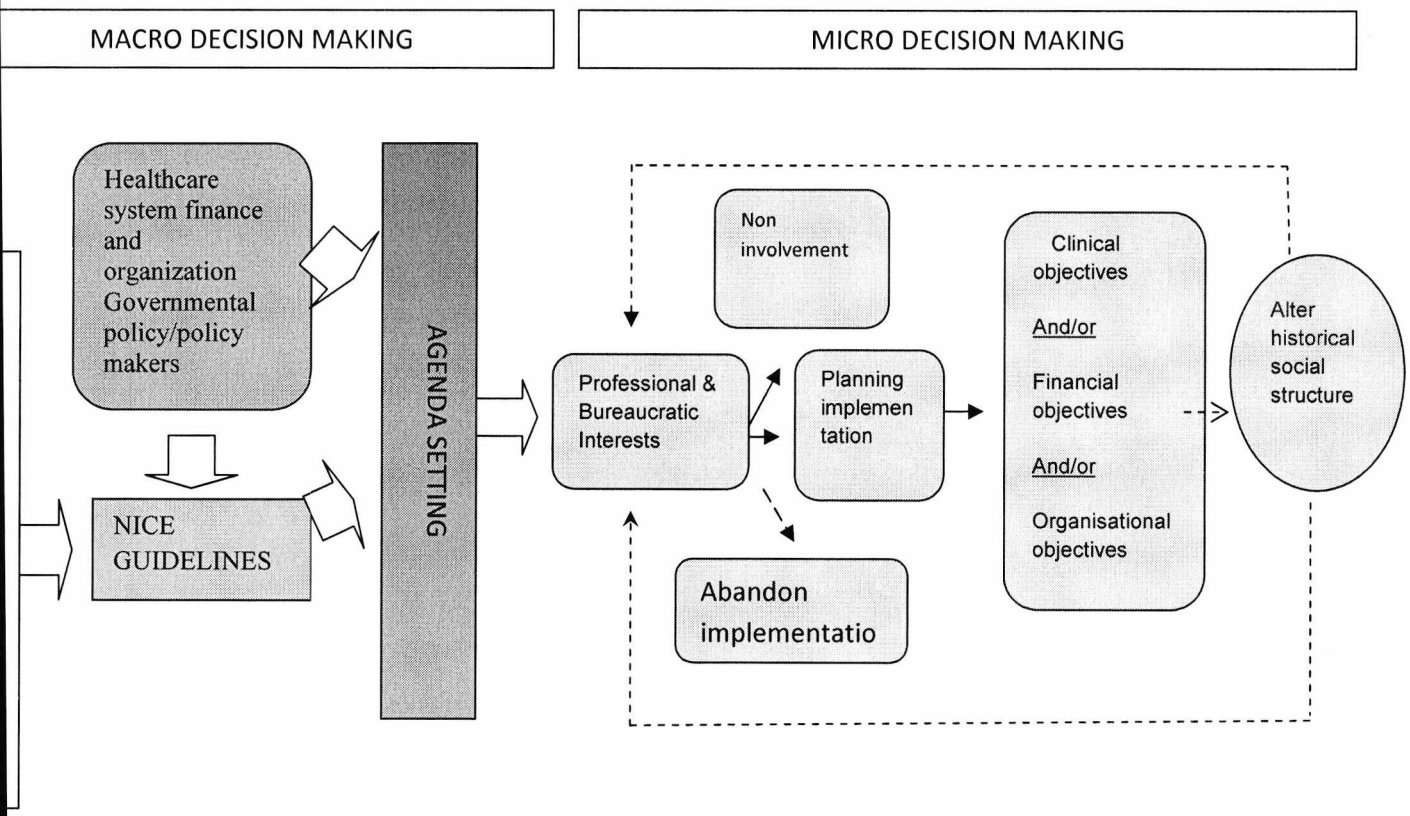


**Figure 9**: *Modified conceptual framework: interplay of social structure and human agency influencing implementation outcomes*

The explanatory power of this framework will be tested (as it were) in the second case study, particularly the social relations and contextual constraints that may obtain during the interaction of managers with doctors across time. This framework may also enable exploration of how power is manifested in practice – and not only how it is perceived by the research informants – and how it may influence the shape of the implementation process.

# Chapter 6-Findings: case study two

### *6.1 Introduction*

Analysis of the data from the first case study has suggested that NICE guidelines implementation was a form of negotiation involving top-down and bottom-up processes. Senior managers appeared to have a dual role: the first was to assure that nationally imposed targets were achieved, and the second was to see to it that the needs of the patients were met without threatening the organisation's operations. At the same time, clinicians involved in management were also receptive to top-down policy; they mediated between managerial and clinical interests. Finally, clinicians involved solely in clinical practice were less receptive to top-down policy implementation processes, and questioned whether the changes advocated by managers and policy-makers could be achieved in clinical practice.

In this chapter the explanatory power of the modified framework (see Figure 9, page 141) will be informally explored in a second case study with particular attention paid to the social relations and contextual constraints that may stem from the interactions between managers and doctors. The focus will be on how the working-out of different interests, both organisational and professional, within the local context may have influenced implementation of both of the NICE guidelines. This again brings up how power is manifested in practice and how it may influence the shape of the overall implementation process. Data analysis once again is organised around the same questions as in the previous chapter:

1. **How may the implementation process be characterised?**

**1a. Did the implementation process differ as between the two NICE guidelines?**

2. **What factors shape the implementation process?**

### *6.1 How may the implementation process of NICE guidelines be characterised?*

In total 25 informants participated in the second case study. 14 of these were senior and middle managers across both NHS Trusts who had at least some involvement with the implementation of NICE guidelines. Both Trusts developed a local policy that incorporated strategies and systems for assuring that NICE guidelines would be implemented. NICE guidelines and their implementation formed part of the integrated governance at both NHS

Trusts. This integrated governance was pursued by both NHS Trusts to meet regulatory requirements imposed by the DoH, and included clinical and corporate governance:

> *Integrated governance covers all sections of governance, dealing with corporate governance but also with the quality aspects of the care that we provide. It covers all the elements that allow you to do that, including NICE guidance, and our job is to put all these together to make sure that systems are in place to provide good quality* care. (Integrated governance facilitator, PCT-2)

The local implementation policy concerned carrying out the steps bridging the gap between the decision to adopt NICE guidelines, the integration of NICE guidelines into every day practice, and the evaluation of outcomes by monitoring routines that assessed the progress of implementation. However, this local policy was perceived by many informants from both Trusts as 'symbolic policy'. For instance, most managers from the Hospital Trust explained that the local policy was characterised by unrealistic demands, particularly regarding the monitoring of the success of integrating NICE guidelines into everyday practice. One senior manager from the Hospital Trust, while talking about the history behind the development of the local policy, emphasised the consequences of outsider pressure placed on them by the NICE for the formulation of an implementation policy:

> *We had a number of meetings with our local NICE implementation consultant. We had an initial meeting about his suggestions about implement processes, which we took on board, and then he did a couple of follow-up visits about how we had gone about implementing his suggestions. It was very helpful, really, but he was probably more interested in devising an implementation policy and how we got about implementing it than our ability, in terms of capacity or knowledge, to implement it.* (Head of integrated governance, Hospital Trust-2)

The evidence that emerged from the PCT was similar. Implementation of NICE guidelines was devolved to the Integrated Governance Committee, which was already responsible for many aspects of governance within the PCT. The history behind the development of the local policy was vague, while the findings suggest that the PCT was more interested in providing a 'symbolic' encouragement and support. The local policy was viewed as symbolic, since the PCT legitimised and adopted several key steps from the policy set up by the local Hospital Trust, which was also supplemented by the advice given by external agencies (*viz.* NICE and Healthcare Commissioning) who did not tailor them to local circumstances. It was found that

copying from an organisation with a good reputation – (*the Foundation status of the local hospital was particularly influential*) – or from organisations that had established a high technical status – (*NICE*) – was a safe strategy for the PCT:

> *We looked at the Hospitals' Trust implementation policy, the fact that they are a Foundation Trust means that they are doing it right. Also, we looked at Standards of Better Health requirements and NICE on how to implement and we used those. That way we can't go wrong. But from my point of view I am not sure whether we have the capacity to follow it.* (Governance facilitator, PCT-2)

Accountability for NICE guidelines implementation within the hospital Trust was devolved to a senior nurse with a managerial postgraduate qualification (MBA). The local policy was generally used for all types of NICE guidelines:

> *Our implementation policy is the same for all NICE guidelines. On a monthly basis we have a governance meeting that I chair with other three members of the governance team we look into each guideline and we decide which clinician to send to and they reply back to us with actions plans necessary to comply with the NICE guidelines when needed.* (Audit and governance manager, Hospital Trust-2)

The Head of Clinical Governance from the Hospital's executive structure (and her subordinates) asserted that the implementation of NICE guidelines was controlled by procedures and plans and the principles of efficient bureaucratic administration. It was emphasised that rules had been deliberately formulated to assure the control of NICE guidelines. And yet non-adherence to NICE guidelines was acceptable as long as it was documented:

> *The whole process is fairly tightly regulated. We have control mechanisms for monitoring and also records to demonstrate our actions. We also send to our local PCTs a copy of our minutes for that meeting, to demonstrate what we are doing in relation to NICE [...] It is fine by me not to follow guidelines, provided that our clinicians are very clear within their clinical records the reasons why they did not follow them.* (Head of integrated governance and risk, Hospital Trust-2)

Similarly to the first case study, the assumption that the integration of NICE guidelines into everyday practice could actually be controlled and directed by champions was once again emphasized:

> *.... that is again where you need champions really, one of their role is to know about new guidelines that have been published, like NICE guidelines and see what is implemented and what isn't and I suppose that if that process is effective then to make recommendations for changes. They can make a real difference on truly embedding change. I think it is also maintaining people's awareness of the guidelines, it is maintaining the awareness that there is this guideline related to their practice year on year keeping it on peoples' minds.* (Head of clinical standards, PCT-2)

The hospital consultants, who were interviewed, however, gave discrepant evidence. The assumption that the integration of NICE guidelines into everyday practice could actually be controlled and directed by senior management within their organisation was questioned. Compliance with NICE guidelines was perceived to be important for the Trust, but not for them. One view that was ventured was that the process for implementing NICE guidelines was not very well structured, nor as tightly regulated as asserted by the foregoing informants:

> *There is a process but I don't think it is very strong. We have got someone who is employed to write to us when something is coming from NICE to say whether we are complying or not, and we just write back and say that, yes, we are complying, and that is more or less enough for the hospital. So we do provide some evidence, but it is not very stringent.* (Clinical director of medicine, Hospital Trust-2)

Another hospital consultant differed from these views, and suggested complete ignorance and indifference about the organisational implementation policy:

> *I am not interested in NICE guidelines – in any guideline to be frank with you. I guess the management of this Trust, any Trust, could be very serious about NICE guidelines, but this is not my view. I am not sure if there is a process or a policy for implementing NICE guidelines.* (Senior Endocrinologist, Hospital Trust-2)

The evidence from the PCT was similar. Its local implementation policy was structured –

officially – so as to maximise managerial rationality and bureaucratic control of clinical knowledge, to secure and maintain compliance with regulatory demands, accountability to the public, and uniformity of processes and systems. Proponents of the policy – *mainly senior managers* – judged that the tactically effective way to gain control of implementation was to develop a written policy defining the rules for and responsibilities of key stakeholders. This would guarantee that the local policy was uniformly applied to all NICE guidelines, and would be an important indicator that the implementation of NICE was a controlled process:

> *I think as long as you have something like this [a written policy], where it is very clear what everybody's role is and how it is going to work, then I think it is easier to understand and monitor its effectiveness. It may not make sense to them (GPs), but I think for the public this is also another way to trust clinicians are using best practice, and they have to demonstrate that with hard evidence. And this is how we are assessed, if we do not have this evidence the Healthcare Commission would like to know why and what are our actions plans to control that and improve.* (Director of clinical performance, PCT-2)

By contrast, middle managers had different views. First, during the first phase of the case study it was found that the local implementation policy was perceived by them as being ineffective. The process for implementing NICE guidelines had been performance-managed, and the outcomes had not accorded with the desired ones. In the second phase of the case study a new policy did replace the previous one; however, it ceded enormous discretion to people in how they constructed their work. It was asserted that the process could be controlled up to a point, but that the responsibility and commitment of individuals to engage in the implementation of NICE guidelines were also important. Individual distinctiveness was an important indicator of the uncontrolled characteristics of the implementation process:

> *As I said to you, our local policy was reviewed; however, our new policy does not explicitly say how to do things, it just gives prompts to consider when implementing. In a way the process is left under the discretion of the leading person; it is not explicitly said to do things [...] I think that our role is to drive it, so we could say that we control it, but it is difficult because actually it is working with other people in the system, so it is all about motivating and driving it forward. But in fact, it is very difficult to control the process; we can control it up to a point, but it would be down to the individuals, clinicians and managers and what they think about the use or value of NICE guidelines.* (Integrated governance facilitator, PCT-2)

One of the key themes to emerge from analysis of the data in this section was the resort to

'symbolic policy'. Discussions with multiple informants revealed the existence of unrealistic expectations, especially due to the lack of adequate resources to facilitate the implementation of NICE guidelines. It was generally believed that, due to the conflict of different interests, the local policy was not defined in a coherent way. This is pointed up by the fact that actual auditing of adherence to every NICE guideline was not always possible, as it would have required additional resources that the Trusts were not willing to allocate.

### 6.2.1 Does the implementation process differ between the two NICE guidelines?

Analysis of the data revealed that the implementation processes of the CHF and Obesity NICE guidelines shared common characteristics and points of convergence, but also showed marked differences. In total, 11 informants out of the sample of 25 were directly involved with the implementation of both NICE guidelines. In terms of similarities, one view that was reported by all 11 informants was the importance of enthusiasts in facilitating (or trying to facilitate) the introduction of the NICE guidelines into everyday practice, compared with organisation-wide approaches and top-level managerial efforts to improve compliance with NICE guidelines. In the case of the CHF guideline a professional network of clinicians supported by management was genuinely seeking to facilitate its introduction into everyday practice:

> *There was group of clinicians working together to improve the care of CHF patients, taking into account the NICE guideline, with a bit of support from management.* (CHF Consultant Nurse, PCT-2)

In the case of the Obesity NICE guidelines, the PCT had an obesity strategy before the publication of NICE guidelines. Following publication of the Obesity N ICE guidelines it was asserted that those responsible for managing public health services had decided to review the PCT's strategy for prevention and treatment of obesity in line with the new NICE guidelines. They recognised that a problem did exist and decided to get actively involved with implementation:

> *No, our original strategy was written in 2005. When I came into the post last April, we decided with my colleague that it was time to review this strategy, and particularly because the NICE guidelines had been publish since it was first written.* (Senior public health manager, PCT-2)

In both cases all 11 informants involved with implementation reported that it was not driven by the top of the organization, though it was conceded that senior managers had a key

role – *a point that will be discussed in a later part of this analysis*. This differed from what had been reported earlier by the informants from the Integrated Governance Committees.

Also, in both cases, the incorporation of NICE guidelines into everyday practice and local protocols was initiated by gathering information. One view shared by all 11 informants involved with the implementation of both NICE guidelines was that NICE guidelines were perceived as being helpful, but that gathering other evidence besides what underlay the NICE guidelines was also crucial. Five informants (three managers and two nurses) out of 11 asserted that collecting and organising other practical evidence about 'how to do things' was necessary for integrating the NICE guidelines successfully into everyday practice:

> *NICE guidelines are not coming with the how to do, and I have to look around for more information to try to be as thorough as possible, I think.* (Head of clinical standards, PCT-2)

Another important similarity between the implementation processes of both guidelines was the stage of 'non-implementation', which was mentioned by all 11 informants who were involved with their implementation. This was the fate of ideas or services initiated by the informants which were either not taken forward – *mostly because of lack of funding* – or were ignored by the target population, usually GPs. The following quote summarises succinctly the view shared by almost all informants:

> *We produced a very comprehensive package of what was required, and then somebody just said "no" – not because it was not beneficial, but because they (the PCT Board) didn't want to spend money, I think [...] and then you have some GPs that they totally ignore you.* (CHF Consultant Nurse, PCT-2)

Despite certain similarities, the specific configurations that eventuated in practice suggest the existence of differences as well between the two NICE guidelines. These were analysed in terms of the sequence and type of activities that implementation consisted of. Six informants out of the 25 who were interviewed were involved with the implementation of the CHF NICE guideline, and all agreed that an official decision to adopt the guidelines and proceed with their implementation was important. Before publication of the CHF guideline, there had been a secondary care-led service for CHF patients. The publication of the guideline was the driver for change. The following remark of one informant could be used to illustrate the general point:

> *The NICE guideline was produced in 2003, and shortly after that there was a group of senior people from both Trusts that came together, who were clinicians in fact, and they felt it was*

> *important to move things forward. And a service proposal was put together by the clinicians, with a bit of support from management, in order to comply with the NICE guidelines and transfer the secondary care service to the community, and they went to senior managers for approval.* (CHF Nurse Consultant, PCT-2)

In the case of the Obesity guidelines, however, the process was markedly different. In total, five out of 25 informants were involved with the implementation of the Obesity guidelines, and two out of five emphasised the control element of implementation initiated by the publication of the NICE guidelines. Following publication of the 2002 Obesity NICE guidelines a care pathway was developed for the treatment of patients in need of bariatric surgery. This was amended in line with the newly published Obesity NICE guidelines in 2006:

> *Prior to that there were NICE guidelines 2002, so we replaced the earlier guidelines with one comprehensive care pathway for obesity in accordance with the new NICE guidelines.* (Specialised commissioning manager, PCT-2)

However, the process by which some primary care pathways for obese patients were developed, implemented, and integrated into everyday practice stood in stark contrast to the process described so far. Three out of the five informants who were involved in the prevention of obesity emphasised the uncontrolled nature of the implementation process. Each of them asserted that they had been involved in the development of primary care pathways for obese patients even before publication of the NICE guidelines. This development was not under the control of pre-determined centrally managed processes, but had been driven by the special interest and enthusiasm of two professionals several years before publication of any guidelines:

> *I had developed this special interest in the prevention of obesity, and four years ago with a specialist nurse we started up a 'lifestyle' clinic, which we developed that to a 'healthy living' clinic. When the Department of Health started to publish government strategies to tackle obesity, the PCT decided to work on this area and a public health team was established that we link in to.* (GP-1, PCT-2)

The resolution to implement the NICE guidelines could not have been taken without some form of planning; however, there were some differences in the kind and extent of planning practiced by the several informants who were involved in the implementation of both NICE guidelines. From the retrospective collection of data it transpired that all informants involved

in the implementation of the Obesity NICE guidelines reported initial weakness in the objectives of the planning, as is summarised in the following quotation:

> *Our original strategy was written in 2005, and one of the recommendations was to establish the obesity steering group, but it never got off the ground.* (Senior public health manager, PCT-2)

Asking informants about future operational plans during the first phase of the case study was also informative, because it came to light that there had been scope to plan only for short-term future actions. It was interesting to note in an interview with one key informant that there were frequent occasions of some hesitation in answering questions and long pauses in the answers about future plans. The hesitation could be interpreted as indicating ambivalence, uncertainty or vagueness regarding future decisions and certain steps involved in the planning process. Tracking implementation prospectively and longitudinally was particularly valuable, because it revealed that the public health team had limited capacity to adhere to future plans. For instance, in the first phase of the case study one of the informants had laid down the short-term plan:

> *When we have it completed [the review of the obesity strategy], it has to be consulted on. This is the next step: part of the review will get an action plan.* (Public health project manager, PCT-2)

In the second phase of the case study it emerged that adherence to earlier plans had not been feasible. The informants' time was taken up by priorities imposed by the PCT Board:

> *We have not reviewed the obesity strategy. We had to do other evaluations that have been requested by the PCT Board linked with obesity. We have been doing business cases year by year. There is no long term planning, no long term vision, controlling the whole process. It makes it harder, because we are working year to year and some of these projects especially around obesity – people take years to lose weight and get on a healthy lifestyle, so you need a long-term strategy for this, but there is no long term money for funding, so it is tricky.* (Senior public health manager, PCT-2)

By contrast, in the case of the CHF guideline, during retrospective collection of data, it was asserted that long-term and short-term planning were equally important. There was scope to identify and set priorities; to think strategically about long-term implementation plans; to define specific tasks; and to assure that measures and follow-ups were carried out. For example, the safeguarding of long-term funding by the PCT was crucial. For this, it was important for the informants who were involved in the implementation of the CHF guideline

to demonstrate an understanding of how the 'whole system' worked.

> *I am looking it for a clinical perspective, financially but what is also best for the patients and whether there is scope to be able to look just beyond the PCT and enable to link with the hospital as well and also other providers as to how we link in to provide the best care for those patients.* (CHF Nurse Consultant, PCT-2)

Business understanding, especially for the clinicians leading the implementation of NICE guidelines was crucial to gaining an understanding of the whole system, and in order to secure adequate fiscal resources form the PCT to support implementation of the CHF guideline:

> *In fact, a business proposal was put together by the clinicians with a bit of support from management. It went to the board and I think it took six months until the funding was available. This allowed long-term planning.* (CHF nurse-1, PCT-2)

From the perspective of strategic planning one important element was to build the capacity of the team. Increasing staffing levels, training and competence over time through deployment of widespread quality training was funded. The hospital's cardiology consultants were responsible for this task:

> *So what happened then, two special heart-failure nurses were taken on and worked with the cardiologist for a six-month period. All these were about increasing clinical skills and expertise and about developing the community service to meet the patients' needs.* (CHF Nurse Consultant, PCT-2)

Process mapping and the development of action plans for anticipated problems and challenges during implementation were also important. The value of process mapping, uniformly accepted by all informants involved in the implementation of the CHF guideline, suggested that controlling key variables – related to a staged model of implementation – was perceived to be necessary:

> *We did a process mapping, which was the catalyst for things. It drew everybody together. We mapped what the pathway was, what the issues and the problems were. From that we developed our action plan ... and [we] went through implementing all those improvements which led to the implementation of the NICE guideline.* (Operational manager, PCT-2)

An integral part of planning was also the development of local guidelines. Most informants involved in the implementation of the CHF guideline reported that it was useful only for planning; it was considered rather a strategic resource. It was felt that producing local guidelines was more appropriate. These did incorporate information missing from the NICE guideline:

> *It was important to produce our own local guidelines because the NSF and NICE are strategic. If that patient turns up there, what do you do? It was very much about pathways; it had everything. What are, for instance, the first symptoms that you might suspect the patient has HF? What do you do at the end of life? Who do you need to call? – numbers,* etc. *These informations* [sic] *were not available with the NICE guideline.* (CHF Nurse Consultant, PCT-2)

While the evidence so far showed that short-term strategic planning was crucial, it also became evident – *particularly during the prospective collection of data* – that planning was on-going and evolving all the time in order to sustain good practice.

> *So I am not just saying our service can only do this, is actually how can we work with our colleagues to improve this all the time. I think planning is ongoing to ensure that the service provides really good quality of service to patients and that is the most important and the best bit of it. (*Operational manager, PCT-2)

This suggested the implementation process was characterised by ongoing feedback and tinkering, in a non-linear mode:

> *We are constantly going back and reassessing the service. So there is always progressing, moving and changing, but changing for good. I think there is no end point; you just continue to progress.* (Consultant cardiologist, Hospital Trust-2)

Summarising the evidence from the CHF guideline case, the implementation process may be characterized as 'emergent' in the sense that plans were decided upon and modified over time, depending on the team's ability to measure clinical responses to the initial plans. From this perspective a dynamic, non-linear, bidirectional (back-and-forth) relationship subsisted between planning and evaluation. The introduction of new services or improvements was strategically planned by the informants who were involved in implementation of the NICE

guidelines, and then evaluated by them. Whence the implementation of the CHF NICE guideline could be characterised as a process of mutual adaptation, where it was crucial to build upon a knowledge base shaped over time by the interaction between the initial objectives of the planning, the evaluation method used, and the new work routines. Informants explained that feedback was received about the impact of the process on the target population: the initial implementation strategy was iteratively revisited and revised in order to increase the uptake of stakeholders adopting the system:

> *Following the audit results we went back to our strategies and tried to include new action plans, new routines that would improve the uptake of the guideline by our target group, and as the service evolved, our team became more confident and skills grew. So we could capitalize on that and want to take on more.* (Cardiology consultant, Hospital Trust-2)

Thus, while it was not possible to control the entire process, the informants involved with the implementation of the CHF NICE guideline believed that, because they were able to collect and analyse information about outcomes and re-evaluate initial plans, they were better positioned to determine and control the processual performance and improve on it.

On the other hand, there were cases where it was difficult to predict outcomes, owing to conditions of high uncertainty:

> *It is possible to be strategic, you know where you want to go, but it was not possible always to predict outcomes. So there was a bit of uncertainty there.* (Commissioner Manager, PCT-2)

Table 15 summarises the key characteristics, similarities and differences of the implementation processes of both NICE guidelines.

| | *CHF NICE Guideline* | *Obesity NICE Guidelines* |
|---|---|---|
| ***SIMILARITIES*** | | |
| *Enthusiasts' importance* | √ | √ |
| *Gathering of relevant information in addition to the NICE guidelines* | √ | √ |
| *Non-implementation* | √ | √ |
| ***DIFFERENCES*** | | |
| *Official decision to adopt the NICE guidelines* | √ *(controlled)* | √ *(for bariatric surgery)/ (controlled)*<br>*X (for prevention) / (uncontrolled)* |
| *Planning* | √ *(long term and short term planning)* | *X (Adherence to the plans not possible)* |
| *Development of local guidelines* | √ | *X* |
| *Evaluation criteria and measurement of performance* | √ | *X* |
| *Mutual adaptation* | √ | *X* |
| *Emergentness* | √ | *X* |

**Table 15**: Similarities and differences of the implementation of both NICE guidelines

Finally, it became evident that the same guidelines were perceived differently by the key informants. For example, a GP with a clinical interest in the treatment of obesity reported that the evidence included in the Obesity NICE guidelines was not the only point of reference for her practice. Indeed, some of this evidence was perceived to be incorrect, so that it was necessary to consult other sources, precisely because they offered alternative information:

> *The NICE guidelines are all right, but there are some things that I don't agree with. For example, I think BMI is not a very good measurement for obesity. Guidelines help, but there is no such thing as one guideline. The national obesity forum kind of gives you information about the management of obesity that is not in the NICE guideline.* (GP-1, PCT-2)

By contrast, the same guidelines were perceived to be adequate by the two managers who were involved in their implementation. The Obesity NICE guidelines were enough and using them as the only point of reference was not problematic. Lack of knowledge about the subject of obesity was also mentioned:

> *NICE has done a very important job. In my position, I think, because I am not an obesity expert, it has been very helpful. I think, personally, I mainly used the NICE guideline as a main tool.* (Senior Public Health manager, PCT-2)

In sum, the implementation of both guidelines shared similarities but also exhibited differences. The most significant similarities were the importance of enthusiastic individuals, the pro-active gathering of evidence supplementing NICE guidelines, and the concept of non-implementation – *plans that were either not taken forward, mostly because of lack of funding, or ignored by the target population, usually GPs*. These were key elements reported by almost all informants involved in the implementation of both NICE guidelines. Differences were evident in terms of the sequence and type of activities that implementation consisted of. The implementation process in the case of the Obesity guidelines was uncoordinated and inconsistent, and these guidelines were not particularly influential in this case study, and were discontinued, as is depicted in the following figure (Figure 10).

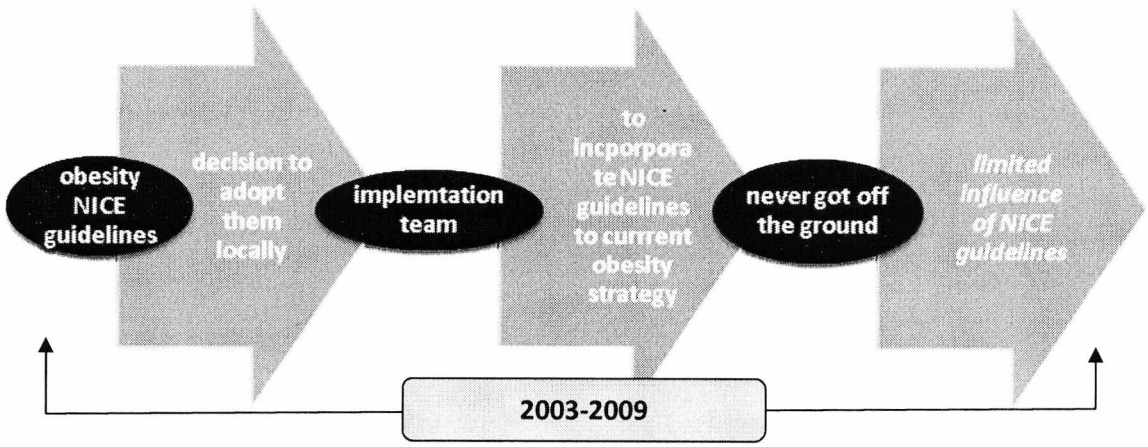


**Figure 10**: *The implementation process of the Obesity NICE guidelines, case study two*

By contrast, in the case of the CHF NICE guideline the process might be characterised as

emergent, dynamic and non-linear, moving back and forth between planning and evaluation. Following their publication, a number of changes to clinical services and practices in the treatment of CHF patients were introduced, which were successfully sustained over time, as is depicted in the following figure (Figure 11).

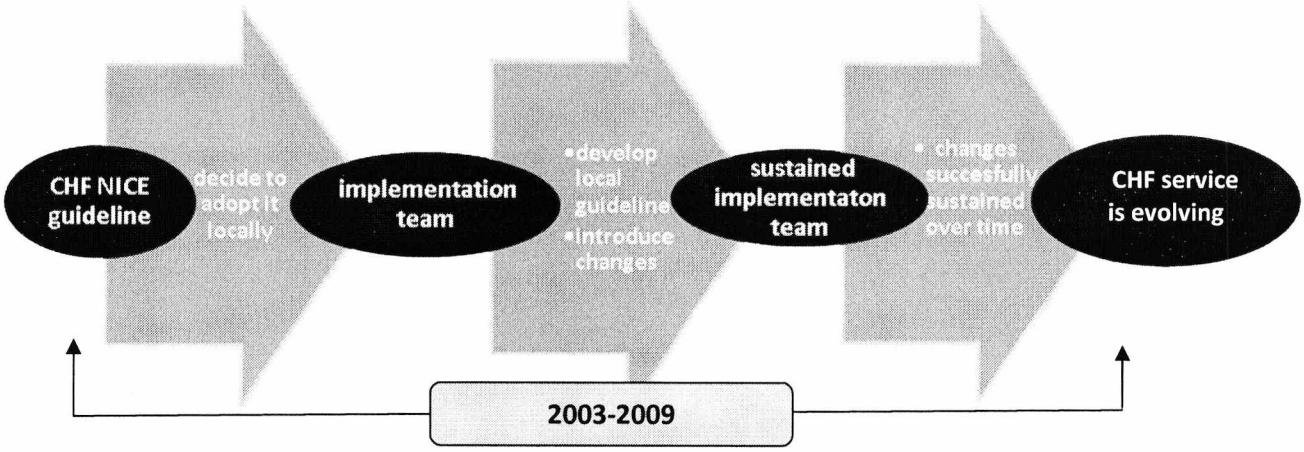


**Figure 11:** *The implementation process of the CHF NICE guidelines in everyday* practice, case study two

Finally, evidence showed that the same characteristics of the same NICE guidelines were perceived and interpreted differently by doctors and managers.

The next section provides evidence that may explain *why* the implementation process of the two NICE guidelines must be characterised differently. Following the evidence that was found in the first case study, attention in the next section will be given to the workings of conflicting interests, corporate and professional, and to the working-out of different power relationships.

### *6.3. What shapes the implementation process?*

Analysis of the longitudinal data revealed that the stability of organisations' receptivity to absorbing new knowledge was important for the implementation of both NICE guidelines. The purpose of the data presented in this section is to highlight how organisational receptivity to engaging in implementation in both instances influenced the shape of the implementation process. It is conjectured that organisational receptivity was determined by the workings of corporate interests that legitimised ways of practising that did not threaten – in fiscal terms – the operations of their Trusts.

**Bureaucratic interests in shaping the implementation process**

The following analysis explores how bureaucratic interests shaped the implementation processes of both NICE guidelines, starting with the oldest standing NICE guideline. For example, senior managers valued the implementation of NICE guidelines, and had concerns about compliance with them as potential agenda items taking into account the local priorities:

> *...it important that we can demonstrate that we are compliant, that we are doing everything that we should be doing. Actually, If you are not going to follow that clinical guideline you should have a very good reason why you are not doing it. And there may be a time that we as an organisation will take the decision and say no, we sort of interpreted it bearing in mind the local situation. We don't think we should follow that I think that is my personal opinion. (CEO, PCT-2)*

Nonetheless, the routines monitoring adherence to NICE guidelines were characterised as being 'relaxed'. One informant, who asserted that the implementation of NICE guidelines was well structured and controlled, admitted at a later point in her interview that the latter stages of the implementation process – monitoring adherence to NICE guidelines – underwent *deliberate* deviations from pre-established local policy goals and objectives, which led to gaps in the assessment of performance. Adherence to NICE guidelines was not systematically reviewed

> *...we are performance managed by the Strategic Health Authority, but there is not a contract between us, certainly we have in our contract that people will follow NICE guidelines, the challenge that we have is because of the number of guidelines there is out there, you cannot check every single case, so we tend to look particular topic areas and go and test it on a topic area or a guideline, but at the end of the day each organisation is obliged to declare they compliance or lack of in Standards of Better Health. If someone is declaring non compliance or part compliance we will go back and check that and expect to be an action plan.* (Head of clinical standards, PCT-1)

Adherence to NICE guidelines was always subject to cost constraints that were entirely within the discretion of the organisation's governance committee. Standards for performance monitoring were established; however, auditing adherence to every NICE guideline was not

wanted, because it required additional allocation of scarce resources. Thus, the governance group's awareness of effective performance in terms of adherence to NICE guidelines was self-limited. Moreover, the concept of 'unmeasurability' emerged, inasmuch as *performance measures* against which progress might be assessed were also not adequately defined. Finally, it was emphasized that monitoring of NICE compliance was limited by risk-management strategies and the development of rationales undergirding risk-assessment criteria. For instance, non-adherence to some NICE guidelines was perceived to pose a greater clinical and reputational risk to the Trust than others, hence their implementation/monitoring was prioritised. The following quotation summarises these points:

> *I think there are a lot of audits that we do and whether we audit the successful adoption of the guidelines – I don't think we do: we don't always know honestly how we could monitor that. To do that we have to spend too much time and effort, and I can't see the added value of that. We'd have to spend more time auditing compliance, which takes time and investments as well, because you can't have a team just purely concentrating on NICE guidance, although we spent much of our time doing it. So we risk-assess our audits. By that I mean that we would just say that something that is going to affect the whole Trust – we are going to spend much more time auditing that than we'd do for a procedure that is only done by one surgeon. There are some guidelines that affect some of the patient population, such as having a stone removed from your kidney, which affects only urology patients. But then you can have the NICE guideline on thromboembolism, which technically could affect every single in-patient that we have, and that adds far greater pressure.* (Head of integrated governance and risk, Hospital Trust-2)

More than 12 out of 25 informants thought that crucial to the stability of the organisations' receptivity to absorbing new knowledge – and so to the implementation of both NICE guidelines – was the changing national policy context and how that was perceived by senior managers. It was pointed out that when the CHF guideline was published, there was already a receptive context for new service developments. However, it was asserted that this receptive context had declined by the time the Obesity guidelines were published.

Around 2000 one of the major developments in national policy was the publication of National Service Frameworks (NSFs) for chronic disease management, including coronary heart disease. It was believed that the nationally recognised importance of modernising the primary- and secondary-care services did focus senior managers' attention on adherence to

NSFs: these had been imposed on NHS Trusts as top priorities. For instance, three out of six informants who were involved in the implementation of the CHF guideline reported that by the time this guideline was published, there were already arrangements in place to comply with the NSF in coronary heart disease. This made implementation of the CHF guideline easier and its process more structured, as rules and responsibilities had already been established to implement the NSF. For illustration purposes, a remark from one informant from the Hospital Trust is given:

> *I think it was more the NSF; it was the real driver. I think the organisation was probably more driven by the NSFs than the NICE guidelines, because the NSFs have target dates and markers, whereas NICE is purely guidance; it is not saying that it must be implemented by then. We worked on the NSF and upgraded that after NICE came out. It was very similar; it confirmed what we already knew.* (Clinical director of medicine, Hospital Trust-2)

Around the same time, the senior management team of the PCT also recognised the need to improve the PCT's structure for chronic disease management – in line with the NSFs – and this led to the introduction of nurse-led specialised services for chronic disease management. Having thitherto preserved a healthy fiscal balance, the PCT allocated enough funding to the introduction of nurse-led specialised services, which was championed by the CEO:

> *Historically, money was well managed within the organisation, so there was money available. The previous CEO really championed specialised services: a cardiac team, a stroke team, a community respiratory team. We have a lot of specialist teams that are lead by nurses and physiotherapists.* (CHF Nurse Consultant, PCT-2)

It was asserted that despite dependency on key figures in the Hospital Trust, it was the PCT that was steering implementation of the NICE guidelines. The national policy that held PCTs accountable for the commission of services was the main reason for this:

> *We are the budget holders, so the decision to commission a service lies with us. We will decide if there is a need to commission a new service and where to buy it from. It is all part of national policy.* (Lead commissioner, PCT-2)

Thus, a receptive context for a nurse-led CHF community service had been built up in advance and before publication of the CHF guidelines, while a vision of community nurse-led services was developed:

> *I suspect the clinicians within the organisations are quite influential – nurses, occupational therapists, health visitors,*

> *those sort of clinicians – and I would expect that our board helped to support that as well.* (Head of integrated governance, PCT-2)

In 2007, when the Obesity NICE guidelines were published and the CHF community service had already been established, the implementation of NSFs for chronic disease management was still central to the health policy agenda. However, the DoH declared its intention to introduce 'world-class commissioning', which would amend the PCTs' commissioning function, first by laying out the range of functions to be performed by PCTs, then, in particular, by separating the commissioning and provider functions. This was imposed on PCTs with a deadline – April 2009 – by when they were to have established a clear separation between their commissioning and providing arms. Accordingly, it was asserted that this change in the national policy context influenced PCT's receptivity to the development of services, insofar as the latter was superseded by the PCT Board's agenda of building up the required competencies needed to sufficiently split up the commissioning and provider functions. The following quotation succinctly summarises this point:

> *I must admit that our attention has moved away from service developments. By all means they are important, but our agenda is dominated by the world-class commissioning and the commissioning and provider split.* (Integrated governance lead, PCT-2)

Thus, it was highlighted that the change in national policy and the way it was interpreted by senior managers could have implications for the CHF community service. In the second phase of the case study one informant involved in the implementation of the CHF guidelines underscored her concerns about the emergence of the 'world-class commissioning' agenda:

> *I think in the early days there was probably more support by the CEO [...]. Because of the world-class commissioning agenda, they are restructuring the PCT, so trying get more funding has been a problem [...]. The commissioners had to think about what world-class commissioning meant to them and where they need to be. So, we have been asked to provide service specifications – how many patients we see, how much cost per head – and that seems to have driven the whole market, what we provide, and it is taking away from clinical work, I am going through specifications as opposed to seeing patients. If we provide areas of weakness in our services, they could not commission services from us. I don't think it is going to happen, but it is in the conversations I had, and it makes people feel vulnerable.* (CHF Nurse-2, PCT-2)

Informants involved in the implementation of the Obesity NICE guidelines asserted that

organisational receptivity was an important factor shaping the implementation process. Following publication of the Obesity guidelines, the PCT's executives decided to strengthen its capacity to comply with national directives for the prevention/treatment of obesity. This led to the recruitment of new staff to give long-term commitment and support:

> *We both were employed after the publication of the NICE guidelines, I think because obesity sprang up the agenda in the last 6 months. I have responsibility for the strategic direction about the obesity project, and I have a colleague, the obesity project manager, who deals with the operational side of things, actually managing the project, management of the staff.* (Senior Public Health manager, PCT-2)

However, in the second phase of the case study it transpired that the PCT's 'priority' to strengthen its capacity to deal with the national directives for the prevention/treatment of obesity turned out to be merely symbolic. Symbolic support of this kind does hold considerable importance for the implementation of NICE guidelines. Despite the established 'order' of senior positions, it was asserted that the 'real' authority to develop services in line with the obesity guidelines had never been delegated to staff, because top managers were more concerned with the world-class commissioning agenda and commissioning services, as opposed to engaging in the development of services. Thus, all informants (five out of five) involved in the implementation of the Obesity guidelines reported that it had become difficult to attract the attention and support of senior managers:

> *I think in the past there were more managerial focussed support and scope for service developments. We have not seen too many improvements since last year, I guess because senior people have focussed their attention on other things. Senior managers [before] wanted us to hit targets on obesity imposed by the DoH [...]. Now senior managers are more interested in managing the money, commissioning services rather than developing services. I think they would like to think that they are brilliant supporting us and that we have the authority to develop services. I think that they say the right words, but they don't actually act upon that.* (Diabetic specialist nurse, PCT-2)

A senior consultant from the local hospital also mentioned 'symbolic' encouragement by the PCT to develop pathways for the treatment of obese patients in need of surgery. The perspective brought forward was that the PCT's pathways for obese patients in need of bariatric services were vague and ambiguous, and reflected the workings of possibly higher priorities and thus potential conflicts. The impression left was that local policies for the implementation of NICE guidelines were not intended to be fully operational:

> *The way that it works now is that the PCT has to commission the service, so no one has come to me from the PCT saying that we want to commission an obesity service from you, would you like to do [...]. One of the barriers that we have in referring patients that we think are in need of bariatric surgery is that we don't have detailed knowledge of the pathway of referral. You could argue that that is on purpose: they don't want the channels of communication to be clear, because bariatric surgery is a fairly expensive one. So they may want to keep the numbers low. It certainly happened with a fellow surgeon who agreed with a PCT to follow the NICE guidelines and the aim was to do 10 producers per year, but within a very short space of time they were doing 250 a year and the numbers went up and up and the PCT then altered the contract, changing the BMI levels from 35 to 40 – ignoring NICE guidelines, rationing the service, but not based on what the patients needed.* (Senior endocrinologist, Hospital Trust-2)

It is possible to conclude from the data obtained so far that senior management's receptivity to new services or ideas influenced their propensity to adopt and engage in the implementation of both NICE guidelines. It is inferred that the constant state of flux of new national health policies across a wide spectrum of issues and the ways these were translated by senior managers were important determinants of their receptivity to engaging in and supporting the implementation of the two NICE guidelines. Senior managers were receptive to the CHF guideline, and this was perceived as necessary for their implementation. By contrast, the Obesity guidelines were published in a period when senior managers were less receptive to engage in both preventive and treatment service developments.

The implementation of some of the expensive recommendations of the Obesity guidelines – *i.e.* bariatric surgery – were also neglected because of the heavy investment required of the PCT; which might have threatened its healthy operation – (in fiscal terms). In this context, middle managers involved in the implementation of the Obesity guidelines felt that they were increasingly lacking the authority to make decisions binding on their objectives; to determine how to allocate their scarce time; to exert much pressure or influence on senior managers; to command resources to perform tasks supporting implementation of the NICE guidelines. One of the main things that did disquiet informants responsible for the implementation of both NICE guidelines was the set of regulations and the structure that have been put in place to develop and approve future investments plans:

> *It is the bureaucracy. It is not so much form filling, but it is procedure. For example, I put in a bid for funding from the PCTs budget for the forthcoming year and spent a couple of*

> *days doing that, and yet in order to release the money I have to do another business case, a completely different format. I just want to get on and start the project. And things like, you know – we have the money to employ people. I really am bound by what I can do with the number of people I have, and I am desperate to recruit staff, and I have the budget to recruit staff. And yet the process of recruitment, the paper work approval takes months, it is so frustrating.* (CHF Nurse Consultant, PCT-2)

While bureaucracy was an important concern, informants also asserted, similarly to the findings of the previous case study, that vertical organisational structures were necessary to assure that national targets were delivered. However, these did not help the communication or the exchange of information across the organisation. This has promoted a culture of 'silo-working' within the organisation:

> *Vertical structures across the organisation certainly don't help [...]. There is quite an autocratic management structure, and it is essential that the messages that start at the top going down to the bottom are the same, and that doesn't always happen. We are working on it, but I wouldn't say anything like there.* (Project manager-2, PCT-2)

Thus, bureaucratic interests did influence the receptivity of senior managers to supporting the several stages of the implementation process of both NICE guidelines, thus shaping that process. From the experience of the informants involved in implementation of the Obesity guidelines one may conclude that some issues were ignored simply because they failed to attract senior-managerial support. Bureaucratic interests could explain senior management's receptivity to 'strategic choice', which overemphasises the rationalisation of scarce resources for service development, and delivers services only in such a way as does not threatened the 'healthy' operations of their organisations.

Senior managers' capacity to maintain functional organising arrangements for achieving specific objectives was crucial to the implementation of both NICE guidelines. However, equally important was the role of strong clinical leadership, as is shown in the next section.

***Clinical leadership***

By the time the CHF NICE guideline was published in 2003, managerial receptivity to engaging in the development of new clinical services through absorbing new knowledge had become supported by strong clinical leadership as well:

> *The community service was the main change required by the NICE guideline, but to be fair, if you want to have a*

*contemporary CHF service, that is the direction that you would go.* (Cardiology consultant, Hospital Trust-2)

The vision of the lead cardiology consultants from the Hospital Trust was to develop the community specialist CHF service – in line with the CHF NICE guideline and the NSF – so that they could transfer most of their chronic heart-failure patients to the community CHF specialist team. This was perceived as an opportunity to develop further the hospital cardiac department:

*I think the idea was that if the cardiologists could offload the heart-failure patients to a specialist team in the community, it would increase their scope to develop their particular area and need as well.* (CHF Nurse Consultant, PCT-2)

Thus, many different actors – individuals, groups and organisations – were involved in the implementation of the NICE guideline; the necessary pre-conditions – in terms of aligned interests and priorities – were at work to lead to the prioritisation of CHF NICE guideline implementation as important to both Trusts. The receptive context for their adoption went hand-in-hand with strong clinical leadership – including 'visionary staff' – as well as senior managerial support for change. This helped establish the team of clinicians and managers who were to be responsible for implementation of the CHF guideline:

*I think chronic disease management was one of the key concerns of the organisation, but with the NICE guideline coming out, it actually meant that the organisation identified there was a gap, and therefore there was a need to address it. There was strong clinical leadership and managerial support for the implementation of the NICE guideline.* (CHF Nurse-2, PCT-2)

'Strong clinical leadership' meant clarity in the distribution of roles and responsibilities between key individuals, which was based on their competencies and capacities. This was important for consensus-building over the most appropriate treatment and implementation actions:

*The CHF nurse consultant has the same role, but she relies on the cardiologist consultant for support. They discuss treatment options and implementation plans. That is established. We pay our cardiologist to do that. It is all formalized once a week [that] we are doing that. It is a very robust mechanism that I thought would be helpful. The cardiologist was interested in that as well, and the nurse thought it would be helpful as well.* (Clinical director of medicine, Hospital Trust-2)

The organisational prioritisation of the implementation of the CHF guideline by the PCT's senior managers triggered the establishment of the CHF local implementation team, a multi-

disciplinary team involving doctors, nurses, allied health professionals, and managers from both NHS Trusts. Having representatives from all the organisations involved in the process was crucial. Their role was to manage implementation of the CHF guideline and to improve its effectiveness:

> *The key people were one cardiologist consultant, the clinical director of medicine, who is also a cardiologist from the local hospital, and also people from the PCT, like the nurse consultant, specialist nurses, the cardiac physiologists, the community cardiology manager, and the service improvement team manager. And our job was to put the NICE guideline into practice.* (CHF Nurse Consultant, PCT-2)

It is believed that clinicians with high status and authority were the ones able to command the necessary resources from the PCT for long-term planning. This could be seen as a product of 'influence', and therefore also as a manifestation of power. The actualisation of power as ability to influence senior managers was attributed to clinical expertise. It determined the allocation of scarce time and fiscal resources on planning and on evaluation of its results:

> *We were very lucky because we had the cardiology team and the clinical director of medicine from the acute hospital, and they were recognised as clinical experts. They were very influential, and so we used their influence to get funding by the PCT [...]. Also because we were very well supported, we were able to spend a lot of time going out, finding what the pitfalls were, going to practices and spending time there evaluating our plans* etc. *In fact, I know from colleagues from other services [that] they always were struggling with time.* (CHF Nurse Consultant, PCT-2)

Interviews with 'rank and file' GPs also revealed that the involvement of consultants with the CHF community service was important. The cardiologist consultants enjoyed the respect, and could exert power over GPs because they were recognised for achievements, success, and contributions due to their expert knowledge. This was a strong incentive to make use of the service. A GP with a clinical interest in cardiology felt it was good for his patients to refer them to the community CHF service – something not always possible where hospital consultants are not involved:

> *The fact that so many consultants are involved with the service means that the PCT is doing the right thing and my patients will be taken care of. So I don't have a problem using the service. I think it is very difficult for us to keep on top of everything; therefore, if we have some specialist back-up where we can take advice from, you know you have got local people that have got*

*the best evidence. I think that is really useful.* (GP-2, PCT-2)

While the distribution of authority and long-term funding were critical resources contributing to the implementation of the CHF guideline, the team's power to mobilise formal support from senior managers for its interests was also important. For instance, one informant reported how important was direct support from top management in motivating non-compliant GPs:

> *Very much. The support from the CEO from the PCT was very important. We also had the right support from the medical director. We used to write to non-compliant GPs and we were also copying the letter to the PCT's medical director, which is another thing that made them think about their practice.* (CHF Nurse Consultant, PCT-2)

In the case of the CHF guideline it was possible to identify a number of clinical leads who were 'champions' and took personal ownership of implementation, displaying a high level of commitment to the guideline's success. Informants often displayed enthusiasm for trying to get others to assist in the implementation of the guideline. An interview with one of them revealed how she used her established links with external stakeholders – in particular, the British Heart Foundation – to attract the extra funding and expertise that proved crucial to improving the capacity of the CHF team to implement the guideline:

> *I had a lot of support and funding from the British Heart Foundation. I have a good relationship with them. We got funding from them for two specialist nurses. It actually enabled the work of the champion. I think it was a great influence for the PCT to realise that it was cost effective, and it took over their funding afterwards.* (CHF Nurse Consultant, PCT-2)

Informants involved in CHF guideline implementation also reported that support from senior managers was 'materialised'; *i.e.*, they allowed the introduction of financial incentives to encourage GPs to adhere to CHF guideline requirements. Informants also cited use of the Quality and Outcomes Framework (QOF) as a popular instrument for influencing GPs to adhere to the CHF guidelines, because it earned 'points' that supplemented their pay:

> *It was great that senior managers supported us and allowed us to provide financial incentives through the QOF scheme. It was the biggest tool for them to act on the guideline, because they would get points for that. That would be six points for that, which is not a lot of money, in the whole scheme of QOF, but it*

*was certainly enough to make them think it would be probably quite easy for them to change their approach and do that.* (CHF Nurse Consultant, PCT-2)

Similarly, when additional funding was refused by the PCT for improving the compliance rate and increasing GPs' referral rate to the community CHF clinic, fiscal support was sought from a pharmaceutical provider:

*We realized that within the existing financial resources, however, it was not possible to take the project forward, and no funding was available from the PCT resources. Support was therefore sought from a pharmaceutical provider.* (CHF Nurse Consultant, PCT-2)

Clinical leadership was also discussed with informants involved in the implementation of the Obesity guidelines, who agreed that there was a lack of clinical leadership:

*We used to have a director of public health, but she left, and since then – two years ago – the Board did not replace the post until very recently.* (Project manager, PCT-2)

In addition, most of the informants involved in implementing the Obesity guidelines were middle managers, who had little clinical experience with treating obesity:

*There are three members on our team: me, I am an electrical engineer, learned project management skills with a Masters in nutrition; a senior public health manager with responsibility for obesity and informatics – she has a degree in sports science rehabilitation and started as a fitness consultant and a diabetic specialist nurse.* (Project manager, PCT-2)

It was opined that it seemed important that the team was responsible for the 'strategic direction of obesity' and not for actual implementation of the Obesity guidelines. This led to confusion over the roles and responsibilities of team members; thus, the informants felt it was difficult to do their jobs efficiently. The following quotation evidences the point:

*I mean, we do all the public health stuff, but obesity sprang up the agenda in the last 6 months. We have responsibility for the strategic direction of the obesity project, but I don't think implementing the NICE guideline has been seen as a priority for them. I don't know if we are also responsible for implementing the NICE guidelines, and who is responsible for monitoring progress.* (Senior Public Health manager, PCT-2)

Notwithstanding that DoH had earmarked funds for the prevention of obesity nation-wide, the informants emphasised that senior managers did not commit time and resources to assure that the Obesity guidelines got implemented. Three out of five informants blamed the absence

of active engagement by the senior executive structure of the organisation. It was believed by the informants that they could not influence top management. The absence of strong clinical leadership, authority and status for this team meant that it was a slow and difficult process to command adequate fiscal resources and scarce time:

> *We did not have a director of public health with us for a long time. For me, I very much know what I want to do, but maybe I am not able to influence high-level senior managers. We have not seen any money coming for Public Health interventions. This has been raised, but we have not seen it. I just want to get on and start the project.* (Project manager, PCT-2)

There were plans to expand the capacity of the public health team by using a champion's enthusiasm, ownership, and ability to influence the necessary people to get better control over implementation issues. However, a dislike of using a purely medical model to implement the guidelines – (encouraging GPs to become champions) – was also evident:

> *Again I know that we need to try to identify a central champion, and that is something that we need to do after the strategy is finished. It is important to have influence over the right people. It is important that they believe obesity is an issue and have enthusiasm. I think personally having the influence is the most important [thing]. It is not important to have a champion that cannot influence the people you want to. A GP would not really be a good choice. Probably we will be looking for someone with a wider sphere of influence than a GP.* (Senior Public Health manager, PCT-2)

In the second phase of the case study, three out of five informants who were involved in the implementation of the Obesity guidelines reported that the PCT had employed a new Director of Public Health; however, it was asserted that implementation of the Obesity guidelines was not high on this Director's agenda:

> *We have a new Director of Public Health, but I don't think the implementation of NICE guidelines is high on her agenda.* (Senior Public Health manager, PCT-2)

It was believed that champions were needed to instigate a vision of what was required and to gain sufficient senior managerial support. There was also evidence of highly individualistic approaches, and a lack of coordination and integration between groups of people working on similar tasks with similar goals to those of the Public Health team. It was evidently difficult to coordinate a network of people from different organisations who were to be involved in the gamut of activities related to the prevention of obesity. The duplication of work and effort,

and the difficulty of exchanging information, due to different languages, goals and other orientations were emphasised:

> *There is a lot of pockets of work that different organisations are trying to do, and it is often difficult to coordinate that. Like, health visitors are doing some work on obesity; the midwives from the hospital, the children groups and the young parents are trying to do something, and they may not know what the other groups are doing. That makes it tricky. We may have similar projects and maybe could work together better, if they could talk to each other. It seems that each group or organisation is going on doing their own initiatives without talking to each other. But also there is a thing with understanding each other. Some of the language that we use – I think we assume that people from different departments understand what we are talking about, and before you know it you kind of lost your audience. But this is a thing of the NHS; the language that you use means different things to different people.* (Project manager, PCT-2)

Another important function where champions were believed essential was the coordination of the different activities, functions and people related to the implementation of guidelines. Communication and coordination issues were perceived as essential among informants inside the CHF team, and these informants were better positioned to utilise communication channels over time to promote the service to potential adopters and persuade them of its quality. Successful demonstrations and strong evidence of good practice and influential skills were crucial in getting more people interested:

> *Good communication was absolutely crucial: to be able to speak to people at all levels. Because of our champions, communication was kept alive. With face-to-face meetings, clear communication lines they made sure that the right messages were understood by everybody – promoting the service, how many people we have seen through the services, that the blood test result was being used and effective. It is also important that they are able to influence their peers and respected* by them peers, despite the fact that they continue to challenge their peers clinically and otherwise. (Operational manager, PCT-2)

However, informants involved in the implementation of the Obesity guidelines asserted that the dearth of champions to coordinate the different stakeholders involved with obesity services made implementation an uncontrolled process due to ineffective communication and fragmented information flow:

> *We do not communicate with many people; there are not any avenues available to us for someone who is quite receptive and willing to drive things forward, to coordinate the different*

> *people that work on the same project. There is also a lot of things that we don't hear about, there is a lot of duplication of work, and it is often lack of control and difficult to coordinate implementation without a champion.* (Project manager, PCT-2)

All informants who were involved with the CHF guideline reported that its implementation never fell off the agenda, even though there were challenges over time; particularly long-term funding, team turnover, and GP compliance. The importance of key individuals was once again emphasised:

> *The service is going for about 5 years. We have got over the main challenges, like long-term funding, change of personnel, GPs' non-compliance, because we had the support of key people like the clinical director of medicine from the local hospital. The service was established as being very important, and it stays so these days.* (CHF nurse consultant, PCT-2)

By contrast, the informants who were involved in the implementation of the Obesity guidelines complained of inconsistency due to considerable changes in the social status of the Public Health team over time. In this case the team was not able to overcome key long-term challenges. Thus, in the second phase of the case study, it transpired that key personnel, once they had left, had not been replaced by the PCT. Transfer of the lines of accountability thus proved to be crucial, as did (lack of) leadership. It was reported that it had proved to be a slow and difficult process to instigate changes across the interface of different specialties and stakeholders belonging to the PCT and to the local authority:

> *There is a definite lack of consistency. The Director of Public Health left and was not replaced until very recently. The senior Public Health manager left the organisation recently, and I don't think there are thoughts to replace her [...]. We were employed by the local Council, but now we are employed by the PCT as opposed to Council, but we are still based at the Council – everything is very confusing for us. The previous Director did support us very much, but the new one is not that good.* (Project manager, PCT-2)

One clear theme that has emerged from the data is that senior consultants' involvement with CHF NICE was the catalyst for the guideline's implementation. Clinical leadership was weak in the case of the Obesity guidelines. The expert status of the hospital consultants did influence senior managers and did safeguard funding and managerial support. Consequently, the amount and type of resources available to the two teams for implementing the two guidelines differed widely. Authority, time and fiscal resources – all were important but none evenly distributed across both teams. It is therefore concluded that the two processes are to be

characterised differently because the informants who took part in them played different roles aimed at different purposes with different resources available to them. From the data it appears that the asymmetric distribution of power as between the two teams was crucial.

The importance of the role of clinical champions for the shape of the NICE guidelines implementation process has been evidenced in this section. Informants involved in the CHF guideline implementation emphasised the power exerted by clinical champions – manifested in their influence over others: senior managers, GPs and external stakeholders – to provide assistance and fiscal support for implementation; to engage themselves and others in it; and to maintain the status of the team. It was also asserted that effective communication and co-ordination may manifest power differences between the parties involved.

By contrast, all informants involved in implementing the obesity guidelines recognised that the shape of the process was influenced by the lack of designated and influential champions assuring their implementation. Despite the existence of enthusiasts for the Obesity guidelines, there was no single co-ordinating mechanism for planning and implementing sustainable developments. It was believed that this resulted from a lack of clinical leadership and of influential champions who could have steered implementation.

In conclusion, the data so far have demonstrated that power was manifested in the form of managerial authority and clinical leadership, which, it is believed, shaped the implementation process through the allocation of resources, expertise and communication. However, despite the strong clinical leadership, there were instances when the informants involved in CHF guideline implementation felt that the process was uncontrolled in the sense that outcomes were unpredictable:

> *We had good teamwork and good leaders, many action plans and clear time scales, but when we were trying to implement them into reality, it was not like that. It is possible to be strategic. You know where you want to go, but it was not possible always to predict outcomes. So there was a bit of uncertainty there.* (Operational manager, PCT-2)

The unpredictability and uncertainty of the implementation process was also attributed to medical professionals' power. This was the final theme that emerged from the data. The power exerted *via* the working of professional interests and their influence on the shape of the implementation process of the NICE guidelines is discussed in the next section.

**Professional interests**

Analysis of the data showed that professional interests did influence the implementation

process. Multiple informants, both health professionals and managers, repeatedly touched on the same perspectives and key functions linking power and professionalism. Self-regulation, control, and influence over others were the main ones. The power core of professionalism consisted of doctors' clinical autonomy and self-regulation, which was embedded in the daily routine of all doctors involved in the provision of clinical services. This proved crucial to the implementation (or not) of both NICE guidelines:

> *And if we have a fundamental disagreement with something in NICE, then we will do whatever it is you want and ignore NICE[...] I would not be concerned if we were not complying with the NICE guideline.* (Clinical director of medicine, Hospital Trust-2)

The professional power of the doctors involved in implementing the NICE guidelines was also manifested in their power to choose information channels whence to access new knowledge, to interpret NICE guidelines and other bodies of evidence, and to produce local guidelines:

> *Looking into the NICE guidance, what we did was we produced a local guideline that actually covers all the medical guidelines from NICE, but also incorporating our knowledge and experience.* (Consultant cardiologist, Hospital Trust-2)

Professional power in the workplace was also exercised by the doctors' power to opt to be involved or not with implementation. Some doctors were unreceptive to engaging in the implementation of the two NICE guidelines, or even reading them. Notwithstanding that such guidelines stemmed from relevant and valid research evidence, the authority of competing bodies of evidence was asserted. The dominant view of all doctors who were interviewed was that NICE guidelines represented but a narrow spectrum of what constituted 'valid' scientific evidence:

> *Most clinicians have their own channels to get new knowledge in, and when a new NICE guideline comes, this does not always mean that it offers brand new information. It is not always NICE guidelines. There are many sources of evidence, and if you want to keep up to date with your practice, you don't need NICE to do so. Many clinicians are not receptive to NICE guidelines, don't even read them and don't want to engage in their implementation.* (Clinical director of medicine, Hospital Trust-2)

A common perspective of all doctors involved in the implementation of NICE guidelines was that the guidelines were not adequate. It was therefore supplemented with evidence derived mainly from networking with peers, attending scientific meetings, sharing knowledge

and experiences, and appraising the literature:

> *I am influenced clearly by good quality studies and not commercially biased that have to be validated. The National Obesity Forum gives you information about the management of obesity. But meeting other people with similar interests, you get new information, what is happening and what is going on. But I think you always gain something, trying to keep updated with research. There is the Obesity Journal as well.* (GP-1, PCT-2)

In total, five doctors with a clinical interest in the treatment of CHF and obesity were interviewed – three consultants and two GPs – and one perspective that was common to all was that access and control of specialised knowledge correlated with doctors' disengagement from using clinical guidelines that lay in their specialty – but on the grounds of non-relevance rather than resistance. For example, the hospital cardiologists viewed CHF guidelines as more appropriate for non-specialists:

> *CHF cardiologists were doing anyway what is suggested by the CHF guideline before NICE published it. There was nothing new there for us. I think it is more for clinicians outside cardiology.* (Consultant cardiologist, NHS Trust-2)

The consultant cardiologists also asserted that assuring adherence to the NICE guidelines was much more difficult and complex in primary than in secondary care. National Health Service policy, the fiscal structure of the health system, and GPs' professional autonomy to pursue different clinical interests were cited as key factors:

> *I think national policy allows you to be a lot more autonomous in primary care. GPs have always the freedom to develop their services as they like. They are bound only by their contract and what delivers their points in order to get their payments [...]. It was easier to ensure adherence to the NICE guideline with cardiologist GPs. With non-cardiologist GPs, it is still difficult. There is a lack of understanding: not the same clinical interest and not the same level of knowledge. So talking the same language is difficult, and you can't forced them to refer to the CHF service. I think GPs are a difficult group to engage with. An acute setting is more structured to what you have do to, and it seems to me that it is much more task-orientated and task-focused, rather than allowing natural evolution. And we all share the same clinical interest, so it is easier to change than in primary care.* (Consultant cardiologist, Hospital Trust-2)

Thus, the evidence concerning doctors' clinical autonomy and right to self-regulate was interpreted in terms of their power to determine how to use scientific evidence in their practices, as well as their power to choose whence to access new knowledge and whether to

engage or not in the implementation of NICE guidelines. The net result was that some GPs were receptive to complying with the NICE guidelines and others were not.

Another perspective on professional power included the power of doctors to delegate 'dirty work' to nurses. For example, consultants and GPs were happy to treat patients, but preferred to delegate to CHF nurses any functions concerned with monitoring and feedback on progress toward adherence to the NICE guidelines:

> *I think we agreed it will be a better use of my time not to be involved with the audit and monitoring of adherence to the NICE guideline. I was happy to have an advisory role within the service, discuss patients' needs and treatment requirements, and support the nurses. But the NICE guideline had to be championed and it is a heart failure nurse service in the community. So that needed to be championed by them. The audit of the service was also left on the nurses.* (Consultant cardiologist, Hospital Trust-2)

The power of doctors to command the acts of nurses and other allied health professionals entailed another view that featured doctors' social authority and manifested their professional power. The relegation to nurses of CHF guidelines implementation illustrates the point:

> *A nurse is more reliable at following orders, and it would be easier to influence her as opposed GPs and consultants. So the nurse lead model has worked well.* (Clinical director of medicine, Hospital Trust-2)

While this view highlights the power of doctors over nurses, it also demonstrates the difficulty doctors would have in asserting and maintaining control over the practices of their professional peers:

> *The reason I went for that model was because I knew that if a GP was leading the service, he also would be doing its practice and devote a small amount of time to it and he would not be able to grow the service. I did not want a consultant cardiologist ... because the consultant cardiologist would go off and do other things and not focus on HF in the community; whereas the consultant nurse, that could be her job and role, and although she could do other things, the other things would be for the service and would concentrate on that. And again, my feeling was that a nurse is more reliable at following orders, and that it would be easier to influence her as opposed to GPs and consultants.* (Clinical director of medicine, Hospital Trust-2)

Finally, medical power was exerted in the form of the influence of non-medical managers. A perspective common to non-medical managers interviewed was that medical power could be used to distort knowledge in a direction beneficial to the interests of health professionals.

Hence, reliance on NICE guidelines was not always desired by managers:

> [speaking of CHF implementation:] *I am not clinically trained, so I take my guidance from consultants. I would not dream of saying I know better than them because the NICE guidelines say something different [...] they signposted the direction to go with the NICE guideline.* (Operational manager, PCT-2).

The socio-culturally reinforced status of doctors' authority and command of specialised knowledge chimed with managers' trust in them and preference for 'flexible' mechanisms of monitoring their work:

> *They trust us as well because we are the consultants. I have not seen any evidence of our providers asking us to prove that we are complying with NICE guidelines. I think they assume we are.* (Consultant endocrinologist, Hospital Trust-2)

Finally, managers suggested that doctors' power to access and use specialised forms of knowledge and their social responsibility to provide the best possible services to patients entitled them to exert power over clinical decision making:

> *Should we always follow guidance? No, because sometimes the recommendations coming from NICE guidelines are not clear. If GPs say that and that is equal or better for the patients, then I don't see why they should not use it if there is good clinical evidence[...]I think one of the concerns is that by the time NICE has published something, there are more evidence and research that has been published that actually changes the guidelines, so is it always necessary to implement it? (CEO-PCT-2)*

Of note here is the symbolic legitimacy accorded to doctors to carry out appropriate practices and produce the best outcomes for their patients; wherefore managers trust them and prefer flexible mechanisms to monitor their work.

Medical power was thus an important factor influencing the shape of the implementation process.

**Summary of the chapter**

Analysis of the data about the NICE guidelines implementation process showed that managerial and professional perspectives on the nature of the process differed. The emphasis on rationalisation of guidelines implementation was evident in discussions with most senior managers, who averred that implementation was influenced by tight financial constraints and government targets. The development and improvement of processes assuring adherence to NICE guidelines has fallen under the influence of bureaucratic principles that have led to the

formation of a bureaucratic power base. Under these circumstances middle managers revealed tensions or contradictions with senior managers and were more critical about the 'controlled' element of the implementation process, suggesting that the latter stages of the implementation of NICE guidelines – adoption in everyday practice – were less under managerial control. Doctors by contrast purported to refute the claim that the implementation of NICE guidelines, as well as clinical knowledge and clinical practice, were under the control of managerial processes. It is surmised that the informants' different interpretations reflect different degrees of involvement in implementing NICE guidelines, and this may have influenced their views on the implementation process.

Different degrees of involvement also highlighted the workings of different interests and possibly different degrees of power brought to bear on the pursuit of those interests. This was manifested in the prevalence of 'symbolic policy', which reflected the working of different priorities (hence potential conflicts), while leaving the impression that local policies for the implementation of NICE guidelines were not always intended to be fully implemented.

The analysis continued with a comparison of the two NICE guidelines' implementations. It showed that both guidelines' implementation processes featured similarities and differences. The most significant similarities were: the importance of enthusiasts; the pro-active gathering of information; and the relevance of non-implementation (*i.e.* plans that were either not taken forward, mostly because of lack of funding, or ignored by the target population, usually GPs). These were key elements that were reported by almost all informants who were involved in the implementation of both NICE guidelines. Differences were analysable in terms of the sequence and type of activities that constituted implementation. Informants involved in the implementation of the CHF guideline reported a pattern of implementation that was initiated by the publication of the NSFs on chronic disease management and the publication of NICE guideline, and was subject to managerial control. Informants involved in the development of primary care pathways for obese patients reported an uncontrolled pattern of implementation. This pattern was not shaped by pre-determined, centrally managed processes, but was driven by the special interest and enthusiasm of two professionals several years before publication of the NICE guidelines. Also, from discussions with informants involved in the implementation of the CHF guideline it transpired that their implementation was characterised as 'emergent' in the sense that planning was decided upon and modified over time, depending on the team's ability to measure clinical responses to the initial plans.

In marked contrast to this perspective, informants involved in the implementation of the

Obesity guidelines reported an implementation process characterised by discontinuity and inconsistency. Planning figured prominently in this implementation process, yet outcomes were never evaluated. Senior managerial 'interference' in the form of imposed priorities and targets did not allow enough resources – time, authority and money – to be dedicated to evaluating the initial planning objectives, and this led to arguably undesirable and certainly unintended outcomes (see Figure 12: Plan A leads to Outcome B instead of Outcome A). The implementation of the Obesity NICE guidelines was paralysed by managerial power yet managerial indecision.

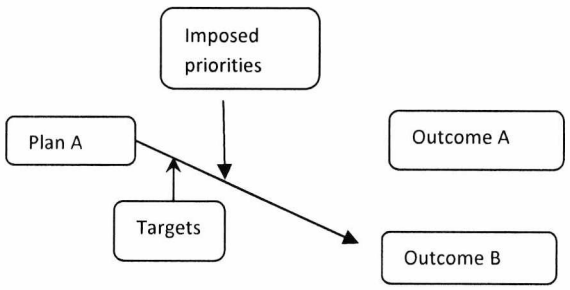


**Figure 12:** *the implementation process in the case of obesity NICE guideline*

Analysis of the data suggests the implementation process was shaped by power relations between doctors and managers as deployed to suit local interests and agendas, and which determined the allocation of the scarce resources required for implementation.

The longitudinal design proved particularly useful for understanding how power and the different sources of power worked out over time to shape the implementation process. For example, managerial authority was an important factor insofar as it enabled senior managers to translate the continuous influx of national policies into local, feasible action plans and programmes. Thus, as between the two NICE guidelines, adherence to the recommendations for bariatric surgery was not feasible because the cost of its implementation was perceived by senior managers as prohibitive, threatening their organisation's solvency. Similarly, medical power – in terms of clinical, social and cultural authority – was also an important factor in that it enabled doctors to interpret the emergence of new evidence and critically evaluate its integration into everyday practice. Both actors – senior managers and doctors – had power to make interpretations constituted by their subjective intentions correlative to their pre-existing receptivity to engaging in the implementation of NICE guidelines. Expert clinical leadership – (in the case of the CHF clinical leadership favoured the NICE guidelines) – was also an

important source of power inasmuch as it drove co-ordination between doctors and managers, while tending, directly or indirectly, to influence how the medical and managerial professions thought about adherence to NICE guidelines. Analysis revealed that doctors' and managers' feelings about the expert clinical leaders who took part in the implementation of the CHF guideline was a major influence on decision-making and subsequent willingness to be involved in the implementation of NICE guidelines. In contrast, the case of the Obesity guidelines shows how the absence of strong clinical leadership may influence the shape of the implementation process.

While clinical leadership was an important factor of success, it must be emphasised that it was backed by managerial authority. The contrasting case of the Obesity guidelines revealed that clinical leaderlessness enabled senior managers to rationalise the allocation of scarce resources in a way that prioritised organisational fiscal 'health' over the implementation of guidelines for human health. The requests for support by the informants involved in Obesity guidelines implementation were neglected by senior managers' indecision and manifestations of symbolic power.

The final section of this chapter proceeds with a cross-case comparison to identify the key factors that may influence the implementation process in general.

### *6.4 Cross-case comparison*

In Chapter Five and in this chapter, two case studies were reported which principally serve to increase within-case understanding of the implementation process of NICE guidelines: its shape, similarities and differences, and the factors that played a key role in each case. The purpose of this last section is by cross-case comparison to address the following questions:

- What bearing do the similarities and differences between the two cases have on understanding the implementation of NICE guidelines?
- To what extent do the differences between the two cases explain the different implementation outcomes?

#### *6.4.1 Similarities in both case studies*

There were important similarities between the two cases for implementation of guidelines. Evidence from both studies confirmed that the implementation process was non-linear and unpredictable on the whole. A key feature across both case studies was that even national priorities were seen as important. Locally there was scope for some sort of flexibility in terms

of time limits and priorities of the NHS Trust – subject to the discretion of senior managers. Interviews with all senior managers confirmed that the implementation process had two main phases. In the first phase the process consisted of formal stages, such as the decision to adopt the NICE guidelines, the design of strategies to promote the integration of the guidelines with everyday practice, and plans for dissemination mechanisms and subsequent monitoring. The process, however, thereafter proceeded – irrespective of the characteristics of the guidelines – in a non-linear, uncontrolled manner which may be characterized as 'emergent' in the sense that plans had to be modified over time in an unpredictable, iterative process (see Figure 13).

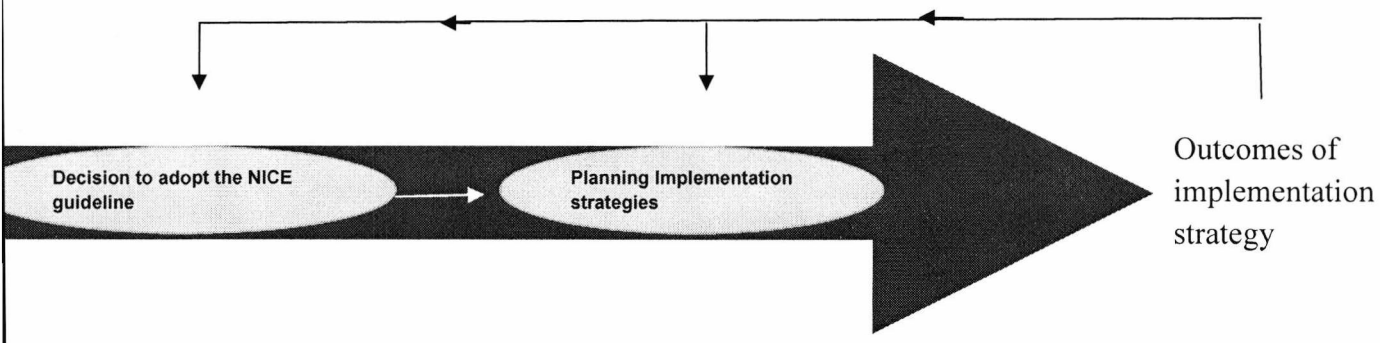


**Figure 13:** *The shape of the implementation process of NICE guidelines*

Analysis showed that the implementation of NICE clinical guidelines may involve many different actors, levels of hierarchy, and *loci* of decision making. Senior and middle managers and professionals (doctors and nurses) were at the centre of the process and its co-ordination. The social interaction of doctors and managers was the mechanism by which social influence was exerted, which, in effect, inaugurated their receptivity to engaging in the implementation process (or lack thereof); determining key actors' choices and what they deemed appropriate and legitimate. It is possible to distinguish between formal and informal rules. Formal rules were devised and enforced by institutions external to NHS Trusts, like NICE, the Healthcare Commission and Medical Royal Colleges. These did influence key actors' beliefs, values and perceived interests. Simultaneously, informal rules, values and assumptions stemmed from the key actors' social and professional background – including both training and post-training learning, – structuring their behaviour and social interactions.

The operation of formal and informal rules did to a certain extent regulate access to and control over valuable resources, and did influence the construction of markedly divergent perceptions of what validates evidence and how its implications should be implemented. Senior managers took increasing interest, seeing in EBM a way of justifying rationing. Senior

managers' attitude toward recommendations for bariatric surgery demonstrates the point. The prospect of commissioning extremely expensive bariatric surgery from the local hospital, raised the spectre of an increase of the local population's demand for the service, threatening the 'healthy' operation (in fiscal terms) of their PCTs. Thus, not surprisingly, senior managers seemed to allow the issue to reach the decision agenda but then put insuperable obstacles in its way. As a result, bariatric surgery in both case studies was not commissioned locally. Also, the implementation of systemic change for the prevention of obesity was seen as overly complex, as it required the interaction of many stakeholders not only from primary care but also from the local authority. This may explain why the attention of managers focussed on the implementation of interventions within the boundaries of primary care. In addition, while senior managers provided some form of steering, the implementation of both guidelines seemed to be instigated by middle managers. It was thus possible to identify tensions or contradictions between middle and senior managers over ensuring that local targets were met.

Finally, frontline clinicians exercised professional discretion in implementing guidelines. They preferred self-regulation over the centrally derived demands of clinical governance and quality assurance. By the same token, they were unreceptive to providing information about their work to managers.

A second tension subsisted inside the medical profession (between GPs and hospital consultants) regarding the role of management in medical practice. Some doctors were enthusiastic about taking senior management responsibilities, adopting organisational and systemic approaches to guidelines implementation; while others distanced themselves from senior management and devoted themselves to clinical practice only, ignoring guidelines. It was also common to find little GP interest in the implementation of guidelines to preventative medicine and health promotion interventions.

Medical and managerial authorities were important manifestations of power. Medical authority commonly manifested as doctors' clinical autonomy and freedom to self-regulate; to pursue their clinical interests; to control their decisions and their work activities; and thus to decide for themselves whether or not to implement NICE guidelines. Other important manifestations of doctors' power included their hierarchical authority over nurses, and their influence over managers due to their access to and use of specialised knowledge. In contrast, it was a combination of managerial and bureaucratic principles that led to the formation of a managerial/bureaucratic power base controlling organisational adherence to fiscal and other

centrally driven targets. In line with the ideas discussed so far, then, Figure 13 might be elaborated as depicted in the following figure (Figure 14), which graphs such factors as were found to influence adoption of the NICE guidelines across both case studies.

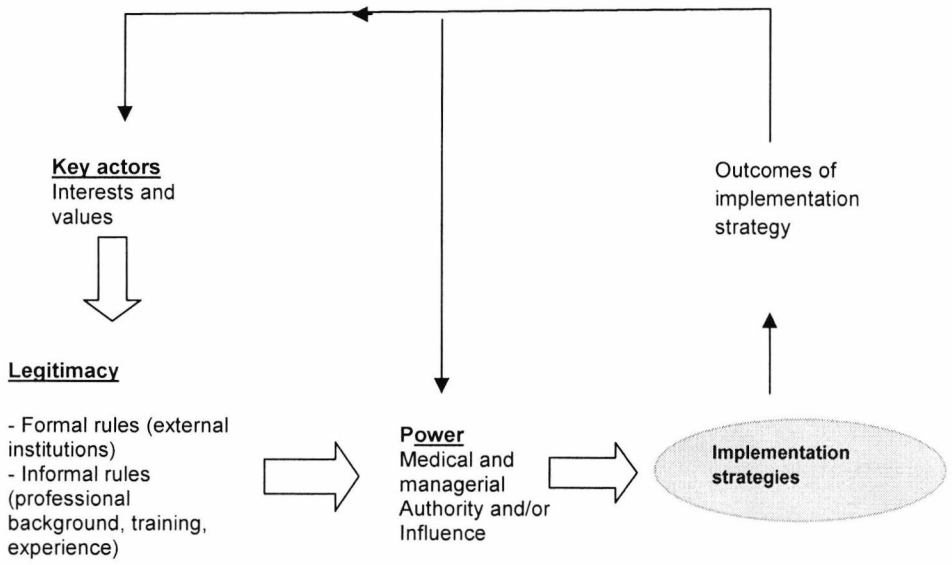


**Figure 14:** *factors found to influence the decision to adopt the NICE guidelines in both case studies*

Implementation strategies across both cases also shared some similarities. For example, in both studies continual strategic planning activity was seen to be central to the implementation process. It required considerable authority from those involved in the process to command adequate time, fiscal resources, and influence. Common activities of both implementation strategies ranged from developing and updating local implementation plans to establishing objectives. Building a 'critical mass' of adopters was commonly cited as an important factor, linked with mechanisms for active dissemination of local implementation plans. Informants from both studies cited the importance of formal, planned, vertical (*i.e.* inter-organisational) patterns of communication to be used for raising awareness and promoting the effectiveness of interventions to persuade potential adopters. It would appear that management's approach to implementation was influenced by Roger's work on diffusion of innovations (1995), and the linear progression of stages follows the pattern first described by McKinlay (1981), who mapped the careers of medical innovations from initial conception to acceptance as standard procedure.

Particularly important in determining the non-linear shape of the implementation process

were the complex and interlocking sets of negotiations with potential adopters (mainly GPs). A common pattern of clinician behaviour that shaped the implementation process was a process called 'network governance', consisting of networks of social relationship and social influence connecting clinicians who shared clinical interests and were involved in developing local clinical guidelines. These were mediated horizontally and largely by peers:

> *Those guidelines were coming from the rank and file people that come in touch with the suffering population and we are using them and not NICE guidelines.* (GP-3, PCT-1)

This assumes that the factors that helped spread the locally designed guidelines could be thought as consisting more of diffusion than implementation. This explains why almost all GPs and certainly all hospital consultants were keen to emphasize that …

> *... usually NICE guidelines confirm what we already know and practice.* (Medical director, Hospital Trust-1)

Evidence from the second case study supports this point.

> *Long before NICE we had a lots of bodies telling us how to be evidence based; different guidelines from lots of different people telling us sort of the same things. All NICE has done is to formalize the process of transferring knowledge[...] We can provide evidence based care even without knowing about the NICE guidelines, we tend to value personal experience, personal reading and groups of people that our clinicians are attached to. (Clinical director of medicine, Hospital Trust-2)*

Particularly influential in making for a non-linear implementation process was the common perception that it was crucial to move back and forth between updating the local guidelines and strategically planning implementation. This was attributable to the continual process of new evidence generation – either through personal experience or though social interactions with intermediary 'knowledge brokers' – and its integration into everyday practice.

Finally, analysis also showed that the outcomes of the implementation strategies correlated with changes to clinical practices and clinical care pathways. On the other hand, as a result of the workings of conflicting interests, forms of legitimacy, and hence power relations, it was evident that neither case of NICE guidelines was implemented as originally intended. More specifically, key stakeholders and potential adopters interpreted NICE guidelines and their implementation differently, following individual and professional interests and values. Thus, implementation strategies led to unintended and unpredictable outcomes, which entailed doctors' low receptivity to changing their own clinical practices and senior managers' low

receptivity to engaging with the implementation of expensive recommendations of either set of NICE guidelines if they perceived a potential threat to the solvency of their organisations. This may explain why non-implementation and low receptivity were also outcomes of the implementation strategies.

Accordingly, Figure 14 has been further elaborated (additional elements in red) in light of the similarities outlined so far in the implementation strategies of both cases. It graphs the different ways the workings of power influenced implementation strategies. Firstly, strategies required resources of time, authority and budget, and activities like planning, dissemination and monitoring. Secondly, due to different power relations between managers and clinicians, the non-linearity of the implementation process was shaped by the interlocking negotiations between them. Finally, doctors' ability to network with their peers implied that the influences that helped spread the locally designed guidelines could be conceived as consisting more of diffusion than implementation.

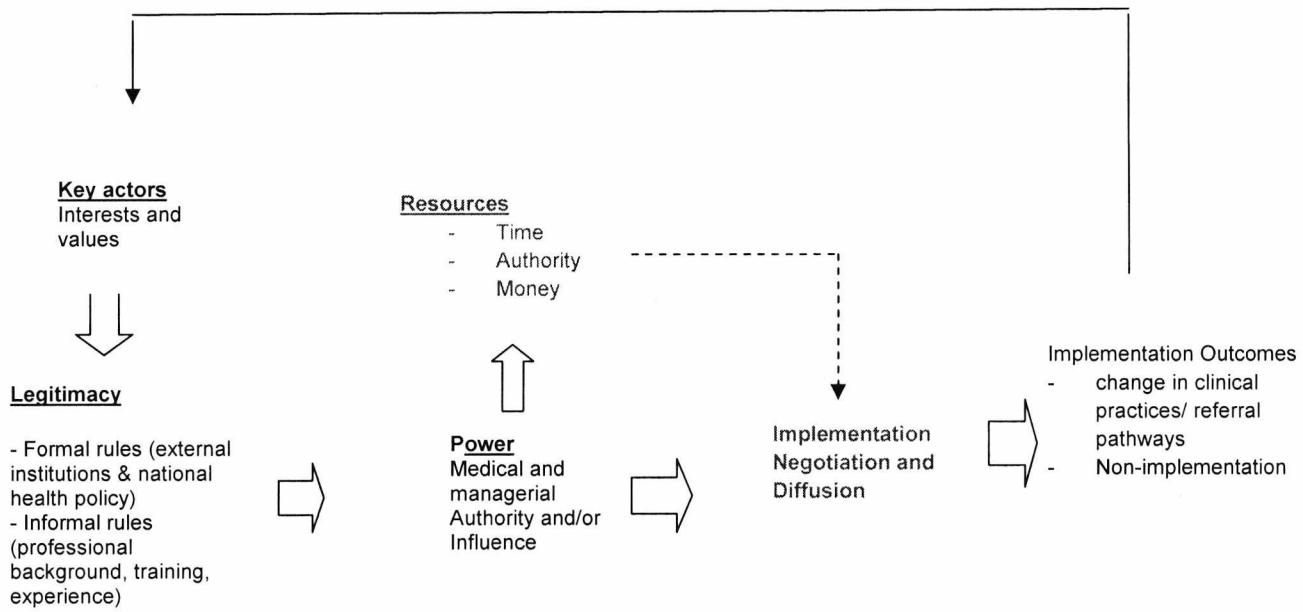


**Figure 15:** *Factors found to influence the decision to adopt the NICE guidelines across both case studies (b)*

Despite similarities in nature and shape, the implementation processes of both guidelines exhibited differences in pace, standards and clinical practices. For example, implementation of the Obesity guidelines was perceived to be an important priority for the PCT, while for that PCT sustaining the implementation of the CHF guideline was less of a priority. By contrast, the CHF guideline in the second case was successfully introduced and integrated

into everyday practice, while little additional (or insignificant) implementation of the Obesity guidelines occurred after its publication. Similarly, while the management of CHF patients was completely transferred from secondary to primary care in PCT-2, in PCT-1 a balance was struck between primary and secondary long-term care. It is essential to recognise from the outset that to understand what caused the different trajectories it is necessary to establish what all the differences were and to what extent these differences might explain the different outcomes. Table 16 collates and contrasts these differences.

| **CHF NICE guideline** | **PCT-1** | **PCT-2** |
|---|---|---|
| 1. Implementation of CHF NICE guideline | *Not successfully integrated* | *integrated successfully* |
| 2. Referrals of CHF patients | *Balance between primary and secondary care* | *only primary care* |
| 3. Management of CHF patients | *In primary and secondary care* | *primary care* |
| **OBESITY NICE guideline** | **PCT-1** | **PCT-2** |
| 1. Update local strategy in line with the NICE guidelines | *Yes* | *No* |
| 2. Disseminate updated local strategy to GPs | *Yes* | *No* |

**Table 16:** Summary of main differences between the implementation of the two NICE guidelines in the two case studies

### 6.4.2 Differences in both case studies

First of all, differences in the fiscal position of the NHS Trusts involved in both case studies were observed. Both NHS Trusts in the first case study had been unsuccessful in the recent past – (during fieldwork both were in a secure financial position) – in delivering key fiscal targets within the available resources, due to poor financial management skills:

*We have been through same particular nasty financial deficits in*

> *the past, although we are well out of that now and in a very good financial position.* (Director of Public Health, PCT-1)

Thus, implementation of the CHF guidelines took place in a period when PCT-1 was undergoing fiscal problems, in contrast to the Obesity guidelines implementation, which took place during a period when PCT -1 was overcoming its fiscal difficulties. The fact that senior management's overriding priority was to reinstate the healthy operation of their organisations so as to deliver key national fiscal targets may partly explain why progress in implementing the CHF – *the oldest published NICE guideline* – was slower than the implementation of the Obesity guidelines. In the second case, by contrast, almost all informants from both Trusts acknowledged that good fiscal management was an important strength of their organisations:

> *Historically we were and still are in a very safe financial position, able to invest money and improve practices.* (Deputy CEO, PCT-2)

However, good financial management in PCT-2 cannot adequately explain why the CHF NICE guideline was successfully integrated – to a certain extent – into everyday practice, while implementation of the Obesity NICE guidelines struggled to happen on an incremental basis. Similarly, the differences between the Trusts in economic positions and fiscal performance across both case studies cannot explain why implementation of the Obesity guidelines was discontinued in PCT-2 but continued incrementally in PCT-1.

The Trusts in both cases exhibited organisational and departmental structural differences respecting which individuals and groups were assigned which tasks to perform across the two organisations. For instance, PCT-1 featured the domination by GPs and public health doctors of key organisational posts like Chair of the PEC, Director of Public Health, Head of clinical effectiveness; they were responsible for most of the Trust's managerial and operational tasks, aided by a circle of senior and middle managers, nurses and allied health professionals. By contrast, PCT-2 featured the domination of such key posts by a group of senior and middle managers and senior nurses – with the sole exception of the Medical Director, who was a GP. Comparing the structures of the two PCTs, it is seen that GPs dominated PCT-1, while senior nurses dominated PCT-2. This suggests that one should find in PCT-1 more negotiations and competition as well as more will to control and influence as between doctors and managers; plus more intricacy in decision-making processes and more complexity in the implementation of NICE guidelines than in PCT-2. However, structural differences alone cannot explain the

different trajectories in implementation. Evidence from both studies confirmed non-linear and complex trajectories, difficulties in adhering to implementation plans and similar complexity in decision-making.

These shared similarities of nonlinearity and complexity notwithstanding, it is theorised that the difference of trajectory was partly dependent on and a consequence of the distinctly different characteristics of expertise, experience, skills, commitment and authority of key actors directly involved in the implementation of both NICE guidelines. The implementation of the Obesity guidelines in PCT-1, for example, was led by the Director of Public Health, aided by the Assistant Director of Public Health, the Director of Commissioning and the lead dietician. By contrast, in PCT-2 implementation of the Obesity guidelines was led by a senior public health manager, a project manager, a GP and a nurse.

Likewise, implementation of the CHF guidelines in PCT-1 was led by a GP with clinical interests in cardiologist aided by three CHF nurses, two of them located in primary care and one in the local acute Trust, and a project manager. But the local hospital's cardiology consultants were not directly involved in implementation, due to their lack of clinical interest in the management of CHF. By contrast, implementation of the CHF guidelines in PCT-2 was led by a CHF nurse consultant aided by six CHF specialists nurses, all located in primary care, together with a senior manager, a project manager, a consultant cardiologist with interest in the management of CHF, and the clinical director of medicine – who was also a cardiologist – from the local acute Trust.

In both cases it transpired that the shape of the implementation process depended greatly on the ability of these actors to construct and sustain a broad coalition in favour of the guidelines by mobilising the necessary resources and senior management support. It is theorised that a very strong leadership implemented the Obesity guidelines in PCT-1 and the CHF guidelines in PCT-2 due to the authority, status and formal rank of some key informants within their respective organisations and to their differences in specialised knowledge. As a result, these two teams were better positioned to influence their organisations and to present the implementation of the Obesity and CHF guidelines, respectively, as higher priorities than other priorities; and thus to establish implementation as a key priority of the decision agenda. With better access to and control over valuable resources, they could influence the pace and outcome of adoption by establishing better working relationships with potential adopters who were regularly involved throughout the implementation and especially the evaluation process.

Also, by comparing and contrasting the roles in both case studies of the informants who

were involved with the CHF guideline, it emerged that differences in interests also helped to determine the shape of the implementation process. All informants involved in implementing the CHF guideline in PCT-2 were interested in the management of CHF patients; however, it was not so in PCT-1: there the GP who was leading implementation of the CHF guideline was more interested in the primary prevention of CHF than in management of CHF patients. Disagreements between core members of the implementation team caused conflicts, a waning of commitment, and reduced involvement in implementation:

> *Along with the implementation of the CHF NICE guideline, an area that I was involved in that didn't work well was primary care prevention. I struggled to sell the importance of primary care prevention of CHF to the PCT to get them to invest funds, and we still struggle these days, so I decided to step down from leading the implementation of the CHF NICE guideline.* (GP cardiologist, PCT-1)

It also emerged that informants in PCT-2 had stronger relations with third parties – especially with the *British Heart Foundation and pharmaceutical companies* – whence they were able to draw additional financial support for enhancing the implementation of the CHF guidelines. This did not happen in PCT-1:

> *We did put some bids in at the BHF to try to get some nurses in, but we were refused financial support. It was very unclear and we were not told why, but I think that lack of clinical leadership was the main reason.* (CHF Nurse-1, PCT-1)

Several key findings that could be drawn based on the different characteristics of certain key actors. First and foremost, the involvement of clinicians with high formal rank and expert status commanded a level of respect among potential adopters that led to a higher level of involvement by the latter in the implementation of the NICE guidelines.

> *[speaking of CHF implementation:] I trust him because he is the national lead for the CHF project, is a practising cardiologist and is enthusiastic about his subject, he is the lead in primary care, he obviously has good credentials there. (Senior manager, PCT-2).*

Moreover, the cross case comparison suggests that the differences in status and knowledge base – *which underpin differences in power to influence others* – reflected differences in negotiating ability, leading to unequal resource allocation. Thus, it may be that in cases where

informants with higher formal rank and expert status are involved in the implementation process, more managerial support and fiscal resources will be forthcoming, allowing a faster implementing pace.

In summary, the key points that emerged from comparing the differences between the two cases were differences of the social context and may be crucial for shaping the implementation process. These consisted of the characteristics of the individual persons who took ownership of the guidelines implementation – knowledge base, preferences, commitment and status – and their ability to influence others. It did *not* consist of any direct effect of the social or organisational context, independent of individual characteristics. Thus, Figure 15 above may be elaborated (see Figure 16). A link is theorised between the knowledge base and interests, commitment and status of key actors who exercised their professional discretion/social influence to prioritise NICE guidelines for the allocation of scare resources, which in turn shaped the local implementation plans brought to bear on integrating the guidelines into everyday practice, as shown in Figure 16. This graphs the main elements of an overarching analytic framework which describes the shape of the process of implementing NICE guidelines, and the factors that shape that process.

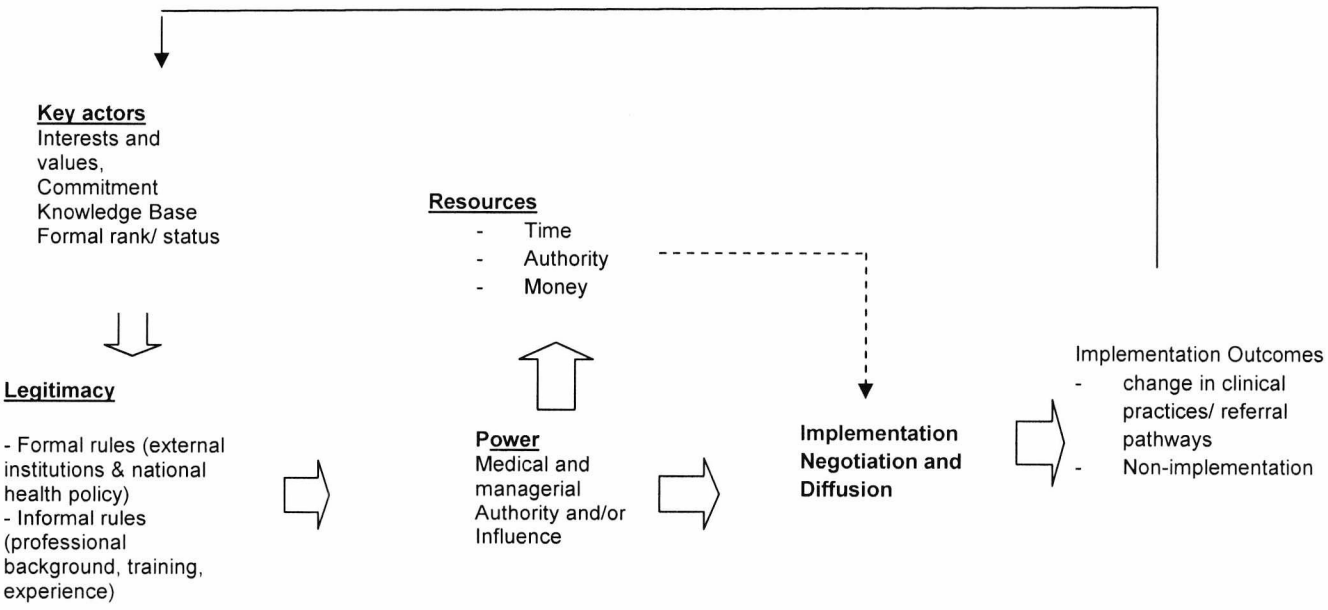


**Figure 16:** *the shape of the implementation process of NICE guidelines and the factors that influence it*

It appears that the power imbalance between the informants who were involved in the CHF guideline implementation and those involved in implementing the Obesity guidelines made a

big difference to their ability to bring crucial resources to bear on implementation of the two guidelines. It may even have influenced the way informants characterised the implementation process; for instance, informants involved in implementing the CHF guideline emphasised effective clinical leadership – *from individuals with high status*, – senior managerial support, and good communication. While the *institutional* context was the same across the both case studies, the *social* context differed. The latter refers to asymmetries of power, expert clinical leadership and champions, expertise and knowledge, quality of communication, and the level of managerial support. The two case studies (compared together) demonstrate that differences of social context may explain differences of outcomes in implementing NICE guidelines; and was possibly the main reason why different informants provided different insights into the nature and shape of the implementation process.

# Chapter 7 - Discussion: implications for research, theory and policy

## 7.1 Introduction

In the previous two chapters the two research questions first set out in Chapter Four were examined in the light of empirical research. This final chapter begins with a summary of this project's findings, discusses their significance, and compares them with the findings that have been reported from other health services research into implementation. The chapter proceeds then to a section discussing the theoretical implications of this project's findings in relation to the key concepts used to construct the initial framework. A new conceptual framework will be proposed as an analytical device for studying implementation as a process. A discussion of policy implications follows. The chapter then concludes with a review of the strengths and limitations of this thesis so as to put the overall findings into perspective, and beyond that to reflect on the quality of this research and its findings in hopes of pinpointing where further investigation may be needed.

## 7.2 Summary of key findings

The purpose of this section is to review the key questions which originally motivated this research and provide an overview of the empirical findings relating to them. The original aim of this research project was to inform 'evidence-based' implementation by providing further understanding of the process by which scientific and technological developments, manifested in this case in the form of NICE clinical guidelines, are introduced into everyday practice. More specifically, the objectives were to identify variations in the process of implementation of guidelines and in the uptake of guidelines by clinicians, in different organisational settings, together with the intended and unintended consequences of guideline implementation.

In summary, the principal research questions addressed in this study were as follows:

- How may the implementation process be characterised? and
- What shapes the implementation process?

The literature featured two distinctly different approaches to describing and defining the nature of the implementation process. The first is called the 'staged' approach and seems to accord with the linear models of implementation discussed in Chapter Two (see pages 19-20).

This linear progression of stages follows closely the pattern described in Rogers's work on diffusion of innovations (1995) and by McKinlay, who mapped the process of medical innovation from conception to acceptance as standard (1981). The linearity of the implementation process has been challenged by Van de Ven (Van de Ven, 1992), who together with Ferlie et al (1999) have suggested that it features less control and rationality than the term 'implementation' implies; that it is characterised by bargaining and negotiation; and that rather than being staged, smooth and straightforward, it is actually more interactive and 'messy'.

This project has shown that the NICE guidelines implementation process has both planned and emergent components. The introduction of NICE guidelines into the NHS Trusts seemed to be at least in part a linear process. The early stages did indeed resemble what theory calls the 'planning phase' of the implementation process, and were found to be controlled, staged and in accordance with rational models of implementation where responsibility for the overall implementation of a programme, policy or project rests with the organisation's management. Strategic planning was seen as essential to assure adherence to NICE guidelines, and included activities such as development of local guidelines, dissemination activities to raise potential adopters' awareness, updating and monitoring local guidelines' use in everyday practice. To undertake all this required considerable time, authority and fiscal resources. By contrast, the latter stages of the process became 'messy', uncontrolled, were subject to unpredictability of outcomes, and generally proceeded in a non-linear way from the planning phase to adoption in everyday practice, especially in entailing a bidirectional relationship between planning and evaluation as well as multiple interactions between managers and doctors. 'Movement' went back and forth between planning the implementation and evaluation of the strategies used by those responsible for implementation. The outcomes of these strategies were not predictable and were distinctly different across both cases studied. This lends part-support, at least in this context, to those who have suggested that implementation, rather than being staged, smooth, straightforward and linear, is actually more interactive and 'messy' (Ferlie *et al,* 1999). Howbeit the early stages of the process might have been planned, certainly, the influence of powerful interest groups led to the latter phases becoming fragmented and non-linear.

While these two distinct *phases* of the implementation process suggest that the conceptual frameworks that define the process as either linear or non-linear have explanatory utility, the empirical findings of this research project imply that these frameworks insufficiently explain *per se* the nature of implementation. A different perspective on the nature of implementation

suggests that the two phases of implementation may constitute different 'constructs' of one and the same phenomenon. The empirical findings may suggest that implementation might be strategic and staged to begin with, but become messy and uncontrolled as it moves from plans to actual adoption. It can be argued that the process harbours a controlled and an uncontrolled phase, because it is the artefact or invention of a particular 'culture'.

More specifically, data analysis showed inconsistency between informants' perceptions of the nature of the NICE guidelines implementation process. For example, senior non-medical managers emphasised top-down approaches and managerial controls. This may be due to the pre-existing stock managers generally agree to that reflects managerial talk or *discourse*. This parallels Mintzberg's concept of 'machine bureaucracy' (1983), where all functional fields of an organisation are to be dominated by bureaucratic forms of control. The new discourses and practices of managerialism have centred around notions of rational management as a vehicle for improving the efficiency of the NHS (Pollitt and Bouckaert, 2000). Thus, the phase of the implementation process in which senior managers were actively involved was conceptualised by informants in terms of managerial rationality, quantification and cost-efficiency, hence the phase was constructed as being subject to control and managerial rationality.

Moreover, the empirical findings suggest that once senior managers became less involved with the process, implementation was perceived as being messy and non-linear, influenced more by doctors' substantial degree of autonomy in pursuing their clinical interests. This may be because the clinicians who had to adhere to NICE guidelines purported to refute the claim that clinical practices are subject to over-rationalising managerial processes, and emphasised professional ways of acquiring and implementing clinical knowledge. Accordingly, middle managers involved in NICE guidelines implementation suggested that the earlier stages of the process were controlled and staged, but that the process became messy and uncontrolled as it transitioned from planning to adoption in everyday practice.

Summarising, the findings from this research project's study of the implementation of the two NICE guidelines support the conclusion that the implementation process was problematic and unpredictable. The process consisted of two 'loosely coupled' phases, one controlled and the other uncontrolled; thus, it ended up being scattered yet also evolutionary. Controlled and uncontrolled activities ranged from developing local guidelines, to disseminating and evaluating their use in everyday practice, to having the capacity to resolve unexpected challenges.

The second question explored the factors that shape the implementation process. The main

conclusion of this research project has been that power relations between key stakeholders – doctors and managers – with different values, beliefs and interests determine the nature of the implementation process. It is theorised that their social interaction produced and reproduced dynamic networks of interdependence. Doctors' and managers' different interpretations of NICE guidelines suggest the working of different forms of rationality, which are embedded in different personal and professional values and beliefs (Bartunek, 1988). McKinlay (1981) claims that participants in the implementation process are rational decision-makers, who are making informed decisions regarding their engagement. The empirical findings of this project partly support this, however they are not consistent with expectations that the implementation of scientific knowledge is unproblematic due to the co-operation (or competition) of different forms of rationality – an issue McKinlay seems to neglect. The unintended consequences of the often conflicting rationalities, values and interests of clinicians and managers influenced the shape of implementation.

The conclusion that power relations between key stakeholders – doctors and managers – with different values, beliefs and interests determine the nature of the implementation process refutes earlier studies that have overwhelmingly emphasised the salience of guidelines characteristics (Foy *et al,* 2002; Grol *et al,* 1998) as the crucial factor shaping implementation. It has been suggested that clinical guidelines have more chances of being implemented in practice if they are easily understood by potential users, state their recommendations clearly and concisely (Michie and Johnston, 2004), are easily tried out, and do not require specific resources (Davis and Taylor-Vaisey, 1997; Grilli and Lomas, 1994, Simpson *et al*, 2005; Francke *et al,* 2008). This research project's empirical findings seem to challenge the role of guidelines characteristics.

More specifically, the two guidelines chosen as exemplary cases represent two distinctly different types of NICE guidelines: the recommendations from the Obesity NICE guidelines cover system change across healthcare, local authority and lifestyle, while the CHF NICE guideline only touch clinical services and practices. Thus, the Obesity NICE guidelines span interventions for the treatment, prevention and management of obesity; systematic changes across healthcare, local authority as well as lifestyle, and are presented over a number of different clinical guidelines; while the implementation of some recommendations necessitate heavy fiscal investment. By contrast, the CHF NICE recommendations cover merely the management of patients with CHF and are thus focused primarily on CHF treatment and its specified changes to clinical services and practices; all presented in a single guideline that is

significantly less expensive to implement than the Obesity ones.

The empirical findings also show that while both guidelines' implementation processes had two phases, different care pathways or service areas were identified across both case studies. For example, in the first case study implementation of the CHF NICE guideline was incremental. Following publication of the guidelines, a controlled approach to implementation was chosen which paved the way for an integrated care pathway uniting primary and secondary care, with scope to redesign the patient treatment services. An implementation team was set up to apply a systematic approach to this pathway involving major changes to the way services were provided to CHF patients, including cross-organisational collaboration between the PCT and the local hospital to handle the primary care-led treatment of CHF patients. Bespoke training catered for the needs of potential adopters, mainly GPs and a certain degree of treatment standardisation was achieved. But once this integrated primary/secondary care pathway was established, the PCT's senior managers then considered implementation of the guidelines complete. The team responsible for implementation reported that the main challenge they faced was sustaining the integrated pathway in the face of changing organisational priorities and relative withdrawal of senior management support.

By contrast, in the second case study, CHF NICE guideline implementation was based on similar approach to that taken in the first case. A team of clinicians were given responsibility for developing a local guideline consonant with NICE and local implementation plans including dissemination and monitoring. It appeared that the second case's implementation team was better supported than the first case's, so that the integrated primary/secondary care pathway was successfully integrated into everyday practice. Profound change took place in the second case, where the steering of CHF patients was transferred from secondary to primary care, whereas in the first case change was marginal and not sustained during fieldwork. From this striking difference in outcome it follows that the actual characteristics of the NICE CHF guideline had limited influence on the implementation process.

Similarly, in the first case, after publication of the Obesity NICE guidelines, a number of changes were made to primary care interventions for the prevention of obesity. A systematic approach was taken by those responsible for implementation in order to assure that all general practices across the PCT became aware of the NICE recommendations. By contrast, in the second case the PCT had already developed a local strategy for obesity prevention before publication of the NICE guidelines. Following publication, it was realised that the local

strategy should be reviewed in light of NICE. However, those responsible for implementing NICE felt that they received too little support from senior managers and clinicians, attention drifted away and the NICE guidelines were never reviewed during fieldwork. Here, too, the differing outcomes are hard to explain in terms of the same guideline characteristics.

The findings suggest, then, that guideline characteristics had little influence on the shape of the implementation process. Indeed, cross-case comparison reveals that, even when strategies for guideline implementation are similar, implementation outcomes may differ. This refutes any linear association between guideline characteristics and their uptake in practice and, despite the fact that NICE guidelines have been proven to enhance the cost-efficiency of organisations, these characteristics were not enough to motivate their successful adoption.

Others have concluded that clinical guidelines developed by local professional networks have greater chances of successful integration into everyday practice than national guidelines (Harrison and Dowswell, 2002; McDonald *et al,* 2007;Sachs, 2006). However, the findings of this project chime with Davies *et al,* (1994), who maintain that the evidence is conflicting as to whether guidelines produced by local end users (clinicians) are more successful. All informants involved in implementing either NICE guidelines felt that local guidelines were better configured to address the needs of the local populations in question. And yet sustaining the implementation of local guidelines was also problematic. Analysis of the data showed that their implementation was influenced by the emergence of unintended challenges that entailed conflicts between professional and managerial staff. In fine, the success of NICE guidelines implementation was variable and depended on a range of factors.

Of particular relevance to the empirical findings of this study is the theorising of Dobson *et al.* (2002) about what constitutes 'evidence' for evidence-based practice. The findings here discussed corroborate the notion of 'pluralism', which may lead to differential interpretations of 'evidence'. This indirectly vindicate Rogers (1995), who could be interpreted to have meant that differing 'perceptions' of guideline characteristics are the same thing as 'differential interpretations' of evidence, and lend credence to the controversy surrounding the concrete value and 'innovativeness' of both NICE clinical guidelines. For example, access to and control of specialised knowledge was observed in both cases studied to be deployed to justify doctors' disengagement from or non-adherence to local clinical guidelines implementation plans in their specialty, on grounds of non-relevance rather than opposition. Many doctors deemed national guidelines to be too general and incapable of adding value to their practices.

This challenges earlier research on guidelines implementation that cited doctors' resistance as a potential barrier to clinical change (Feder *et al,* 1999;Grol, 1992;Pare and Trude, 2007; Taylor *et al,* 1998); but accords with those who have suggested that the 'resistance' to the introduction of 'evidence-based' procedures is something more fundamental to the ways of thinking about medical practice. The reliance on tacit knowledge and intuitive experience in clinical decision making, the legitimacy of clinical judgement, and the mismatch between the cognitive world of practitioners compared with researchers (Dowie and Elstein, 1998; Eraut, 1994) implies that what others call 'resistance' is low receptivity to forms of knowledge that are found to add no value to clinical practice. This may explain the discovery in the fieldwork that relatively inexperienced clinicians were more receptive than experienced ones to using NICE guidelines as a safeguard against malpractice.

In addition, informants interviewed for this project suggested that evidence was produced in diverse ways. Besides the evidence produced by the NICE, informants frequently referred to other forms of evidence, such as experiential knowledge as well as evidence generated by social processes like peer interaction and conversation. It transpired that clinicians valued these forms of evidence production more highly and found them increasingly persuasive, yet they stood in conflict or competition with NICE guidelines. This finding accords with that of Ferlie *et al.* (2000), who, using a qualitative case study design to explore the relationship between research evidence and clinical behaviour, found that alternative models of what constitutes 'evidence in use' exist, and that scientific knowledge is *in part* socially constructed. They suggested that this is potential barrier to the institutionalisation of EBM, manifested in the form of clinical guidelines. The two cases studied in this project demonstrated that local implementation teams did use NICE guidelines to inform local guidelines to meet the needs of the local populations.

The cross-case comparison identified two types of implementation outcome: first, intended processual change, which applies to doctors' and managers' own work routines and practices; and second, unintended structural change, which applies to organisational arrangements like relationships between doctors and managers. This seems to support the conclusions of other studies suggesting that in-depth analysis of the wider (institutional and social) context within which implementation processes take place is necessary (Dopson *et al*, 2010; Checkland *et al,* 2007, Orlikowski, 1992).

It is theorised that national priorities determine the context for implementation. The recent reorganisation of the NHS was premised on the assumption that managerial rationalism is a

more efficient way of delivering healthcare; hence arbitrary allocations of healthcare budgets at the discretion of GPs and hospital specialists ought to be superseded by 'evidence-based' decisions such as those embodied in NICE clinical guidelines. This research project found that NICE adoption happened within a context wherein compliance with nationally imposed policies and targets had been identified as essential priorities for all Trusts, at least for senior managers. The regulatory nature of national policies and their powerful influence on the local context in which implementation of NICE guidelines was taking place was raised by almost all senior managers from both Trusts, who considered themselves mediators of national policy. Specific reference was made by senior managers to the national institutions – for example, NICE and Healthcare commission – that determined the context wherein the Trusts had to prioritise their operations. Additional reference was made by senior managers to some national NHS policies, which they considered mutually incompatible such as clinical governance and professional self-regulation or the financially target driven policy and the implementation of expensive NICE guidelines. Consequently, policy conflict involving allocation of scarce resources and appropriate responses to national priorities impacted the implementation process, raising up barriers to the systematic monitoring of NICE guidelines implementation. Thus, even though senior managers were to assure that NICE guidelines were implemented, it was explicit that centrally imposed performance targets must be met, taking into account the needs of the local population and relying on tacit knowledge and intuitive experience in clinical decision making and the legitimacy of clinical judgement. Thus, it was asserted that prioritisation and rationalisation were important and inevitable.

The methods of identifying and enacting priorities were influenced by the distinctive set of values internalised by management. Thus, it was discovered that the management of the NHS Trusts studied for this project were focussed on producing bureaucratic evidence in the form of 'appropriate documentation' of implementation, rather than collecting the sort of evidence that might actually prove the guidelines were being applied in everyday practice. This finding pinpoints the limitations of earlier studies on guidelines implementation (Cranney *et al,* 2001, Cabana *et al,* 1999, Lugtenberg *et al,* 2009), which claimed that professionals are the only significant stakeholders and their 'resistance to change' the main cause of unsuccessful implementation.

It was also discovered that senior managers with clinical qualifications were endeavouring to mediate between managerial and clinical interests, and middle managers found themselves in the difficult position of trying to integrate the managerial with the professional values set.

This finding corroborates previous research (Hewison, 2002) that found managers struggling to bring together the gamut of rationalities, and this has meant that their role has become a difficult one. The nature of health care policy has imposed this responsibility on them.

As for the 'messiness' of the latter phase of the implementation process, this may also be attributed to the way policy changes were related to priorities at the local level. The empirical findings show that the priority given by management to NICE guidelines implementation was subject to change across time, which fed back to influence their receptivity to engaging in the implementation. For example, in the first phase of the first case study what happened after publication of the Obesity NICE guidelines illustrates that prevention became a top priority for the PCT, and this was sustained across the second phase of the study; whereas implementation of the CHF NICE guideline was a lesser priority. By contrast, in the second case study the implementation of the CHF NICE guideline started out a priority, and remained so across time; consequently, it was successfully integrated into everyday practice. On the other hand, implementing the Obesity NICE guidelines enjoyed priority in the first phase of the case study, yet in the second phase no significant implementation occurred after publication. Finally, during the second phase of both studies, it was discovered that senior management had given priority to the 'world class commissioning' agenda, and service design and improvement had became oddly neglected.

While there was evidence to suggest that the institutional context - meaning the high level of demands from external regulatory and funding bodies – played some role in the change of priorities, it is theorised that the social context – meaning the distinctly different individual or group characteristics of persons involved in implementing both NICE guidelines – in which the NICE guidelines were implemented was crucial. A small number of stakeholders seemed critically important for mobilising the necessary but scarce resources – which they controlled. For instance, the involvement of persons of high formal rank (Director of Public Health in the first case) and expert status (consultant cardiologist in the second case) in the implementation of the Obesity and CHF guidelines, respectively, generated the necessary level of legitimacy to influence clinicians' and managers' receptivity to participating meaningfully. The findings imply that differences in formal rank and expertise – which correlates to differential power to influence others – reflect differences in negotiation ability ('bargaining power') and unequal resource allocation opportunities. Accordingly, Obesity NICE guidelines implementation enjoyed more managerial support and fiscal resources in the first case, but CHF NICE guideline implementation in the second case.

Hence it seems that the social interaction between and mutual dependency of professionals and managers and their different levels of influence profoundly shaped the implementation process. Bargaining processes became all-important, which ultimately introduced uncertainty and ambiguity into the implementation process. It is possible to conclude that these findings support those who theorise that the clinical guidelines implementation process is essentially a political process, where the probability of implementation increases if it receives the support of actors who wield the power in a specific organisational setting (Champagne *et al,* 1991).

Yet the empirical findings also suggest that both the social and institutional contexts were in flux, and thus the power of those involved in the process to maintain their bases of power across time was a significant dimension of that context. More specifically, in the early stages, implementation of the CHF guideline was seen as a priority by the PCT and the local NHS Trust; thus, the GP who was leading its implementation felt he was able to influence decisions. However, this diminished as the process transitioned from the planning phase to the adoption phase, and the GP encountered difficulties in exercising social power. Sustaining implementation of the CHF NICE guideline was difficult, owing to divergent perceptions of successful implementation outcomes. From the PCT's standpoint, passing the national audit on CHF services, announced shortly after the CHF NICE guideline was published, was the desired outcome. Once this was achieved, the PCT's senior management considered the NICE guidelines complied-with, and organisational priorities changed. From the acute NHS Trust's standpoint, supporting implementation of the CHF NICE guideline was a way of shortening the waiting times of patients needing treatment for chronic heart failure. Once this was achieved, sustaining implementation of CHF guideline ceased being a priority. The GP then realised that neither scope nor resources for developing the community CHF service in accordance with his clinical interests was available any more, and so he disengaged from further efforts to sustain implementation of the guideline.

This example supports a further finding in the implementation literature, that plans do not necessarily translate into action in a linear, straightforward manner. This is important for two reasons: first, because it suggests that legitimacy, authority, resources, and ability to influence the implementation of evidence is both complex and dispersed across multiple actors, levels of hierarchy and decision-making *loci*. This in turn reflects judgments determined by values and beliefs which are socially constructed by managerial and professional classes of persons about whether the 'evidence' in question actually promotes social welfare (Suchman, 1995). This bears consequences for opinion leaders or knowledge brokers who are involved in the

implementation of 'new evidence' in everyday practice. For example, Locock and colleagues (2001) have expressed major concerns over the difficulty of agreeing a single definition of what opinion leaders are or what they do. This research chimes with Locock's concerns, since the empirical findings of the case studies show that the role of opinion leaders was contested by our informants. While some managers stressed the importance of formally designating champions to influence the practice of their peers, others were more cautious, especially in the setting of general practice, where clinical autonomy has traditionally been strong.

Indeed, still other informants stressed rather the importance of opinion leaders who emerge informally within local networks of clinical practice. In fact, several studies have concluded that doctors are more likely to adhere to clinical guidelines developed within their own local professional networks than those developed more remotely (Harrison and Dowswell, 2002; McDonald *et al*, 2007 ). This study confirms this conclusion, finding that the recognition of local experts as informal opinion leaders did encourage some doctors to engage with local networks and produce local guidelines to serve their needs – while ignoring NICE guidelines. This suggests that local informal opinion leaders may be detrimental to the implementation of national clinical guidelines given that doctors respond most readily to peer influence (Dopson *et al*, 2003; Locock *et al*, 2001). This finding also supports a distributed change-leadership model, where formal and informal authority and power to influence clinical decision-making are dispersed across different organisational levels (Chreim *et al,* 2010).

More importantly, it challenges notions of power, in that the 'charisma of a single person' is a concrete and enduring resource possessed by individuals due to their ability to access and use specialist knowledge or to their formal organisational rank. It suggests that power is an emergent property or by-product of the social relations and networks that enmesh, in this case, clinicians and managers alike. As such, changes in the social relations between clinicians and managers are believed critical to the sustainable uptake of clinically innovative, cost-effective research interventions. This relational aspect of power refutes studies that assume power to be a static, acontextual resource as suggested by Rosen and Mays (1998). In contrast, the empirical findings of this research project imply that formal organisational rank is not always an important factor in shaping power relationships, despite the fact that individuals with high formal rank may wield resources and knowledge. This holds implications for theory which are discussed in the following section of this chapter.

### 7.3 Implications for theory

As explained in Chapter three, the contest between the top-down *versus* bottom-up approaches has been at the heart of the debates over the process of implementing public policy. The two approaches have been used either to describe the implementation of this or that policy, or else to explain why an 'implementation gap' subsists between policy objectives and what happens in practice – with a particular bent toward explaining 'implementation failure' (Barrett and Fudge, 1981; Hill and Hupe, 2002). The empirical findings from this study suggest that both approaches to implementation had some explanatory utility. Those who supported that the implementation of NICE guidelines was a top-down process probably understood implementation as 'the carrying out of a basis policy decision' (Mazmanian and Sabatier, 1983, p.20). The basic assumption here is that implementation is an apolitical process, separated from the policy formulation stage in which power rests with policy makers or those who are responsible for policy implementation and, hence, this approach to implementation is routed in elitist conceptions of decision-making and top-down power like the State wields. In contrast, those who supported that the implementation of NICE guidelines was a bottom up process constructed the implementation process as political, that policies were shaped to certain extent at this level and hence, this approach to implementation was rooted in pluralist conception of decision making normally found in the context of collective bargaining. These empirical findings discussed so far seem to support what Puzll and Treib (2007) finding that implementation research has moved toward a direction that they dubbed 'hybrid theories'.

It is believed that this theoretical argument holds implications for a sociological analysis of power. In Chapter Three, above, it was argued that Freidson's influential work on professional power and Weber's theorisation of bureaucratic power had some (if limited) explanatory power for analysing work in contemporary healthcare organisations, but this led to conceptual problems regarding how power is to be identified and researched within such organisations. The power perspective was therefore explored using sociological approaches informed by Foucault and Lukes. Foucault's theory of power through discourses was found to leave little scope for understanding the agency of actors in organising clinical work. Thus, it was not used as an explanatory framework. Taking up Lukes's 'third dimensional' concept of power, it was argued that power works in manifold and often concealed ways. According to Lukes, decision-making in a context of conflicting subjective interests, beliefs and values may

result in the exercise of certain types of power, dictating who prevails over the decision-making process, how power is exerted to set agendas, and what are the social influences that can manipulate conflicts (Lukes, 2005).

The findings of this research support pluralistic notions of power, insofar as exercises of power were observed in concrete instances of decision-making over conflicting priorities. Those responsible for implementing NICE guidelines had different capacities to influence the co-operation of others which, it is believed, often limited their access to scarce resources and impeded capacity-building for successful implementation. The two case studies demonstrated that the medical profession was fragmented and conflict was endemic between specialists and GPs, but also between GPs as well over the control of resources due to their different personal and professional interests and roles within their Trusts. These attitudes premise overt conflict in direct decision-making on the availability of bargaining between doctors as a means of resolving tensions and conflicts. This reflects Dahl's (1957) notion of power, who suggested that pluralism in decision-making consisted of direct conflict and modes of muddling-through, based upon a continuous process of mutual adjustments of decisions as to which services should be offered to patients.

Despite conflicts between doctors, one surprising finding of the research was the unlikely collaboration between doctors and managers. Managers in all the case studies emphasised co-operation rather than tensions in their relationships with doctors. This seems to contradict the position adopted by those theorists and empirical researchers who seem to be suggesting that managerial-professional relations are subject to conflict due to the 'resistance' of the medical profession to managerial control (Harrison, 1999; Harrison and Pollitt, 1994; Alford, 1975). This finding implies that conflicts between managers and doctors did not emerge; nonetheless, Lukes's conceptualisation of power as hidden seems to have some explanatory value, where power is seen as the ability to prevent the emergence of conflicts! In this respect, it is possible to conclude that in these studies the most profound manifestation of power remained hidden, in that managers in both cases were not aware of their 'real' – what Lukes calls 'objective' – interests. Here, dominant social values that portray doctors as having power to cure ill health may have reinforced and shaped managers' preferences such that they accepted the prevailing social values and did not sanction doctors who refused to adhere to the guidelines. This latter manifestation of power resembles what Lukes (2005) defined as the 'third-dimensional' view of power, as it is possible to consider professionalism

as a way of doctors' influencing and/or dominating non-professionals. As Dowling and Pfeffer put it, conflicts within organisational domains may be resolved 'through recourse to social norms and values that define and delimit legitimate spheres of organizational activity' (1975, p. 125-126). Thus, professionalism may be seen as controlling the emergence of possible conflicts by shaping non-professionals' preferences and values.

On the other hand, relying on Lukes's '*second*-dimensional' view of power (Bachrach and Baratz, 1970), it is possible to suggest that managers – at least senior managers – did use their *non-decision making* power to prevent some issues reaching the decision agendas. Across all four organisations it was reported that implementation of expensive NICE recommendations – (bariatric surgery, for example) – was neglected by senior managers because it would have required excessive outlays that could have threatened the fiscal stability of their organisations and hence their capability to maximise benefit to the local population. Thus, the PCT's senior commissioners neglected the option to commission bariatric surgery from the local provider, irrespective of the local hospital consultants' interest in providing the service locally.

This project's empirical findings provide some support for Freidson's idea of 'professional dominance', as doctors' receptivity to ideals of self-regulation was observed in their invoking specialist knowledge to facilitate clinical autonomy. The stress on clinicians' responsibility to acquire relevant skills and bring them to the workplace, reinforced by the rhetoric of a 'free agent' economy, has resulted in a system of 'responsive regulation' (Ayres and Braithwaite, 1995) wherein doctors are given considerable freedom to regulate their own work. Foucault's concept of 'discursive formations' may be viewed as a framework explaining the set of rules that enable clinicians to organise their work. Discourses of specialist knowledge are relevant to power and might be used to explain some of the empirical findings. By the same token, the emergence of managerial discourses in the English NHS has led to the creation of new roles premised on an image of healthcare managers as active agents who influence the organisation of healthcare for the better. Thus, although this research did not undertake discourse analysis, it was observed that deployment of professional and managerial discourses reflected to some extent actors' access to power. This manifestation of power indeed resembles Foucault's idea of *biopolitics* (Foucault, 1998) which theorises the means 'for achieving the subjugations of bodies and the control of populations' (Foucault, 1978, p. 140), and the idea of *governmentality* (Foucault, 1991), which Foucault developed as a new understanding of power, not in terms of top-down power like the State wields but, rather, the forms of bottom-up social control that rely less on hierarchy and more on 'productive subjection' through new

discourses and practices (Clarke and Newman, 1997) that facilitate rather than restrict organisational decision-making.

The way power was manifested in both case studies does not fully support the explanatory utility of structuralist perspectives on power. The empirical findings support pluralist theories of power, although it is not possible to ignore the role of post-structuralism's discourses. The empirical findings suggest substantial conflict flared among clinicians in the implementation of NICE guidelines, manifested in their differential perceptions of what constituted successful outcomes of implementation. A sub-group of medical professionals wielding overwhelming social power resources over other stakeholders, like the Director of Public Health in the first case and the Clinical Director of Medicine in the second, were able to expedite and to sustain the implementation of the Obesity and CHF guidelines, respectively, while neglecting other priorities. Nevertheless, a less powerful sub-group of medical professionals did not engage in the implementation of the guidelines through non-adherence. At the same time, no indication was observed that any aspect of the local policy agenda was driven by medical professionals only; senior managers were also powerful. This supports the pluralist notion of power, what Lukes calls the first face of power.

Finally, the 'institutionalisation' of bureaucratic forms of medical work, such as the NICE guidelines and their performance management, shows strong State capacity, at least for policy reform based upon: process specification, formal rules, bureaucratic power, and managerial discourse. This gave senior management a certain amount of agenda setting power; no clear indication, however, was found that managerial elites were significantly dominant inside the organisations studied.

The foregoing discussion about how power manifests in practice has led one to conclude that structuralist and post-structuralist theories of power have but limited explanatory value. Their refutation is further supported by empirical findings that these theories of power cannot explain, such as the unintended consequences of the medicine/management interface. What is striking in both cases studied is how widespread the distribution of 'hybridity' of structures was, which emerged out of the interface between medicine and management (McNulty and Ferlie, 2002; Dopson, 2009; Hewison, 2002). For instance, informants referred to formal and hierarchical (almost mechanistic) organisational structures, in the sense that top-level NHS managers made decisions that were passed down to lower-level managers for enactment, using vertical lines of communication. Nevertheless, other informants reported that informal, social structures were also important. In this case, the term 'structure' part-parallels the same

term as used by Giddens to describe how rules and resources (sets of transformation relations) are organised as properties of social systems. Both definitions of structure were important for this study. It was found, for instance, that the operational decision-making for the implementation of NICE guidelines was devolved to several departments; communication and other processes supporting devolved decision-making between the different departments was powerfully shaped by the formal 'structure' of the organisation, but also by the informal 'structure' of interpersonal networks and professional norms within these departments. The data show that these 'structures' did not promote interdepartmental communication and as a result, identifying problems and sharing experiences about implementation were limited.

According to the empirical data generated in the fieldwork for this research project, formal and informal structures and individual roles within the NHS Trusts evolved across time. One implication was that for many informants their engagement with the implementation of NICE guidelines was often temporary, as organisational roles, rules and relationships were shifted in accordance with changing organisational agendas and priorities. For example, informants from both case studies who were involved in the implementation of both guidelines expressed concern over sustaining implementation, hinting that long-term commitment to implementing the guidelines might conflict with core organisational activities, especially in terms of priority and ownership of the guidelines. Problems arose, in their views, from individuals who were protecting their personal, professional and organisational interests. Concerns were expressed also over the relative importance of the dual roles of medicine and management. This 'migration' between roles across time held implications for manifestations of power not necessarily captured by Lukes.

Several analysts have criticised the Lukesian account of power for not resolving adequately the tension between agency power and structural power (Clegg, 1988 ). According to Coburn, the social structure influences action; thus, doctors in managerial jobs will probably act more as managers than doctors (Coburn *et al,* 1997). But Coburn and colleagues have inadequately observed the repercussions of playing multiple roles and have overlooked the possibilities of 'versatility' between managerial and professional roles. NHS Trusts in this study somehow did combine features derived from distinct organisational forms, blending bureaucratic with professional structures for decision-making. This testifies to the hybrid roles that health care workers increasingly take on in contemporary health care organisations with their boundary-spanning roles combining managerialism and professionalism (Dopson, 2009; Grey, 1999; Halford and Leonard, 2006). Here, the organisation of clinical work was not only a product of

iterative local interactions and negotiations between managers and clinicians but also of 'hybridisation', where elements of two or more distinct organisational forms are grafted-in together. As such, the convergence of managerial and professional values in organising clinical work was a dominant theme transpiring from both case studies: managers and doctors were observed to be working much more closely with each other in order to deliver 'good' services; therefore, lack of conflict between managers and doctors may not be due simply to the manipulative capacity of doctors but to the powerful process of hybridization as well.

These profound changes happening as a consequence of versatility and boundary-spanning activities between managerialism and professionalism seem to bear implications for previous research done anent the spectrum of views about what constitutes Evidence Based Practice (EBP). Following Harrison (2002) and Checkland and colleagues (Checkland *et al,* 2007), it is accurate to say that the NHS Trusts used the scientific bureaucratic model , drawing on external validated knowledge through clinical guidelines, while some doctors drew on critical appraisal, personal experience and/or interaction with peers. Based on the findings of this research it is possible to suggest that the models identified by Harrison and colleagues present a powerful typology of what constitutes EBP – although our informants used a hybrid of these models for the delivery of EBP.

Nevertheless, it is concluded that this typology overlooks the ways managers and doctors create a 'negotiation context' that combines professional and bureaucratic features to sustain and legitimise regimes of organising clinical work. This medicine/management interface not only exemplifies some of the possible combinations of models for the delivery of EBP, but also demonstrates that the social relations between clinicians and managers in the workplace may have already led to the emergence of a contemporary form of organising clinical work, a new model of EBM, manifesting itself in the manner of the 'hybrid' metaphor. The empirical findings herein suggest that the implementation of NICE guidelines had become increasingly bureaucratic and complex – a manifestation of what Harrison has called Scientific Bureaucratic Medicine – and probably this strongly impacted issues of legitimacy and power balance, leading to tensions and conflicts between doctors and managers. It was also found, however, that hybrid 'soft' regimes consisting of managerial and professional networks were already being favoured over bureaucratic forms of organising, and were believed to facilitate good clinical practice. Soft hybrid forms of organising were based on relations of mutual dependency, co-operation and negotiation.

The findings of this research project also bear some theoretical relevance in the context of

a sociological analysis of professionalism, especially for the role and function of negotiation and interaction within professional boundaries. For example, some doctors' decisions seemed to have been influenced partly by their organisational position and partly by their professional interests; suggesting that new forms of professionalism have emerged, 'hybrid-professionals' who perform 'boundary work', as illustrated in this study by the 'professional rationalists' – doctors who turned managers without any loss of power , like 'poachers turned gamekeepers' (Hunter, 1992). Certainly doctors receptive to managerialism were somewhat like poachers turned gamekeepers; however, while receptive to NICE guidelines they did mediate between clinical and managerial interests in such a way as to tip the balance toward professional autonomy.

This, however, must not be construed to imply that the medical profession is homogeneous – it is fragmented and continual negotiating over authority and material-resource distribution. For instance, in contradistinction to doctors whose acts seemed determined as much by their managerial status as by their professional interests, other doctors involved solely in clinical services provision made deliberate attempts to escape top-down modes of control; which they perceived as unacceptable restrictions on their professional right of clinical judgement and self-regulation. And by invoking privileged access to specialist knowledge, they were able to escape such forms of control. There was further evidence of this differential role of doctors resulting from the unintended consequences of Evidence Based Medicine (EBM). Some doctors were encouraged to become 'public service entrepreneurs' (Boyce, 2008); for example, some doctors in the cases studied were local experts who used their specialist knowledge to create clinical guidelines to attract funding from their Trusts for meeting their clinical needs and blazing new care pathways for their patients. Indeed, an alternate – and critical – view of EBM is that low receptivity to NICE guidelines may in fact be a prerequisite for long-term innovation in the delivery of health care services. Doctors as 'public service entrepreneurs' may constitute an alternative type of professionalism within medicine that features both self-interest as well as altruism (Calnan and Gabe, 2009). The two forms of work used by doctors in the study manifest contrasting forms of professionalism: organisational and occupational professionalism (Evetts, 2006).

The same findings, however, also contain evidence of restratification in the organisation of medicine (Freidson, 1994). Evidence of both vertical and horizontal restratification emerged. *Vertical restratification* means the tendency of NHS doctors to perceive themselves as being separate from and perhaps subordinate to or at least in potential conflict with other sectors of

the profession such as academic experts and elite medical managers who were involved in the production of NICE guidelines. Similarly, the emergence of new strata in primary care, with some doctors involved in both surveillance of others and action to improve compliance with quality standards (McDonald *et al,* 2009; Calnan and Gabe, 2009) has led to stratification between managerial doctors and those unreceptive to being managed also permits the conclusion that a degree of horizontal restratification was evident in the cases studied; chiming with earlier findings of horizontal restratification in primary care (Calnan and Williams, 1995; Pickard, 2009; Mahmood, 2001) and secondary care (Annandale, 1989). This suggests that hospital doctors as a whole, not just GPs (Harrison and Dowswell, 2002) may find themselves under pressures from New Public Management and may corroborate the 'professions in transition' thesis (Riska and Novelskaite, 2008, p.217); implying the necessity to rethink theories of professionalism and possibly transform them to accord with the prevailing characteristics of modern professionals.

This professional fragmentation may impede the implementation of NICE guidelines. The findings in this research showed that medical professionals' perspectives on NICE guidelines ranged from enthusiasm to reluctance to sometimes outright rejection. These perspectives may be seen as a process whereby professionals have begun to ;reconstitute boundaries along which professions can build new strategies of legitimisation' (Fournier, 2000, p.82).

### *7.4 A Proposed Conceptual Framework*

This research has concentrated on the potential impact of NICE guidelines especially on doctors' and managers' priorities, values and interests – which were amongst the main factors influencing engagement in their implementation. This study proposes that the 'barriers' or 'facilitators' for the implementation of NICE guidelines were emergent properties of the distributed authority in today's medical field, and of the replication of forms of power evolved and socially exercised in a context involving collaboration between managers and doctors, and through a process of 'dialectic' in which old-fashioned and new-fangled organising arrangements interacted so as to bring about a reconfiguration of power relations between doctors and their new managerial superintendents. This may explain the variation between the two case studies observed in the implementation of both NICE guidelines, and the ways in which the previous 'barriers' were overcome through the mediation of powerful organisational members, such as the Director of Public Health and the cardiologist consultant. Yet even in cases where powerful persons were involved in implementation, it was not

always possible to predict its outcomes. This supports past research that suggests that theorising the implementation process requires understanding its social context in depth (Checkland *et al*, 2007; Dopson *et al,* 2010), especially about how existing and new organising arrangements have interacted to produce a reconfiguration of power relations between doctors and managers.

It is theorised that organising arrangements fell out of the power relations between doctors and managers, so that future studies of factors that shape the implementation process may be incomplete if they fail to engage with power relations at the organisational level as well as at the individual level and how these relations evolve over time. The development of a new conceptual framework may prove fruitful for understanding the implementation process and the factors that shape it, and it is to this task that this section now turns.

The conceptual framework that this research project began with included many potential factors influencing the implementation process. Lukes's approach to power was thought to be of value, because it overcame conceptual problems and limitations with how to identify and research power within a healthcare organisation, which Freidson and Weber were not able to address. However, this initial framework jumbled up and/or confounded distinctly different theoretical concepts, such as top-down and bottom-up causative nexus, bureaucratic and professional interests, and pluralistic and elitist perspectives on power. Such confusion risks misconceiving and mis-analysing the complex nature of the implementation process. Instead, following the analysis of the findings generated from the fieldwork, there is an opportunity to propose an analytical framework based on the common tendency or disposition of humans to interact with others.

The proposed framework suggests that while national priorities determine the institutional context of guidelines implementation, senior managers acting as mediators of national health policy and doctors have a substantial degree of discretion to make decisions that accord with their values and preferences, manifesting in variable patterns of strategy and action that render planned change in clinical practice problematic. This suggests that both top-down and bottom-up approaches have limited explanatory power, and that a hybrid theory (Puzll and Treib, 2007) might be better positioned to explain the complexities of the implementation process by combining central steering and local discretion.

As such, the central activity that is taking place in general is the conscious or unconscious tendency of individuals to interact with their peers or with those that share similar interests, beliefs and values; maintaining social relationships which are desirable in themselves and can

provide access to needed resources and support. Out of these recurrent patterns of behaviour with others emerge individuals' power to expand the choices and opportunities available to them. Thus the power to exert influence in the healthcare context is distributed across actors, levels of hierarchy and decision-making *loci*. This implies that implementation is a collective activity involving a variety of actors – individuals, groups and/or organizations – with varied, possibly divergent interests and sets of roles with different functions.

The interactions between key stakeholders influence the way that individuals, or groups of individuals sharing the same interests and values, respond to external policy initiatives such as NICE guidelines. The capacity to sustain established patterns of interactions over time and across multi-professional groups is a potent social medium that must influence the implementation process. All the same, the empirical findings show that what also shaped the implementation process was the informants' involvement in shaping how they worked; meaning, their ability, irrespective of formal rank or expert status, to meditate between professional and managerial interests in organising their work and to alter their social relations with others according to their personal and professional interests (which in turn alters the structure of social networks and the distribution of power). For example, in the first case the GP who had had an interest in leading the implementation of the CHF guidelines was able to reflect upon and revise his interests once he realised that agendas and priorities within the PCT had changed so as to burden his exercise of social power. His decision, in turn, bore manifold repercussions for sustaining implementation of the guidelines.

This pattern of power relations implies an important limitation of the theories of power discussed in previous chapters, inasmuch as power has been perceived as a resource held by some elite stratum. By contrast, a key implication of this research is that power develops and evolves, and is an emergent by-product of social relations. The resultant metamorphic social network empowered those involved in it to protect their personal and professional interest. As herein shown, the implementation process encompassed social practices both processes and products of agency and structure in organisational settings. The proposed framework bridges the complex interweaving of 'structural' and 'relational' power that constitutes the hybrid.

This statement grounds the notion upon which the nature of implementation is premised: the production, maintenance and reproduction of networks of social relations made possible by the social interaction of clinicians with managers and the continued investment in sociable relations among them. Ongoing social interaction is inherent and inescapable feature of the sustainability of relationships and consequently influences the implementation process. The

revised conceptual framework may be compared to a continual evolution between three pre-existing 'circles'. The first circle consists of the wider, historical social arrangements, manifested in the pre-existing social relations between key stakeholders in the implementation process – managers and clinicians – within which NICE guidelines are set for implementation. The second circle is a 'by-product' of the first and consists of the workings of power relations between these stakeholders that enables and constrains actions at the same time. These circles of power in turn influence the third circle of the framework, that consists of the imperfection of existing rules and foundations of legitimacy, the consequent mobilisation of resources that influence stakeholders' participation in the implementation of NICE guidelines and the subsequent sustainability (or not) of implementation plans. Finally, these implementation outcomes feed back to replicate (maintain or not) the pre-existing social relations, altering (or not) power relations; which eventually lead to new rules and foundation of legitimacy (or not) and so on. It is unlikely that the characteristics of NICE guidelines themselves shape the implementation process. On the other hand, high-level demands from external regulatory and funding bodies appear to play a role in replicating social relations, as depicted in the following diagram.

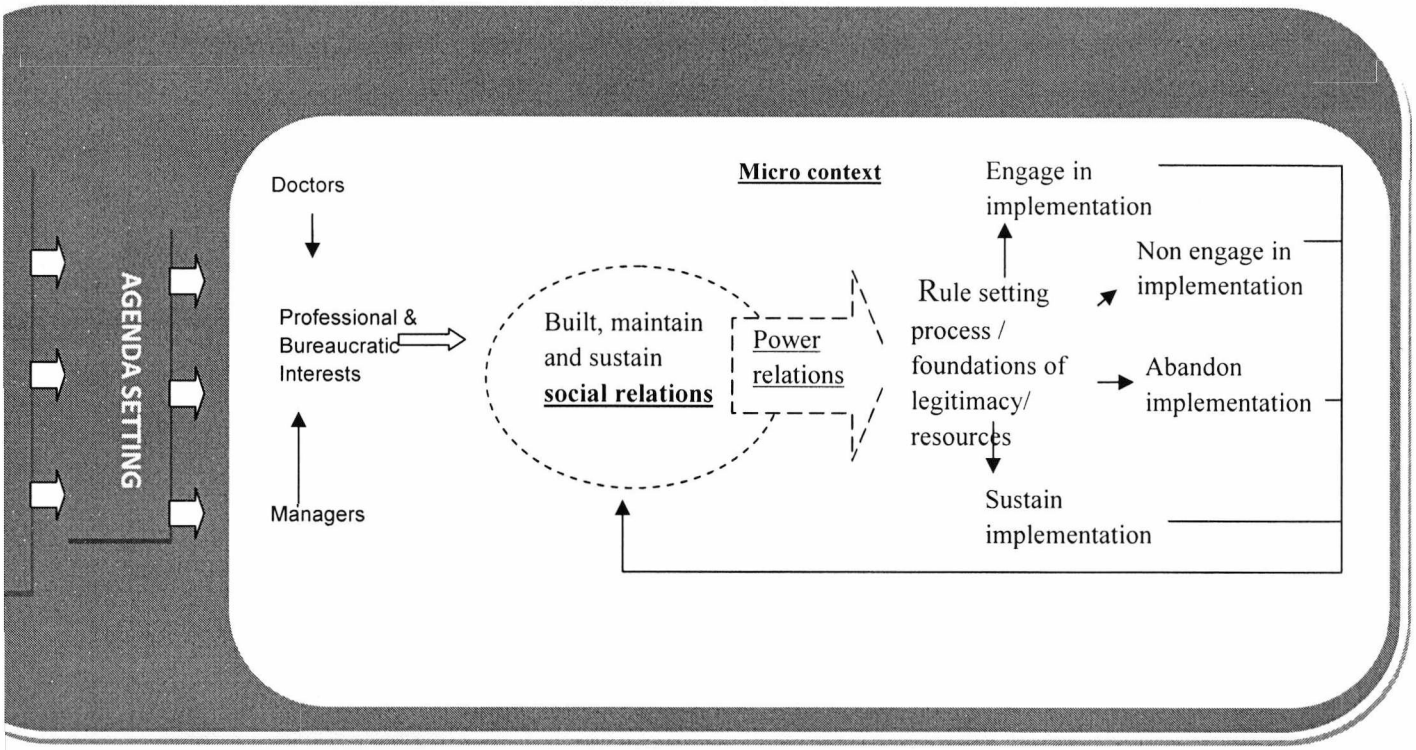


**Figure 20**: *revised conceptual framework*

## 7.5 Policy implications

This research project has attempted to gain some insight into the process by which NICE guidelines were implemented in everyday practice and to identify some of the factors that may influence this process. It is concluded that, while national priorities determine the context for implementation, senior managers and professionals have a substantial degree of discretion to follow their interests, values and preferences in making decisions, as manifested in variable patterns of strategy and action that ultimately rendered planned change in clinical practice problematic. The implementation process took the form of a non-linear negotiation, shaped by the history and quality of social relationships and the nature, type and strength of interpersonal networks within and across NHS Trusts. This bears implications for policy and practice.

The findings of this project provide some evidence about how clinicians select strategies for dealing with government policies. The drivers behind these strategies did not determine the shape of the implementation process. For example, our analysis reveals non-managerial clinical practitioners as local experts who took the opportunities opened up by external policy demands to create out of national clinical guidelines their own rules of governance based on individualised, experiential and pragmatic sources of evidence. The findings suggest doctors were less concerned with the specific content of the NICE guidelines than with the manner in which they were to be implemented. What worried them most was the introduction of a range of organising arrangements that stressed public accountability, distrust of professional self-regulation, and rule-based implementation and standardisation of their work. (It follows that *reducing* the scope for doctors' clinical judgment to be challenged by 'bureaucratic' authority may enhance the uptake of NICE guidelines.)

The findings also suggest that another way to achieve uptake is to deploy fiscal incentives. It was found that some GPs viewed the Quality and Outcomes Framework (an annual reward and incentive programme for GPs) as a tool that made their work easier and provided benefits to their patients. Research showed that GPs viewed their practices as 'businesses units' about which they thought like entrepreneurs, as manifested in their motivated response to the fiscal incentives offered by QOF, which contributed to cost-effective care and ultimately adherence to targets set by NICE guidelines. (On the other hand, GPs were critical of fiscal incentives that did not benefit their patients.) The belief that GPs' workload was too demanding and that they were not being adequately compensated for their work was also found to have affected

the implementation of NICE guidelines. Recruiting QOF to enhance the influence of NICE on clinical practice and to achieve targets set around particular performance criteria may be a useful strategy, *if* GPs view it as an intervention that may improve the care of their patients. Fiscal incentives for the implementation of NICE in secondary care were not observed, even though senior consultants believed it would have enhanced the uptake of the guidelines.

Doctors as managers, illustrated in the research by 'professional rationalists' mediated between managerial and professional interests and were (within the limits of their position as mediators) receptive to NICE guidelines. This raises questions whether doctors in senior managerial positions in their Trusts (*e.g.* Medical Directors) may be better positioned than their non-medical peers to heal tensions over nationally driven demands for performance management. Engaging these stakeholders more may improve the uptake of NICE.

Caution is in order after policy-makers' attempts to create 'managers out of professionals' (Hoggett, 1991, p. 254) who would contest the monopoly powers held by their peers by taking on responsibility for performance management and accountability led to unintended outcomes. It has been shown that NHS managers are a diverse and heterogeneous group. The findings here provide further evidence (Dopson, 2009) for the emergence of the 'hybrid' manager straddling the boundary between clinical and managerial professions as one feature of the reconfiguration. The complexity of health care management significantly impacts organisational efficiency; it questions whether hybrid-managers can sustain organisational efforts to control and measure clinical practice, given that they seemed to mediate between managerial and professional interests although managers in the cases studied encouraged the provision of cost-efficient care by providing fiscal incentives to doctors as a reward for adhering to NICE guidelines.

It also transpired that managers favoured 'soft' bureaucratic methods as facilitating good governance of clinical practice. They valued adherence to NICE guidelines but their approach was dominated by the priority of meeting centrally imposed performance targets. The key implication for practice is that within the context of implementing NICE guidelines there are some important 'political' decisions to be made, especially as to who ought to control the implementation. The findings show conclusively that managers no less than doctors are responsible for slow adoption or non-adoption of NICE guidelines. Therefore, identifying interventions that challenge managerial autonomy may also improve the uptake from above.

In addition, these findings show that senior managers likelier had a broader overview of the process, but that they were less likely to understand the impact of NICE guidelines upon

clinical practice. Middle managers understood better the complexity of implementation; thus, NICE's engagement with the middle managers and clinicians directly involved in implementing NICE guidelines may enhance their uptake in clinical practice.

The complexity of the implementation process was attributable to the multiple interactions and interrelationships between stakeholders at sundry levels of each NHS Trust; therefore, changes in clinical practice should be seen within the broader context of the organisation as a whole. This implies that communication and co-ordination between key stakeholders across the 'whole system' is crucial for the effective implementation of change in clinical practice. Yet this research discovered that such communication was blocked by diverse and conflicting interests that imposed their influence on the implementation process. It was also discovered that divergent stakeholder interests created a highly competitive context that made knowledge mobilization, co-ordination and collaboration between stakeholders difficult. It is concluded that the process by which NICE guidelines, as knowledge-based interventions, are implemented in everyday practice in the healthcare sector is unstable, because it embodies tensions in its implementation.

The health policy directives in the UK that call for NICE guidelines implementation reflect a shift towards managerial efficiency, clinical practice standardisation, and a decline of trust in professional self-regulation. The drive to 'manage' medical work has contributed to the fragmentation of the medical profession. It seems that in its pre-occupation with effectiveness and accountability of public services in knowledge transfer, the government has lost sight of its intention of producing a 'partnership' that brings the NHS together to address complex problems in healthcare delivery.

### 7.6 Agenda for research

On the basis of the findings discovered in this research, this section of the chapter will address potential areas for further research. However, before that the strengths and limitations of this research will be discussed. It is believed that one strength of this study lies in its methodology. The revised framework theorises the implementation process as a complex of social relations between stakeholders that took place in organisational settings the established arrangements of which conditioned their interaction with each other. In these circumstances, it was crucial to understand pre-existing power asymmetries and how these shifted over time. For the purposes of explaining and analysing of the nature of the implementation process, the retrospective and prospective longitudinal research methodology proved invaluable, because

(1) it provided an adequate way to explore how clinicians' and managers' relational influence on organisational decision-making evolved over time, and (2) it minimised the reporting bias of informants' recalling circumstances that influenced organisational decision-making in the past. Given also the need to explore the *terra incognita* of the social context within which the implementation process took place, an in-depth qualitative method and a study design that facilitated comparison between healthcare organisations proved to be useful in identifying the influences on organisational decision-making across organisational contexts. Therefore, one contribution of this project to implementation research lies in such a methodology, tailored to detect contextual complexities that affect the success or failure of implementation initiatives.

The empirical research conducted so far on guidelines implementation has largely relied on experimental or quasi-experimental research and on isolated events or snapshots to evaluate guideline implementation strategies and identify factors that may influence implementation within healthcare organisations. It is asserted that research relying on snapshots misconceives the complex reality of the unplanned process of healthcare provision because of its limited window onto social change and onto the dynamic processes underlying the social interactions of humans. In addition, the longitudinal design enabled a follow-up on the same population at predetermined stages throughout the process. This facilitated a more accurate assessment of how key informants' interests and social relations changed over time. Finally, collecting data both retrospectively and prospectively avoided, it is believed, the problems of recall bias that occur in retrospective studies, and this may potentially facilitate a more accurate assessment of the nature of the implementation process. Thus, it is recommended that a retrospective and prospective longitudinal research design should be utilised in future to explore the nature and shape of the implementation process.

The qualitative, comparative case study analysis may have operated at the individual, team, organisational levels (Ferlie et al, 2009) involving embedded units of analysis (Yin 1994). However, for purposes of this research the level of analysis was reduced to one single unit of analysis that included the PCT, the general practices that are contracted with the PCT, and the Acute NHS Trust commissioned to provide acute health services by the PCT. This complex represented the micro or local context within which the implementation process was studied. This was a valuable approach, which also mirrored the whole-system perspective and enabled your researcher to capture an array of contextual factors that influenced the shape and nature of the implementation process.

However, this research project also had its limitations. Firstly, the fall-out between the two

rounds of interviews, mostly due to time limitations, indubiates the representativeness of the findings, since it is impossible to know whether those who were not re-interviewed may have responded to queries in a unique way. It was recognised beforehand that with such a design it would be not feasible to retain the sample of informants in both case studies, given that it was not an experiment but a 'real life' study in an uncontrolled environment where the researcher had limited influence. (Nevertheless, most informants directly involved in the implementation of both NICE guidelines were interviewed twice.) Secondly, the sample of doctors who were interviewed may not have presented views representative of all, since most were senior hospital doctors or senior GPs with great discretion and influence. If younger less experienced doctors had been involved in the studies, the findings may have been different, in that acceptance of NICE guidelines would probably have been greater, as they had an incentive to adopt NICE guidelines as a defence against complaints and malpractice lawsuits.

In addition, this research was also limited due to the type and location of the NHS Trusts. For example, NHS Trusts involved in research, teaching and training might have mechanisms in place to assure 'faster' knowledge mobilisation, and thus, expedite the pace of implementation than in non-teaching NHS Trusts in another areas. Moreover, in densely populated areas the implementation process might be more complex because of several factors: there might be greater unmet demand for health services in densely populated areas, which would probably be covered by larger, more specialised organisations. This would imply that more stakeholders would be involved in implementation, and communication and decision-making would be more complex. Therefore, the research questions explored in this project ought to be subjected to wider investigation in different organisational and clinical settings.

Two different guidelines were studied, although the study of their implementation process was confined to the NHS. Although it was shown that the guidelines' characteristics were not significant causes of variations in the implementation process, further studies might examine the implementation of guidelines across a wider range of sectors and stakeholders.

Empirical observation found a notable consistency across organisations in managers' and professionals' perceptions of value of NICE guidelines and their implementation in practice, ranging from positive responses, to evaluations and changes in clinical practice in line with the NICE guidelines, to complete rejection. With some degree of confidence, then, three broad findings may be generalised beyond specific contexts and settings: 1) that implementation mechanisms do not proceed independently of the content of relationships, nor

individuals' interpretations and perceptions, nor their ability to influence others. Therefore implementation mechanisms must be analysed in terms of concepts that illuminate interpretation, interests, social relations and social influence. This research has found evidence tending to prove that three processes (at least) – *implementation, negotiation and diffusion* – define the relationship between research utilisation and everyday practice, and may influence the shape of the implementation process. But the findings also suggest that this relationship is also influenced by a complex process of configuration and reconfiguration of the power relations between clinicians and managers into a system fomenting hybridisation of structures and roles. There is every reason to believe that the findings are theoretically typical across similar NHS Trusts; however, it may be necessary to explore this framework using knowledge manifested in forms different to guidelines.

The proposed agenda for research into the implementation process was influenced by the strengths and limitations of this research. The specifications for further research, should anyone wish to correspond effectively with the outcome of this project, would include exploring the implementation process in healthcare: (1) in diverse social and institutional contexts, (2) with a similar research design, while (3) choosing a different form of innovation instead of NICE guidelines as exemplars.

The empirical field covered in this project was limited to four NHS Trusts in the South of England; the findings may therefore be context-specific. And, for that matter, different social systems may yield different pictures, given the diversity inherent in social systems. Ideally, a sample of organisational settings including Trusts serving populations differing in size, type and demography would generate important comparative data. Therefore, it is believed that further research ought to be undertaken to test in varying contexts the explanatory power of the explanatory framework herein propounded.

The retrospective and prospective longitudinal design provided the opportunity to explore the complexities of social relations that configure and reconfigure and how this impacts the implementation process. It is concluded that the prospective design was particularly useful in minimising the bias inherent in recalling events from the past, and thus it complemented the retrospective design. Developing similar research projects, but over lengthier periods of time, will lead to a deeper understanding of how action and structure influence the implementation process and may identify other factors that influence the process which have not be identified by this research.

This project chose NICE guidelines as exemplar case studies to explore the implementation

process. The conceptual framework that emerged from it implies that guideline characteristics had little influence on that process, contradicting earlier studies that have suggested that guidelines characteristics could influence the implementation process. Exploring this conceptual framework using different interventions as exemplar case studies is therefore recommended, to investigate how far the 'absolute' characteristics of an innovation influence its implementation in practice. Given that the analysis was informed by theories of managerialism and professionalism, this framework should be transferable to other contexts where managers and professionals interact to produce and implement knowledge. However, the empirical necessity is to explore varying contexts and populations, given that clinicians' perceptions about NICE guidelines' value were derived from their own clinical experience.

Finally, this project found that the explanatory utility of structural approaches to power is inadequate to explain how power is a resultant of the complex interaction of key stakeholders during the implementation of healthcare interventions. The aim of your researcher will be to explore further whether the combination of structural and post-structural approaches to power offers better explanatory utility for investigating how power is manifested in clinical practice. Pluralism in decision-making in healthcare conceals conflicts of vested interests. It is hoped that this project has served to expose some of these conflicts and their implications for NICE implementation. Further research *via* participant observation of clinical practice may furnish occasions for exploring exercises of power and deeper structures and balances of power.

In conclusion, this research project has explored the nature of the implementation process of clinical guidelines utilising innovative methodology. It has shown that the explanations for this process's characteristics need to be integrated to account for its planned and linear phase and its messy and negotiated phase. This project concludes that the explanations for the shape of the implementation process lie in the social relations between managers and clinicians. The findings suggest that sociological theories of professionalism and bureaucracy, and threats to autonomy created by New Public Management, have some explanatory value. Yet both case studies show also the significance and explanatory utility of the 'hybridity' of the 'structures' which have emerged out of the interface between medicine and management. The ubiquity of hybridity highlights the intended and unintended consequences of power relations between doctors and managers, and may explain why the implementation process is a complex one operating simultaneously at several levels of organisation with a highly uncertain, non-linear sequencing. The multiple organisational levels over which power is now diffused is a phenomenon that future national health policy must learn to compensate for. Organisations

and institutions are bound to instil in doctors and managers certain goals, values beliefs and interests (Egeberg, 2003), and these manifestly influenced doctors' and managers' judgments in implementing evidence. Given the imperative to contain escalating healthcare costs, the promotion of cost-efficiency is more needful than ever; hence the urgency for NICE and the other national health policy-makers to recognise the significance of social and political influences on the implementation of national policies at the micro level.

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**APPENDIXES**

APPENDIX ONE

Topic guide

1. **Your job**

- Could you please tell me a bit about your job/responsibilities/challenges you face every day in your job?

## 2. Define implementation

- What does successful implementation mean for you and for your colleagues?
- What do you think are the main objectives of implementation?
- Do you think it is important, is it priority for you?
- What do you think is the best methods of implementation?
- What do you think about clinical guidelines?

### Clinical guideline and its implementation specific questions

## 3. NICE Guideline

- What was your initial response to this particular piece of NICE guideline? Any ideas about your professional colleagues response? -
Did you feel that the guideline had any specific strengths? Any specific weakness? Why?
- Do you think the guideline made your job easier or difficult? In what way? Did the guideline suggest any changes in your job? -
Were there any elements of the guideline with which you agreed/disagreed? Why?
- Did you discuss the guideline with your colleagues? If yes why? If no why? If no, would you like to discuss it?
- What is a successful outcome of this guideline for you?

## 4. Type of change required

- Does the guideline suggest a change of your practice?
- How would you assess the type of change required by the guideline?
- Is it feasible? Why?
- How would you feel if things did not have to change?
- How important is it to you for this situation to change? - How easy is to change clinical behaviour? What do you think are facilitators and barriers
- Do you think there is resistance to change and why? If yes how do you think you minimize resistance
- Do you think that it is necessary improve communications in the context of change? - What do you think the common pitfalls when implementing organizational change? Could you give me an example related to you practice?

## 4. Implementation –dissemination

- How did you become aware of the guideline and its content? What happened next?
- -What are the trust mechanisms for disseminating the NICE guideline?
- How was implementation of the guideline then taken forward? Describe the implementation strategy that has/ is taking place?
- Is the program suited to its environment?
- What sort of factors were taken into account in deciding to what extent the guideline should be implemented and at what speed?
- Anything you did not like. What should follow for a successful implementation?
- Within outside the organisation is there anything in particular that could affect implementation?
- Is there any pressure from patients who may have heard about the guideline?
- In what ways (if any) does the trust encourage compliance with guideline?
- What were the cost consequences of implementing this guideline?
- Have there been any specific obstacles to its implementation
- Has anything particularly enabled implementation
- To what extent is the implementation of the guideline monitored/audited and by whom?
- Do you think there is forward planning with regards to future action plans in order to implement the guideline? Who is involved in that? Do you agree? Is it helpful?
- Who decides how money should be spent on implementing the guideline, and on what basis? do you agree?

Overall, do you think that the organisation has the resources and capacity available and in place to implement the program as planned, and if not, what is needed?

6. **Decision making to adopt**

- Who is involved in the decision to adopt the guideline? Who should also have been involved as well? Why? - What are the factors within your organisation that influence your decision to adopt? Why? Do you think there are any external to your organisation?

7. **Organisational perspective**

-What are the current key challenges facing the organisation in terms of implementation?

-Are there any particular reasons why the organisation is facing forces for change at the moment?

-How would you describe the organisations approach to implementation strategy?

-How realistic are the objectives for the strategy?

- What timescales are involved? Are these timescales seem to be realistic?

-Are there problems with any health professionals?

-Describe improvement tools and techniques that are used within the organisation?

-Who has been involved in providing the training and development for the improvement of implementations` objectives?

-How has the implementation strategy been communicated to key people?is it enough? Why?

- is the workforce involved adequate for the implementation or you believe more key people should have been involved? Why?

-How resource intensive was implementation for both participants' time and central support?

-Have/ Are the changes been sustainable?

-Have some changes showed initial success then faded?

-Have some changes showed more success than others? Why?

-How and if has/ did the project affect the rest of the organisation?

8. **Are there any additional comments you would like to make about the role of NICE, the method developed for the preparation of guideline, or its implementation**

## Appendix two

A sample matrix for the theme 'power'

| | Agenda setting | GPs freedom to make decisions about their own training | Influence | Autonomy | Professional status | Control | Allow power |
|---|---|---|---|---|---|---|---|

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| **or of PH** | the professional executive committee (PEC) which I am a member and which is one of the key advisory mechanisms by which the PCT develops its work programme. | We have negotiated with GPs I think it is called protected learning time, which means that our contract allow them to shut down their operations to a minimum bank holiday style once a month but during a weekday and they undertake CPDs. The choice of CPDs, courses and the arrangements of events are left to them…It is less good within the rest of the PCT | I think we all have other things to do, although …it is a very good question…I think there is a reluctance by non clinicians to engage clinicians about their work content ..so there is a kind of reluctance from managers to say that look why aren't you following the heart failure guidelines properly. | to carry on a long term career as a GP you have to have strong believe on your own autonomy. I am in charge of this place and i can pretty much do what i want. | But the more skilled non medical clinicians are the more they like to do it their way. So if you look at speech therapist or physiotherapists they are have some of the characteristics of the GPs, quite difficult to persuade that this is what the evidence says, this is what you should do and this is what is a waste of time. They often will reject that and the will say in the way i work this is how i do it, like GPs<br><br>the professional ethic that underlies the sense of work that come with the perception of being in the position of power over other individuals | Because it is easier to give responsibility to nurses and control them. | |
| **nt DPH** | There is amazing how some issues are given more attention, more capacity, more interest and that is reflected to the results as well<br><br>We have a PEC but the GPs that represent that are more keen interested in their own world and when you say something they are all keen and interested but the reality is that trying to enrol | | | | | | |

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| | something our is very different, | | | | | | |
| **lietician** | | | | | | | |
| **or of issioning** | Our thing that our PCT is clear that priorities have been focused around prevention and we are focusing our initiatives to our prevention bits. It is clear that there is a gap in our services that we need to address. My understanding is that that clinic delayed some patients for going. But it has been less of a priority for us because we are focussing on prevention | | | | | | |
| **t manager-1** | | | | In this area GPs are quite slow, they have quite a strong voice, they will change but very slowly and do things when they are ready to do things<br><br>And there is the issue of autonomy, GPs are far more autonomous than nurses<br><br>doctors are very reluctant to change the way they work, especially in orthopaedics, | nurses, unless they become very specialist in their area and then they can become quite powerful, vocal and strong in their area. Like the district nurse leads here, they are very strong with very strong specialist nurses, very willing to get things move forward. So knowledge makes a big difference definitely.<br><br>it was difficult to advice GPs because as a nurse to advise a doctor that is a quite new think really. They like new things but sometime it is reluctant to take | | I think they achieved as much as they possible could within the NSF and the heart failure guideline and I think priorities changed and influenced the whole approach |

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| | | | | because they like to work in the way they work and have their own plans for their patients as opposed the existence of a standardized treatment plan for all patients. | advice from a nurse . | | |
| **tive nurse** | | | | | | | |
| **clinical nance** | | | | Changes that are introduced are not popular with everybody and GPs like hospital consultants are very precious how they want to practice with the clinical freedoms | | | |
| | | | | | | | |
| **PBC** | I think doctors tend to be a bit dominant as they often are in groups | | | | | | |
| **Nurse -1** | | | | We can't not tell the GPs to refer to the hospital. We are talking about people with great autonomy | | | |
| **Nurse -2** | | | | is the case that some GPs don't want to change, don't want to listen to use, and despite the fact that the PCT wasn't to implement the service it is up to them to use it or no | | | |
| **t manager-2** | | | | I think it is very difficult, especially in hospitals, as sometime doctors are very reluctant to change the way they work, especially in orthopaedics, because they like | | | |

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| | | | | to work in the way they work and have their own plans for their patients as opposed the existence of a standardized treatment plan for all patients. | | | |
| **ant director of e** | | | | | | | |
| **nt manager** | | | | | | | |
| **PCT** | | | | think that is the debate about autonomy. Isn't about let's say to opt out of the national agenda. Sometime what happens is that some national priorities become more a priority than others. | | | |
| **NHS** | | | next without going back and checking and this is because we assume that clinicians by large will carry on implementing best practice and audit themselves all the time. | | | | |
| **al director** | | | consultants are key, they carry enormous respect, senior clinicians are very much respected by other members of staff, by managers, by patients,<br><br>you could | | the respect for their professional status is there | | |

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| | | | have al the nursing will of the world to change something but if the consultant is against it we are going to have trouble<br><br>whereas if you have a consultant on board and convince him/her that it is safe, it will get done<br><br>we do have such a high respect from people simple because we are doctors and I think people don't have such a high respect for managers, so for example there is press issues and there is concern, journalists will often give managers much harder time than doctors or nurse because there is a degree of respect for the training and the skills that these jobs require. I think the journalist will trust the doctor and will not expect him to lie but he might be worried about the manager, it is | | | | |

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| | | | quite awful but the don't have that degree of respect. | | | | |
| **ant medical or** | | | | | you r expected to be professional and to give the next person the full attention and to d the best for him | | |
| **or of Finance** | | | | | | | |
| **or of nursing** | | | and if clinicians are being trained in a particular way you are asking the people to undo the way that they have been trained and I think that the medicine profession they do come through their career having learned , observed and well read but they do need their opinions and at the end of the day in terms of their reliability they are very keen to continue to practice the way that they understand works for them, so if you ask them to change a particular way or procedure they might resist. | | | | |
| **of clinical nance** | | | | i think the autonomy think is an interesting question, because the medical profession is always or had | and to a certain extend is right because the clinician is the person looking into that patient and has the knowledge to decide any course of | They do not like to be controlled.<br><br>they will tell you yeah we do it, we have looked in this guideline and | |

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| | | | | always the right to assess it self, and know there is in situation that we are getting value for money and make you accountable to us I don't know, I do see how they could see us as bureaucracy<br><br>There is this autonomy particular whereby they can even with the NICE guideline, which have been written by their colleagues they are not taking that away, they say to them that you should follow this practice but using your clinical judgement. In other words if it is not in your interest and according to your perception if it is not in the interst of the patients to follow this guideline you can depart from it. So therefore the power the doctor has is always my decision<br><br>Knowledge is power and the fact that they are a group, who are unite in their positions it is very difficult to change their position | treatment. | we implement it, and then you will say yeah that is great, actually how can you prove that and to me I can understand a clinician telling me that I do create more work to him, if I am doing it why do I have to prove it, why I have to fill forms, since I know that I am doing this. That is the battle if you like, is not so much getting clinicians to pay attention to the guidelines,<br>because if you talk to them they do know, they have read them, it is not like they have just ignored them, the battle is engaging them with the assurance process, which proves that they are doing the job. | |
| **of NICE nentation** | | | | | | | |
| **y surgeon** | The money was not there to spend so you don't address the problem so you don't have to spend the | | | | | | |

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| | money. The worry I think for the PCTs is that if they do address the problem then they would have 10000 patients that have to consider if they are entitled for surgery and nobody in the country can afford that, so there is a real dilemma on how to, I don't want to use the world, but that is what it is, how to ration and how you select the patients and nobody wants to make that decisions. | | | | | | |
| **ology surgeon** | | | | | | | |
| **list CHF** | I think who ever commissioning resources are in the strong position | | I don't think the application is all about acceptance of the guideline, the art is in appropriately apply it to the individual So just because the guideline exists and we would like our figures to look good is not a reason to follow it | | | | |
| **ess<br>pment<br>ger** | | | within their specialty they know better than anyone else so they should drive change, I do believe that when clinicians are | the CEO is quite powerful, if he want something badly I have to deliver, but usually I left to get on with using my discretion as to what I should do and awful lot | | | it sets the direction but doesn't get too involved in detail, so that is good, it allows to me go along and do things the way I think is better, it motivates me to |

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| | | | motivated driving change you are getting more change quicker | of things that I do she doesn't hear about | | | shake things and make things happen. |

APPEDNIX 3

**Characteristics of the NICE clinical guidelines published between April 2003-March 2007**

| al ine | Publicatio n date | NSFs | COST IMPLICATION | RELIABLE ASSESS | PRIMARY AND SECONDARY | WITHDRAW OFSERVICES | SELECTION |
|---|---|---|---|---|---|---|---|

| | | | | OUTCOMES | CARE | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| atal and atal l health | Feb 2007 | YES | YES | NO | YES | YES | NO |
| | | | | | | | |
| ty | DEC 2006 | YES | YES | YES | YES | YES | YES |
| ntia | Nov 2006 | YES | YES | NO | YES | YES | NO |
| y tinence | Oct 2006 | NO | - | - | - | - | - |
| nia gement in ic kidney se | Sep 2006 | YES | YES | YES | NO | NO | NO |
| r disorder | June 2006 | YES | YES | NO | YES | YES | NO |
| fibrillation | June 2006 | YES | YES | YES | NO | NO | NO |
| tension | June 2006 | YES | YES | YES | NO | NO | |
| nson's ses | June 2006 | YES | YES | YES | YES | YES | YES |
| culosis | Mar2006 | NO | - | - | - | - | NO |
| | | | | | | | |
| ssive-ulsive der | Nov2005 | YES | YES | YES | YES | YES | YES |
| acting ible nception | Oct 2005 | NO | - | - | - | - | NO |
| ure ulcer gement | Sep 2005 | NO | - | - | - | - | NO |
| ssion in en and people | Sept2005 | YES | YES | NO | YES | YES | NO |
| raumatic disorder ) | Mar 2005 | NO | - | - | - | - | NO |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ıce | Febr2005 | NO | - | - | - | - | NO |
| | | | YES | | | | |
| ssion in ry and dary care | Dec2004 | YES | YES | NO | YES | YES | NO |
| ty | Dec2004 | YES | YES | YES | YES | NO | |
| | Nov 2004 | YES | YES | YES | YES | NO | NO |
| l recall | Oct2004 | NO | - | - | - | - | NO |
| sy | Oct 2004 | YES | YES | YES | YES | NO | |
| psia | Aug2004 | NO | - | - | - | - | NO |
| arm | Jul 2004 | YES | YES | YES | YES | NO | |
| l diabetes | Jul 2004 | YES | YES | YES | YES | NO | |
| rean n | Apr2004 | NO | | | | | NO |
| ic uctive nary se | Feb 2004 | YES | YES | YES | YES | YES | YES |
| ty | Feb2004 | NO | - | - | - | - | NO |
| disorders | Jan 2004 | NO | | | | | NO |
| 2 diabetes ace | Jan 2004 | YES | YES | YES | YES | NO | |
| | | | | | | | |
| le sis | Nov 2003 | YES | YES | NO | YES | NO | NO |
| on ol, in ry and unity care | Jun 2003 | NO | - | - | - | - | NO |
| erative or elective | Jun 2003 | NO | - | - | - | - | NO |

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|---|---|---|---|---|---|---|---|
| ry | | | | | | | |
| atal care | Oct 2003 | NO | - | - | - | - | NO |
| injury | Jun 2003 | NO | | | | | NO |
| ic heart<br>in adults<br>nary and<br>dary care | June 2003 | YES | YES | YES | YES | YES | YES |
| ure ulcer<br>ssessment | April 2003 | NO | - | - | - | - | NO |