Performance Management and Cultures in Health Care: Case Study Evidence from the NHS Ambulance Service in the United Kingdom

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By

Paresh Wankhade

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ABSTRACT

Background to this study: Debates about targets, performance measurement, unintended consequences and the role of organisational culture in improving performance are an integral part of the NPM literature that underpins this research. However, there is no unanimity of opinion in the literature towards a precise definition of performance, methods of measurement and whether performance measurement and organisational culture increases efficiency of services given the complexity of the public sector and on the issue of accountability. The working of the Ambulance Service is a comparatively less researched phenomenon in the literature. The general perception about them is of a patient transport service answering to 999 emergency calls. The study aims to explore the performance measurement and organisational culture in the UK NHS Ambulance Service using a case study approach.

The *objectives* of this research are:

1. Investigation of individual understandings of 'performance' for the different sets of actors and find out what good performance looks like to them;

2. Identification of unintended consequences of the performance measurement system in the chosen organisation;

3. Exploration and classification of organisational culture (s) within the NHS trust and exploration of the links between organisational performance and organisational culture; and

4. Documentation of the challenges and difficulties faced in improving the performance measurement system in the Ambulance Service.

Methodology: This research takes an in-depth case study approach. It is believed that it is not only important to know what the measures of performance are but also whether they are clear and useful by understanding the settings of different actors since the boundaries between phenomenon and context are not always clearly evident. Such detailed, rich contextual knowledge of the organisation would not have been possible by doing a multi-study comparative account or by taking sectional cases. Seventy two interviews involving sixty research participants carried over a period of two years along with approximately 150 hours of non-participant observation in the 'Delta' Ambulance Trust inform the findings of this investigation.

Findings: All of the four research objectives have been addressed in this study. In relation to the first objective, the performance measurement system in the UK Ambulance Service has been examined and an overall dissatisfaction against the response time targets including the key target of eight minute response across a wide range of stakeholders including the staff and policy experts has been recorded. Secondly, a range of unintended consequences of the current performance

measurement system have been identified which has the potential of resulting in the dysfunctional behaviours of the different actors. Thirdly, the presence of four distinct sub-cultures within the Ambulance Service and not a single ambulance culture hinted in the literature, have been identified (executives, managers, paramedics and control room staff). Managers have been identified as a separate culture and their role in the organization is evaluated. It has been also seen that the relationship between organisational performance and culture from the evidence of this study seems to be contingent and dynamic rather than static one. Finally, the study has identified different challenges before Ambulance Trusts towards improving their performance measurement systems and the process of culture change. Notable amongst them include clinical skills and training of ambulance personnel; absence of national clinical performance standards and historical and cultural reasons regarding the integration of Ambulance Trusts within the UK NHS.

Contribution to knowledge and significance of the study: This investigation has carried out empirical work in a very large ambulance trust which came into existence only in July 2006. The study is cross-disciplinary making a synthesis between pre-hospital care and management literature and addresses the research gap in this area. Being a non-clinical study, it brings new evidence and knowledge about the ambulance performance targets and explores the empirical relationships between performance and organisational culture. These findings are significant from the practice and the public policy perspective and bring new insights on the culture-performance debate. The study makes original contribution to learning by carrying out empirical work not undertaken before, thus bringing new evidence on the issues of performance measurement and culture(s) in the NHS Ambulance Service and confirms to the requirements laid down by the University.

Limitations and future implications: Notwithstanding the significance of the study, some of the limitations include conceptual problems in defining organisational performance and organisational culture and the issue of the generalisability of the case study findings. Further research recommendations include more in-depth explorations of culture-performance link in cross-national and cross-sectoral studies and documentation of unintended consequences of performance measurement and culture management.

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TABLE OF CONTENTS

Appendices

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

A&E	Accident & Emergency
AMPDS	Advanced Medical Priority Dispatch System
AMT	Area Management Team
ASA	Ambulance Service Association
BMA	British Medical Association
BMJ	British Medicine Journal
BSC	Balanced Score Card
CBD	Criteria Based Dispatch
CEO	Chief Executive Officer
CHI	Commission for Health Improvement
CFR	Community First Responder
CNST	Clinical Negligence Scheme for Trusts
CPI	Clinical Performance Indicator
DoH	Department of Health
EMD	Emergency Medical Dispatch
EMDC	Emergency Medical Dispatch Centre
EFQM	European Foundation for Quality Management
EMJ	Emergency Medicine Journal
EPR	Electronic Patient Record
GPRA	Government Performance and Result Act
HDS	High Dependency Service
HPC	Health Professions Council
HR	Human Resources
IDeA	Improvement and Development Agency
IT	Information Technology
JRCLAC	Joint Royal Colleges Ambulance Liaison Committee
KSF	Knowledge & Skills Framework
LHB	Local Health Board
NAO	National Audit Office
NHS	National Health Service
NPG	New Public Governance
NPM	New Public Management
NPS	New Public Service
OECD-PUMA	Organisation for Economic Development- Public Management
ORCON	Organisational Research Consultancy
PBR	Payment By Result
PCT	Primary Care Trust
PDP	Personal Development Plan
PFI	Private Finance Initiative
PI	Performance Indicators
PRF	Patient Record Form
PTS	Patient Transport System
PSA	Public Service Agreement
REC	Research Ethics Committee
RRV	Rapid Response Vehicle
RTA	Road Traffic Accident
SHA	Strategic Health Authority
SAT	Scholastic Assessment Test

THP	Taking Healthcare to the Patient
UK	United Kingdom
VFM	Value For Money
WHO	World Health Organisation

GLOSSARY OF TERMS

999 call	The emergency services telephone access number in the UK
Call to Connect	The changes introduced by the Department of Health with effect from 1 April 2008, to the standard requiring that an ambulance arrives on scene within 8 minutes for 75% of Category A calls. Earlier, the standard allowed for the confirmation of key details such as location and the chief complaint of the patient before the clock started. The new Call Connect standard of 8 minutes will start from the moment a 999 call is put through to an emergency control room.
Call Dispatcher	The person in the ambulance control room that is responsible for mobilising the ambulance and crew.
Call Taker	The person in the ambulance control room that initially receives the 999 call and takes details from the caller.
Community First Responders	Community First Responders are teams of volunteers who are trained by the Ambulance Service to a nationally recognised level. They provide life saving treatment to people in their local communities and are backed by ambulance paramedic crews.
Emergency	The Oxford English dictionary defines it as a medical condition requiring immediate treatment. Within the ambulance service, there is no formal definition but it is used to mean –with minimal delay (for examples, a few minutes).
Emergency Medical Dispatch Centre	The ambulance control room where all the emergency 999 calls are received and an appropriate response in terms of a vehicle and staff is determined.
Front Loaded Model	Front loaded model refers to a reduction in the proportion of traditional ambulances and an increase in the numbers of fast response vehicles (usually cars) manned by Emergency Care Practitioners and Paramedics. The model incorporates deployment and the geographical repositioning of resources instead of concentrating them in respective ambulance stations.
NPM	New Public Management is a cover term used to describe and understand the administrative reform agenda in many of the OECD countries in the 1970s and 1980s.

Patient Transport Service	In addition to dealing with emergency care, ambulance trusts provide a non-emergency patient transport services (PTS). PTS is the provision of free transport for patients with a medical need for transport to, from and between healthcare providers.
Primary Care Trust	PCTs are the primary providers of various health services in a local community. These services include GPs, Dentists, Opticians, NHS Walking- Centres and ambulance service. They get about 80% of the NHS budget.
Rapid Response Vehicle	In order to reach to a scene of emergency more quickly, ambulance trusts in addition to an emergency ambulance, make use of smaller but faster vehicles, usually a car or a motorbike manned by a single person. They are backed by an emergency vehicle.
Response time	The time from receiving the 999 call in the ambulance control room to arrival of ambulance personnel at the scene of emergency.
Research Ethics Committee	The Department of Health requires that for research in the NHS an independent review must be obtained from a Research Ethics Committee recognised for that purpose by the Department of Health to ensure it meets the required ethical standards.

Chapter One

Setting the Scene

Setting the Scene

Performance indicators now pervade all aspects of the public services. The role of targets, however, is controversial, with many public service staff unsure that ratings can drive or measure good performance.

Givan (2005, p.63)

Introduction

New Public Management (NPM) has been used as a cover term to describe and understand the administrative reform agenda of many of the OECD countries in the late 1970s and 1980s (Hood, 1991; Aucoin, 1990; Politt, 1990). Some of the confusion in defining this phenomena as Hughes (2008, p.10) argues, is due to the fact that NPM as a movement is "without agreed doctrine, without a programme, or an agenda and without an agreed analytical content". One remarkable feature of many NPM reforms has been the pre-occupation with organisational performance measurement despite variations within the reform movement (Carter, *et al.*1995; Hood, 1995; Pollitt and Bouckaert, 2000; Talbot, 2005). However, there is no unanimity of opinion in the literature towards a precise definition of performance, methods of measurement and whether performance measurement increases efficiency of services given the complexity of the public sector and of issues of accountability (Pollitt, 2001; Greiling, 2006; De Bruijn, 2006). Discussions on performance measurement in the context of the public sector have included views ranging from an extreme position that the public sector provides a "leading edge on issues of performance measurement" (Lapsey and Mitchell, 1996, p.5) to one that "the performance measurement systems have measured too many things and the wrong things" (Atkinson and McCrindell, 1997, p.26). Debates about targets, performance indicators and their unintended consequences are an integral part of the NPM literature that underpins this research.

1.1 Background and justification for this study

Discussions on performance have included views being expressed on different aspects of performance within the wider public sector (Light, 1997); between top-down, bottom-up or balanced approaches to performance measurement (OECD-PUMA, 1994, 1997); about quality and performance (Morgan and Murgatroyd, 1994); and accountability and performance (Hillisan *et al.*1995; Day and Klein, 1987; Power, 1994). Additionally, models for measuring performance and quality are discussed in the literature (George, 1982; EFQM, 1997; Kaplan and Norton, 1992, 1996; Talbot, 1998, 1999). The counter argument against performance measurement centres around the complexities of running public services (Talbot, 2005); transaction-costs (Hood *et al.*1999); manipulation and deception (Hood and Bevan, 2006); unintended consequences (Smith, 1995); and the performance paradox (Meyer and Gupta, 1994). Notwithstanding the literature on performance measurement and its management, the 'puzzle of performance' remains unsolved and performance measurement still remains a popular subject of inquiry.

There are many models of performance but few offer clear theoretical explanation or empirical validation (Talbot, 2005, p.508). While normative models have been in vogue, few of them have been based upon testable models (O'Toole and Meier, 2000). A recent study (Greiling, 2006, p.451-60) examined the efficiency increasing potential of performance measurement in the light of four alternative approaches: Weber's theory of bureaucracy (Weber, 1972); public choice theory (Niskanen, 1968, 1971; Wintrobe, 1997); principal-agent theory (Eisenhardt, 1989a) and institutional theory (DiMaggio and Powell, 1991; Meyer and Rowan, 1977; Modell, 2004) and reported an "ambivalent picture" (Greiling, 2006, p.460) and the fact that performance measurement *per se* does not automatically produce an increase in efficiency. Halachmi (2005) argues that performance measurement can be seen as a sub-system of the performance management effort and is not always the most critical sub-system. In this respect, the work of Meyer and Gupta (1994, p.330) on "paradoxes of performance" suggests a weak correlation between performance indicators and performance itself over a given period of time. Performance measurement has also

come under criticism for its lack of integration within the democratic process and poor implementation (Public Administration Select Committee, 2003). These results support those who are sceptical about the promise of gains from performance measurement. The positives from performance measurement are discussed later in this thesis. Further research is therefore needed to identify relevant factors under which a performance measurement system will work in a functional way as a driver for efficiency (Greiling, 2006, p.461).

For all the interest in defining and assessing cultures, the important question of whether and how organisational culture impacts on organisational performance remains "empirically poorly explored" (Davies *et al.*2000, p.114). Dingwall and Strangleman (2005) argue that from the perspective of organisational analysts, 'culture' has been more widely used in other disciplines like anthropology (Bittner, 1965) and literary studies (Clifford and Marcus, 1986; Geertz, 1973). The concept of culture is one of the most fascinating and yet elusive topics of management research. Brown (1995) identifies fifteen different descriptions of culture. Like performance, it is also a contested phenomenon. Harris and Obgonna (2002, p.32) argue that despite lack of unanimity about the concept of organisational culture, its popularity over the past few decades has established it as the dominant concept in organisational theory. There is a growing body of work by commentators, academics and practitioners who have tried to find a relationship between organisational culture and quality of healthcare (Scott *et al.*2003a, 2003b; Mannion *et al.*2005).Within the larger debate, this study attempts to address a smaller but specific question of whether organisational culture bears any influence on healthcare performance.

Performance measurement and the pursuit of efficiency has become a central objective of policy makers within most health systems. The analysis and measurement of performance and outcomes is quite complex given the fact that there exist conceptual challenges, multiple objectives and scope for measurement error (Jacobs, *et al.*2006). International concern reflected in the *The World Health Organisation 2000* (WHO, 2000) report emphasised the importance as well as the difficulty of determining and measuring performance. Any health care system is a complex web of

accountability relationships that involves citizens, Government, professional bodies, patients, regulators and tax-payers. Such challenges are more important in the UK as the NHS is the largest health care organisation in Europe. With a planned NHS net expenditure in 2008-09 of £96.4 billion, it employs almost one million people (Department of Health [DoH], 2008). Despite the elaborate performance monitoring framework within the NHS and the relatively long experience of public disclosure of performance data for it, there has been little rigorous evaluation of its impact (Marshall *et al.*2000; Smith, 2002). In a review of the determinants of organisational performance, the NHS Executive (1999) was unable to find good quality studies of the determinants of performance in Trusts and Health Authorities.

Unlike other sectors (Acute Trusts, Primary Care Trusts and Specialist Trusts) within the NHS, performance measurement of the Ambulance Service is a comparatively less researched phenomenon in the literature. The general perception is of a patient transport service answering 999 emergency calls. However, with expenditure of £760 million on emergency Ambulance Services in 2003-04 their contribution is quite significant (DoH, 2005). The lack of integration of the Ambulance Services with the emergency care network within the NHS has also been highlighted in a review of Ambulance Services carried out by the Ambulance Service Association (2000).

Furthermore, the relationship between ambulance performance and pre-hospital emergency care has not been fully explored in the literature (Kuisma, *et al.*2004; Snookes *et al.*2002; Hisammudin, *et al.*2007). Most of the reported studies are individual cases detailing the effects of various clinical interventions by ambulance personnel (Thakore and Morrison, 2001); stress of the ambulance staff due to working conditions (Smith and Roberts, 2003); or litigation against ambulance staff (Gwynne, Barber and Tavaner, 1997) amongst others. There have been relatively few detailed explorations of the dynamics of the Ambulance Services in terms of their performance; the relationship between different groups of employees; and the impact of organisational culture in improving the quality of service delivery (Wankhade, 2007). This study attempts to address this gap.

Response time targets are the main performance measures for Ambulance Trusts across England. The key performance target for Ambulance Trusts in England is to reach the scene of an emergency in eight minutes for seventy five percent of cases (Healthcare Commission, 2008). The reported evidence against response time targets has been confusing. Price (2006) in a study involving twenty paramedics reported a lack of evidence against these targets. Another study (DoH, 2005a), however, found evidence of saving more lives on account of ambulance paramedics' reaching the scene of emergency more quickly. Similarly, Chase *et al* (2006, p.71) state that improving ambulance response times appears to be cost effective. But another study (Turner *et al.*2006, p.75) concluded that there are no overall benefits from faster response times and "attention should be re-focussed on the clinical care provided by crews when they get to the scene rather than how fast they get there." This investigation will provide further empirical evidence and clarity to the issues raised in the literature through rigorous data collection and analysis of the evidence gathered from the interactions with policy experts and Delta Ambulance Trust (pseudo name) staff in the field. The findings from this study are based on approximately one hundred and fifty hours of time spent in the field and seventy two formal interviews over a period of two years. This involved time spent in the Delta Ambulance Trust to attend performance meetings, to travel with ambulance paramedics, and to visit ambulance stations and emergency control rooms to actually witness how performance is recorded, measured and achieved along with the rich social interactions between the different groups of staff through formal and informal dialogues.

The findings of this research will be significant for a number of different audiences. For policy makers the findings will shed additional light on the challenges confronting target regimes and strategies that can be pursued to support performance management. For the NHS organisation, the study's findings may serve as a guide to developing a stronger, more sustained performance culture within the organisation. For the research community, the research will contribute to the body of knowledge to further our understanding of a service which has been comparatively neglected in the past.

1.2 Aim and Objectives of the research

The principal aim of this research project is the exploration of performance measurement and organisational culture in the UK NHS Ambulance Service using a case study approach. The key objectives are:

- To investigate understandings of 'performance' by different sets of actors and find out what good performance looks like to them;

- To identify unintended consequences of the performance measurement system in the chosen organisation;

- To explore and classify the organisational culture (s) and explore the links between organisational performance (measured and unmeasured) and organisational culture;

- To document the challenges and barriers faced in improving the performance measurement in the UK NHS Ambulance Service.

1.3 Thesis Overview

In addition to this chapter, there are seven further chapters in this thesis. Chapter Two provides a systematic review of the literature on the concepts of NPM, performance measurement, organisational culture, the performance paradox and to provide a policy perspective on performance in the NHS and specifically the Ambulance Service. To meet this challenge, the literature has been visualised at three levels using Rudestam and Newton's (1992, p.51) framework of having 'long shots, medium shots and close

ups'. At the 'long shot' level a brief overview of NPM is given to locate the role of performance measurement within this literature. Conceptual distinction is also made between the measurement and management of performance. At the 'medium shot' level, the role of performance measurement and targets in the public sector is analysed. Evidence is also presented regarding the practice of performance measurement in the context of the public sector in the UK. The performance framework employed in the Ambulance Service is discussed and then reviewed; and evidence regarding the impact of 'governance by targets' (Bevan and Hood, 2006) is also analysed. At the 'close up' level, the studies relating to perverse and dysfunctional behaviour of performance measurement are examined in detail to tease out the issues and debates directly relating to this research project.

Chapter Three discusses the research methodology used for this study. It defines the philosophical approach to this research and attempts to locate this study within current philosophical debates. Issues relating to methodological justification for taking a case study approach, ethical considerations and selecting a suitable sampling strategy are also discussed. The background characteristics of the chosen NHS Trust (the Delta Ambulance Trust) are also presented to set the context and bring out the key characteristics of the chosen case. The relevance of the two main data collection techniques- use of semi-structured interviews and non-participant observation is discussed. Some of the challenges of going through the process of gaining a favourable ethical approval from a NHS Research Ethics Committee (REC) to undertake this study are also discussed. The data analysis strategy propagated by Miles and Huberman (1994) is detailed with a discussion on data reduction (codification) and data display. The experience of using qualitative computer software, NVivo to aid data analysis is also discussed. The research questions are then presented along with a flow chart for the overall research process.

Chapter Four details the first set of findings from this investigation. It presents the individual understandings and perceptions of merger in the chosen organisation by discussing the views expressed by a range of research participants including senior Executives, middle-management, frontline paramedics and control room staff (999

Call takers and vehicle Call dispatchers). Following the evidence presented in chapter four regarding four distinct occupational groups in the Delta Ambulance Trust, the views from these four groups are then discussed in Chapter Five with reference to their understanding of performance and targets. The key ambulance performance target of eight minute response (Category 'A' Call) is examined in greater detail from the perspectives of these different actors.

Having discussed the views about performance and the existing performance targets in the Delta Ambulance Trust, Chapter Six details various unintended consequences of the current performance framework. Chapter Seven provides an overview of the evidence presented from the previous chapters regarding the current performance framework in the UK Ambulance Service. The chapter draws attention to the various challenges facing Ambulance Trusts in the UK in developing alternative performance criteria to measure clinical outcomes. Views of the clinicians and professional experts are also incorporated. Chapter Eight is the final chapter and draws on the main findings of this study and summarises the main arguments advanced in this thesis, the achievement of the research objectives and original contribution to learning. Finally, some limitations of this study are discussed and recommendations for future research are also presented.

Chapter Two

Reviewing the literature

Reviewing the literature

We measure everything that walks and moves, but nothing that matters.

Neely (1999, p.206)

Introduction

Performance measurement is a topic that is being increasingly discussed by academics and practitioners both in private and public sector organisations. While many of the issues that arise in its use are common to business and public organisations, researchers have drawn attention to the fact that public sector organisations faced with different kinds of challenges do not behave in the same way as those in the private sector (Wilson, 1989, Neely, 1995 *et al.,* Modell, 2004). Dixit (2002) cites two possible reasons. The first is that bureaucrats often serve several masters such as the users of the service, payers for the service, politicians at different levels of Government and professional organisations. The second, as a consequence of the first, is that the agency and, by implication the bureaucrats working in it, often have several goals to achieve and are expected to increase both efficiency and equity in delivery of public services. The multiplicity of goals and principles in the public sector also imply that individuals in the public sector may be more risk averse than their counterparts in the private sector where they have to perform fewer, better defined tasks. Consequently the objectives of public sector organisations tend to be less well defined and performance measurement focuses on the measurable at the expense of less tangible areas representing important aspects of the service. As the saying goes, "What gets measured gets done," even if not measured or done particularly well (Berman, 2002).

To this researcher, an important yardstick for evaluating any management strategy including performance measurement concerns its usefulness. It is important to ask

specific questions as to what managers' get from performance measurement, how it is measured and how widely is performance measurement used in a given organisation? This is not to suggest that management strategies cannot be judged by other criteria, such as labour or capital productivity, return on investment, service quality and customer satisfaction (Adcroft and Willis, 2005). Performance is also affected as much by market conditions, industry structures and social settlements as it is by explicit management action (Williams *et al.*1993).

While it is acknowledged that performance measurement can bring positive benefits, it also produces perverse effects since it takes a restricted view of the complexity of the situation in which it is operating. De Bruijn (2007) argues that perverted systems are resistant because, although they are harmful to professionals, they survive because they have external owners and politicians are more reluctant to be seen to be abolishing performance measurement systems than creating them. This study is a detailed exploration of the performance measurement in a NHS Ambulance Trust in the UK.

This Chapter is divided into six sections. The first section locates the role of performance measurement within the NPM literature providing the context and a macro view of the relevant literature. Section two details the practice of performance measurement in the context of UK public sector and sets out the Government's objectives in using performance measures and targets as a key dimension of NPM. The third section reviews the evidence behind the performance framework used in the UK NHS. Section four examines the performance measurement system in the UK NHS Ambulance Service. Section five details the unintended consequences of performance measurement systems in the context of the UK public sector including dysfunctions as a key theme. Section six introduces culture as a key dimension that complicates simple understandings of organisations and how they perform. This is followed by concluding remarks.

2.1 NPM

The implementation of performance measurement has been a central element of public sector reforms throughout OECD member states during the 1980s and 1990s (Hood, 1991; Politt, 1990; Pollitt and Bouckaert, 2000; Kettle, 2000). There is no definition of NPM that is universally accepted and it is suggested that the concept is a reflection of a number of trends (Adcroft and Willis, 2005). For example, Hood (1991, p.4-5) who is credited with coining the term, suggests that NPM consists of a number of different themes which are combined and mixed according to specific public sector circumstances. These principles include greater emphasis on 'professional' management, introduction of explicit measures of performance, greater emphasis on output controls, an even greater role played by 'private sector styles' and encouraging competition in the public sector. Pollitt (2001, p.474) argues that NPM amongst other things, includes a shift in focus of management systems and management efforts from inputs and processes to outputs and outcomes, a shift towards more measurement, manifesting itself in the appearance of batteries of performance indicators and standards, a much wider use of market or market-like mechanisms for the delivery of public services and a shift in value priorities away from universalism, equity, security and resilience and towards efficiency and individualism. Pollitt (2003) provides further illustrations of how some of these themes have manifested themselves in specific changes and draws attention to contracting out, privatisation and internal market reform in the NHS. Ferlie and Steane (2002, p.1461) suggest that it all comes down to "managers, markets and measurement".

Across the world, one of the recurring themes of NPM is the importation of private sector practices into the public sector (Adcroft and Willis, 2005). Hood (1991, p.5) argues that NPM represents the marriage of "administrative reform" with "business type managerialism". Lapsley (2008, p.78) states that the management processes are at the "heart" of the NPM movement. The underlying assumption in importing and adopting private sector business practices is that it brings real and tangible benefits to

the organisation (Lawer and Hearne, 1995). The literature suggests a wide variety of management options being used currently in the measurement of public sector performance, ranging from the balance scorecard (Kaplan and Norton, 1992, 1996); business process re-engineering (Hammer and Champy, 1993), benchmarking to the recent concept of Lean public services (Radnor and Walley, 2008).

Increasing the efficiency of the public services has been one of the top priorities of the promoters of the NPM. It was articulated in section 2 of the 1993 American Government Performance and Result Act (GPRA) and popularised by Osborne and Gaebler (1993). A recent British Treasury document (HM Treasury, 2003) still regards improved information concerning performance as a challenge in raising the productivity of public services, after more than two decades of NPM. Norman (2004) argues that efficiency was a central theme in public sector reform in New Zealand for a decade. Greiling (2005) has discussed efficiency reforms in the German local administration of the early 1990s. These examples suggest that increasing efficiency has and still ranks high on the international political agenda. But measurement of performance in the public sector through private sector practices and principles is hardly a new or recent idea (Gianakis, 2002; Halachmi, 2005). In the US, the New York Bureau of Municipal Research's development of a budgetary system based on work-load measured prior to World War II and the Hoover Commission's recommended switch to performance-based budgeting in 1949 are further examples (Greiling, 2005). The Audit Commission's work in the UK during the 1980s and its call for the ideas of 'corporate vision' and 'shared culture' for local authorities suggest the use of business practices before NPM became established. Pollitt (1986) noted that even in the mid-to-late 1980s most public services in the UK had taken on board aspects of performance measurement.

Academic opinion is divided with respect to the benefit of performance measurement. Johnsen (2005, p.5) identifies three groups in this regard: the true believers (e.g. Osborne and Gaebler, 1993), the pragmatic sceptics (Pollitt and Bouckaert, 2000; Greiling, 2006) and great sceptics who question performance measurement (e.g. De Bruijn, 2002; Meyer, 2002, p.7). Mixed results have been reported from the public

sector in the use of business practices like business process re-engineering (McNulty and Ferlie, 2002), benchmarking generally (Holloway *et al.*1999) and more specifically in the UK NHS (Walshe and Sheldon, 1998) and competition and internal markets in the NHS (Ham, 1994; Enthoven, 2000).

The promise of performance measurement must also be considered with its limitations. Bennet and Hill (2002 cited in Halachmi, 2005) in their study of the American Government Performance and Results Act (GPRA) of 1993 point out that it was still not widely used amongst Capitol Hill policy makers almost a decade later. Bouckaert and Peters (2002, p.359) argue that performance measurement and management can resolve certain problems but also create new problems. They warn of the consequences of having a range of new management practices in place with inadequate or counterproductive performance measurement systems providing a false sense of security and accomplishment. They conclude that inadequate performance management can become the "Achilles' heel" of the modernisation process itself. Hatry (2002, p.358) while accepting that "governing-for-results" is an accepted feature of public sector organisations, acknowledges that performance measurement is one of the many tools needed for effective governance for results. He also lists ten 'fashions and fallacies' surrounding performance measurement and performance management. Modell (2004, p.39) calls the different developments in performance measurement within the NPM movement as "myths" given its lack of comprehensible success and claims considerable research is needed to demonstrate the success of some of the 'new wave' performance models such as balanced scorecards.

Despite the criticism of performance measurement within the NPM discourse and in the public sector arena, the past few decades have witnessed a proliferation of performance measures in the management of public services and steady growth in performance measurement industry (Johnson, 2005). Lapsley (2008, p.86) reviewing the different themes within NPM concludes that performance measurement will continue to be an area of heavy emphasis by key NPM players including public service organisations, audit bodies, Government and researchers. The evidence discussed suggests that attempts to introduce result-based-management have been

unsuccessful (Pollitt and Bouckaert, 2000). Nevertheless the need for measuring outputs and outcomes and appraisal activities remain an important element in statements by administrators and politicians focused on improving the Government's performance (Theil and Leeuw, 2002).

Pollitt (2006) offers a perspective of what has driven performance measurement in the last two decades given its perverse consequences. Focusing on the use of performance information by ministers, parliamentarians and citizens, he suggests that politicians and citizens seldom use performance information and the evaluation, performance measurement and performance audit remain "conversations between experts, technocrats, and managers, and not a significant feature of democratic governance" (p.52). In another recent study, Johnson and Talbott (2007, p.29-30) analysing the conduct of parliamentary Select Committees in the UK found that Parliament itself has been challenged more by performance reporting than challenging the Executive, despite the attempts by Parliament to institutionalise performance scrutiny. The findings from these two recent studies is consistent with earlier work of Joyce (1997, p.59) that found little evidence from the US context that performance information was actually used in the process of making budget decisions. Such evidence runs contrary to the claims made by Governments that they have to provide their citizens with large amounts of performance information if they are to make informed choices. The next section examines the Government's objectives in using performance measurement as a key dimension of NPM.

2.1.2 The ambiguity of results: NPM and NPG

The literature on cross national variations in public management reforms is limited other than OECD reports, private economic surveys and work of few authors (Hood, 1995; Pollitt and Bouckaert, 2000). There is insufficient evidence to suggest that all the OECD countries moved to adopt NPM principles to the same degree during the 1980s. Hood (1995) points out that there were some marked differences even within

the 'Westminster' model. He argues for instance that personnel management was not very popular in Japan where National Personnel Authority was strong. Performance pay became popular in countries like Norway, Denmark and the UK but not in Germany where it came into conflict with the doctrine of equality of pay. Reforms undertaken in the UK and New Zealand in the 80s were targeted to separate policy settings and service delivery. In Australia, measures were taken to strengthen the capacity of ministers to manage (ibid, p. 101).

NPM has been presented as a framework for general applicability and a new paradigm by academics and practitioners (Holmes and Chand, 1995; Hughes, 2003). This internationalisation of public management parallels the internationalisation of public and private sector economies (Aucoin, 1990). The rise of NPM has also been described as a new global paradigm with claims that the transition to the new paradigm is inevitable "just as the transition from machine rule to progressive government was inevitable" (Osborne & Gaebler, 1992, p.322-330). Following the work of Osborne and Gaebler (1992), many authors have highlighted the commonality of themes in a global organisational reform movement and postulated the idea of copying or 'cloning' of management ideas and styles (Halligan, 1996; Kettl, 2000).The underlying argument here is that global economic pressures have led to 'the rise of the entrepreneurial government in the developed world'(Osborne and Gaebler, 1992,p.328) which in turn is forcing government to follow the new style of public management.

Many commentators have highlighted the national diversities with the NPM reform movement (Flynn and Strehl, 1996; Skelley and Douglas, 2002). These authors have raised questions about an inevitable and global convergence towards a new style of public management to pursue an agenda of NPM reforms. Powell and DiMagggio (1991) have postulated the idea of 'institutional isomorphism' for the convergence of organisational forms in particular fields towards a common type. This isomorphism may be coercive, mimetic or the result of normative pressures. They identify a number of hypotheses as predictors of change (organisational and resource dependency, uncertainty, ambiguity, and professionalisation). These factors facilitate

exchanges and create a dynamic process towards the use of similar or identical organisational forms. Hughes (2008, p.2) suggests that there has been no advocate, no theorists, no agenda and no doctrine for NPM and Hood's original description of NPM (1991) that of perceptive observer caught on as it "filled the need". Van Thiel *et al.* (2007) describe it as a highly ambiguous concept and like a "chameleon: it constantly changes its appearance to blend with the local context."

Further challenges against NPM include questions regarding the inherent contradictions in the movement (Fox, 1996); the tensions between coordination of the public sector and decentralisation promoted in the market model (Peters and Savoie, 1996); the values promoted by NPM (deLeon and Denhardt, 2000) and governance (Hirst, 1997; Gedes, 1997). Terry (1998) calls this 'neomanagerialism' a threat to democratic and constitutional values such as fairness, justice and participation. Denhardt and Denhardt (2000) present a New Public Service (NPS) approach as a viable alternative for the differences between old public administration and the NPM calling for a greater public participation in the delivery of public provisions. The emphasis is not on steering (NPM) or rowing (public administration), but serving (ibid, p.553). Liddle (2007, p.402) argues that the emphasis in the NPS is to build public institutions based on responsiveness and integrity and presents a neat summary of the seven key principles of NPS:

- Serve rather than steer, because public policies are no longer simply the result of governmental decision-making processes.
- The public interest is the aim, not the by-product. It is necessary to establish shared interests and shared responsibilities based around a vision for the community and a single set of goals

- Think strategically, act democratically. Collective effort and collaborative processes should exist within open and accessible government

- Serve citizens, not customers and have a concern for the larger community

- Accountability is not simple and involves complex constellations of institutions and standards

- Value people, not just productivity. Processes of collaboration and shared leadership should be based on respect for people

- Value citizenship and public service above entrepreneurship.

It is argued that a new public governance (NPM) would strengthen democratic control over decision making and citizen involvement, as well as improving public trust in government institutions and types of services provided (Liddle, 2007, p.403). However, governance (like NPM in many ways) lacks a precise definition and has been used in different context and applications (Tendler, 1997; Minogue *et al.*1998). Hirst (1997, p.3) defines governance as "a means by which an activity or ensemble of activities is controlled or directed, such that it delivers an acceptable range of outcomes according to some established social standard" (Hirst, 1997, p.3). While there is no agreement as to why and how this new form of governance replaces governmental institutions, it has been argued that rapid technological changes and international interdependence coupled with the blurring of boundaries between government and business are important reasons for such changes (Liddle, 2007, p.399; Geddes, 1997).

Taking Healthcare to the Patient (2005a, p.3) envisages involving "patients and public" in designing future services to successfully meet the needs of the diverse and multicultural society. The focus is to provide an increasing range of other services in primary care, diagnostics and health promotion. Where patients are needed to be transported, ambulance services should be able to take them to a greater range of appropriate facilities rather than the current practice of being transported to the hospitals (ibid, p.18) thus improving care and experience. These intended benefits can be of a challenge since the emotional and physical state of the patient/user of the

service may be of relevance to gauge the correct level of service offered. This study will bring additional light on the nature and level of patient participation in the performance measurement of the Ambulance Service. Within the larger debates between NPM and NPS or NPG, this study will examine a smaller but specific issue as to what extent the current Ambulance performance framework exhibits public involvement and patient participation.

2.1.3 Audit and NPM

Another aspect related to the rise of NPM is the issue of the "audit explosion" (Power, 1994, 1996) as a consequence of increased demands for accountability and transparency. Power (2000, 2003) elaborates that the audit explosion is a convergence of financial and non-financial audit and inspection practices informed by ideas of quality assurance rather than simple financial and or accounting practices. In the UK there is a clear evidence of the manifestation of the audit society (Pollitt *et al.* 1999) In addition to the traditional financial audit; there is a widespread and heavy emphasis on the 'value for money' (VFM) audit within the public sector (Lapsley, 2008). A range of organisations undertake such VFM audits in the UK which include the National Audit Office, the Audit Commission, Audit Scotland, the Accounts Commission and numerous professional accounting firms. Such forms of audit are seen to be penetrating all aspects of organisations such as the clinical audits of hospital works.

The phenomenon of the audit explosion is also not without criticism. Humphrey and Owen (2000) criticise it as an interpretation and overstatement of the influence of audit. Lapsley and Pong (2000) argue that the lack of objective measures of performance for novel areas of audit investigation assuages the audibility of the management function with likely attendant defensive behaviour by managers in the public sector organisations. Power (2003, p.191) identifies outcomes such as the elevation of audit to a management style and the elevation of auditors to "all purpose solution agents" and may distort the behaviour of the managers as they seek to be

seen discharging their duties appropriately. One unintended side-effect of such an outcome could be the adoption of a "tick box" attitude on part of the managers (Lapsley, 2008, p.89) in seeking to achieve compliance with audit framework. However, given the current emphasis and use of the VFM models, it is reasonable to believe that audit will be located firmly within the broad framework of NPM and managers in the public services will continue to seek to make their actions auditable and verifiable.

2.2 The Government's aims behind performance measurement

The primary focus of much of the performance literature, in both the public and private sectors, has been organisational. This is important in the public sector because most accountability and financing systems tend to be built around organisational structures rather than programmes and policies (Talbot, 2005, p.494). In the UK, there appears to be a two-tiered approach by the Government in dealing with performance measurement (Public Administration Select Committee, 2003). The first strategy emphasises capacity building in organisations with specific attention paid to leadership and management issues. The second approach typified by targets is more mechanistic. An analysis of the Government's aims about performance measurement and targets is useful here.

The first aspiration of the Government is that targets provide a clear statement of what it is trying to achieve. They set out the Government's aims and priorities for improving public services and the specific results it aims to deliver. Targets can also be used to set standards to achieve greater equity. Since there too few resources available, one objective of the Government is to use targets to communicate priority. But the practice in the UK suggests a lack of clarity about what the Government is trying to achieve. The idea of relying on national targets to promote greater equity also raises further issues. For example, the practice of star ratings in the NHS rated individual Trusts based on the basis of a series of targets did not necessarily help in promoting equity:

"The link between Public Service Agreement targets and agency key targets is often unclear and it is often difficult for agencies to see any real link between the services they deliver and the needs of the Department."

Public Administration Select Committee (2003, p.13)

The second stated aspiration of the Government (Public Administration Select Committee, 2003) is that targets provide a clear sense of direction and ambition. The aims, objectives and targets contained in each Public Service Agreement (PSA) provide a clear statement around which departments can mobilize their resources. This helps in business planning and communicating a clear message to staff and to the various public bodies that contribute to delivery of each department's programme. This aspiration emphasises the use of performance measures and targets in public services. Evidence suggesting that targets do not provide an accurate measure of the goals and objectives of an organisation:

"Targets were almost being presented as a substitute for business planning, that really all you needed was a small set of targets, they were in the PSA and you got your comprehensive spending money and then they were reviewed."

Bichard cited in Public Administration Select Committee (2003, p.14)

"Something imposed from above nationally which has little relevance to a teacher in a school in the middle of Bodmin Moor is not necessarily stretching her and it may not actually achieve improvement"

Harris cited in Public Administration Select Committee (2003, p.14)

The third aspiration of the Government is that targets provide a focus on delivering results (Public Administration Select Committee, 2003). The targets encourage departments to think creatively about how their activities and policies contribute to delivering them. They also encourage departments to look across boundaries to build partnerships with those they need to work with to be successful. Two things need to be emphasised here. The first is that there is a new emphasis on outcomes compared with the traditional Treasury focus on outputs such as money, resources and personnel. For example, in the past attention would be focused on the number of students passing an examination or number of operations performed; in the new approach it would look at the number of children able to read or patients successfully treated. The second focus is towards 'joined-up' thinking that encourages a relationship and network based approach rather than a more adversarial one. There is a lack of evidence of the usefulness of performance measures and ratings used widely in public sector organisations and whether targets actually deliver results (Propper and Wilson, 2003). The limitation of league tables has been highlighted by Goldstein and Spiegelhalter (1996) in an influential paper presented to the Royal Statistical Society. Givan (2005) in a study that looked at the star ratings system and the response of managers across 17 different NHS Trusts revealed that the star ratings system suffers from a serious lack of Trust and does not promote improved performance. Another problem with this aspiration is the danger of a measurement culture where targets become more important than delivery of the service. Attention focuses on the measurable at the expense of measuring difficult but more relevant aspects of performance and can lead to perverse consequences including serious instances of cheating and gaming (Bevan and Hood, 2004). This aspect has been looked at in detail in this study. We investigate if the current performance targets in the NHS Ambulance Service have become an end in themselves at the expense of other measures of performances and whether they lead to unintended consequences.

The fourth aspiration of the Government is that targets provide a basis for monitoring and rewarding success and learning from failures. Such monitoring has its problems. There is less desire to monitor diligently- especially if there are penalties involved for failing to meet targets. However it rewards identifying, learning and employing best practice. The evidence in this regard is not encouraging. In its evidence to the Select

Committee (Public Administration Select Committee, 2003, p.20), the National Audit Office (NAO) described the Government's reporting against targets as still "developing." The Department of Health's statistical releases have come under criticism following a recent report from the Statistics Commission (2008). In its analysis of Government releases, quarterly NHS inpatient and outpatient waiting times statistics failed against all six criteria, namely clarity, accuracy, objectivity, professionalism, use of simple language and ease of use (Report No.39, Statistics Commission, 2008, p.41). In another independent review of information and data quality in the NHS, the Audit Commission (2004) observed that despite huge investment in improving data quality it is too often seen as the domain of the IT department and stressed that Trust boards should take this function more seriously rather than having a board member nominated with corporate responsibility for it (p.5). Dixon (2000) writing for the King's Fund, argues that performance too often conjures up a traditionally narrow image associated with the management agenda of giving priority to efficiencies and financial balance over quality and clinical governance. The report of the study group commissioned by the DoH for measuring quality conceded that it is not possible to calculate quality with the currently available data (Castelli, *et al.* 2007). Smith (2005) argues that the prime intention of the English performance indicator scheme is to focus attention of senior NHS managers on Government priorities rather than informing patients or the general public. This also ties in with other evidence that patients and citizens (as principals) do not scrutinize performance data (Marshall *et al.*2003).

The last aspiration of the Government is that targets provide better public accountability. The Government is committed to regular public reporting of progress against targets. This is an important element in accountability and should encourage managers to make effective internal use of performance information. In practice, such accountability remains diffused and unclear. A majority of public services are not delivered by Whitehall departments in the UK which only supervises policies for which the Ministers are responsible to Parliament. In the case where targets are not met or set too ambitiously it can lead to a culture of blame and can provide a de-motivating effect on frontline managers. Accountability has been a central focus in the governance of NHS Trusts. Klein (2006) from the perspective of the NHS argues

that there are tensions between the doctrines of accountability to the centre and delegating responsibility to the periphery. Star ratings hold senior managers (specially the Chief Executives) responsible for the overall performance of their organisations and those with poor ratings can expect to lose their jobs (Carvel, 2001).

2.2.1 Problems of definitions

The above discussion highlights the difficulties in achieving the stated aims of the Government regarding performance measurement. But more importantly it also reveals the confusion in the language surrounding targets, measures, indicators, performance measurement and management. No clear distinction seems to be made in the use of the terminology. Performance measurement is the essential foundation on which performance management can be built. While the two terms are often used interchangeably, performance measurement is different from performance management (Hatry, 2002). Radnor and McGuire (2004, p.246) argue that performance measurement is the act of the actual measurement of performance whereas performance management is concerned with the broader aspect of the management of performance. Neely *et al.*(1995, p.80) give the following definitions:

- Performance measurement is the process of quantifying the efficiency and effectiveness of action

- Performance measures are metrics used to quantify the efficiency and /or effectiveness of an action and

- Performance measurement system is a set of metrics used to quantify both the efficiency and effectiveness of actions.

In this definition the concepts of efficiency and effectiveness have been used. But public sector organisations have no 'bottom-line' which demonstrates their success

and hence performance is principally about the internal efficiency of turning inputs into outputs (Talbot, 2005, p.499). Measuring efficiency in the public sector is thus a much more difficult task. Greiling (2006, p.448-9) identifies three functions of performance measurement from a public sector perspective:

- Performance measurement in a narrow sense refers to the process of measurement limited to applying various techniques for generating performance data

- The second way performance measurement is used is to report performance such as performance indicator based school league tables, star ratings in the NHS or annual Accounts to the National Audit Office (NAO). Under this function, performance measurement is used as an accounting tool for monitoring and control

- The third function of performance measurement is as a steering instrument within the public sector, referred to by some authors as 'performance management'. However such a distinction between performance measurement as an accounting mechanism and performance management as a steering mechanism may often not be very clear.

The conceptual difficulty in arriving at a precise definition of performance measurement is also reflected in Greiling's (2006) account above. The previous section has revealed some confusion about the intended benefits of the performance measurement from the Government's perspective. Such difficulties can be characterised in the public sector organisations due to the complex nature of operations (Smith, 2002; Radnor and Barnes, 2007), multiple stakeholder complexity (McAdam *et al.*2005) and due to lack of consistency in the literature over precise definitions of the terminology used.

Following the above discussion, few definitions are offered for the sake of clarity and consistency in context of this study:

1. Inputs: resources used by an organisation (Public Administration Select Committee, 2003)

2. Outputs: the services, goods or products provided by the organisation using these inputs (Public Administration Select Committee, 2003)

3. Performance indicators: quantifiable measures used to monitor performance an which are reported to the public (Public Administration Select Committee, 2003)

4. Performance targets: desired or promised levels of performance based on performance indicators (Public Administration Select Committee, 2003)

5. Performance measurement: process of the actual measurement of performance based on performance indicators and performance targets and

6. Performance management: strategic and integrated process involving amongst others training, management styles, employee engagement (Armstrong, 2000).

In this investigation, performance measurement has been considered as a sub-set of performance management and will be dealt with accordingly. It can be thus argued that the management of performance measurement concerns making decisions about measurability. Rather than taking performance measures for granted, reflection on the measurability of input, process, output and effect is essential to reach agreement about the indicators between all stakeholders (Van de Walle and Van Dooren, 2005).

2.2.2 Principles of effective performance measurement

Performance may not be only measured through targets and indicators but also by assessment through internal or external inspection. For the UK Audit Commission, the external auditor for all NHS organisations and local authorities, an effective performance measurement system is built on six key principles (Audit Commission, 2000). The first principle concerns 'clarity of purpose'. A performance measurement system in the public sector has multiple users including service users, general public, central Government, national and local politicians, Trust directors and managers. It is important to identify each user of the performance information and recognise the information needs of each group which is not an easy task. The clarity of purpose can get more complicated in a healthcare system which is a complex web of accountability relationships involving citizens, Government, managers, patients, regulators and tax payers. Smith (2005, p.214-5) has analysed the requirements of performance data for these different groups within the context of the UK NHS and highlights the difference in the data needs of different users of it:

- *Patients* are a heterogeneous group and the two fundamental requirements for the performance information are reassurance that their local service will provide good emergency care if needed, and support for making a choice of providers when the need for care has been established. But in the case of an actual emergency, a patient is unlikely to place performance data on their list of priority. Even on the issue of choice, since the needs of the patients will be specific, such information might be of little use to the wider public.

- *Health care professionals* may require similar information as the patients to ensure rationing and choices. However, it is believed that data for professional development is best designed by professionals and fed back to practitioners.

- *Regulators,* of which the Healthcare Commission is the major body in England and Wales, have a remit to assure the quality of providers. The need to assure safety and conformity to standards is central to its methodology. The data and

analytical requirements for such a safety purpose are quite distinct from those needed for professional improvement.

- *Taxpayers* need assurance that their taxes are being spent effectively and efficiently. One persistent theme in the NHS has been a desire to ensure that tax revenues are distributed fairly and a standard level of care is provided across the country. Citizens and taxpayers (as distinct from patients) are likely to require aggregated data at a local and national level.

- The *Government* is the main policy maker in the health system. The highest level objectives are set in the form of Public Service Agreements (PSAs). Performance data which is consistent with national objectives is required by local NHS boards to ensure compliance with the central Government's targets and objectives. In this regard, the performance ratings prepared by the Healthcare Commission are a key resource.

- *Managers* need detailed local data to ensure that the organisation is able to meet its objectives. So along with performance data, Smith (2005) argues that they may also need interpretative and contextual data including benchmarking material to understand reasons for divergence in different performance ratings.

This discussion highlights the difficulties in designing performance measures with a clarity of purpose owing to the differing performance needs of the stakeholders. In absence such clarity, there is a potential for the abuse of the performance measurement system.

The second principle which the Audit Commission (2000) recommends is for organisations to be clear about their objectives in measuring performance. A performance indicator can focus attention of the senior management team on a particular aspect of service or service delivery. This can have an adverse effect skewing performance by monitoring a small number of aspects of service to the detriment of others. The reported evidence highlights several challenges in this

regard. Defining performance measurement in a healthcare organisation is not an easy task. Carter, *et al.*(1995) have argued that the performance indicator package in the NHS has addressed three main concerns. They comprise concern about efficient use of NHS resources (length of stay, turnover interval), concern about value for money (breaking down cost of treatment), and concern about access to the NHS (data about admission rates, waiting lists). There is no single set of measures that can adequately identify performance:

> *"The private sector is comfortable with targets because, while they are determined from the top, they are "built on measures which are valid from the 'bottom-up', for example sales, and generally accepted as valid". The same could not be said for much of the public sector in the UK."*
>
> *Audit Commission cited in Public Administration Select Committee (2003, p.15)*

The third principle which the Audit Commission (2000) recommends for effective performance measurement is the alignment of performance measures with the core objectives of the organisation. Managers and staff should understand and accept the validity of corporate and national targets. This will help in two ways. Firstly, performance is more likely to be owned by the managers and staff concerned, making improvements much easier to implement. Secondly, regular use of information will increase its reliability and accuracy (ibid, p.9). Reported evidence suggests that the underlying problem seems to be the lack of alignment of objectives, policy and implementation between central departments and frontline service delivery units. The Chairman of the Audit Commission acknowledged this aspect in his evidence before the House of Commons Select Committee in 2003:

> *"At the centre there is still a real paucity at the senior level of people who are involved in the setting of targets, a lack of real world delivery experience and this is shown time and time again... At the local level often the experience of real world delivery is there, but what is not there is a real understanding of both the strengths but also the limitations of these tools*

and, of course, we see far too often that the mechanism which is purely a means, becomes an end in itself...That is very dangerous."

Strachan cited in Public Administration Select Committee (2003, p.15)

The fourth principle is that the performance measurement should take a balanced view of the whole organisation rather than having a focus on achieving good performance for only the measured part of the service (Audit Commission, 2000, p.9). Bevan and Hood (2006, p.521) argue that the governance by targets rests on the assumption that any omission of organisational performance which is not measured does not matter and what is measured can be relied on as an adequate basis for the performance regime. The difficulties of measuring certain aspects of an organisation's performance means that there is a tendency for the more easily measurable aspects of performance to push out what is not.

The fifth principle for effective performance measurement is the ability of the performance indicators (PIs) to be refined regularly in the light of the experience of use of the indicators. A balance should be struck between having consistent information and taking advantage of new or improved data (Audit Commission, 2000, p.10). Even with careful preparation it will take time to discover if there are flaws and unintended side-effects from the manner in which the indicators have been constructed and used (Likierman, 1993).

The sixth principle underlines the need for 'robust' performance indicators for an effective performance measurement system. Some of the general characteristics described by the Audit Commission (2000) for improving the 'robustness' suggest that PIs amongst other things should be relevant, clear, statistically valid, and unambiguous, allowing innovation and preventing perverse incentives. The search for an 'ideal indicator' has been a subject of detailed academic inquiry and is an ongoing effort. Carter (1991) argues that the development of comprehensive and usable performance indicators will be influenced by an ability to overcome various

conceptual design problems (for instance performance ownership, the degree of complexity and organisational characteristics). The nature of these design problems will influence the ways that the indicators are used. Carter *et al.*(1995, p.49) argue that most PIs are tin openers (imperfect measures) rather than dials (good measures): by opening up a 'can of worms' they do not give answers but prompt investigation and inquiry and by themselves provide an incomplete and inaccurate picture. Likierman (1993) using the feedback of more than 500 public service managers provides twenty 'valuable lessons' in highlighting several dangers in the conception, preparation, implementation and use of performance indicators. Bird *et al.*(2005) arguing from a perspective of 'good, bad and ugly' performance indicators make a call for greater public debate to educate the wider public and policy makers about the issues surrounding the use of performance indicators. Johnsen (2005, p.14) takes a cost-benefit approach in arguing for the usefulness of the indicators.

The above discussion highlights the challenges and difficulties between the stated objectives and principles of good performance measurement and its practice in the public sector organisations. The next section review the performance measurement system used in the UK NHS.

2.2.3 Performance management and organisational learning

Effective performance management relies on systems and people working together to make sure the right things happen in an organisation. The hard systems such as processes and data are not separable from the soft aspects such as culture, leadership and learning. Both are required for effective performance management arrangements which can help to integrate planning, review, financial management and improvement systems to enable policy makers and managers to make informed decisions and improve services.

The Government's Improvement and Development Agency (IDeA) has developed a model which is based on the 'plan-do-review-revise' cycle. This is similar to the 'plan-do-study-act cycle originally conceived by Walter Shewhart in 1930's, and later adopted by Deming (1983). The IDeA model provides a framework for the improvement of a process or system (Fig. 2.1) can be used to guide the entire improvement project, or to develop specific projects once target improvement areas have been identified.

Source: IDeA, 2009

Figure 2.1: The plan-do-review-revise cycle of performance management

The model can be summarised as follows:

- Plan: To understand the current performance, prioritise what is required to be done; to identify what actions needs to be taken and to plan for improvement

- Do: to ensure that proper systems and processes are in place to support improvement, take action and to manage risk, to help people to achieve better performance

- Review: to understand the impact of management actions, to review performance, to talk to the users and stakeholders about their experience of performance and to get a better picture of changing circumstances and

- Revise: to use the lessons learned from review to change the plans for what is done so that future action is more efficient, effective and appropriate.

The model is useful in highlighting the positive aspects of factors like cultures and behaviours that support performance management and would be a useful 'checkpoint' or prompts for senior executives to consider in the management of organisational performance. The model also reflects the concepts and components of a 'learning organisation' which is also recognised as a key factor in improving individual and organisational performance (Dodgson, 1993; Schein, 1996; Walburg, 2006). In a very influential book, *The Fifth Discipline:The Art and Practice of the Learning Organization*, Senge (1990) outline five disciplines that characterise a learning organisation: mental models, personal mastery, shared vision, systems thinking and team learning. These five dimensions or 'competent technologies' that build and sustain learning organisations distinguish learning from more traditional organisations.

However, the model makes an assumption that the individuals want to develop and contribute to the organisation in a positive way. Many aspects of the model (plan, do) also require significant resources in terms of time and money to support, particularly around the concept of the process being inclusive of all the stakeholders. The model also relies on an 'open' culture where people can reflect on good and bad experience and be challenged in a constructive way. Evidence suggests that this is difficult to achieve in the NHS with little evidence of self appraisal and culture of blame (DoH, 2000).

Another benefit of the model is that it can be used as a cultural analysis tool which will help the organisation as to what aspects of systems work and what is the contribution of people in achievement of the organisational objectives. These are seen as key pieces of jigsaw that creates a context receptive to change and performance improvement (Garside, 1998; Shortell and Kaluzny, 1998). This process will also help identify strengths and weaknesses and establish priorities for the short and the longer term (Wilderspin and Bevan, 2006).

2.3 Performance measurement in the UK NHS

The experience of performance measurement from the UK NHS highlights the limitation of treating performance measurement as a 'panacea'. One classic example was the 'star' system of annual performance ratings under which every NHS organisation was given a ranking from zero to three stars on the basis of its performance on about 40 indicators. Annual performance ratings were used for NHS Trusts in England between 2001 and 2006. The process of 'naming' and 'shaming' gave each Trust a rating from zero to three stars. Trusts that performed well and achieved three star status were eligible for benefits from 'earned autonomy' (DoH, 2002). A fairly complex methodology was used to calculate the star ratings and used a combination of the Trust's report on clinical governance and performance against management targets (DoH, 2002a). The star system was abandoned in 2006. Lapsley (2008, p.85) argues that the major reasons for the failure of the star system were its inability to grade hospital performances robustly enough to be captured by a simplistic four star classification system and the attendant disputes over outcomes. Ironically, the four grade star system of measuring hospital performance in England has been replaced by a new four grade system (excellent, good, fair or weak), the Annual Health Checks ratings. Although the star ratings have been abandoned, this new system rates the performance of individual NHS Trusts using two broad measures of overall quality of service score and overall use of resources score. The use of financial resources however represents a broader assessment of performance. The ratings for 2008 (Healthcare Commission, 2008) state that approximately 40% of NHS Trusts provide services that are weak or fair.

It is not being suggested that star rating systems and targets have not improved performance in NHS Trusts in England. There has been a noticeable reduction in waiting times for elective hospital admission, patients have to wait less in hospital Accident and Emergency (A&E) wards before admissions and ambulances are getting to patients' more quickly (Bevan and Hood, 2006, p.526-28). But what is not very clear is how genuine these improvements have been or whether they have been achieved at the cost of other aspects (unmeasured) of performance. The effect on aspects of performance and service delivery that have been excluded from star ratings is unclear. Further, the role of targets is controversial in promoting good performance. Bevan and Hood (2006, p.526) argue that the system of governance by targets in UK health care in the early 2000s amounted to an institutionally complex and frequently changing set of overseers, assessors and inspectors. Rowan *et al.*(2004) found no relationship between the clinical quality of adult critical care provided by hospitals and performance in star ratings.

Snelling (2003) highlighted the complexity of the methodology involved in calculating the star ratings by analysing star ratings of NHS Trusts in 2002 when compared to 2001. He found that the DoH system of awarding stars was inconsistent in its approach with different indicators being important in different areas of performance (p.220-21). Jacobs *et al.*(2006) in their evaluation of composite indicators used in the NHS found them to be sensitive to methodological changes (altering weightings or decision rules) and year-to year changes. A British Medical Association (BMA) survey found that two thirds of accident and emergency (A&E) departments in England put temporary measures in place during a monitoring week so they meet the Government's waiting time target of four hours (British Medical Journal, 2003).

One popular instrument of performance measurement widely used within the NHS and which is increasingly being debated is the balanced scorecard. The balanced scorecard was first presented as an improved approach to performance management beyond standard financial tools (Kaplan and Norton, 1992, 1996). It has since grown from a multi-dimensional performance measurement tool to a device for controlling

the implementation of strategy and leads to dysfunctional effects and increasing cost (Radnor and Lovell, 2003). Modell (2004, p.43) calls it a 'ghost myth' and questions the real benefit of the tool. Aidemark (2001) in his study of BSC in a healthcare organisation while accepting that it helps to make different components of performance measurement more explicit argues that there are issues over the measurement of components and the nature of their relationships. Norreklit (2000) questions the cause-and-effect relationship between different elements of the scorecard. Similarly, Papaelxandris *et al.*(2005) argue that the scorecard pays little attention to different critical support factors such as chain management, IT infrastructure development and project management that are critical to the successful implementation of a balance scorecard. Bowerman *et al.*(2001) in their study of the use of 'benchmarking' in local Government, questioned if genuine comparability exists in comparing and benchmarking performance across different organisations. In the specific example of the NHS, the rationale for benchmarking is focused on the significant variations in clinical practice between clinicians and institutions (Walshe and Sheldon, 1998). But the effectiveness of this tool depends on taking a relatively holistic approach in which all aspects of performance measures are "fully appreciated before changes are proposed" (Holloway *et al.*1999, p.352). The next section details the performance framework in the UK NHS Ambulance Services.

2.4 The UK NHS Ambulance Service

The origins of the Ambulance Service as a public service can be traced back to the late 19th and early 20th centuries with the development of a horse drawn service that was set up in Liverpool in 1883; the city of London Ambulance Service in 1906; and the introduction of the 999 service in 1937 (Ambulance Service Association, 2000, p.6). When the NHS was created in 1948, the Ambulance Service was a function given to the local authorities. Unlike the Police and Fire Services, there was no accompanying legislation to provide structures and operational arrangements for the new Ambulance Services that were classified as 'essential' rather than 'emergency' services (ibid, p.7). With a further absence of any infrastructure for leadership or training, individual services found their own ways of operating. Uniforms and rank

structures emulated the established emergency services and a basic first aid certificate was all that was required to work in the services.

During the 1990s Ambulance Services became NHS Trusts. Prior to reorganisation in 2006, there were 31 Ambulance Trusts in England. Reorganisation created 11 Trusts organised around Government Office of the Region boundaries (DoH, 2005, p.10). All of these Trusts provide both emergency and non-emergency services. Emergency transport is provided by individual Ambulance Trusts in response to 999 calls and urgent requests from general practitioners and clinicians including inter-hospital transfers using an emergency vehicle. The Patient Transport Service (PTS) provides pre-booked carriage of patients to hospital for example to outpatient appointments and to day care centres (CHI, 2003).

Since becoming a part of the wider NHS in 1974, the Ambulance Service has developed from a simple transport service into a pre-hospital health care service. But the general perception about their role is still far from positive:

> *"The Ambulance Service is perceived as the transport arm of the NHS, simply there to get patients from their homes or the scene of an accident to the nearest accident and emergency department."*
>
> *Chief Executive cited in NHS Confederation (2005, p.1)*

The Ambulance Service is the first point of access for a wide variety of health problems. The significant gaps in the healthcare literature, especially in relation to paramedic care is characterised by the fact that most documented research revolves around specific episodes of medical care in hospitals or other permanent healthcare facilities (Linwood *et al.*2007). The nature of the patient care in Ambulance Service is more immediate and delivered under trying, and often unstable conditions. Patient care and research into how to improve the service in such circumstances, necessitates a different but complementary approach to that of other healthcare organisations

(Woods *et al.*2002). The pre-hospital and emergency medical systems research lags behind other health disciplines and medical specialties, and there is a need to increase the profile, and volume, of pre-hospital research especially from a public policy and management perspective (Heath and Radcliffe, 2007; Tippett *et al.*2003).

The issue of performance measurement in the Ambulance Service has not received detailed attention in the literature. Few Ambulance Trusts have carried out their own performance reviews (Murray and Tinston, 2005). However, a comprehensive study of Ambulance Services in England was undertaken relatively recently (2004-05) when Peter Bradley CBE, the National Ambulance Advisor, led the first strategic national review of Ambulance Services in England. His report, *Taking Healthcare to the Patient: Transforming NHS Ambulance Services* (DoH, 2005a) outlines the future roadmap for improvement of the Ambulance Service. Not much is known about the performance measurement in the Ambulance Service, the role of performance indicators and targets and the overall management of performance. The next section will examine the performance measurement system used in the UK NHS Ambulance Service.

2.4.1 Performance targets in Ambulance Trusts in the NHS

Response time performance based on 999 call prioritisation has been used as the main indicator of emergency Ambulance Service quality in England since 1974 after the Ambulance Services were integrated into the NHS. ORCON (Operational Research Consultancy) was created in 1974 to monitor Ambulance Service performance by determining what was achievable within local geographical configurations instead of the clinical need of patients (DoH, 1999, p.1). Following a review of performance targets by Chapman (1996) revised standards consisting of four national performance requirements were set up in 1996. These performance indicators and targets for the NHS Ambulance Services were based on historical performance requirements defined by the 1974 ORCON standard (Healthcare Commission, 2005):

1. Category 'A' calls meeting 8 minute standards: Calls getting a first response within 8 minutes for conditions which may be urgent and immediately life threatening. This indicator measures performance in response of Category 'A' calls (DoH, 1999). With effect from 1 April 2008, the new standard, 'Call to Connect', measures the time when a 999 call is made as against the earlier practice to measure the time after the nature of complaint and the location of the caller were established (DoH, 2005a, p.56). The national target is to respond to such calls within eight minutes irrespective of location in 75% of cases.

2. Category 'B' calls meeting 14/19 minute standards: Calls receiving a response within 14 minutes (urban) or 19 minutes (rural) classified as serious but not immediately life threatening. This indicator measures performance in response of Category 'B' calls. The national standard stipulates that 95% of the time, response should be met within 14 minutes in urban areas and within 19 minutes in rural areas (Healthcare Commission, 2004). Urban services are those where the population density of the area covered was greater than 2.5 persons per acre in 1991. Rural services are those where the population density of the area covered was less than 2.5 persons per acre in 1991 (NHS Modernisation Agency, 2004, p.24). Following the national ambulance review (DoH, 2005a), the performance requirement for Category B calls since April 2006 is based on a single measure of 19 minutes for all the Ambulance Services.

3. Category 'C' calls meeting the national 14/19 minute standards: Calls receiving a response within the national 14 (urban) or 19 (rural) minute targets for calls which are classified as presenting conditions which are not immediately life threatening or serious (DoH, 1999). This indicator measures performance of Category 'C' calls. The national target requires that 95% of cases should be met within 14 minutes in urban areas and within 19 minutes in rural areas (DoH, 1999, p.1).

4. General Practitioner (GP) urgent calls meeting national 15 minute standards: Ambulance Services are required to take patients to hospitals where the need is identified by a doctor as urgent (GP urgent calls) and these patients should arrive at hospital within 15 minutes of the arrival time specified by the doctor. The national target stipulates that 95% of GP urgent calls must receive a response within 15 minutes (Healthcare Commission, 2004).

When the caller makes an emergency 999 call, they are initially connected to the telephone company Operator such as British Telecom, who confirms the number they are calling from and determines which of the emergency services they require. The call is then passed from the telephone company Operator to the local Ambulance Service control room where a Call taker picks up the call. The Call taker then obtains the identity of the caller, the location at which the ambulance is required and the main medical problem. The Call taker can check these details on the automated call tracking system used in the Control room. This information is then transferred to the Call dispatcher, who makes use of the computer system to decide on which vehicle to send to an emergency 999 call (an ambulance, a car, or a bike). This whole process, from the telephone call to the arrival at the scene of an emergency, should be completed within eight minutes to meet the target- Category 'A' response (figure 2.2). Service (NHS Modernisation Agency, 2004). The first is called the Advanced Medical Priority Dispatch System (AMPDS) which is driven by strict protocol with mandatory questions and predetermined actions. The second is the Criteria Based Dispatch (CBD) system. Each of these systems provides structured protocols that allow trained medical Call dispatchers in the ambulance emergency control room to categorise 999 calls and assign a priority code based on the condition and urgency (Nicholl *et al.*2007). Both the systems guide the Ambulance Trust Call taker who received the 999 call in the emergency control room to ask designated questions of the caller or patient to decide the speed of response required.

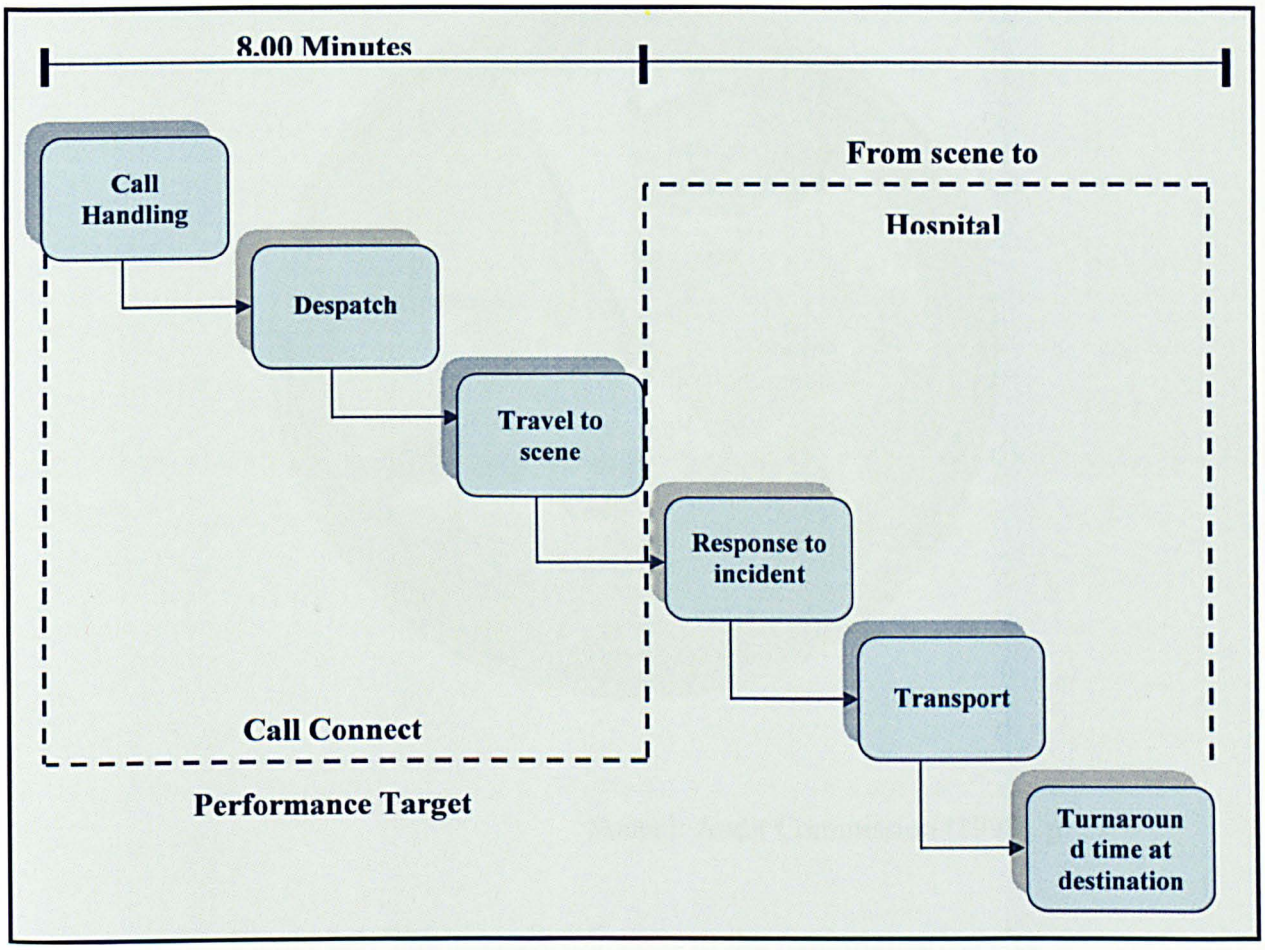
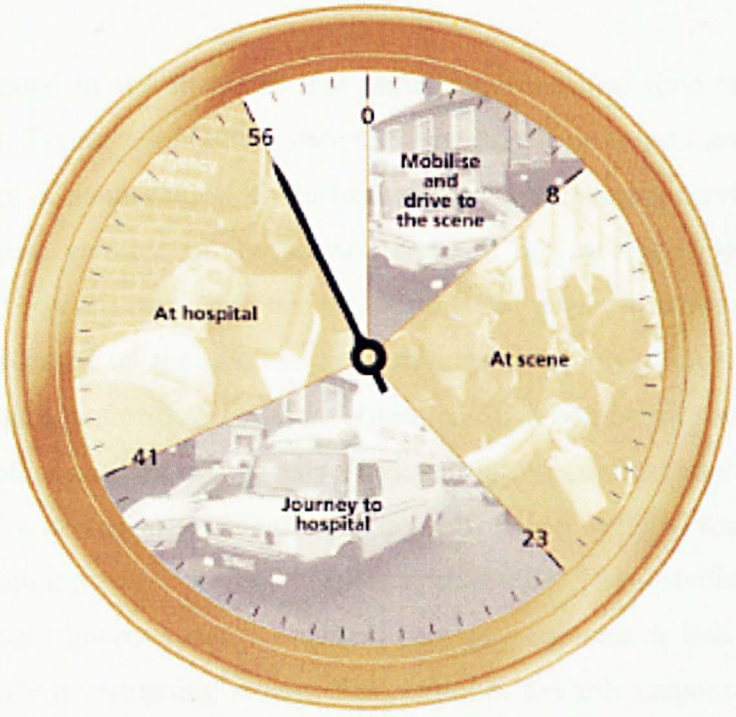


Figure 2.2: Handling of Emergency 999 calls

Although the workload for any particular day or hour can be roughly estimated from the IT systems used, staff to be constantly vigilant and prepared. For each patient journey performed, the ambulance crew goes through a sequence of tasks, 'the job cycle,' which involves mobilising the vehicle; driving to the scène; providing assistance at the scene; transporting the patient to hospital; and time taken at the hospital (Audit Commission, 1998). The average length of the job cycle is under an hour (Figure 2.3). Performance of an Ambulance Service will improve if the cycle is completed more quickly and the crew become available for the next call sooner.



Source: Audit Commission (1998), p. 27

Figure 2.3: The average job cycle in the Ambulance Service

2.4.2 Measurement problems with Ambulance performance framework

The above discussion highlights the fact that the Ambulance Service performance is characterised by response time targets with a key performance target of an eight minute response (Category 'A' call). Ambulance performance targets have attracted some attention in the literature. The debates in respect of ambulance performance measurement can be broadly grouped into three categories: (1) relevance; (2) flexibility; and (3) clinical preparedness. Each will now be analysed in more detail.

1. Relevance

It has been argued in the literature that ambulance response time targets are not evidence based. Turner *et el.*(2006) state that response time targets are neither very useful indicators of quality nor a useful benchmark for comparing services reflecting only the transport element of the service and not the care provided. The study concluded that there are no overall benefits from faster response times and "attention should be re-focussed on the clinical care provided by crews when they get to the scene rather than how fast they get there" (ibid, p.75). A number of studies have also questioned whether an eight minute response can improve survival after cardiac arrest (Pell *et al,* 2001), in emergency life threatening calls (Blackwell and Kaufman, 2002), or after traumatic injuries (Pons and Markovchick, 2002). These studies suggest that outcomes can only improve with a response time of 5 minutes or less. Price (2006, p.127) in a study investigating paramedics' attitudes towards response time targets concluded that the eight minute response time is not evidence based and is putting both ambulance crews and patients at risk. Some of these risks are discussed later in Chapter Five.

Such differing standards are contrary to the claims of the Government as regard the usefulness of response time targets especially in cases of cardiac arrest and stroke where a quick response by the Ambulance Service can help to save a patient's life. The benefits of such a quick response are reflected in the targets set out in the National Service Framework for the treatment of coronary heart disease (DoH, 2000a). This emphasis is also reflected in improving the survival rates from cardiac arrest cases in the Emergency Care strategy (DoH, 2001) and Taking Healthcare to the Patient (DoH, 2005a, p.9). Brown *et al.*(2000) found evidence that driving with blue lights and sirens can reduce response time by an average of 90 seconds but that it was relevant in only a few cases. Since this target has the appearance of objectivity it appears that response time is the single key operational measure used to assess ambulance performance from the citizen's perspective as well to minimise risk and bring confidence to users about the quality of service delivery. Mixed evidence has also been reported in measuring clinical outcomes and treating patients at the scene

against the current 'scoop and run' model used by Ambulance Trusts in the UK. Snookes *et al.*(2002; 2004) highlight the complexity in treating and leaving patients at the scene of an emergency due to issues surrounding litigation costs and the skills and training of paramedics.

No universally accepted response-time system standards are reported in the literature. One recent study (Finch, 2005) reviewing the international practice of Ambulance Service performance reported that in North America, in urban areas, the most widely used ambulance response-time standard was eight minutes and 59 seconds (8:59), with 90% compliance reliability measured on a fractile, not on an average basis. The study also stated that in Australia, response times were typically measured at 5, 10, and 15 minute intervals and compliance to the 10 minute standard was approximately 50%. In Hong Kong, the response times were described as a "performance pledge" and the current pledge was to arrive within 12 minutes for all types of requests (heart attacks or toothaches) with 92% reliability. Different practices also exist for measurement of ambulance performance in the UK. In Scotland, the current target is to achieve 75% response to Category 'A' Calls within eight minutes by March 2009 (Scottish Ambulance Service, 2008, p.12). In Wales, the current Welsh Ambulance Service targets are: (1) A monthly all-Wales average of 65% of first responses to Category 'A' Calls to arrive on scene within 8 minutes, 70% within 9 minutes and 75% within 10 minutes; and (2) A monthly minimum performance of 60% of first responses to Category 'A' Calls arriving within 8 minutes in each Local Health Board (LHB) area (Welsh Ambulance Service, 2008).

2. Flexibility

Many commentators have also highlighted concerns regarding the use of emergency medical dispatch systems such as AMPDS and CBD as an appropriate tool in the performance measurement process. In the first epidemiological study of its kind, Mark *et al.*(2002, p.452) found that 26% of 999 calls given the highest emergency code by the AMPDS system resulted in no journey to hospitals being made. The

authors question the current logic of the practitioners whether the prioritisation can reliably and safely identify 999 calls when an alternative to an emergency ambulance would be a more appropriate response. Squires and Mason (2004, p.727) came to similar conclusions that the flexibility of AMPDS and dispatch targets need to be reviewed to permit the successful implementation of alternative responses to 999 calls and also alluded to the 'risk averse' nature of the service in trying to minimise risks by over-prioiritisation.

3. Clinical preparedness

There has been an increased emphasis on clinical outcomes, and Ambulance Trusts are increasingly engaged in providing out-of-hours care and making referrals to healthcare professionals (DoH, 2005a). Traditionally Ambulance Services have been perceived primarily as an emergency service and the training and service provision have been organised around the need of major trauma like road traffic collision, severe breathing problems or cardiac arrest (Lendrum *et al.*2000). The emphasis has been on life support mechanisms to stabilise the condition of the patient for a rapid transfer to a hospital. However, new statistics reveal that only 10% of the callers dialing 999 have a life threatening emergency (DoH, 2005a, p.8).

The vision of the Government detailed in the national ambulance review (DoH, 2005a, p.14) is to:

- Improve the speed and quality of call handling, provide significantly more clinical advice to callers, and work in a more integrated way with partner organisations to ensure consistent telephone services for patients who need urgent care;

- Provide and coordinate an increasing range of mobile healthcare services for patients who need urgent care;

- Provide an increasing range of other services, e.g. primary care, diagnostics and health promotion; and

- Continue to improve the speed and quality of service provided to patients with emergency care needs.

Such a vision would need ambulance personnel to play an enhanced role and to work closely with other NHS partners. Statistics reveal that currently 77% of emergency calls which result in an ambulance journey to hospital lead to admissions in 40% of cases whilst 50% of them could be treated at the scene or in the community (DoH, 2005a, p.13). Clearly much of the success on the part of the Ambulance Service to help address the problem of filling hospital A&Es and patient beds beyond capacity will depend on ambulance personnel taking on a clinically enhanced role including taking greater clinical risks. In one study (Mason *et al.*2007) paramedics with extended skills were found to provide a clinically effective alternative to standard ambulance transfer for elderly patients with acute minor conditions. But the current evidence concerning safety, effectiveness and funds to support these changes is however lacking (Snookes *et al.*2002). In another study, it was suggested that the UK Ambulance Service is in a transition stage with significant organisational, professional and cultural challenges (Cooper, 2005). Ball (2005) reviewing the literature over a period of ten years (1995-2004) on the current levels of paramedic skills, training and professional capacity in the UK came to the conclusion that there is little quality evidence to validate many aspects of current paramedic practice:

> *"National links between paramedic educational programmes remain underdeveloped, and some continue to target the development of managerial skills rather than clinical competence, thus failing to provide a sound basis for uniform career foundation. The lack of involvement of paramedics in service changes also does not bode well for the future...Practitioners must be educated and encouraged to take a far broader, all encompassing view of their practice and its effect upon patient outcomes."*
>
> *Ball (2005, p.899)*

The above discussion reveals various problems surrounding the performance measurement system currently being used by the Ambulance Trusts in English NHS. The next section will highlight unintended side-effects of the performance measurement system in the context of the public sector.

2.5 Unintended consequences of performance measurement

Performance measurement is central to efforts by a Government to improve its public service delivery. Problems with performance measurement have received attention in the literature (OECD-PUMA, 1996; Bouckaert and Balk, 1991; Smith, 1995). Ridgeway (1956) discussed the dysfunctional consequences of performance measurement more than five decades ago. Smith (1990) highlights the problems in the use of different types of indicators in the public sector. The Minutes and Memoranda accompanying the 2003 Public Administration Select Committee Report, and discussed earlier, contains a wealth of information about past attempts at performance measurement including accounts of perverse behaviours which had been anticipated by practitioners but were ignored in their design. The audit explosion (Power, 1994, 1997, 2000) has led to an increase in the number of regulators, auditors and evaluation bodies. These increase the overall cost (Leeuw *et al.*1999) and create a bigger "audit hole" in terms of greater cost (Bevan and Hood, 2006a, p.421).

Smith (1995) lists eight unintended consequences of performance measurement. These dysfunctionalities occur because targets and performance measures are used inappropriately. This was also the focus of much of the questioning from the Public Administration Select Committee (2003). The unintended consequences listed by Smith are as follows:

- *Tunnel vision* is defined as an emphasis by management on phenomena that are quantified in the performance measurement scheme at the expense of those that are unquantified (Smith, 1995, p.284). It is caused by diverse and complex objectives due to multiple stakeholders, inadequate quantification of important public sector objectives or complexity of activities beyond targeted service delivery objectives. The suggested remedy lies in seeking to quantify each objective however difficult the measurement scheme is. Another solution to the problem of tunnel vision is to embed performance indicators in the broader environmental monitoring system. Goddard *et al.*(2000, p.103) in their study of UK healthcare found evidence that the current priority given to waiting time targets diverted attention and resources away from other important spheres of Trust performance.

- *Sub-optimisation* is the pursuit of narrow local objectives by managers at the expense of organisational objectives as a whole (Smith, 1995, p.286). This problem can be endemic to any hierarchically structured organisation in which control is secured by explicit performance criteria. It is also dangerous when managerial discretion is strictly devolved and control is secured through formal contract or when reward schemes are directed at individuals rather than teams. Smith (ibid, p.287) suggests that the problem of sub-optimisation is not necessarily one that can be solved and a trade off between the beneficial incentive effects of a formal control mechanism and the dysfunctional consequences of sub-optimisation need to be recognised.

- *Myopia* is the pursuit of short term targets at the expense of legitimate long term objectives induced by performance indicators (ibid, p.288). When performance measures offer a snap-shot view of organisational activities having long term consequences, such measures are likely to be imperfect measures of organisational performance. Strategies to counter myopia include addressing long term issues and encouraging staff to adopt longer term career

perspective. Smith argues that performance measurement schemes are intrinsically myopic.

- *Measure fixation* is defined as an emphasis on measures of success rather than the underlying objective (Smith, 1995, p.290). If a measure does not fully capture all dimensions of the associated objective then managers may be encouraged to focus on the performance indicator itself rather than the desired outcome. One way to reduce measure fixation is to increase the number of measures used to measure managers' accountability. An alternative way is to seek the opinion of the client which might be difficult since the very notion of client is elusive in the public sector. For instance, a survey conducted by USA Today and the American Federation of Teachers found that the introduction of standards on what students need to learn led to teachers helping their pupils to cheat by preparing them for what was expected to be tested (Thiel and Leeuw, 2002, p.273). The researcher has personal experience of this phenomenon in a UK context when the teaching in the school of his son for the last few weeks before end of Year Six Scholastic Assessment Tests (SATs) was geared towards doing well in the tests.

- *Misrepresentation* is the deliberate manipulation of data so that reported behaviour differs from actual behaviour (Smith, 1995, p.292). This includes both fraud and creative reporting. It can be caused if excessive reliance is placed on performance indicators in exercising control over a public sector organisation. Misrepresentation can be reduced by an increased audit effort and by punishment if it is detected. Misrepresentation can also be tackled by giving frontline staff the incentive to record data consistently and truthfully. For instance, the National Audit office (2001) in its investigation of hospital waiting time targets for the first outpatient appointment and elective admission, found evidence that 9 NHS Trusts had inappropriately adjusted their waiting lists. This affected nearly 6000 records.

- *Misinterpretation* takes place when although in possession of all the facts, bounded rationality may cause misinterpretation of data by the controller and send wrong policy signals to the agent (Smith, 1995, p.294). It is argued that judging performance on a comparable basis is complex and differences in the reported performance of two or more organisations might be due to differences in objectives, measurement methods, levels of efficiency or organisational costs. The problem can be reduced to an extent by seeking expert analysis of public sector performance and having clear ideas about efficiency and equity objectives.

- *Gaming* is the deliberate manipulation of behaviour to secure strategic advantage (Smith, 1995, p.298). Strategies useful for minimising gaming include using a range of performance indicators making it difficult to undertake, developing a flexible reward structure to motivate managers/staff, and developing independent benchmarking of an organisation's performance.

- *Ossification* is organisational paralysis brought about by an excessively rigid system of performance evaluation inhibiting innovation (Smith, 1995, p.299). It occurs when performance measures have lost their purpose but are not revised or removed. Ossification can result in serious dysfunctional behaviour due to an obsession with operational performance, ineffective performance evaluation schemes or rigid systems of performance evaluation. Ossification can be minimised by a constant review of performance indicators and rewarding innovative behaviour of managers.

Smith (1995) suggests strategies that are designed to address some of the unintended consequences detailed above. They include:

1. Involving staff at all levels in the development and implementation of performance measurement schemes;

2. Retaining flexibility in the use of performance indicators, and not relying on them exclusively for control purposes;

3. Seeking to quantify every objective, however elusive or difficult;

4. Keeping the performance measurement system under constant review;

5. Measuring client satisfaction;

6. Seeking expert interpretation of the performance indicator scheme;

7. Careful auditing of the data;

8. Nurturing long term career perspectives amongst staff;

9. Keeping the number of indicators small;

10. Developing independent performance benchmarks.

The first four strategies address a large number of problems and are likely to be applicable in most situations. The next three are more applicable in specific organisations where objectives are poorly defined and measurement of output problematic. The last three strategies are designed for the specific problems of myopia, misinterpretation and gaming.

The above discussed framework is relevant for this research. Fitz-Gibbon (1997) using Smith's approach in a survey of more than 100 Head Teachers of primary schools in the UK found that with the exception of one category, each of the unintended side effects was commented upon by the head teachers. Similarly, Goddard *et al.*(2000, p.103-05) examined the behavioural outcomes of performance measurement in the UK NHS and found evidence of five unintended consequences

outlined by Smith (1995). The above discussion suggests that the evaluation of performance measurement should not only be made in terms of the expected improvements in performance, but also in terms of any unintended perverse consequences (Wankhade and Brinkman, 2008).

2.5.1 Gaming and manipulation of performance measurement systems

Bevan and Hood (2006, p.521) define gaming as "reactive subversion" such as reducing performance where targets do not apply. They identify three gaming problems. The first is the 'ratchet effect' which is tendency for central controllers to base next year's targets on the pervious year's performance. This means that managers have a perverse incentive not to exceed target even if they could easily do so (Litwack, 1993). 'Output distortion' is the second problem which refers to the attempts to achieve targets at the cost of significant but unmeasured aspects of performance (Bevan and Hood, 2006, p.521). The third problem is about 'threshold effect' which refers to the effect of the targets on the distribution of performance among a range of, and within, production units. This puts pressure on the managers who are performing below the target level to do better, but also provide a perverse incentive for those doing better than the target to allow their performance generally to crowd towards the target (ibid, p.521).

Evidence of gaming is reported by Bevan and Hood (2006a) in respect of the three types of targets from the UK NHS: (1) A&E target of less than 4 hours wait in 98% cases, (2) Ambulance target of 8 minute response in 75% cases (*Category 'A' call*) and maximum waiting times for first elective admissions (Table 2.1).

Table 2.1: Evidence of gaming in three targets in the English NHS

	Target		
Problem	**Less than 4 hours of wait in Accident and Emergency**	**Ambulance Category 'A' Calls- response within 8 minutes for 75% of calls**	**Maximum waiting times for first elective hospital admission**
Poor performance in domains where performance not measured	Extra staff drafted in and operations cancelled for the period over which performance was measured	Strong allegations that some Ambulance Trusts relocated depots from rural to urban areas hence achieving the target at the expense of a worse service in rural areas	
Hitting the target and missing the point	Patients had to wait in ambulances outside the department until staff were confident of meeting the target	Idiosyncrasies in the rules of classification led to some patients in urgent need being given a lower priority than less serious cases	Patients may have been removed from waiting lists once they had been provided with a future date for an appointment, or given immediate appointments that they were not able to attend and then classed as refusing treatment, or had treatment inappropriately suspended
Ambiguity in reporting of data or fabrication	The level reported to the Department of Health in 2004-5 was 96%, but an independent survey of patients reported it at 77%	Problems in the definition of Category 'A' Calls (the proportion of logged calls varied by more than fivefold) and ambiguity in the time when the clock started. A third of Ambulance Trusts had "corrected" response times to be less than 8 minutes	Nine NHS Trusts had inappropriately adjusted their waiting lists; three others had deliberately misreported waiting list information; and 19 Trusts had reporting errors in at least one indicator

Source: Adapted from Bevan and Hood (2006a), p. 421

Bevan and Hood (2006a, p.421-422) argue that the use of targets results in 'gaming' which meant that when reported performance meets the targets, neither the Government nor the public can distinguish between the following four outcomes:

- All is well as performance has been exactly as desired in all domains (whether measured or not)

- The organisation's performance has been as desired where performance was measured but at the expense of unacceptably poor performance in the domains where performance was not measured

- Although reported performance against targets seems to be fine, actions have been at variance with the substantive goals behind those targets (hitting the target and missing the point)

- Targets have not been met, but this has been concealed by ambiguity in the way data are reported or outright fabrication.

There have been other cases in the health sector when data has been manipulated to achieve targets. In May 2005, during the British general election campaign, the Prime Minister was questioned by an audience during a televised question session that pressure to meet the key target of offering appointments to 100% of patients to be able to see their general practitioner within two working days had meant that many general practices refused to book any appointments more than two days in advance (Bevan and Hood, 2006). The Public Administration Select Committee (2003) found examples of inaccuracies in the data used for targets and manipulation in response to targets across Government. In a specific review of performance of Ambulance Trusts, the Commission for Health Improvement (CHI, 2003)found evid ence of manipulation of data to improve the appearance of performance against key targets. The move to transfer responsibility for auditing the quality of data in the NHS (England) from the Audit Commission to Healthcare Commission also raises a few

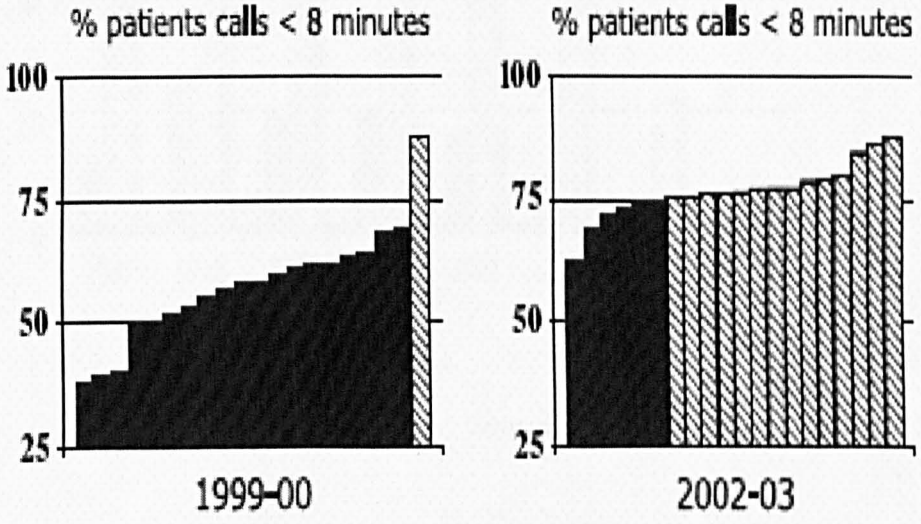
concerns since the Healthcare Commission does not have a presence on the ground in NHS provider units (Audit Commission, 2004).

The CHI (2003) found further evidence that in a third of Ambulance Trusts response times had been 'corrected' to be shown as less than eight minutes. In these cases, the time recorded for the arrival of ambulance at the scene of an incident had been manually entered rather than being "derived automatically" (p.13) from computerised control systems. Additionally, the CHI (2003, p.15) identified loose interpretation of guidelines and found significant variation in interpreting the clock start time. Some Ambulance Trusts for instance start the clock when the question 'what is the problem' is asked of the caller whilst other Trusts start the clock later when a formal code for prioritisation is made by the Call dispatcher. Misclassification or reclassification of Category 'A' Calls to enhance the achievement of the eight minute target was also highlighted in the report. This aspect has been addressed and the national ambulance review (DoH, 2005, p.39) recommended that for the purposes of measuring 999 Category 'A' and Category 'B' response times, the clock should start when the call is connected ('Call to Connect' standard) to the ambulance control room. This recommendation has come into effect in England from April 2008.

Taking a slightly different perspective, Meyer and Gupta (1994, p.330) argue that performance indicators lose their value as measurements of performance and become incapable of discriminating between good and bad performance. This results in a weakening of the relationship between actual and reported performance and a weak correlation between performance indicators and the performance itself resulting in a 'performance paradox' (Thiel and Leeuw, 2002; Meyer and O'Shaughenesy, 1993). Meyer and Gupta (1994, p.330-42) argue that this occurs for a variety of reasons. They identify few causes:

Positive learning takes place when some measures describing organisational performance lose their sensitivity in detecting bad performance because of the decline in their variability as performance improves. The indicators lose their relevance

because of the general improvement in performance. This is illustrated in the case of the UK NHS Ambulance Trusts. The key ambulance performance target requires 75% of emergency to be responded to within eight minutes (Category 'A' Call). Bevan and Hood (2006, p. 527) point out that for 1999-2000 and prior to star ratings, some Trusts only managed a figure of 40 per cent. After the introduction of star ratings in 2002-03, there was a dramatic jump in performance and by the end of the year, the worst performance was close to 70 percent (see Figure 2.4).

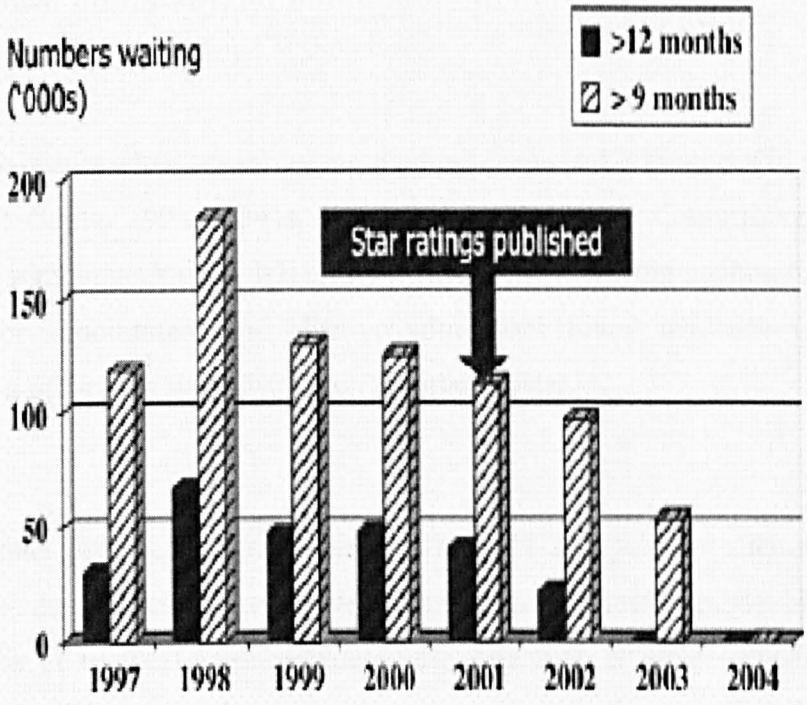


Source: Bevan and Hood, 2006, p. 527

Figure 2.4: Percentage of Ambulance Category 'A' Calls met within eight minutes

In another example from the UK NHS, maximum waiting times were dramatically reduced in England after the introduction of star ratings system in 2000-01 (Bevan and Hood, 2006, p.527). The targets set for the maximum waiting time for first elective admission were 12 and 9 months for 2003 and 2004 respectively. By the end

of 2003 the number of patients waiting for more than 12 months had been reduced almost to zero (Figure 2.5)



Source: Bevan and Hood, 2006, p. 527

Figure 2.5: Number of patients waiting for elective admission in England

Both the examples show how positive learning reduced the relevance of the target on account of general improvement in performance.

Perverse learning is the second process that can affect the relevance of performance indicators over a period of time. When organisations or individuals have learned which aspects of performance are being measured, that information can be used to manipulate their assessment (Thiel and Leeuw, 2002). By concentrating resources on what is measured, performance may improve at the cost of unmeasured but equally important aspects of performance. For example, maternity service managers in the

NHS are increasingly being held to account by a single performance indicator of the perinatal mortality rate at the cost of other unmeasured but important objectives such as the enhancement of the entire experience of pregnancy and childbirth for healthy mothers (Smith, 1995, p.284).

Suppression occurs when organisations suppress persistent differences in performance (Meyer and Gupta, 1994, p.341). For example, the Audit Commission (2003), in performing a spot check of 41 NHS Trusts in the UK regarding waiting time lists (for first outdoor appointment and elective admission) found evidence of deliberate misreporting of waiting list information at three Trusts.

Taking another perspective, De Bruijn (2007, p.111-2) argue that such manipulation takes place due to the "law of decreasing effectiveness" (p.36) in which the effectiveness of the performance measurement declines if measurement has a high impact resulting in strong incentives for perverse behaviour. LeGrand and Bartlet (1993, p.31-4) refer to 'cream skimming' or 'cherry picking' which is the tendency to discriminate against inefficient aspects of policy implementation by providing goods or services only to those who make the least or least expensive use of them. Propper and Wilson (2003) cite instances of 'creaming' taking place in the education sector in the UK (use of complicated forms and pre-admission interviews) and the US (reclassifying weak students in order that they are not eligible for the tests that are the subject of the indicator).

The above discussion reveals that certain characteristics of the public sector organisations might increase the chance of such manipulations of reported performance. This can occur as a result of the discrepancy between the Government's policy objectives and the goals of Executive agents (Smith, 1995). It also illustrates that public policies often have contradictory goals and are not neutral but contested measures between politicians and managers in the public sector (McGuire, 2001). Wilson (1989) mentions elusiveness of policy objectives as another paradox. A simple examination of apparent improvements in reported performance resulting from

performance measurement schemes is inadequate and a more comprehensive evaluation, which seeks to identify any side effects of performance measurement, is needed.

Notwithstanding the complexities involved, the proposition that culture and healthcare performance in all its varieties are linked has enduring intuitive appeal but is currently supported with little firm evidence (Scott *et al.*2003a). The next section will explore the relationship between organisational performance and organisation culture(s).

2.6 Organisational performance and organisational culture

There is a growing international interest in using organisational culture as a means to improve health care. Changing organisational culture is now a familiar prescription for health sector reforms (Scott *et al.*2003a). Organisational culture and its management are increasingly being viewed as a necessary part of health system reform (Scott *et al.*2003). This follows an assumption that the NHS and its constituent organisations possess a discernable culture and the nature of such cultures has some bearing on performance and quality (DoH, 2001, p.2; Mannion *et al.*2005; Wilkins, 1984). Ambulance Services have often been referred to as having a 'command and control' culture accompanied by a tendency to blame (CHI, 2003) and are thought to be risk averse (NHS Modernisation Agency, 2004). Improving the culture of Ambulance Trusts is also one of the major recommendations of the national ambulance review (DoH, 2005a).

This interest has also been renewed in the wake of some high profile failures in professional practise, and in particular the Bristol Royal Infirmary case (Kennedy, 2001); the high profile report of medical errors in the US (Institute of Medicine, 1999) and the Shipman case (Shipman Inquiry, 2005). Key findings from Bristol inquiry suggested that cultural characteristics of the NHS fostered a climate where dysfunctional behaviour and malpractices were not effectively challenged (Kennedy,

2001). It also highlighted the collection of fragmented, loosely coupled, and self-contained sub-cultures existing at Bristol Infirmary (Weick and Sutcliffe, 2003).

Organisational culture and its management are increasingly being viewed as a necessary part of health system reform (Scott et al.2003). It has been also argued that that a major cultural transformation needs to be secured alongside structural and procedural change to deliver expected improvements in performance and quality (DoH, 2000). Cultural change is high on the Government agenda and involves all elements of cultural and organisational changes with key elements including amongst other things, empowering front line staff to use their skills and knowledge to develop innovative services with more say in how services are delivered and resources are allocated, and changing the NHS culture and structure by devolving power and decision-making to frontline staff led by clinicians and local people (DoH, 2001a, p.2).

Various studies have suggested that effectiveness of a wide variety of organisations including healthcare might be linked with the culture of the organisation (Cameroon and Freeman, 1991; Kotter and Heskett, 1992; Wilderom *et al.*2000; Driscoll and Morris, 2001; Ferlie and Shortell, 2001). While there is some intuitive appeal in the proposition that organisational culture may be a relevant factor in health care performance, the relationship between culture and performance is not conclusive since both 'culture' and 'performance' as variables are conceptually and practically distinct (Scott *et al.*2003a). Mannion *et al.*(2005) reviewing the evidence from studies in health care organisations in the US and UK highlighted difficulties concerning methodological limitations and mixed evidence regarding the relationship between organisational performance and organisational culture.

2.6.1 Organisational culture and the role of subcultures

Defining culture is not easy and culture has been the subject of considerable academic debate (Alvesson, 1995; Cameroon and Quinn, 1999; Martin, 2002; Schein, 1985). Most definitions recognise the socially constructed nature of a phenomenon that is expressed in terms of patterns of behaviour. Allaire and Firsirotu (1984) compare organisations to mini-societies so as to highlight the interpretation and expression of the role of the participants within the socio-political and technical world of the organisation. Out of the plethora of definitions available, one which is helpful is that developed by Schein (2004, p.17) who defines organisational culture as a "pattern of shared basic assumptions that was learned by a group as it solved its problem of external adaptation and internal integration; and that has worked well enough to be considered valid, and therefore-to be taught to new members as the correct way to perceive, think, and feel in relation to those problems".

For all the disagreements over the precise definition of organisational culture discussed above, it is generally agreed that culture operates in layers and Schein's identification of the three levels of cultures is a widely acknowledged and useful framework of analysis (Scott et al.2003). At the first level are the 'artefacts' which are the most visible manifestations of culture, including the rewards, rituals and ceremonies and are concerned with the observational patterns of behaviour. In the health services, it may include dress codes (green uniform for ambulance crews and white coat/tie for doctors). It is however both easy to identify and difficult to decipher. At the next level are the espoused 'beliefs and values' which may be used to justify particular behavioural patterns like the Hippocratic Oath of the doctors to put the interest of the patient first or in the case of the Ambulance Service, speed of response to an emergency. At the third level are the 'assumptions' are the real and largely unconscious beliefs and expectations held and shared by individuals. A shared value or belief is transformed into a shared assumption. For instance, medical research is believed to be dominated by the use of rational scientific quantitative methods over qualitative inquiries to generate knowledge (Mannion *et al.*2005). This

pluralist view of culture finds support in the academic literature (Morgan, 1986; Sackman, 1992).

Different levels of cultures can exist in an organisation that may seek to differentiate themselves from one another by their cultural artefacts and values (Martin, 1992). Rivalry and competition between these groups may then appear to be a key feature of the overall organisational culture (Harrison and Nutley, 1996). Such subcultures can also be associated with different levels of power and influence within the organisation. It can be observed, for instance that a medical culture dominates in the NHS over a management culture (Scott *et al.*2003).

The evidence base linking culture and performance in healthcare organisations is suggestive but not definitive. But such ideas form major strands of both policy stipulations and managerial action (DoH, 2000; Scott *et al.*2003a). A further understanding of the nature of organisational culture and its expression within a healthcare organisation such as the Ambulance Service will be useful. It will further help to identify methodological lessons for those interested in developing further empirical work.

Conclusion

The policy documents make it clear that the current UK Government takes an activist view that managing the culture is one route towards improving the NHS Ambulance Services:

> *"A central theme running through and underpinning all the group's recommendations is to need to transform ambulance services as organisations, both culturally and clinically."*
>
> *DoH (2005), p. 27*

Much has been written concerning performance measurement in the context of other public services but there is a clear need for a detailed exploration of the performance measurement system and organisational culture in the NHS Ambulance Service. This study offers a broad synthesis of evidence gathered from the case study over a period of two years by integrating different perspectives offered by the practitioners and the policy experts. With the given definitions of performance and its role in the measurement of public sector efficiency, performance measurement remains a broad and controversial topic (Neely *et al.*1995; Radnor and McGuire, 2004).

The next chapter details the research methodology adopted for this study.

Chapter Three

Research Methodology

Research Methodology

The research design process in qualitative research begins with philosophical assumptions that the inquirers make in deciding to undertake a qualitative study.

Creswell (2007, p.15)

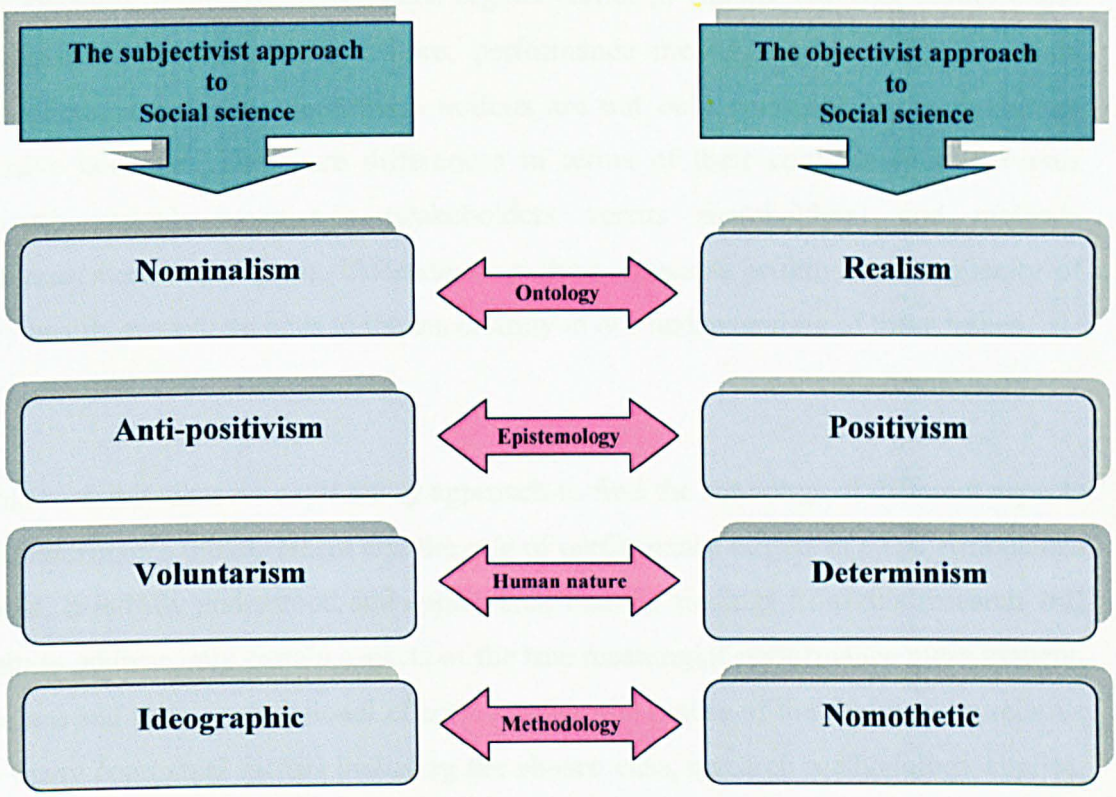
Introduction

This chapter provides an explanation of the research methodology used in this study. The chapter has six sections. The first section defines the philosophical approach to the research and the reflexive position of the researcher on those issues. Section two provides methodological justification for taking a case study approach and how it ties with the aims of this study. The choice of a single case and background details of the Delta Ambulance Trust are also discussed. Section three outlines the importance of preparation in case study research (Yin, 2003) and details the issues in development of the case study protocol and sampling strategy used in this investigation. The experience of going through the process of obtaining a favourable ethical opinion from a NHS Research Ethics Committee (REC) is analysed in some detail along with key ethical issues countered in this study. The relevance of the two main data collection techniques of semi-structured interviews and non-participant observation is analysed in section five. The next section details the process of data analysis carried out in the research. Miles and Hubeman (1994) make a strong case for a data analysis strategy based on an explicit and dependable methodology. Their approach is detailed with respect to the data analysis strategy. The use of NVivo computer package to aid data analysis is also discussed in this section. This is followed by concluding remarks and research questions.

3.1 The Philosophical approach adopted in this research

Many commentators argue that the subject area of the philosophy of the social sciences is broad and one that cannot be defined very easily in either philosophical or social scientific terms (Burrell and Morgan, 1979; Delanty, 2005; Turner, 1991). Punch (2005) describes social science as the scientific study of human behaviour with an overall aim of building an empirical theory about people and their behaviour. But human behaviour can be studied from different perspectives like that of economics, political science, psychology, anthropology, sociology and others. Mason (1996) suggests that social research should be constructed around an intellectual puzzle of some kind, which is ontologically meaningful and epistemologically workable. The epistemological assumptions help the researcher to understand the social world and communicate this as knowledge to fellow human beings; and determine whether knowledge can be acquired or whether it is something that has to be personally experienced.

But any plausible explanation of social reality and interpretations of it can be ambiguous, conflicting and greatly contested within the social sciences (Miles and Huberman, 1994; Silverman, 2005; Burrell and Morgan, 1979). As a social researcher it becomes almost too difficult to understand the different perspectives, classifications and 'paradigms' described in the literature. One such classification which is useful in defining the research philosophy adopted for this study is the one given by Burrell and Morgan (1979) and is depicted in Figure 3.1 below. It is argued that these four sets of assumptions are relevant to our understanding of social science, characterising each by the descriptive labels under which they have been debated in the literature on social philosophy. Each of these four assumptions will be further discussed along with the researcher's philosophical disposition.



Source: Adapted from Burrell and Morgan (2008), p.3

Figure 3.1: The Subjective-Objective dimension

3.1.1 The Nominalism- Realism debate: The ontological question

The Nominalist position assumes that the social world which is external to individual cognition is nothing more than names, concepts and labels which are used to structure reality. The names used are regarded as artificial creations whose utility is based upon their convenience as tools for describing. The Realists, on the other hand, hold that the social world external to individual cognition is a real world made of hard, tangible and relatively immutable structures. The social world thus exists independently of an individual's appreciation of it and has an existence which is as hard and concrete as the natural world. Applying this framework, the researcher's position is more likely to fall under the former perspective rather than the latter. The aim of this research is to examine and explore the measurement of performance in a NHS healthcare

organisation in the UK. It has been argued earlier in chapter two that defining and understanding performance, culture, performance measurement and dysfunctional behaviour is not easy since these notions are not only contested terms but rather elusive concepts. There are differences in terms of their contexts (public versus private sector), boundaries (stakeholders versus shareholders) and methods (measurement techniques). Understanding these concepts within the complexity of any healthcare system adds to the uncertainty in our understanding of these issues.

This research takes an exploratory approach to find the meanings of different aspects of performance measurement and the role of performance targets in a UK Ambulance Trust. It is fully understood and appreciated that the findings from this research will help to address only certain aspects of the true meaning of performance measurement, culture and their dysfunctional effects. Further, the nature of the findings are relative to many contextual factors including the chosen case, research methodology applied, timing of the research, and the recruitment of the research subjects notwithstanding the philosophical disposition of the researcher. It is also conceivable that another researcher with a different philosophical outlook and different research design might come up with an alternate explanation. Social reality for the researcher is one which has been constructed to give meaning to the behaviour of the social actors in making sense of the external world of the individuals and is not construed as something which is unchangeable as the realists would argue.

3.1.2. The epistemological question: anti-positivism and positivism

It has been argued that the word 'positivist' like the word 'bourgeois' has become more of a derogatory epithet than a useful descriptive concept (Burrell and Morgan, 2008) who consider positivism as a descriptive concept that can be used to characterise a particular type of epistemology. They bemoan the fact that current usage of the term either refers to one or more of the ontological, epistemological and methodological dimensions for analysing assumptions with regard to social science or is mistakenly equated with empiricism. In their view positivist epistemology is based

upon the traditional approaches that dominate the natural sciences. While positivists may differ in terms of detailed approaches like that of 'falsification' or 'verification' they all agree that the growth of knowledge is essentially a cumulative process in which some new insights can be added to the existing stock of knowledge and the 'fake hypothesis' eliminated (ibid, p.5). On the other hand, the epistemology of anti-positivism can take various forms but it firmly argues against the utility of a search for laws or underlying regularities in the social world. Anti-positivists consider the social world as essentially relativist and can only be understood from the viewpoint of the individuals who are directly involved in the activities that are to be studied. They maintain that one can only understand the reality by occupying the frame of reference of the participants in action from inside rather than the outside. They see social science as being subjective rather than an objective enterprise and disagree that objective knowledge of any kind can only be generated by science.

From the standpoint of this research, the epistemological position of the researcher is that of anti-positivist. The social world is dominated by the actions of individuals and social reality cannot be studied by 'de-coupling' the actions of the actors. In many ways enquiry in the social sciences cannot be really compared with that of natural sciences. This research is contextualised by the particular actions of the policy makers (performance targets and indicators), the choice of the given case (Delta Ambulance Trust), the role played by the actors (research participants) and the given period of time (period of this study). The viewpoints expressed by the respondents are guided by their own understanding and attitudes on performance, culture and the practice of performance management in the given case. Notwithstanding the fact that organisational settings, key actors interviewed (policy experts and Trust staff) and the evidence gathered from this study can be considered representative across other Ambulance Trusts in England, no grand claim is made that the findings from this study represent 'the whole truth' or that they can be fully generalised across the Ambulance Service as a whole or even within the wider NHS. The only claim being made is that the findings from this research contribute towards our understanding of the difficult and often contested nature of performance measurement in a service which is comparatively neglected in management research.

3.1.3 The human nature issue: voluntarism Vs determinism

The essence of this issue is reflected in any given social-scientific theory. Burrell and Morgan (1979) outline two extreme positions. The first position is a determinist individual and his activity as being completely determined by the situation or 'environment' in which one is located. The second position is that of a 'voluntarism;' a view of an individual being completely autonomous and free-willed. The authors argue that so far as social science theories are concerned, to understand human activities, they must lean, implicitly or explicitly to one or other viewpoint or adopt an intermediate standpoint which allows for the influence of both situational and voluntary factors in accounting for the activities of human beings (p. 6).

The researcher holds an intermediate position in this regard. While it may be largely true that an individual's activity is determined by the situation or environment in which he operates, he is also capable of having an independent viewpoint. This aspect has been reflected in the openness shown by many research participants both during the formal interviews and informal exchanges with the researcher. On one hand their actions are borne out of the organisational context in terms of laid down protocols and rules, but on the other hand they have also revealed how their own attitudes and beliefs (on matters of organisational performance, targets and culture) can come into conflict with the official stated position of the organisation. The findings from this investigation are conditioned not only by the situational factors (time, place, nature of the study) but are also influenced by the researcher's own perspective about the views expressed by the participants. The researcher holds the view that rather than taking of any of the extreme positions and viewpoints, an intermediate position is a realistic one that also helps to achieve the aims and objectives of the research in a better way.

3.1.4 Methodological debate: Ideographic-Nomothetic theory

Burrell and Morgan (1979) argue that the ideographic appeal of social science

postulates that one can only understand the social world by obtaining first hand knowledge of the subject under investigation. The aim is to get close to the subject and explore the detailed background and life history. The ideographic method stresses the importance of letting one's subject unfold their nature and characteristics during the process of investigation (Blumer, 1969). The nomothetic approach on the other hand lays importance on research which is marked by systematic protocols and techniques. It is epitomised in the approaches and methods which are explored in the natural sciences, and relies on the process of testing hypotheses in accordance with the cannons of scientific rigour and use of quantitative techniques for data analysis (Burrell and Morgan, 2008, p.6).

The philosophical position of the researcher is clearly towards an ideographic approach to social science enquiry which fits in well with the research aims and objectives. The aim of this research is to explore the performance measurement and organisational culture in the UK NHS Ambulance Service. This would require an in-depth and detailed understanding of the ways in which performance targets and regimes are conceived, operationalised and evaluated. This entailed taking a case study approach in formulating the research design and deciding upon qualitative interviewing as the major data collection tool to capture the richness of the experience of the research subjects, and allow the researcher to understand their viewpoint. Additionally it was also felt that 'getting close' to the social actors recruited in this research would help in gaining a better understanding of the performance framework in Ambulance Services in general. Accordingly the research design also included non-participant observation of performance review meetings at different levels of decision making as the second major data collection strategy in this study. To complement these techniques, permission was obtained from the Delta Ambulance Trust to visit ambulance stations, emergency control rooms and travel with the paramedics in the back of the ambulances to capture the richness of the social setting of the actors.

Social reality and the philosophical assumptions underlying social science are a hotly debated topic. The four assumptions discussed above with regard to the value of social science provide just one such practical tool of social theory. The discussion in

the foregoing paragraphs has also dealt with the position of the researcher in respect of these four assumptions. Notwithstanding the discussion above, the main focus of the researcher is on devising a coherent research design rather than on philosophical assumptions which arguably cannot be seen separately. The use of computer software in data analysis does not suggest any contradiction with the stated position of the researcher. But rather than getting involved in competing and polemical arguments of competing schools of thoughts about qualitative research, the researcher positions these assumptions in the background rather than the foreground. These views are consistent with the opinion expressed by several commentators (Agger, 1991; Creswell, 2007; Miles and Huberman, 1994).

3.2 Choice of research method: A Case Study approach

In addition to addressing the often contested nature of social reality, researchers undertaking qualitative studies are also baffled by the choice of various approaches. Stake (2005) states that case study research is not a methodology but only a choice of what is to be studied. In this study, case study has been treated as a methodology. This is consistent with other commentators who have presented case study as a methodology, strategy of inquiry or a comprehensive research strategy (Denzin & Lincoln, 2005; Yin, 1997, 2003). Creswell (2007) states that in case study research, the researcher explores a bounded system (case) or multiple bounded systems over a period of time through in-depth data collection involving multiple sources of information (e.g., interviews, observation, documents and reports) and reports a case description and case-based themes. Case studies can also prove valuable in situations where existing knowledge is limited, often providing in-depth contextual information which may result in a superior level of understanding (Bonoma, 1985). Miles (1979) states that within business research a case study is a description of a situation which is sensitive to the context in which the research occurs. Some examples of case study research include Selznick's (1949) description of Tennessee Valley Authority (TVA), Kanter (1971), and Alison's (1971) study of Cuban missile crisis.

A strategy of using a single case allows the researcher to understand the subject under study in depth, in its natural setting, and recognises its complexity and its context. It also has a holistic focus, aiming to preserve and understand the wholeness and unity of the case (Bryman and Burgess, 1994; Punch, 2005). Eisenhardt (1989) holds that the case study method provides understanding of the dynamics that are present in a single setting and can employ an embedded design (multiple levels of analysis in a single case). Yin (2003) has held that case studies are the preferred strategy when 'how' or 'when' questions are being posed, where the investigator has little control over events, and when the focus is on a contemporary phenomenon with some real-life context. His definition (2003, p.13) states case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used.

Yin's (2003) definition of the scope of the case includes the contextual conditions. In this study the context is highly pertinent in understanding how different actors perform their functions and how their own assumptions are guided and even manipulated by environmental factors. The main arguments for choosing case study method in this research are the exploratory (dominance of how' and 'what' questions) and explanatory/descriptive nature of the research (not requiring control of events but rather documenting them. Although some of the themes emerging from the research were refined during the course of this investigation, it will be demonstrated later on that these arguments have remained valid throughout this research project. An attempt to analyse the implications for performance measurement due to the complex interaction between internal and external organisational dimensions including links with culture has been made in this study. Such a detailed analysis is only possible by taking an in-depth case study approach since it is not only important to know what the measures of performance are (phenomenon) but also whether they are clear and useful by understanding the settings of different actors (context) since the boundaries between phenomenon and context are not always clearly evident.

Besides methodological justifications there is also an academic rationale for use of case study method in this thesis. The strategy of using a single case will provide in-depth understanding of the case in its natural setting, recognising its complexity and context. Case study is the most suitable method for achieving the aims and objectives of this research project. The experience of the participants in the chosen case study offers rich insights into the complex inter-linkage between management and performance measurement and highlights the roles played by senior Executives, managers and frontline staff.

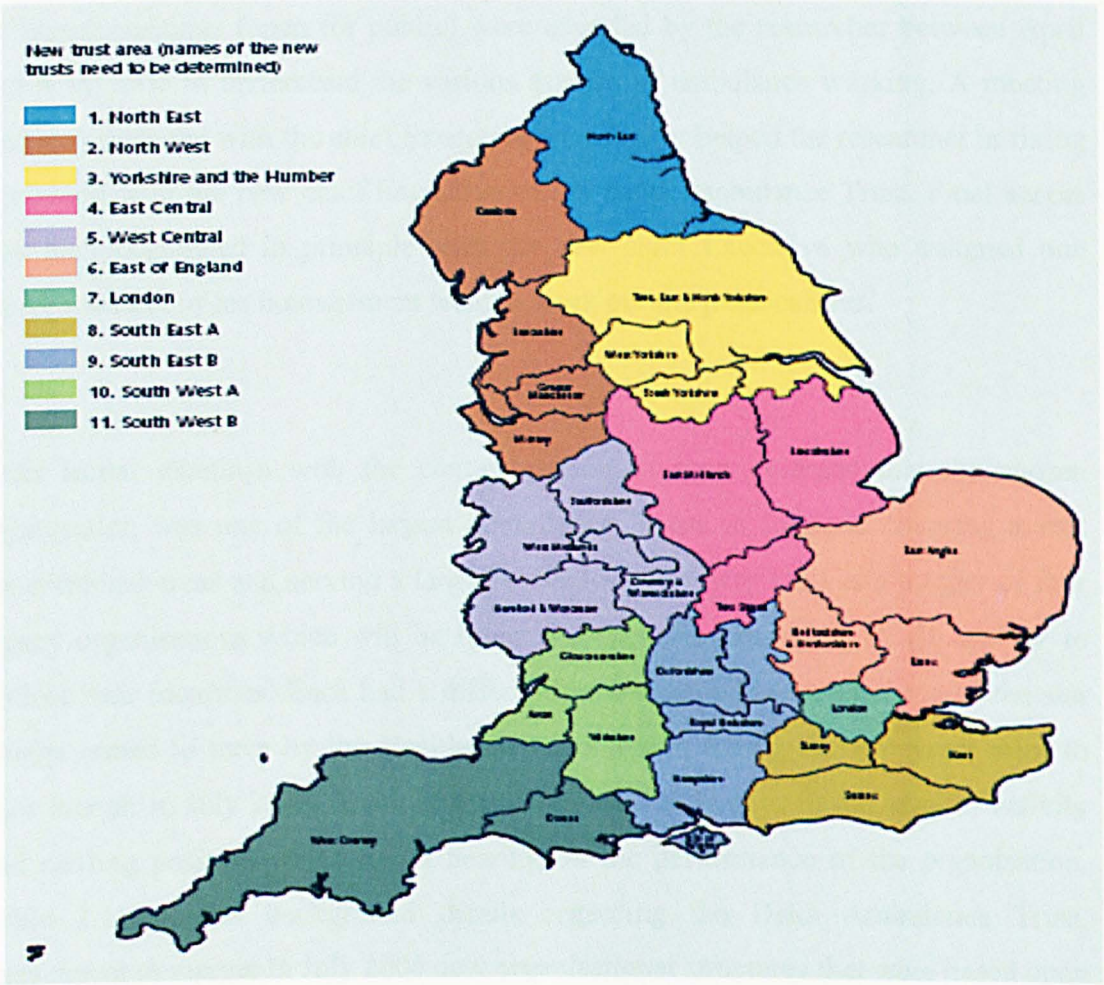
While there is some agreement of treating case study as a valid research method consensus on the number of cases to be studied remains elusive. The case may involve an individual, several individuals, a small group, an event, program or an organisation or numerous levels of analyses (Creswell, 2007, Yin, 2003). There is no ideal number of cases using this method. Eisenhardt (1989, p.545) concludes that "a number between 4 and 10 cases usually works well. With fewer than 4 cases, it is often difficult to generate theory with more complexity, and empirical grounding is likely to be unconvincing, unless the case has several mini-cases within it." Though Eisenhardt's (1989) is a more popular view it does not mean that this is the only view. Dyer and Wilkins (1991) cite some of the more important single case studies that have advanced the knowledge of organisations. They include the studies by Selznick (1949); Becker *et al.*1961; Dalton (1959); and Gouldner (1954).

The primary aim of this research was to explore the challenges in measuring the performance of the Ambulance Service in the UK by gathering and analysing evidence from one organisation. Having already identified the importance of getting as close as possible to the world of actors and interpret this world and it problems from inside, it was felt that a large multi-case comparative study would limit deeper understanding of the phenomenon being studied. A case study approach will provide a rich description of the social scene, allowing us to describe the context in which events occur and to reveal the deep structure of social behaviour (Light, 1979). This will allow understanding and describing the context of the social dynamics of the

scene in question to such a degree as to make the context intelligible to the reader and to generate theory in relationship to that context (Dyer and Wilkins, 1991).

3.2.1 Choice of the Delta Ambulance Trust

During the first half of 2006, the NHS went into a period of merger and re-organisation. In July 2006, thirty two NHS Ambulance Trusts in England were reorganised into eleven new organisations (see Figure 3.2).



Source: DoH (2005), p.11

Figure 3.2: Proposed reorganisation of English NHS Ambulance Trusts in England in July 2006

There were two implications of this re-organisation of the Ambulance Trusts in England. The first was that as there were now fewer Trusts to negotiate with it would make it more difficult to gain access. The other more positive aspect of the re-organisation was that these newly merged organisations were substantially bigger organisations (see Figure 3.2) having the possibility of displaying several 'mini-cases' within them (Eisenhardt, 1989, p.545). After several false starts and disappointments, the first breakthrough came after a colleague introduced the researcher to a Non-Executive Director of one of the four component organisations of the Delta Ambulance Trust. After an informal meeting in which the researcher outlined the main research idea it was suggested that the researcher should attend the next few Trust board meetings to familiarise himself with the key issues. Two Trust-IV board meetings (open for public) were attended by the researcher between April and May 2006 to understand the various aspects of ambulance working. A meeting was also arranged with the chief Executive who further helped the researcher in fixing a meeting with the new chief Executive of the Delta Ambulance Trust. Final access was then negotiated in principle with the new chief Executive who assigned one senior member of his management team to work out the practicalities.

After initial meetings with the contact person, it soon emerged that the chosen organisation was one of the largest Ambulance Trusts in England covering a vast geographical areas and serving a large population. The new Trust is a merger of four legacy organisations which will be referred to here as Trust(s) I, II, III, and IV to protect their identities. Each had a different performance history in terms of the star ratings issued to them by the Healthcare Commission during the two years prior to their merger in July 2006. Each of them showed a difference in the level of activity and staffing position which had a bearing on the performance of the organisation. Table 3.1 presents background details regarding the Delta Ambulance Trust. Subsequent to merger in July 2006 new organisational structures that were based upon a local team structure were put in place in the Delta Ambulance Trust by the management. There were three area structures in the new organisation. Area I comprised the area formally served by Trust I; Area II comprised that of Trust II and Trust III; and Area III comprised that of Trust IV.

Table 3.1: Background details of the restructured Delta Ambulance Trust

Background Characteristics	Trust I	Trust II	Trust III	Trust IV
Rural or Urban	Urban	Rural	Rural	Urban
Approx. size of the area served	550 Sq. Miles	1,100 Sq. Miles	6,824 Sq. Miles	1,150 Sq. Miles
Resident Population	2.3 Million	1.4 Million	492, 000	2.4 Million
Staff strength (2004-05)	1600	1100	400	1100
Number of calls received (2004-05)	326, 939	142,000	33,149	274,900
No. of incidents attended (2004-05)	245,921	112,183	34,879	220,000
No. of patient journeys (PTS)	763,838	245,000	229,652	621,000
Cat. 8 minutes performance 2004-05 (target 75%)	82.5 %	76.7 %	75 %	73.7 %
Performance Ratings-2004-05	3 Stars	3 Stars	1 Star	0 Stars
Performance Ratings-2003-04	3 Stars	3 Stars	2 Stars	2 Stars

Sources:

1. Adapted from Annual Report (2004-05): Trusts I-IV NHS Ambulance Trusts.

2. Adapted from Healthcare Commission (2005): Performance ratings for Ambulance Trusts in England

The chosen case study offers a good opportunity to examine the challenges in measuring performance and exploring the relationship between performance and culture. The researcher endorses the comparative method in developing theory and agrees with Eisenhardt's (1989) view that using mini-cases is useful. Given the diversity of the size, performance histories, geographical areas served and different organisational structures and cultures it soon became obvious that this one 'big' case would be a useful unit of analysis for theory building and could provide comparisons within the same organisational context. The careful study of a single case can then focus on more tacit and less obvious aspects of the setting under investigation (Dyer and Wilkins, 1991). Selection of the chosen case was more likely to provide greater contrasts in the experience of the actors (who worked in four different organisations) and valuable insights of them than a sample of multiple cases in which the researcher would have been constrained to focus on surface data rather than deeper social dynamics. The differences (as set out in the table 3.1) in the background characteristics and performance levels within the re-structured Delta Ambulance Trust provided a deeper understanding of the social dynamics of the working of an emergency Ambulance Trust in the UK.

3.3 Preparation for case study research

Adequate preparation for collection of research data is often complex and difficult but important aspect of case study research. Yin (2003) warns of thinking of case study as an easy method and considers it as among the hardest type of research to do due to the absence of routine formulas. He states that preparation for doing a case study research often involves the development of a case study protocol, selection of the research subjects, undertaking a pilot case study and careful consideration of various ethical issues arising out of it. Each of these issues will be discussed separately.

3.3.1 Development of the Case Study Protocol

Dvelopment of the Case Study Protocol is a key element of case study preparation. A

case study protocol contains the instrument, procedures and general rules to be followed. It is intended to guide the researcher in carrying out data collection and is important in increasing the reliability of the case study findings. It contains an overview or background of the research, field procedures, case questions, and presentation scheme for the report. In this investigation a detailed case study (research) protocol was developed in the preparatory stage of this study before the commencement of data collection. It was required for submission to the NHS REC where justification of the need to undertake this research is examined and permission given if found satisfactory. This proved very useful, since at a very early stage of this study a 'blueprint' of the complete research design (which had to pass the test of external scrutiny in the form of a full hearing before the REC) had to be provided. An anonymised version of the Case (Research) Protocol used for seeking ethical approval from the NHS REC is provided in Appendix 1.

3.3.2 Sampling strategy for recruiting research participants

Unlike quantitative researchers who attempt to work with the largest samples (number of cases) possible to employ statistical inference methods safely, qualitative researchers work with small sample of people who work within their social setting and are studied in depth (Miles and Huberman, 1994). Selection of both the case and research subjects is thus crucial for later analysis in the research. Mason (2002, p.120) defines sampling or selection as "principles and procedures which are used to identify, choose and gain access to relevant data sources from which data is generated using chosen methods". She argues that two broad principles can guide this process. The first principle is the strategic importance of the sample size in terms of its ability to provide useful and meaningful empirical context. The second is the issue of practical consideration in terms of availability of time and resources both for the researcher and the participants. It has also been argued in the literature that qualitative sampling tends to be selective than random since the initial definition of the 'universe' is limited. In addition the social process has a logic which can be completely obliterated with a random sample and can lead to bias (Miles and Huberman, 1994). The choice of sampling technique needs to have clear links with

data analysis and the arguments which the researcher wants to construct. Due to the exploratory nature of this study, this investigation aims to access the different experiences of a range of staff within the case study and understand their social settings (context) by knowing their perception of performance and exploring relationships between organisational performance and culture (phenomenon). A 'stratified purposeful' strategy (Miles and Huberman, 1994, p.28) was considered to be the most effective method in recruiting the participants considered in this study. The research participants included senior board executives (executive and non-executive directors), managers, frontline staff representing paramedics, 999 Call takers and Call dispatchers working in the Emergency Medical Dispatch Centres (EMDC) of all three administrative areas of the Delta Ambulance Trust (see table 3.2). The selected sample helped to illustrate various sub-groups within the organisation and facilitate understanding of the social dynamics underlying the case.

The principal inclusion criterion of research participants was based on their professional role and their relevance to the aims of this study. To further improve the validity and reliability of the findings, four senior policy experts were also recruited to participate in this study. Three of them had previously been involved in senior policy roles within the DoH where they dealt with clinical and organisational aspects of ambulance policy. The researcher was also successful in recruiting one senior Ambulance Trust specialist within the Audit Commission for England. This selective sample was expected to give a basic understanding of the key issues analysed in this investigation including the social dynamic of the case. It was also believed that a sample size of sixty participants which involved seventy two interviews (see Appendix 5) would help to achieve the stated aims and objectives of this research and will help in drawing meaningful conclusions from it.

Table 3.2: Sampling Strategy for Recruitment of Research Participants

Board/Corporate level recruitment in Delta Ambulance Trust (Designation)
Chair Chief Executive Deputy Chief Executive Non Executive Directors x 4 Director of Finance Medical Director HR Director x 2 Director of Information Management and Technology Director of Service Modernisation Head of Health Informatics Head of Corporate Communications Deputy Director of Finance Assistant Director of Emergency Preparedness (+ area responsibility) Assistant Director of Performance Improvement Assistant Director of Service Delivery Support Assistant Director of Service Strategy & Commissioning Total participants recruited: **20**
Recruitment from three areas in the Delta Ambulance Trust (Junior Executives, middle managers and frontline staff) Note*- All job roles were not same in the three areas
Area Director Head of Services Medical/Clinical Director Head of Finance Head of Human Resources Head of Governance Head of Communications Head of Information Management and Technology /Estates Business Continuity Manager EMDC Control Room Manager EMDC Control Room Call dispatcher EMDC Control Room Call taker Operational Sector/Station Manager Frontline Paramedics Total participants recruited: **36**
Recruitment of Policy Experts outside the Delta Ambulance Trust
Professor of Medicine and Advisor to the DoH Emergency Care Strategy Professor of Emergency Medicine and Advisor to the DoH Ambulance matters Senior National Ambulance Advisor Ambulance Trust specialist, Audit Commission Total participants recruited: **4**

3.3.3 Pilot study

Several commentators (Yin, 2003; Hoggart, *et al.*2002; Creswell, 2007) talk of a pilot case study as a final preparation for data collection that can help in refining the data collection plans in terms of content and procedure. It can be conducted for a variety of reasons,[for instance funding bodies, testing the methodology or even checking access to the research site]. In this investigation no formal pilot case study could be undertaken due to the stringent conditions imposed by the NHS REC on making contacts with potential research participants (it would require a separate permission). The research design was however discussed informally with a senior member of the management team to familiarise the host organisation with the research design once approval was obtained from the Chief Executive of the Delta Ambulance Trust. In addition, the research design was discussed with a former chair and a former non Executive director of Trust IV in order to identify any conceptual or practical shortcomings. Though there has been no pilot study, the research design has gone through a process of prior consultation and approval.

3.3.4 Ethical approval

Ethical considerations in a research project are an integral part of the overall research design and the researcher must be fully aware of implications to the research participants and the consenting organisation (Seal *et al.*2004). As mentioned earlier, a favourable ethical approval is required from a NHS REC to pursue any research in a NHS organisation in the UK. Considerable efforts were made to understand the requirement of the REC in terms of the information needed. A comprehensive application was submitted in September 2006. An oral hearing before a fifteen member NHS REC took place in October 2006 which was attended by the researcher along with the two academic supervisors and lasted for about an hour. All aspects of the research design mentioned in the Research Protocol (Appendix 1) were discussed and defended. Some element of surprise was shown about the choice of the Ambulance Service for the research. The researcher explained the relative lack of

management research in an increasingly important service within than NHS (there was no mention of Ambulance Trust as one of the listed NHS organisations in the application form). The decision of the Committee was communicated within a fortnight and a favourable ethical opinion was accorded to this research study (see Appendix 2 for an anonymised version of the approval letter).

Apart from the process briefly mentioned above, there are few important ethical issues in this investigation. The first and foremost issue was protecting the confidentiality of the research subjects and the chosen organisation. It was undertaken to protect the confidentiality and anonymity of all participants. It was agreed that no individuals or the organisation will be named or identified. In presenting or comparing the characteristics of the four constituent Ambulance Trusts, they will only be identified as Trusts I-IV. Research participants' including policy experts have been referred to by their generic titles to protect confidentiality and prevent identification. For instance Senior Board Executive 1, Area Director 2, Senior Manager 3, DoH Professional Expert 2 and so on. Professional roles are not emphasised unless needed for illustrating a point. To further prevent identification and protect the confidentiality of research participants from each of the three areas, they have been simply identified for example as Senior Manager, Area I, II or III. To further protect confidentiality of research participants, quotes have been attributed so that each chapter has no relationship to any other chapter. For instance, the Senior Board Executive 1, Senior Manager 1 or Paramedic 1 quoted in Chapter four may not be the same as those with the same titles quoted in other chapters. This might cause some confusion but was important to prevent identification of the individuals concerned.

The second important ethical concerned the consent of the research participants (Lincoln and Guba, 2000; Lipson, 1994). Each participant was given a detailed Participant Information Sheet (PIS) which contained an academic justification of the research, the terms of participation in this research, methods of data collection, data storage and data analysis and issues about the 'risk' to them (see Appendix 3). The PIS was supplemented with an invitation letter and a separate Consent Form for

taking prior written consent before every interview. Specific consent was obtained for tape-recording of the interviews and for using anonymised quotes from the interviews for future publications. The participation of the subjects was totally voluntary. If they decided to participate in the research, they were asked to keep the information sheet with them and were asked to sign a consent form. They had the option to withdraw at any time without having to provide any reason for doing so. No participant withdrew from the research.

The third ethical issue which was relevant in this study was that of 'harm' to the research subjects as a consequence of taking part in this investigation. It was also made clear to the participants in the PIS that as this was a totally non-clinical study, there is no direct clinical risk to them. Some inconvenience might have been caused to the participants in terms of the time allocated for the interviews. However all interviews took place in the safe precincts of the offices of the participants to ensure full confidentiality and security. This required the researcher to travel some distance to conduct interviews with them over a huge geographical area. Being a student research project it was further acknowledged that there might not be any direct/personal benefit(s) to the participants. But the research would give the research participants an opportunity to express anonymously their opinion on the important issues being investigated in the study knowing that some of the ideas they expressed might be important in the final analysis. With regard to non-clinical risk to the participants, it was recognised that the research participants had busy schedules and might experience factors such as stress or discomfort at some stage of their participation in this research. In such circumstances it was agreed to reschedule or rearrange interviews for a later date and time. This occurred quite a few times.

3.4 Data collection strategy

Qualitative data in a case study research can be collected from many sources. Creswell (2007) groups them into four basic types: observation (participant and non-participant), interviews (open ended and close ended), documents (private and public)

and audio-visual materials (pictures, CDs, videos). Commentators recommend use of multiple sources of information in order to improve the overall quality of the case and build the in-depth case (Bowling, 1997; Silverman, 2005; Yin, 1997; Miles and Huberman, 1994). Two types in particular, which are common to ethnography, narrative research, grounded theory, and phenomenology are 'interviews' and 'observation'. These have been used as principle data collection methods in this investigation and are discussed next.

3.4.1 Semi-Structured Interviews

Interviews have been the most commonly used method in qualitative inquiry. Qualitative interviewing is generally intended to refer to in-depth, semi-structured or loosely structured forms of interviewing (Rubin and Rubin, 1995). It also refers to a relatively informal style of face-to-face conversation or what Burgess calls 'conversations with a purpose' (1984, p.102). Commentators warn researchers to avoid assuming that their studies will involve interviewing (Charmaz, 2003). It will require them to ask questions as to why this method is being used; what purpose will it serve, and how it will be of help in answering the research questions. Mason (2002) argues that the answers to these questions lie in the ontological and epistemological position of the researcher.

The researcher's ontological position coincides with the Nominalistic traditions which assume that the social world which is external to individual cognition is nothing more than names, concepts and labels which are used to structure reality. It is thus important that people's knowledge, views, understanding, interpretation and experience are meaningful properties of social reality and meanings and understandings are created in an interaction, effectively a co-production involving the researcher and the interviewees. Since knowledge is contextual, the job of the interviewer is to bring those relevant contexts to focus so that situated knowledge can be understood (Mason, 2002). The epistemological position of the researcher is the same as that of the anti-positivist's. They consider the social world as an essentially

relative one that can only be understood from the viewpoint of the individuals who are directly involved in the activities being studied. Given the exploratory nature of this research, it is important to talk to these sets of people, listen to them and analyse their use of language and discourse (Mason, 2002, p.79).

Seventy-two semi-structured in-depth interviews were conducted in this study (see Appendix 5 for interview schedule). Two sets of interviews were carried out between January 2006 and June 2008 with some of the research participants. The first set of interviews (56) explored the key themes identified at the beginning of the research and included the individual perception of performance of different occupational groups, unintended consequences of the performance framework and alternate criteria for good performance. The second round (16) sought to explore any changes that occurred in the intervening period and, in particular; changes in the performance of the Trust, the experience of the merger of four organisations with different organisational & cultural differences and challenges facing the new Trust (see Appendices 6 and 7 for interview themes). The first set of interviews took place between January and June 2007. The second round of interviews took place between December 2007 and June 2008. Interviews lasted between 40-50 minutes on average and were carried out at the research participant's office. All interviews were tape-recorded with prior consent to facilitate subsequent analysis. Simultaneously, notes were also taken during each of the interviews. The wording, sequence and focus of the interview were adapted to different respondents whenever necessary keeping in mind their professional roles.

3.4.2 Non-Participant observation

Observation and particularly participant observation are methods of generating data that require the researcher to delve deeper into the research setting in order to observe or experience the setting first hand (Mason, 2002a). Observation is often an important element in an ethnographic study and grounded theory approach (Hammersley and Atkinson, 1995; Glaser and Strauss, 1967). It is also important to be sure of why this

method is being used, what purpose it will serve and how will it be of help in answering the research questions.

The researcher's ontological position falls within the Nominalistic tradition. Following this argument the researcher's ontological position then suggests that knowledge or evidence of the social world can be generated by observing (or participating in) natural settings. Such a position Mason (2002) argues further, is based upon the premise that these kinds of settings and situations reveal data in a multi-dimensional way rather than simply relying on the verbal or reconstructed account of research participants. Choosing the observational method also coincides with the view that social explanations require depth and a rounded understanding of the social phenomenon being studied rather than a superficial account and surface analysis of broad patterns (Coffey, 1999; Atkinson, *et al.*2003).

Non-participant observation was used as the second main data collection strategy in this investigation. Ethical approval was obtained from the NHS REC to observe the performance review meetings in the Delta Ambulance Trust. The intention of the researcher to attend such meetings was explicitly mentioned in the PIS given to each research subject. These meetings took different names for different levels of staff in the Delta Ambulance Trust. The management meetings were called Executive Meetings and took place every week. The team meetings in the three areas were called Area Management Team (AMT) meetings and were normally held every fortnight. Meetings of managers with frontline staff were termed Level I and II and were also held every week. In addition to observation of such meetings, administrative approval was also taken from the Trust to travel with the paramedics in the back of the ambulance to gain insight into their working. Due care has been taken to record the experience truthfully and ensure confidentiality of the persons described.

Following a multi-level approach, these observations were conducted at three vertical locations within the Delta Ambulance Trust: the Executive (corporate) level at the Trust Headquarters; area management level (middle executives and managers level);

frontline paramedics and EMDC Control room staff (micro) level. The advantage of this approach is that it allows for an analysis of the interdependence between these organisational dimensions (Pettigrew, 1990). At the corporate level, several open Trust Board meetings and internal Executive meetings were observed and the researcher recorded how senior Executives of the Trust implemented new DoH performance guidelines, analysed Trust performance and dealt with incidents and staff issues. Time was also spent in observation of four area management team meetings (performance meetings) to understand how these groups were responding to policy and attempting to make performance improvements. From the perspective of the managers, observation focused on the extent of managerial contribution and participation in performance improvement within the Trust. At the micro-level of frontline staff, operations in the three EMDC control rooms (handling of 999 calls and dispatch of emergency staff and vehicles) were observed and time was also spent in ambulance stations, travelling with ambulance crews and in the canteen where managers, junior Executives, and frontline staff took breaks. In total, around 150 hours of observation took place. Observation of the performance related activities was complemented with informal conversations in the 'corridors' with Executives, managers, paramedics and EMDC staff. Conversations typically related to specific performance issues observed in meetings and discussion of the context that framed the decision on the matters.

Notwithstanding the philosophical debate about the role of observational technique within different schools of thought, the researcher holds a pragmatic approach. In order to understand the context of the setting in which different sets of actors performed their roles within the given case, observation was considered a useful method. The experience of observing the senior management team taking decisions on matters related to organisational performance (object of study) coupled with watching middle managers and frontline staff implementing them provided a rich understanding of the context in which these social actors performed. This proved very useful in understanding the intentions of the actors. There emerged a clear pattern in the attitudes of these different sets of actors on issues relating to the new performance target ('Call to Connect') or the experience of merger in the new organisation. Travelling with the ambulance paramedics gave new insight to some of the issues

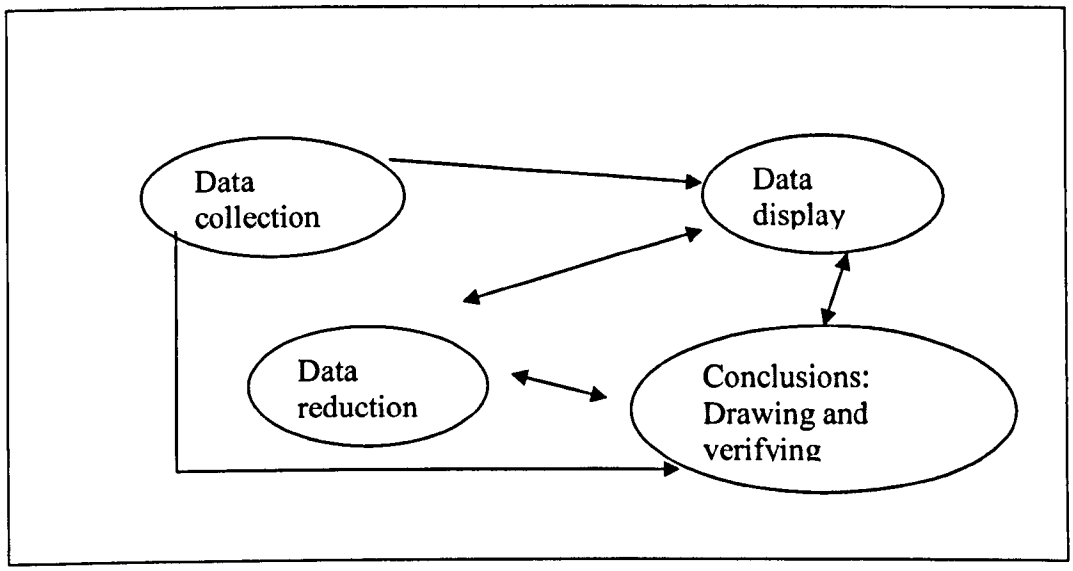
raised in interviews by research participants regarding the changed nature of 999 calls and their attitude towards performance targets. It was also revealing how the attitudes towards performance differed in each of the main occupational groups in the Delta Ambulance Trust. Knowledge generated through these observations has been useful in describing the context of the social dynamics of the case. It is believed that such a triangulation of evidence would help to improve the validity of the findings from this study (Yin, 2003; Eisenhardt, 1989).

3.5 Qualitative data analysis

Analysing textual and other forms of data is a major challenge for a qualitative researcher. Analysing case study data especially, is more challenging, since the strategies and techniques are not well defined (Yin, 2003). The general strategy discussed in the literature concerns the preparation and organisation of the data (text data as transcripts) which is then reduced into themes through a process of coding and condensing the codes before representing the data in figures, tables or discussion (Creswell, 2007; Silverman, 2006). These are the core elements of data analysis in a qualitative inquiry.

Other authors provide a different perspective. For analysing case study data Yin (2003) advocates a general strategy to rely on the theoretical propositions that have influenced the research objectives & the overall aim of the case study and by developing a descriptive framework for organising the case study. Such an approach can then lead to a holistic analysis or an embedded analysis of a specific aspect of the case. Miles and Huberman (1994) adopt a systematic approach to data analysis and give detailed steps of the whole process such as affixing codes to the data, making marginal notes and identifying relationships between various categories. Walcott (1994) presents a more traditional approach from the perspective of ethnography and case study whereas Madison (2005) approaches it from a critical ethnographic perspective.

In this study, the logic of Miles and Huberman's (1994) approach has been followed in its emphasis on a systematic study. Data analysis is seen as a process consisting of three concurrent flows of activity namely data reduction, data display and conclusion drawing and verification. Their model is outlined in figure 3.3.



Source: Adapted from Miles and Huberman (1994), p. 12

Figure 3.3: Components of data analysis

In the first stage, after the data is collected, data is reduced through the process of simplification and transformation from field notes or transcriptions through selection or summary into various codes or categories in terms of the conceptual framework, number of cases and the research questions (p. 85-87). Data reduction becomes a form of analysis that sharpens, sorts, focuses, discards and organises data in such a way that 'final' conclusions can be drawn and verified (Miles and Huberman, 1994, p. 11). This happens through the process of coding in the second stage and certain aspects of the coding are discussed in the literature. *A priori* or existing codes often come from theoretical models or the literature (Crarbtee and Miller, 1992). *In-vivo* codes refer to the code names or labels that are exact words used by the research participants and are popular in grounded theory research (Straus and Corbin, 1990, Corbin, 2000,

Charmaz, 2006). The data display is an organised compressed assembly of information that permits conclusion drawing and actions. The third stage of the process is about drawing conclusions and their verification. Though the researcher may proceed inductively and final conclusions may not be there until the data collection is over, some conclusions have been prefigured due to the demands of funding bodies or for some other reason (for e.g. making an application for ethical approval before a NHS REC in this investigation). These conclusions may be vague initially in terms of noting patterns, giving explanations, but become increasingly more explicit and grounded (Glaser and Strauss, 1967). Many commentators conceive this process as a data analysis spiral in which the researcher engages in the process of moving in analytic circles rather than using a fixed linear approach (Dey, 1993). The growing trend among PhD researchers to present and publish part of their research before submission of their final thesis is reflective of this approach.

3.5.1 Data analysis strategy used in this study

The formal interviews followed a broad thematic guide that aimed at gathering occupational narratives, understanding pre-existing performance practice, and exploring the individual perception and attitudes of the research participants (Currie *et al.*2008). The process of data analysis was guided by adopting the strategy of relying on the theoretical propositions that have influenced the research objectives and the overall aim of the case study (Yin, 2003). All interviews with prior consent were audio taped and fully transcribed prior to analysis by constant comparison method (Strauss and Corbin,1990) using the NVivo computer package (see next section). Following initial scrutiny of the transcripts, the responses to the key themes were analysed for a second time to further explore the linkage between performance measurement and culture. This followed the principles of grounded theory (Charmaz, 2003) where prominent and emergent issues inform subsequent sampling and research activities while also providing a framework for interpretation and content analysis (Glaser and Strauss 1967).

The first level codes and the second level codes (thematic codes) were derived from the reduction of field notes and interview accounts. Through coding of relevant passages of transcribed text, from observations and interviews, the researcher was able to identify detailed descriptions, accounts, beliefs and shared assumptions within the case study data. Emerging themes were then allocated codes and all statements related to each theme were re-examined for internal consistency and thematic relationships. It is important to note that the findings of the research are largely based on the perceptions and subjective experience of key individuals who participated in this study. Every attempt was made to cross reference the accounts between individuals in possible cases. To further increase the validity of the findings of the project the transcriptions were cross checked against field notes and relevant internal and external documents including the Delta Ambulance Trust's own performance reports. These broadly corresponded with the conceptual categories developed, namely, individual perception of performance, and unintended consequences of performance measurement and culture, while also revealing much about the specific and unique qualities of the case study.

3.5.2 Computer Use in Qualitative Data Analysis

Computer programmes to assist qualitative analysis of text and visual data are becoming increasing popular in the social sciences (Baazeley, 2007; Richards, 2005). Some of the main functions these programmes can provide include coding and retrieving, theory building, data linking and data display (Miles and Hubermna, 1994). The process used in such programmes involves identifying a text segment to assign a code and then searching through the database for all the text segments that have the same code level (Creswell, 2007). Use of computer software provides security by storing the database and text files together in a single file and can graphically display the codes and categories that can be used for theory building (Gibbs, 2002).

But it is the researcher not the computer programme who does the coding and categorisation. The computer programmes provides a means of storage and retrieval of data and easy access to the codes which can then be manipulated. They are of particular help if a large data base is being used. There are some drawbacks though in terms of their use. The challenge of learning a new programme can prove quite daunting especially if there are pressures of time and resources. It can cause an uncomfortable distance between the researcher and the data and can provide an uneasy 'feeling' of being guided by computer programme. It has been argued that application of standardised routines like hierarchical coding and word counts does not adequately address either the ambiguities of social interaction (Prien *et al.*1995) or produce superior results (Dolan and Ayland, 2001).

QSR NVivo Version 7.0 was used in this investigation to facilitate the analysis of data. It helped to manage and shape data through coding. Using such a programme helped the researcher to look at the data more closely and improve the overall analysis. The decision to use a computer programme was also linked to the philosophical position of the researcher- that of pragmatism. The approach of the researcher is that of a more pragmatic belief that use of this software has aided data management and contributed to analysis through better ordering and categorisation of data than would have been manually possible (Atherton and Elsmore, 2007). The programme was used for its flexibility in terms of its usage as a data management tool and training undertaken for it suse.

3.5.3 Validity and trustworthiness of qualitative research

There are many perspectives regarding the importance of 'validity' and 'trustworthiness' or 'reliability' in qualitative research (Creswell, 2007; Riege, 2003). Eisner (1991) talks about the need for need for credibility of evidence that will allow the reader to feel confident about the observations, interpretations and conclusions of the researcher. Angen (2000, p.387) suggests that validity within the context of interpretative inquiry is "a judgement of the trustworthiness or goodness of a piece of

research". Linclon and Guba (1985, p.300) use terms such as 'transferability', 'confirmability', 'authenticity' as the "naturalist's equivalent" of validity and reliability. Whittemore *et al.*(2001) suggest a more synthesized perspectives of validity organised into primary criteria (credibility, integrity) and secondary criteria (vividness, congruence and sensitivity). Similarly, Healy and Perry (2000, p.120) detail six criteria for judging the quality of realism research. A recent postmodern perspective uses a metaphorical, reconceptualised form of validity as a 'crystal'. Given the different perspectives and the usage of terms, it will be useful to define these terms as they have been understood and used in this study.

1. Tests for improving validity of case study findings

The three tests which are given attention in the literature include:

1. internal validity
2. external validity and
3. trustworthiness or reliability

Yin (2003, p. 36) mentions that 'internal validity' is a concern for causal case studies in which the researcher aims to determine whether the event *a* led to event *b*. Such logic is inapplicable to exploratory and descriptive case studies (like this one) and the concerns of internal validity may be extended to the broader problem of making inferences. External validity is about "establishing the domain to which a study's findings can be generalised beyond the immediate case study" (Yin, 2003, p.37). Reliability is about "demonstrating that the operations of a study can be repeated, with the same results" (ibid, p. 34). The aim of reliability is to minimise the errors and biases in a study. Various design tests and techniques are recommended in the literature for evaluating validity and reliability in case study research and are summarised in table 3.3.

Table 3.3 Tests and techniques for establishing validity and reliability in this study

Case study design tests	**Corresponding design tests** (Robson, 1993; Miles and Huberman, 1994)	**Case study techniques used**	**Phase of research in which techniques occur**
Internal validity	Credibility	Use of within-case analysis and cross-case pattern matching (Eisenhardt, 1989; Miles and Huberman, 1994)	Data analysis
		Display of illustrations, tables and diagrams to assist explanation building (Miles and Huberman, 1994; Silverman, 2006)	Data analysis
		Explanation building in a narrative form reflecting theoretically significant propositions (Yin,2003,p.120)	Data analysis
		Address rival explanations to assure internal coherence of findings (Yin, 2003; Miles and Huberman, 1994; Silverman, 2006)	Data collection and data analysis
		Triangulation of methods and sources (Creswell, 2007; Lincoln and	

		Guba,1985) Researcher's assumptions, world view and theoretical assumptions (Merriam, 1988)	Research design
External validity	Transferability of case study findings	Define scope and boundary of the case for analytical generalisation rather than statistical generalisation based on theory (Yin, 2003, p.37)	Research design
		Compare evidence with extant literature discussing both contradictory and similar findings (Eisenhardt, 1989)	Data analysis
		Use of thick descriptions (Denzin and Lincoln, 1994; Dyers and Wilkins,1991)	Data analysis
Trustworthiness	Reliability of findings	Use case study protocol (Yin, 2003)	Research design
		Assurance of congruence between the research issues and features of the study design (Yin, 2003)	Research design
		Record data mechanically such as a tape recorder	Data collection

		(Nair and Riege, 1995)	
		Develop a case study database to assess potential transferability (Lincoln and Guba, 1985)	Data collection
		Use of peer review through presentations and supervisor scrutiny	Data collection and data analysis
		Use of cross-referencing of data sources	Data analysis

The above table clearly suggests that the issues of 'validity' and 'trustworthiness' in this case study have been of central importance as a result of focusing on every single phase of this research project. This will give confidence to the reader about the credibility of the data and what controls were employed over them as well as the findings and conclusions (Riege, 2003). The various case study techniques used to improve validity and trustworthiness in this study has been detailed in the concluding section of the Findings Chapters Four to Seven.

3.5.4 Research Questions

Three broad sets of research questions emerge logically from the discussion in this chapter and review of the relevant literature which are consistent with the aim and the objectives of this research:

a) How robust is the current performance measurement system being used by Ambulance Trusts in the UK? Five sub-questions are sought to be addressed in this research:

1. How is performance understood and defined in the given case study? What does good performance look like?

2. Do existing performance indicators and targets in the ambulance performance measurement framework encourage dysfunctional behaviour?

3. Is the measured performance cost effective in terms of the cost-benefit ratio? Does it incentivise good performance?

4. What alternative criteria might be used to measure clinical effectiveness and patient/user experience?

5. How effective is the system of review of the performance measurement system along with the accountability relationships?

b) To what extent is the organisational context a determining factor in performance measurement? Three sub-questions are sought to be addressed in this research:

6. Whether, or to what extent the study of organisational culture and sub-cultures is useful in understanding the performance of an organisation?

7. How do staff/managers cope with tensions between delivering good performance and showing good performance results?

8. What is the role of Trust management in the measurement and management of performance?

9. Do the current organisational structures encourage good performance?

c) Are the national and local ambulance performance measurement objectives potentially conflicting? Four sub-questions are sought to be addressed in this research:

10. How do healthcare organisations balance the apparent contradiction between the focus on measured results which promotes increased centralisation (or political control) on the one hand and the managerial emphasis on flexibility which implies central and political decision making should be reduced in favour of managerial autonomy on the other?

11. Why, despite policy attempts to remedy the lack of understanding about the Ambulance Service do they still remain on the periphery with little say about how integration with the rest of the NHS should proceed?

12. What are the positive developments- the ways in which Ambulance Trusts establish themselves closer to the centre of the decision making networks?

12.1 Does the available data inform the Government when and where investment or better management is needed to improve performance?

The above research questions will help to further understanding of the performance measurement system in the Ambulance Service in the NHS; the existence of culture(s) within the organisation; and an empirical relationship between organisational performance and organisational culture.

Figure 3.4 summarises the whole research process in a flow chart. It shows how triangulation of data sources (interviews, observation and field diary) along with data analysis techniques and cross-referencing of the evidence has taken place in this investigation.

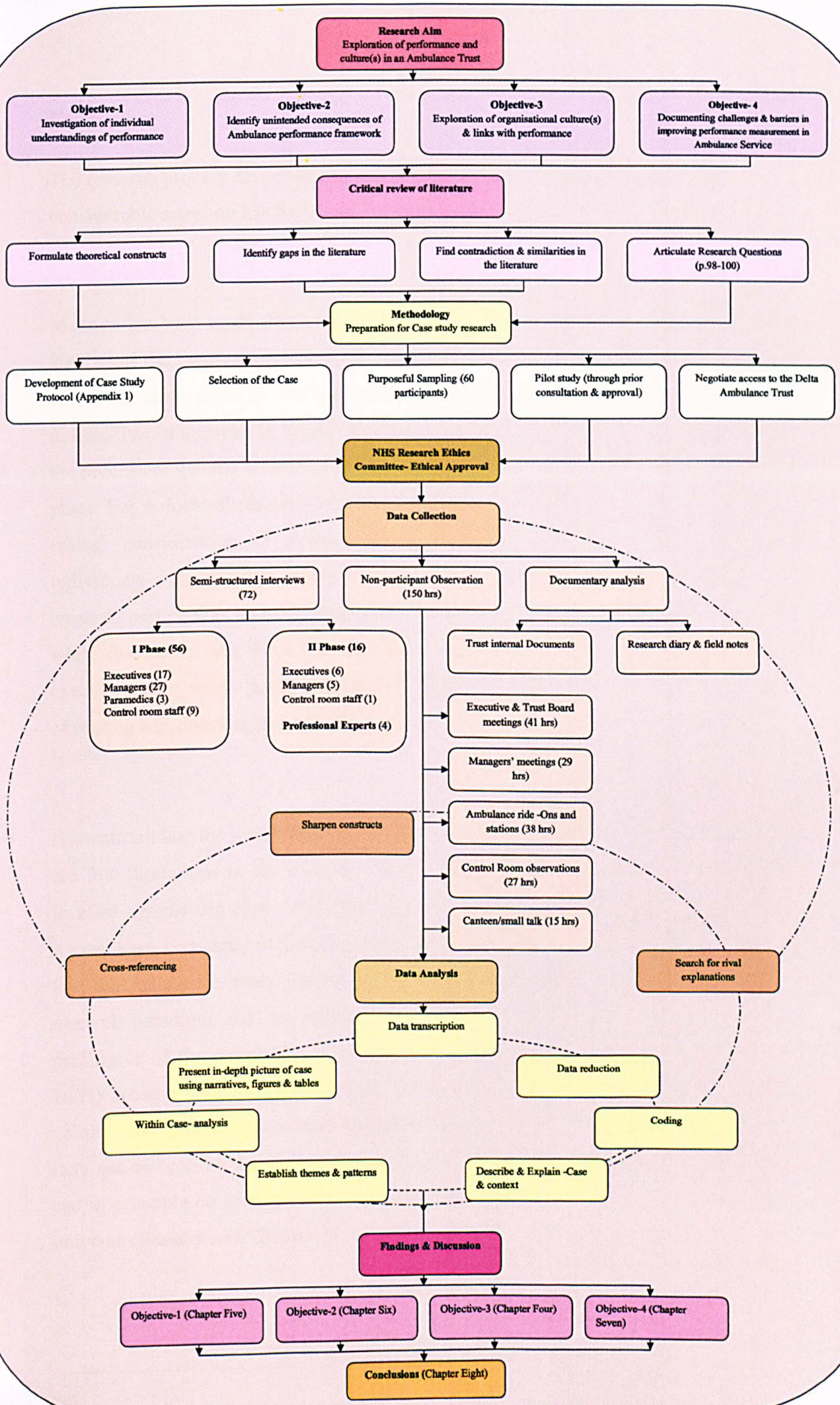


Figure 3.4: Research Overview

Conclusion

The research process described above in the Flow-Chart demonstrates clearly that considerable attention has been paid in designing the design.

Mention has been made about the spiral nature of the data analysis process (Creswell, 2007) and the fact that the whole process is iterative rather than perfect. There were numerous false starts in terms of gaining access and finalisation of the research design. Two things can be noted. The first concerns the experience of going through the process of gaining ethical approval without which this study could not have taken place. For a doctoral research this was a daunting task. The other issue was the key ethical consideration of protecting the confidentiality and anonymity of the individuals and the organisation. The decision to protect the confidentiality of the research participants and the organisation meant that no persons could be identified while discussing case evidence. Consequently, roles had to be generalised for the executive team, senior policy makers and advisors and these sometimes got in the way of putting additional emphasis in the analysis.

Notwithstanding the justification of the research methodology used in this study, there are few limitations to the research design. The first concerns the general criticism levelled against use of the case study method regarding the lack of methodological rigour when compared with other quantitative methods. This arises largely from the fact that in a case study the researcher has more freedom than in a quantitative research paradigm and the methods that are used can be linked to the subjective preference of the researcher in the conceptual design of the research (Verschuren, 2003). Another limitation in this regard is the criticism concerning the lack of external validity and generalisation from specific to global since the findings from the case may not be replicated due to the uniqueness of the case. The results of a case study can in principle be generalised to theoretical propositions and not to populations and universe (Bertaux and Thompson, 1997; Yin, 2003).

The entire research design conforms to the procedure laid down for a good case study research (Yin, 2003). It has been demonstrated that adequate preparation for this study was undertaken to tease out the methodological and philosophical aspect of ht research before entering the field. An elaborate Case Study Protocol (Appendix 1) was developed during the preparation stage to strengthen the case study findings. Prior consultation with academic experts and senior executives of the Ambulance Trusts helped to further address few issues regarding the research design. The whole design has already gone through a rigorous process of prior consultation and approval from a full NHS REC giving confidence to the reader about the validity of the research process. It has also been discussed how the data collection and data analysis methods are appropriate for this investigation. It will also be demonstrated how different methods of data collection have been triangulated to further improve the validity and reliability of the case study findings (Miles and Huberman, 1994; Creswell, 2007; Yin, 2003). Key themes emerging from the research have been cross-referenced with either the accounts of different participants or with the analysis of internal documents of the Trust being studied or further with the observation accounts to present a rich, contextual information of the case. Different case study techniques to improve the validity and trustworthiness of the findings have been already detailed in table 3.3.

Qualitative research has grown in importance and legitimacy and increasingly qualitative approaches are being used to inform health care policy and practice (Saks and Allsop, 2007, p.28). While every attempt to adhere to good practices of qualitative research have been made, the reflexive position of the researcher, the perceptions of the research participants, and the methods of data collection and data analysis exert an influence over the findings of this study (Burgess, 1984). It also needs to be acknowledged that that this account is just one person's encounter with a complex case (Stake, 1995).

Chapter Four

The different cultures in the Delta Ambulance Trust

The different cultures in the Delta Ambulance Trust

I don't think it really matters whether you live in Area I or II or III; there are different variations on culture but it is still an ambulance culture.

Senior Corporate Manager, Delta Ambulance Trust

Introduction

The start of the field research (January 2007) was characterised by a period of massive change due to major restructuring of different organisations within the NHS. Large scale changes took place at the level of Ambulance Trusts, the Primary Care Trusts (PCTs) and the Strategic Health Authority (SHA). The merger of the NHS Ambulance Trusts in England coincided with the Government's decision to reduce the number of SHAs from twenty eight down to ten on 1st of July 2006 that was followed by the proposal to reorganise the PCTs through a reduction in their number from 303 to 152 effective from 1st October 2006 (DoH, 2007).

Several commentators have noted the continuous process of upheaval in the NHS in terms of merger and consolidation both at a strategic level and at the level of service delivery (Harrison, 1994; Pollitt *et al.*1998; Hunter, 2006). The dysfunctional effects of merger on organisational performance are well documented in the academic literature. For example, Fulop *et al.*(2002) found that merged NHS organisations do not meet targets for management cost savings, and the small savings that are achieved may not be invested in patient services. In addition, the study also concluded that mergers have a negative effect on service delivery due to loss of management focus, and service development is delayed by up to eighteen months. Pollitt (2007, p.538-539) lists three important implications of such frequent changes in the NHS:

1. The frequent changes within the NHS makes it impossible to find out which organisation works well and which does not;

2. Rapid changes bring transition costs by way of organisational distraction and loss of organisational memory;

3. Such frequent changes lead to general loss of faith in stability and organisational loyalty.

The DoH consultation document, *Configuration of NHS Ambulance Trusts in England* (DoH, 2005) highlighted the need for such a merger:

> *"The creation of 11 much larger organisations would provide us with an opportunity to lift the quality of the lowest, and set a new, high, benchmark where world class services are provided for patients across the country. It would mean that Trusts would have the strategic capacity to provide high quality leadership while retaining the best of what can be delivered locally."*
>
> *DoH(2005, p.10)*

The exploration of the individual understanding of performance by the different actors in the Delta Ambulance Trust was guided initially by their immediate response to the creation of their new organisation by the merger of the four different Ambulance Trusts. The restructuring of Ambulance Trusts in July 2006, was seen by many respondents as an opportunity for the Ambulance Service, which were small organisations historically, to have greater strategic capacity and capability to interact with other NHS partners in the local health economy as a more equal partner footing. Senior executives mentioned how they felt increasingly confident in facing up to external scrutiny and audit and in putting a greater volume of information into the public domain. Accordingly, before the understandings of performance are examined,

the chapter starts with a discussion on the experience and impact of the merger on the respondents.

This chapter is structured as follows. Section one details the general response of the research participants towards the merger of four existing organisations into the new Trust. Section two explores whether there exists one or more cultures within the new organisation. Following Schein's (1996) typology, the different cultures of management in the Delta Ambulance Trust are identified in section three. Section four documents the attitudes of the three occupational communities (identified using Schein's framework) towards organisational performance. Section five introduces the fourth culture of managers in the Delta Ambulance Trust and investigates their roles and perceptions towards performance. This is followed by some concluding remarks wherein it will be established how these findings address specific research objectives (p.7) and research questions (p. 85-87).

4.1 General response of Delta Ambulance Trust staff towards merger

The first fifteen months of the reorganisation of the NHS Ambulance Trusts in England (July 2006 to December 2007) coincided with the conceptualisation and actual data collection phase of this study amidst the chaos of merger what Pollitt (2007, p.540) calls 'the dark side of reform'. Spending time in the field during this period of change helped to get new insights on the impact of the merger on this new organisation and the way key players 'defined' and understood performance and its implications for the organisation. There was a broad consensus amongst the respondents that merging different organisational structures, cultures and clinical protocols provided a huge challenge in taking healthcare to the patient. Some respondents were quite forthright in their assessment:

> *"My sense is that this has been a very complex restructuring, bringing four organisations together into one, probably one of the more complex ones within the NHS. It's even more so because of the geography and*

demography of this region but perhaps more importantly due to the variances in culture as far as the four organisations are concerned. I haven't had very high expectations if I'm honest about the last 15 months."

Senior Board Executive I

Beyond the broad consensus amongst the respondents about the difficulties surrounding the merger (not unique to this investigation), it soon began to emerge that the impact of merger on the organisation was felt differently by senior Executives, managers and frontline staff (paramedics and EMDC staff) across the new organisation rather than as employees of former Trusts I-IV. The perceived and actual gains from the reorganisation brought different kinds of challenges to each of these four groups irrespective of their 'loyalties' towards their previous organisations. It soon became clear that before trying to investigate the performance measurement system in this organisation, it will be important to understand first the values, beliefs and assumption of these different employees towards the merger and which is done next.

4.1.1 The viewpoint of senior executives towards merger

Senior Executives were positive about the benefits of the merger and thought that the Ambulance Service merger was a really positive move and one that would give the organisation a strategic capacity in a way the service had not had before. Some Executives also talked about the new capabilities on issues concerning performance and interaction with commissioners and other stakeholders to do things differently:

"I think the jury's out in this regard. But I think there is certainly a view that things are changing because they're actually seeing new ambulances, new equipment, new technology that's brought them in line with other places. They've not had that before."

Senior Board Executive II

"It's positive and will improve capacity and coverage of the organisation which will further the ambition of individual paramedics."

Senior Board Executive III

4.1.2 The perception of Managers towards merger

Further down the organisational hierarchy, the experience of the managers was not as positive. Many respondents expressed their difficulties in ensuring safe and satisfactory service delivery. New roles were created (that also displaced many staff) and new arrangements for relocation of jobs and staff took place. Comments made by some respondents towards the merger and management response included 'takeover', 'faceless organisation', and 'inconsistent':

"I think the senior executives above me should be a lot more visible than what they are. I think there's a horrible feeling that this is a faceless organisation and that the people who are making decisions and making some quite unpopular decisions were never around to have anybody to speak to them."

Senior Manager, Area II

"I don't think it increases performance since we struggled to meet our targets and we still deliver the service the way we always did."

Corporate Manager I

To further strengthen corporate accountability, many area managers were given additional corporate responsibilities and were required to divide their time between the corporate headquarters and their respective local areas. Some of the managers interviewed during the study spoke about lack of Executive understanding of the concerns of other sub-cultures and also their contribution towards the success of the organisation. Some respondents blamed poor communications in the new bigger organisation for not getting the right message across. Communication in the Delta Ambulance Trust was a function of the Corporate Communication team, the head of which worked directly under the chief Executive without a vote in the Trust board:

> *"I think we're made some bad mistakes over the last few months with things that should have been quite smooth and should have been seen as benefits to staff or to patients. The way it's been communicated has basically turned that upon its head."*
>
> *Senior Manager, Area II*

4.1.3 The attitude of frontline staff towards merger

The attitude of frontline paramedics towards reorganisation was mixed. One respondent talked about opportunities for new job roles emerging and a chance to work in different locations within the bigger organisation as a positive outcome of the merger process. Many however questioned the impact of merger as they had not noticed any real difference in terms of working conditions or service delivery:

> *"I always think of my own little regime, my own little station and my own little city and my own little rack on my car. I don't think of the wider issues because I* ***can't*** *impact on them."*
>
> *Senior Paramedic I (emphasis added)*

One respondent also raised concerns about the delays it added to making decisions in a big organisation.

"Where we used to be able to get decisions made quite quickly and be able to act on those decisions the whole thing has slowed right down."

Paramedic II

Views of staff working in the EMDC that receives the emergency 999 calls and dispatches vehicles broadly echoed the views of the paramedics. Comments were made that it had not made any noticeable difference:

"No it is just the same. No different...Nothing has changed"

Call handler I, EMDC

Concerns were raised of the bigger 'cultural' problem of doing things differently in an organisation born out of four totally different organisations with different organisational, clinical and performance ethics:

"They don't seem to accept that there are four services here that have got four different ways of working and theirs might not necessarily be the best way of looking at things."

Call dispatcher I, EMDC

Few of the paramedics were frank enough to admit their lack of awareness of the changes being carried out and that they were not bothered about them either. One senior paramedic told that they wanted to see real changes and the organisation had not made enough progress on issues like uniforms, vehicles, stations, equipment,

working practices and career development. But not everyone agreed with this assessment. One member of the other occupational community was quite dismissive of these concerns:

> *"The issues that they whinge about is exactly what they've always whinged about which is new vehicles, new equipment, and at the moment, well what are they changing now? Are they going to take this off us or whatever and that's always the same. I don't think from a staff perception, apart from the upheaval that they see, the day to day work hasn't changed at all."*
>
> *Senior Corporate Manager II*

But few other managers sounded supportive of the concerns of the frontline staff and spoke of different challenges due to moving to the new centred approach. Issues relating to increased workload, delays in decision making, lack of new vehicles, absence of direction from the centre, and non-availability of senior Executives in the areas, were some of the things mentioned in this regard:

> *"I haven't up to now seen a great deal of encouraging signs that things are really moving on and improving. I'm normally one of those people who will say, "Well look, you know these things take time to settle down guys, give it time and be reasonable." A lot of my colleagues just think it's awful, absolutely awful, but it is sometimes difficult to stay out of their negative views because there hasn't been a great deal to shout about."*
>
> *Senior Manager II, Area III*

Some support of the views expressed by the manager above came from a junior executive who called for greater visibility of the senior executives and talked about tensions between local practices and the corporate centre:

"I think it's a horrible feeling that this is a faceless organisation and that the people who are making decisions clinically and making some quite unpopular decisions are never around to speak to."

Senior Area Executive I

One specific issue referred to by many participants was the 'power issue' in which executives and senior managers of one particular legacy organisation were appointed (after due process of selection though) in the new Trust. Some respondents who previously worked in the other three legacy Trusts referred the management structure of the Delta Ambulance Trust as an 'Area I takeover' and felt that all the good things achieved by them earlier were lost:

"Perception of most of the lads here in this area is that it's an Area I takeover. People in higher jobs are from Area I. None of our senior managers have been given a job. At the grass root, they think that they have not integrated with Area I, but been taken over. It's 4-0 when we checked last time when four jobs were ***lost*** *to Area I."*

Senior Station Manager, Area III (emphasis added)

"The senior executives are going round and wanting to meet all the area management teams but they've changed the date because it was all too far for them to come.. Staffs feel like second class citizens. We do feel like we're the fourth on the list. You know Area I is at the top. And it does send out a very bad message."

Senior Manager, Area II

Another factor which gave some credence to the power issue referred here was the perception of some members of staff that the operational practices, reporting systems and drug protocols followed by the new organisation have been largely adapted from

the practices followed by the former Trust I ignoring the evidence of good practice existing in the other constituent organisations:

> *"We've got some excellent reporting systems here in terms of performance management, better than any of the other areas. When you speak to couple of assistant directors and Executive directors they accept that the reporting systems are better here than anywhere in the {Delta} Trust and yet although the reporting systems are excellent they don't seem to get adopted by the Trust. They want us to try and use the Area I model which is flawed and is proven to be flawed at the moment."*
>
> *Senior Manager II, Area III*

Senior executives were quick to dispel this perception on the part of some of the staff and emphasised that only the best people were appointed in the new organisation with merit being the sole criterion for their appointment. While the exact truth may be difficult to ascertain some of it can be traced to the vagaries of human nature and the individual's role in the new organisation. Interestingly, performance in Area I started to dip whilst other areas tried to catch up during the first seven months of 2008-something which was alluded to by the respondent in the previous quote. In its own peculiar way this factor helped to ease out some of those feelings:

> *"I think there's been some interesting dynamics being developed because of what was seen as an Area I takeover. I think it is still being viewed as that in big chunks of the organisation. But increasingly we're seeing people from other areas say well actually we are better than that."*
>
> *Senior Area Executive II*

The above discussion reflects that the intended gains from restructuring are not universally accepted and appreciated by different categories of staff and importantly that it would be a mistake to judge organisational response from the standpoint of any

one category of staff. The views of senior executives reflect a more strategic view about the gains of this reorganisation. Middle managers clearly talk about difficulties in getting to grips with a new organisational structure which largely affected the operational managers in terms of their relocation and job roles. Comments from frontline paramedics suggest that they do not see much change happening at an operational level but that they now have to deal with a bigger organisation. The EMDC staff also point out that no benefits have accrued to them as a result of the restructuring process. Even within these different occupational groups, there is a difference of opinion. These aspects of findings highlight the importance of the role of Trust management in dealing with the issues such as mergers and putting organisational structures in place. It also address research objectives 1 & 3 (p.7) and R.Q. 1 & 8 (p. 85-87). Within the senior management team some executives talked about gains from reorganisation particularly with regard to raising the profile of their Ambulance Trust within the NHS and by getting 'noticed' whereas others thought of it as a 'distraction', something that takes the 'eyes off the ball.' One respondent warned about the enormity of the task:

> *"We don't want to merge the four previous ones into the new one; we want to create a whole new culture that actually doesn't take on any of the baggage from the four previous ones."*
>
> *Senior Board Executive IV*

4.2 Culture(s) in the Delta Ambulance Trust

One common theme which emerged out of the first round of interviews was the repeated mention of words like 'culture', 'cultural challenge' 'ambulance culture' 'command and control culture' in response to questions concerning individual understanding of performance. It began to unfold that these cultural challenges were not simply due to differences in the four merged organisations but concerned the assumptions and values held by the different categories of staff.

In the literature, Ambulance Services have often been referred to as having just one culture of 'command and control' accompanied by a tendency to blame (CHI, 2003) and as being risk-averse (NHS Modernisation Agency, 2004). Improving the culture of the Ambulance Trusts was one of the major recommendations of the national ambulance review (DoH, 2005a). The views expressed above by the different categories of staff on the issue of restructuring of the organisation suggest the difference in each of their assumptions. As the researcher's understanding of the organisation grew it became clear that there is no 'single' culture within the Delta Ambulance Trust. Instead there are 'multiple' cultures within each category of staff.

A key concern of this study then was how to analyse the meaning which members of these different groups of staff in the Delta Ambulance Trust assign to their social world as they seek to cope and maintain membership in the face of attempts of different groups to exert influence. In order to understand as fully as possible the dynamics of the culture of an organisation, it is vital to develop an appreciation of the perspectives and interpretations of individuals and groups of individuals within it (Harris and Obgonna, 1998). This view is consistent with Smircich (1983) who argues that researchers attempting to understand culture should be concerned with learning the consensus meanings ascribed by a group of people to their experience and articulating the thematic relationship expressed in its meaning system.

Different classifications have been discussed in the literature to understand and measure cultures notwithstanding the suggestion that the search for an 'ideal' instrument could be a frustrating exercise (Scott *et al.*2003b; Lim, 1995). However one useful classification was developed by Schein (1996) to analyse and describe the issues of subculture in an organisation. Schein (1996) argues that there are three different, important occupational cultures which often work at cross purposes and are often in conflict with each other. He calls them as (1) the culture of engineering, (2) the culture of Chief Executive Officer (CEO), and (3) the culture of Operators. These cultures often cut across organisations and are based upon what Maanen and Barley (1984) have described as 'occupational communities'. The Operator culture that

evolves locally in organisations and within operational units is the most difficult to describe. The other two cultures, the engineering culture and the culture of the CEOs cut across organisations and the shared assumptions are derived from a common educational background. For instance, sales persons, accountants, assembly line workers, and Engineers all share the same tacit assumptions about the nature of their work regardless of who their current employers are. Such similar outlooks across organisations also apply to Executive managers, particularly chief Executives. CEOs face similar problems in all organisations and in all industries throughout the world. Executives form a common worldview about the nature of business and what it takes to run a business successfully (Schein, 1996, p.13). A brief discussion of the shared assumptions of each of the three cultures will be useful before application to the Delta Ambulance Trust.

4.2.1 The Operator culture

Being local in origin, this is perhaps the most difficult culture to describe. An Operator culture can be identified in a chemical plant, in a hospital, a pharmaceutical company or even in an office. But what elements make this culture broader than the local unit are not very clear. In order to focus on this issue we can consider the fact that the operations in different industries reflect the broad technological trends in those industries at some functional level and how one does things in them reflects the core technologies that created them. And, as those core technologies themselves evolve, the nature of operations changes. For example advances in information technology have rendered the manual process of painting in the automotive industry or detecting leaks in a chemical plant obsolete (ibid, p.13). Since this culture is based on human interaction and communication, Trust and team work are essential in getting the work done efficiently. If the operations are complex, Operators learn that they are highly interdependent and must work together as a team, especially when dealing with unanticipated events. Rules and hierarchy often get in the way when unexpected events occur. Operators become highly sensitive to the degree to which the production process is a system of interdependent functions, all of which must work together to be efficient and effective.

4.2.2 The Engineering culture

In every organisation, there is one group that concerns itself with the basic design element of the technology that is the basis of the work of the organisation and has knowledge of how that technology is to be utilised. Schein (1996) describes this occupational community as the one representing engineering culture. It is likely to be most visible in traditional engineering functions, but it is also apparent among the designers and implementers of all kinds of technologies such as information technology, market research and healthcare organisation. In the design of complex systems such as jet aircraft or nuclear plants, the engineer prefers a technical routine to ensure safety rather than relying on a human team to manage possible contingencies. Engineers recognise the human factor and design for it, but their preference is to make things as automatic as possible. Safety is built into the designs themselves. Engineers, in the broadest sense, are designers of products and systems that have utility, efficiency and safety and which are designed to require standard responses from their human Operators (ibid, p.14).

4.2.3 The Executive culture

Both Operators and Engineers often find themselves in divergence with the third culture, the culture of the Executives.

The Executive worldview is built around the need to maintain an organisation's financial health and is preoccupied with boards, investors, and the capital markets. In a healthcare organisation, the Executive has in addition to the above, to deal with greater conceptual challenges, multiple objectives (sometimes contradictory), and various stakeholders (citizens, Government, patients, regulators and taxpayers). Managing financial health and the growth of the organisation become important management tasks. Schein's assumptions of the Executive culture apply more to CEOs who have risen from the ranks within the organisation through promotion. The

Ambulance Service is a good example where most of the senior Executives have traditionally come from within the service.

As Executives rise in the hierarchy, their level of responsibility and accountability increase, they become preoccupied with financial matters and find it harder to observe and influence the basic work of the organisation. The need to manage from a 'distance' forces them to devise control systems and routines that become increasingly impersonal. This need for information and control requires them to develop and implement elaborate information systems alongside the control systems (routines, rules and rituals). They also feel increasingly alone in their position at the top of the hierarchy. Schein also argues that both the Executive and the engineering cultures tend to see people as impersonal resources that generate problems rather than solutions and view people and relationships as means to the end of efficiency and performance (productivity) and not as an end in themselves (ibid, p. 16).

4.3 The three cultures of management in the Delta Ambulance Trust

From this study, the researcher could clearly relate three occupational groups in the Delta Ambulance Trust in terms of the classification given by Schein (1996). The different occupational cultures would then include:

- The Operator culture that can be represented by the frontline crews (paramedics and technicians) who respond to all emergency 999 calls

- The engineering culture that can be represented by the Emergency Medical Dispatch Centre staff (Call takers and Call dispatchers) where all 999 calls are received and vehicles dispatched to the scene of the emergency

- The Executive culture that is representative of the Chief Executive and senior Executive team.

From this investigation, it will be argued that there are not three cultures as described by Schein. There is a fourth culture that of the 'managers' which quite uncomfortably sits at the periphery of the Executives (Wankhade, 2007a). These are significant findings in terms of classifying the different subcultures in an Ambulance Trust (R.Q.6)

4.3.1 The paramedics as the Operators

The paramedics form the backbone of any Ambulance Service. A paramedic is a senior health care professional who works in an Ambulance Services and travels to the scene of an emergency. Paramedics assess the patient and initiate any specialist pre-hospital medical treatment and care. Besides administering life-saving procedures, paramedics are also qualified to use a range of clinical techniques and have to deal with a wide range of patients including those suffering from traumas such as road traffic accidents (RTA) or suffering from some other trauma.

There are two categories of emergency crews who attend to 999 calls in an Ambulance Trust. These are (a) paramedics with certain higher skills in terms of the clinical intervention they can give to the patient and (b) technicians with fewer clinical skills. There are also two categories of vehicles that can attend to a 999 call. The first is a standard two-crewed emergency ambulance whilst the second is a rapid response vehicle (RRV) which is usually a car driven by a single paramedic (and called 'solo-responders' in ambulance jargon). For the double crewed ambulance, the usual practice is to have a paramedic-technician or paramedic-paramedic combination. Usually two technicians are not put together for the safety of the patients but for operational exigencies it is not unusual to have two technicians in an

ambulance. Rees (2007) reported a story about the death of a 999 caller that was attributed to delay in dealing with the emergency since the first responder was a technician and had to wait for the arrival of a paramedic to administer the relevant drug for which he was not authorised.

As the performance of the Ambulance Service is ultimately dependent on the performance of the paramedics in hitting the response time targets, especially the headline target of Category 'A' response of eight minutes, the success of the enterprise depends on their knowledge, skill, and commitment. The required knowledge and skills are "local" since each Ambulance Trust organises its own training programmes and differs in the local geographical knowledge of the area they serve based on the organisation's core technology. Although the workload for any particular day or hour is predictable and is based on the IT systems used, the exact level can never be known in advance. This requires Operators to be constantly vigilant and prepared and they must have the capacity to learn and to deal with the unexpected.

4.3.2 The EMDC staff as the Engineers

The EMDC is the focal point of the Ambulance Service and its effectiveness is critical to achieving ambulance performance standards mentioned earlier in this section. It provides a 24-hour service and often involves dealing with highly stressful and emotive situations. The EMDC utilises either the AMPDS or the CBD versions of the medical dispatch systems that enables trained staff (Call takers) to categorise emergency calls in an objective and logical manner by asking the caller structured questions. These questions identify the presence or absence of 'Priority Symptoms' like chest pain; breathing problems; change in level of consciousness and haemorrhage, etc.

The EMDC is the hub of all the ambulance activities and control. The time taken to answer a 999 emergency call and that to dispatch an appropriate vehicle and mobilise crews efficiently counts towards the overall efficiency of the Engineers (and the organisation by implication). A typical shift runs with approximately 8-10 Call takers; 5-6 Call dispatchers, and a supervisory officer (called performance managers) with an overall manager in charge for the EMDC. Assisting the Engineers is an impressive array of technology; the AMPDS that guides the response of the Ambulance Services; and satellite navigation and radio paging systems used for determining the exact location of an emergency vehicle and communicating with the crews.

Two categories of staff work in the EMDC; the 'Call takers' who receive the 999 calls and then talk to the callers; and the 'Call dispatchers' who assign a team of Operators and an appropriate vehicle for each call. The Engineers receive training in first aid and life saving techniques which means that, when required, they will stay on the line and provide instructions and support to the caller to enable them to assist the patient until the ambulance arrives. There have been instances when Engineers have given instructions over the phone to distraught mothers that enable them to deliver babies whilst they wait for the ambulance and the Operators to arrive.

The management information tends to be restricted to the data that the main control room system can provide for the monitoring of performance. Management of resources (distribution of vehicles) is the sole responsibility of the EMDC staff and they do not seek interference from others. The constant pressures of time and resources require the Engineers to keep a close track on the Operators' performance for each job. This requires defining when meal breaks can be taken by the Engineers or for which calls the paramedics can be sent, etc. often leading to conflict.

4.3.3 The Executive culture

Discussions with senior Executives revealed that the majority view amongst senior management in the Delta Ambulance Trust is to be seen as an integral part of the NHS network rather than being viewed as an emergency service. The need for better cooperation and sharing of resources was widely acknowledged by the senior Executives across the Trust. The Executive vision is to forge close partnerships with other emergency and other healthcare services which will enable the Ambulance Trusts to quickly develop their role within the NHS network and enhance their clinical skills and allow them to carry out their tasks more efficiently through improved planning and coordination.

Executives focus on financial survival and growth so as to provide adequate returns to their shareholders (Primary Care Trusts, Strategic Heath Authority, Department of Health) and to society (patients, public at large). Obtaining funding from the PCTs that commission the services of individual Ambulance Trusts is considered a top priority. The economic and political environment is perpetually competitive and potentially hostile, so the CEO is isolated and alone, yet appears omniscient, in total control, and feels indispensable (Schein, 1996, p.15). Raising the profile of the Ambulance Service within the wider NHS network is seen both a responsibility and a challenge. The need and desire to be heard and noticed by external stakeholders and Commissioners (PCTs) weighs heavily on the minds of Executives. There is also a clear hierarchical, task and control focus of this culture. Meeting performance targets and hitting the national headline target of eight minute response (Category 'A' call) is seen as a barometer of Executive success- the difference between a good Ambulance Trust and that of a bad one. Failure to achieve Category 'A' targets and poor performance ratings is seen as a stigma and personal failure.

These findings make a significant contribution in understanding and classifying the different subcultures in the Delta Ambulance Trust. Such an analysis is lacking in the available literature. Schein's (1996) conceptual framework is further expanded by the

empirical evidence from the case study in identifying his three subcultures. Having discussed the assumptions of these three cultures within the Ambulance Service, the next section will provide their perceptions and attitudes towards performance before examining in detail, the key performance target for the Ambulance Service in chapter five. These aspects of findings clearly address research objective no. 3 and R.Qs. 1 & 6.

4.4 Attitude towards performance of the three occupational cultures in the Delta Ambulance Trust

The executive view towards performance and targets remains focussed towards organisation's vision and mission and bears characteristic assumptions of this culture as evidenced from the comments of the senior management team:

> *"We need to measure our performance around the three key elements that any business would do really and that is around quality, cost and volume. The way I view this tension is that it's like when an organisation's being managed well as a creative tension...That's how I see it and that's how I try to encourage a manager to view that tension and to build it as a force for positive change."*
>
> *Senior Board Executive V*

> *" I think the role of the management is in setting the conditions that are useful to allow the staff to deliver performance...Clearly in that regard I think that high investment in clinical leadership and management is going to be the most important thing that we can do to deliver good performance."*
>
> *Senior Board Executive VI*

Views expressed by another senior executive are also similar:

"Like it or not, performance targets are here. And although there is an awful lot to do in terms of Taking Healthcare to the Patient, we can't ignore the fact that we need to meet our 75% Category 'A' target."

Non Executive Director 1

The views expressed above reflect the basic assumptions of the Executive culture detailed in the previous section. A clear emphasis on financial health along with clear lines of hierarchy and control is indicated in the remarks of the senior executives. What also emerges from these views in terms of the focus on performance and targets is that the challenges of the job and the sense of achievement take precedence over the relationship aspect (with the other occupational cultures). It is easy to identify these comments with traditional executive prerogative about vision of the service and the direction of travel for the organisation. The drive to perform can be seen as a strong need of executives within the challenging and often unstable environment of the NHS where failure and non- performance often results in loss of jobs. In these circumstances, the views expressed above may not be too surprising.

The Engineers deal with the actual handling of 999 calls and dispatch of the vehicles in the Ambulance Service. But to meet the performance targets of the organisation, they need the cooperation, active support and commitment of the Operators to go out to the scene of the emergency in the fastest time possible. The crucial role played by the Engineers is also acknowledged by the Executives:

"From the point of view of delivering performance, the first point of call has to be the control room. If you get the control room right then the rest will fall into place. If you haven't got your control room processes, procedures right, you haven't got a cat in hell's chance of getting your road staff sorted in that respect. It has to start from the centre and move its way out."

Senior Board Executive VII

During the period of this study, there were three EMDCs in the Delta Ambulance Trust covering Areas I, II and III. A considerable time was spent in each of them, watching with interest, the working of the Engineers and the way the business was conducted and talking to the Operators informally as well as in formal interviews. Given its important role as indicated by the Board Executive 5, the researcher was struck by the lack of Executive and Operator influence and interference on a day to day basis. There is no outside control regarding the way in which each 999 emergency call is answered or an appropriate vehicle is dispatched. As stated by one EMDC manager:

> *"All senior operations managers have access to the 'Alert System' where they can see live where their vehicle is. But they do not have access to the mapping system which would allow them to track their vehicles. There is a pressure on sector managers to ensure performance in their area is as high as possible and they attempt to talk to us. But we fight them. We are very clear that we will distribute the resources to the best of our ability and not what the individual sector manager wants."*
>
> *EMDC Manager I, (emphasis added)*

The Engineers use their skills, training and experience in dealing with their work. While they are generally conscious of targets and performance, the impression gathered by the researcher suggests that they do not like to rush into answering one call and moving on to another reflecting their basic belief of safety first:

> *"For me the time taken to answer the call, which at times is quite challenging, is not really important. Rushing to finish the call would distract me in assessing the call correctly, which for me is a bigger priority."*
>
> *Call taker II, EMDC*

The views expressed above reflect the basic beliefs detailed in the previous section. This can be related to their safety orientation and over-design for safety of the patients. The Operators on the other hand, wish to balance the clinical care given to patients with that of speed of response. The most common comment from the Operators concerned the paradox of reaching to the scene of emergency quickly and being unable to make any clinical intervention:

> *"As an Ambulance Service if you get to a patient in 8 minutes and if they die, you succeed; but if you get there in 9 minutes and the patient survives, you fail."*
>
> *Paramedic III*

> *"There is a paradox between good performances; how to get the vehicle as quickly as possible at the incident to the quality of care provided to the patient; and the focus is mostly on the former."*
>
> *Senior Paramedic IV*

Another Operator who responded to emergency situations as a solo responder moaned about the constant pressure exerted by Engineers about the targets:

> *"When we get a job, it is like how long it takes to get there to the patient's benefit. In Control, it's all about time, targets, everything else. But for the practitioner on the road, it is more about just getting to that patient safely."*
>
> *Senior Paramedic V*

It is not being suggested here that the Operators are not serious about their jobs. The time spent by the researcher with them showed their total commitment. Travelling as

an observer with them during actual 999 emergency calls showed their skills and focus. What these comments suggest is the pressure to meet the target on a continuous basis. While it may appear that there is some initial alignment amongst the needs and task as defined by the operators, the need of the engineers for efficient operations through optimal resource utilisation and the need of the executives for minimising cost and providing vision and direction to avoid any problems pulls the organisation in different direction. When the new organisations reinvent themselves due to changes in environmental factors such as merger, targets and technological factors, there are signs of collision amongst the three cultures which is reflected in the way the three cultures perceive their respective roles. The executive perception of the operators (and engineers) is quite forthright in this regard:

> *"I think, certainly within the executive team, we've got that focus and we're building a strong team as we get to know each other better.. I am very much aware that operational staff now know that they've got an executive team up which is of high calibre and they know that they're being lead by minds and not monkeys and I think that's quite a powerful* ***message*** *really."*
>
> *Senior Board Executive V (emphasis added)*

> *"One big challenge before Ambulance Service is how to professionalise a blue collar trade."*
>
> *Senior Board Executive II*

Another executive put it rather bluntly:

> *"If you talk to road staff about achieving Category 'A' performance they just laugh in the sense of well that's your problem and it's your problem to get the ambulances in the right place, to make sure we can get there within the time."*
>
> *Senior Area Executive III*

Some Engineers complained about lack of education on the part of the Operators to understand the working of the control room. Visit by an Operator into the EMDC Control room was a rarity. There was no formal procedure in place in the Delta Ambulance Trust for meetings between these two groups though individual Operators would drop in for a 'brew' sometime:

> *"There must be a system in place where they come here and we go out to see mutual problems.. If they spend a day with us, then they can see our problems as to why they were given a job or why they took more time at the hospital. This will improve relationship."*
>
> *Call dispatcher II, EMDC*

If the Operators assume that the Executives and Engineers do not appreciate their views, they can resist and covertly do things their own way. The comments by the Engineers about the unnecessary delay on jobs by the Operators or by the Executives about the need to bring a cultural change to professionalise the service conform this proposition. The comments of Engineers about the freedom in running the EMDC and the Executive approach of laying down guidelines and lines of hierarchy support this view. The comments by the Executives about professionalising a 'blue collar trade' and those by the Engineers about trying to control every aspect of the Operator's working pattern (meal breaks) support Schein's hypothesis about the implicit Executive and engineer's assumptions of people being the problem or source of error. But the Executives and the Engineers often disagree on measures to be adopted in increasing efficiency. Engineers seek permanent solutions in terms of more resources which are guaranteed to work and be safe in all the circumstances but would cost more. This is suggested in the comments made by the Engineers about more staff, better vehicles and latest technology needed to carry out their work. The Executive concern is usually about minimising the cost while attempting to maintain a strategic focus.

Views expressed above by representatives of the different sub-cultures and policy experts bring out the difficulties in understanding the multiple subcultures and their interactions in the Ambulance Service. Assumptions of these subcultures were also guided by the functional groupings, trade union membership (a real issue for the Ambulance Service), length and terms of working in the service, individual loss/gain due to restructuring or a combination of all these issues. It is also relevant to note that these comments have come from respondents who have worked in all the four legacy organisations. But they bear greater significance in terms of their assumptions as a separate occupational community irrespective of the organisation of their previous employment. There are several other implications about these subcultures in the Delta Ambulance Trust. One implication of the different sub-cultures concerns the validity of their basic assumptions which was discussed earlier. It then becomes not a case of "who is right" but of creating enough mutual understanding among the parties so that solutions can be understood and implemented. These findings also suggest how the basic assumptions and characteristics of these three cultures can have implications for organisational performance. The next section examines the fourth culture of management, namely that of middle managers in the Delta Ambulance Trust and its attitude towards performance.

4.5 Managers as the fourth culture of management

There is inconsistency in the literature regarding the definition and nomenclature of managers. Currie and Procter (2005) use the nomenclature of 'middle managers' with operational responsibilities rather than from the corporate functions, which are positioned in the organisational hierarchy so that at least two levels of staff were below them. Watson (2001) finds this classification rather restrictive and argues for the use of the terms as it is understood in the organisation. In this study, managers have included all individuals who were understood as managers in the Delta Ambulance Trust (see Figure 4.1). This helped to avoid any pre-judgement of the roles of managers and allowed a greater understanding of the fourth subculture in the Ambulance Service. Findings from this investigation represent the views from a

cross-section of respondents who were officially called managers in the Delta Ambulance Trust having either operational responsibilities or corporate job titles.

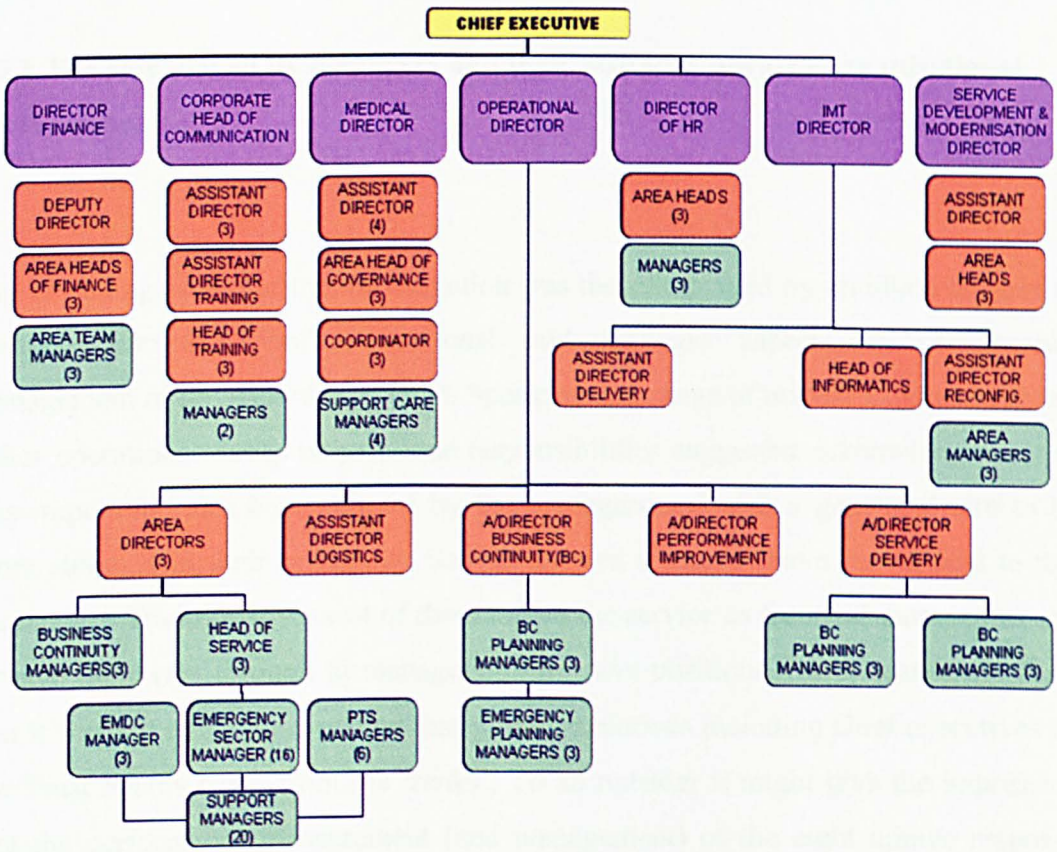


Figure 4.1: Organisational Chart of the Delta Ambulance Trust

The diagram above shows the organisational structure of the Delta Ambulance Trust. The organisation was structured around seven directorates headed by a board Executive reporting to the Chief Executive. The area directors were considered as the part of executive team in terms of their employment conditions. They have been referred to as junior executives in this study. The managers were organised around these directorates. There were three area directors who were responsible for the overall management of the local functions of service delivery. The deputy/assistant directors were based at the corporate headquarters which on average was between 30

and 50 miles from the area offices. As seen from the diagram, all individuals below the level of Assistant Directors and Area Directors were called managers in the organisation having both operational and corporate responsibilities. Following Watson (2001), they will be not referred to as middle managers but only as managers.

4.5.1 The role played by managers and their attitudes towards organisational performance

One revealing aspect of this investigation was the role played by middle managers in matters concerning both operational and strategic aspects of performance management of the Ambulance Trust. Speaking to a range of middle managers having either operational duties or corporate responsibilities suggested acknowledgement of less important roles being played by the managers and also a general desire to be more strategic in their behaviour. Several factors appear to have contributed to this perception. Traditionally, most of them joined the service as frontline paramedics and worked their way through to managerial/Executive positions. Many managers stated that it was not uncommon to find that senior executives including chief executives on the Trust boards come from the 'ranks'. To an outsider it might give the impression that the performance measurement (and management) of the eight minute response ends too soon to allow any managerial intervention in 'real time'. This means that the whole process of deciding on an appropriate response to an emergency call is completed within a few minutes of an emergency 999 call hitting the switchboard of the EMDC Control after being answered by the Call taker and Call dispatcher assigning a particular vehicle/crew to attend it. This results in little scope for the managers for dealing with performance issues of the organisation as they occur.

The lack of opportunities for management training and clinical education which are often sidelined because of operational exigencies was an issue highlighted by many managers. It has a bearing on the managerial response to organisational change. The Executive focus on performance targets further affected the personal development of this group. The Executive attitude towards managers did not help either. One senior

board Executive expressed his 'frustration' about the lack of managerial skills in communicating the message of the management team to the frontline staff. Some managers on the other hand complained about the 'lack of genuineness' of the Executive intention to involve them in the actual decision making and developing strategic thinking of the organisation.

The views expressed above by some of the managers can be ascribed to what is described in the literature as either 'reluctant managers (Scase and Goffee, 1989) or those who seem unsure of their own capacity and capability (Dopson and Stewart, 1990). Such a reluctance or inability could be assigned to the geographical distance of the corporate centre from the operational managers, the size and spread of the Delta Ambulance Trust (one of the largest Ambulance Trust in England), and their own position in the organisational hierarchy. Moreover, the assistant directors tended to remain at the corporate headquarters and the way the organisation was structured around different directorates further prevented a greater interaction amongst corporate and area/operational managers. Operational managers were isolated due to the shift patterns of frontline staff and from each other due to the distances involved which resulted in their engagement in the organisation in an implementation role. This is in conformity to the literature which argues that strategy is formulated by those at the corporate centre and implemented by the operational managers at a local level (Currie and Procter, 2005).

This is not to suggest that there were no positive developments witnessed in the Delta Ambulance Trust during this study. The development of the managerial strategic function was recognised by senior executives including policy experts. Training programmes were given a boost. Investment in management education through workshops, seminars and 'away days' facilitated lateral interaction between managers, that had been previously difficult to achieve due to the hierarchical organisational structure. There were several indications in this regard. It was emphasised that all proposals for additional resources should be produced in a 'Business Case' following detailed analysis and evaluation of the merits of the proposal. This helped managers formulate the details of the contents of the strategy by

spanning the boundary between the organisation and its external environment. One manager explained there were better opportunities to interact with the Commissioners and outlined that one of the initiatives concerning 'Stroke Services' in which he was involved was helped by early engagement with the PCTs.

However such initiatives had their own unintended consequences. Such 'Business Cases' often had to go through multiple layers of decision making: through local area management committees; through programme boards; and finally to the Board of executives. This often led to delays in getting such 'Business Cases' through. One manager spoke about how one proposal discussed with the PCT Commissioners had taken nearly a year to be cleared. Another respondent complained:

> *"We used to be able to get decisions made quite quickly and be able to act on those decisions.. Up until last year, we used to look after our own workforce planning and didn't end up getting to a situation where we'd got excessive numbers of vacancies. We used to order our own vehicles so we didn't get undue delays with vehicles coming through. The Legacy Trust was the last time I had any new vehicles or new staff."*
>
> *Senior Manager II, Area III*

There was a general consensus amongst managers that they had the potential to play a strategic role in making the transformation of the organisation from a transport service to professional healthcare provider. However several challenges to their ability to play an increased strategic role were mentioned by respondents. It was argued that the organisation was too focussed on operational performance and had to deal with the historical and legacy factors of command and control culture of a uniformed service in which there was a culture not to question the decisions made by seniors.

One senior manager of more than fifteen years of service narrated his own experience. He explained that traditionally, Ambulance Services had promoted and recruited

from within their own ranks and that this was a typical uniform service approach in which if one worked for it long enough, one would get promoted because it's his/her turn. This has resulted in a lack of ownership, understanding and accountability at all levels in the organisation and where the senior executive team were viewed as 'Generals' and lots of time is spent in looking 'upwards' for directions. Another manager who had, earlier, worked outside of the Ambulance Service suggested that the inability of ambulance frontline managers to make a strategic contribution was due to their lack of external exposure:

> *"I think without that external exposure, that sort of business acumen, that awareness of marketing and financial strategies to support decision making, it is all about operational service delivery. As an organisation we put in place business plans, we put in place strategic objectives and cascade down through Personal Development Plans {PDPs} and individual objective settings. But what we miss is that we don't have any accountability with it and when it comes to the crunch, we avoid dealing with the underperformer."*
>
> *Senior Corporate Manager III*

However, the Executive expectations of the managers were not always as positive. Many senior executives mentioned factors like lack of confidence and unwillingness on the part of managers to gear up to the new challenge posed by *Taking Healthcare to the Patient* (DoH, 2005a):

> *"Actually there's a culture in certain parts of the organisation and probably this part, in the middle management, where managers believe that they know all the answers what they're saying it's the endpoint of everything, they'll have to have the last say in everything."*
>
> *Senior Area Executive II*

The underlying conservatism within the service was mentioned by several participants in this study and has been referred to earlier in this thesis. Despite the essential nature of service delivery remaining largely the same during the past 20-30 years, Ambulance Trusts have generally struggled to meet the required standards. Some respondents stressed how important it was to take into account the sensitivities of managers in the newly restructured organisation and how vital it was for the organisation to implement the new vision of the Ambulance Service as envisaged by policy makers:

> *"Managers are very, very influential, you know. If they say to the staff that things are rubbish out there, the staff don't tend to go and look too far. Equally if they say 'things are really improving out there' the staff takes it from them. The staff will buy into it. So by having a de-motivated middle management workforce couldn't have been worse.. They're just switching off themselves."*
>
> *Senior Manager III, Area I*

It is not being suggested that managerial contribution was not appreciated by the senior Executives in the Delta Ambulance Trust. Many senior Executives acknowledged the crucial role of the managers in driving forward the new clinical agenda before the frontline staff. One executive acknowledged that there were signs suggesting that the middle managers were beginning to act in a way that they would be expected to do and were at least talking the language and debating and discussing issues within the new culture. Few new appointments had individuals arriving from outside of an ambulance background.

Some general comments by middle managers about merger have been made before. One major restructuring issue that was highlighted by many managers concerned the process of selection of managers and how it had increased their isolation from each other in the Delta Ambulance Trust. New job-roles were designed during the first year of the new Trust that left some of the managers without proper job descriptions. Such

job insecurities and the consequent competition for the new posts caused a number of existing relationships to break down between managers in the three areas of the new Trust:

> *"I need a job. I mean I've got a post, I've been appointed to a post with due process but for a year I've been doing nothing.. The merger was in July 2006 and we are now nine months on and I'm having my first one to one {meeting} with the Executive Director this Wednesday, the first since July. And I don't know what the content of the meeting will be and I don't know whether I will have any either strategic role or even tasks in simple terms at the end of that meeting."*
>
> *Senior Manager IV (May, 2007)*

Coupled with this, there was a perception of some managers, especially who worked in the legacy organisations now represented by Areas II and III that these new posts were given to managers working in Area I. Some of them saw this merger as a takeover by Area I. This had some negative consequences. One senior sector manager (in Area I) joined a neighbouring Ambulance Service in an executive position. In Area III, five senior managers of more than 10-15 yrs experience in their previous organisation left the Delta Ambulance Trust. These job insecurities appeared to make some managers insensitive and to pay only 'lip service' to their strategic role. Some confusion amongst managers was also created by the dual roles (area and corporate leads) given to many managers for the stated objective of developing a corporate identity of the new organisation and devising a directorate structure. Many managers however argued that it was done to provide greater Executive control over managerial actions and for reasons of parsimony. This often led them to working in little boxes-what Kanter (1983) describes as 'segmentalism or compartmentalisation' of actions, events and problems from one directorate to another. One respondent was apprehensive about such an approach:

> *"We have to be careful that we don't start to see functional departments operating in isolation and we don't create silos. Some say 'areas' are silos.*

But it is far less dangerous than departments working in isolation. There is a real danger that we will end up in silos-and they manifest in different ways."

Senior Area Executive III

Some respondents also felt that the HR issues were not a management priority and managers were not involved in discussions which had happened at a very late stage in the new organisation. Some of them were also critical of the management practice of communicating to its staff through the corporate communication team. Some managers were also not happy with the management policy to distribute resources across the whole organisation:

"In this area, this year, we got over £6½ m of additional funding and we saw just over £2m of that and we haven't even seen the return for that yet because having been given the £6½ m in March/April time this year nobody allowed us to spend it. Where our Commissioners have got high expectations having given us the money, we have seen less than a third of that money in area but the Commissioners believe that we've got all £6 ½ m. You certainly don't want to lie to the Commissioners."

Senior Manager IV, Area III

It was noticed in the study that attention to the symbolic dimensions of these sub-cultures also played some part in shaping the attitudes of these groups towards one another. Discussions with paramedics and other frontline staff showed how passionate they were about the working conditions and how they valued the facilities made available to them. They were quick to compare how things had changed between their original organisations when compared with their new organisations:

"When you consider what matters to operational staff, they want to ensure that they've got quality vehicles, quality equipment, that they get regular meal breaks and receive a reasonable remuneration for what they do and

they're well trained. Now if you crack those few things off you've got a fairly satisfied workforce. We've put in no new vehicles, hardly any staff, which has led to extra pressures on existing staff."

Senior Area Manager V

The impact of these symbolic actions in the Delta Ambulance Trust was also noticeable during the attendance of the performance review meetings at the level of Executives and managers within the Delta Ambulance Trust. The Trust internal executive meetings usually took place every week in elegant suite rooms at the Trust headquarter building. Other than the executive team, only the three area directors were invited to such meetings. The meetings tended to last between 3 and 5 hours. Tea/Coffee and juice; nice crockery and cutlery were always available in the room. The nature of the paperwork was very detailed running to 75-100 pages on average. One regular agenda item in each of these meetings was a report by the operations director detailing previous week's overall response time performance for the Trust as a whole and individual performance figures for each of the three areas. Having some understanding of the culture of the organisation, it was not surprisingly, usually the first item on the agenda. Confidential information was also discussed during these meetings in presence of the researcher. Though the overall nature of these meetings was very formal and business like the atmosphere of these meetings was pleasant in these meetings.

The experience of the attendance of the meeting of the managers in the three areas was quite contrasting. The Delta Ambulance Trust had three area management teams. Each of them carried out a separate meeting with their own team of managers with similar designations as that of the corporate executive team. These meetings usually took place every fortnight in the office of the area director which had a desk for the occupant and a big table in the front of the desk that allowed the room to double up as a meeting room. The walls were simple and the floor also had a simple carpet. The meetings tended to last between 2 and 3 hours. Tea/Coffee was available in the room using assorted mugs. Sometimes attendees carried their own cups. The format of the reports submitted unlike those from the executive meetings was not uniform. Separate

templates were used by individual managers. The nature of the paperwork was considerably less than half that compared to that of executive meetings. The level of discussion and questioning was generally good but not as detailed as that of the executive meeting. There were more agenda items on average when compared with that of the executive meeting. Again, one of the first agenda items for these meetings was a detailed update of the previous week's overall Category 'A' performance for the area.

Contrary to the impression gathered from attending executive meetings, the responses in these meetings seemed guarded. This could be due to the fact that the permission to attend such meetings came from the 'top' and there was some apprehension about what was said during the meeting might be reported back. But the overall nature of these meetings was more relaxed including the length of the social small-talk (holiday plans were also discussed). On quite a few occasions the conversation drifted to social matters and the chair had to intervene to bring some order. These meetings had an understandably local flavour and references and jokes were made about the other two areas in terms of that area's performance and the behaviour of senior executives. One such meeting in Area II which the researcher attended shifted at the last moment to the Trust headquarters but in a very small and cramped room with insufficient chairs and space. But it did not stop one senior manager commenting about the 'opulence' of the building in comparison to the poor state of the control room in his area and the lack of financial support from the corporate office.

These observations are interesting as they highlight not only the difference in the social settings of the different occupational cultures, they also the symbolic behaviour of these different groups within the organisation. It also highlights the cross-referencing of different data sources (observation and interview data) thus bringing greater credibility and reliability of these findings. In particular, for those areas in the Delta Ambulance Trust where the procurement of new vehicles was delayed, it took on a symbolic meaning. Views were quickly disseminated through informal channels of communication and respondents pointed out how such things were dealt with much

faster previously. Many individuals started to question the benefits of the restructuring. This is not to suggest that the management team showed any discrimination in making new vehicles available to a particular area. But in the new bigger organisation, such decisions were based on balancing the needs of all the three areas subject to financial resources being available. This obviously meant a certain time-lag in the actual delivery of the vehicles. Nonetheless, it remained a rather emotive issue for frontline staff:

> *"They're not going to get any more performance since all the time the staff are being asked for more and more and more.. They can't give no more! Staff is fed up to death. What they would like is twice the amount of vehicles on the road."*
>
> *Senior Paramedic IV*

The success of *Taking Healthcare to the Patient* (DoH, 2005a) largely depends upon the active participation and motivation of the frontline paramedics who deal with 999 emergencies. A de-motivated workforce can seriously impinge on the success of any culture change programme:

> *"We see non-core activity being ruled down to help to balance the operational resource. What matters is delivering the bottom line performance target. So we might get there very quickly but will do in a kind of poor vehicle, poorly trained and poorly motivated staff that would have the negative impact on the organisation."*
>
> *Senior Area Executive I*

Conclusion

NHS Ambulance Trusts in England were reorganised from 32 to 11 in July 2006 (DoH, 2005) and are currently witnessing a process of culture change in the light of the new direction of travel envisaged by the policy makers. The increasing importance given by the Government to bring cultural change to the NHS shows the relevance of this study in highlighting some of the issues concerning culture in an Ambulance Service. What it implies is that the concept of culture needs to be taken more seriously than has been done in the past. There is a greater need to recognise the deeply embedded shared tacit assumptions of the various subcultures within an organisation. Instead of superficially manipulating a few priorities, it is important to acknowledge the contribution of each of these subcultures.

Unless the implications of these occupational cultures are understood, recognised and confronted, organisations will not function effectively. Poor communication between the different subcultures can adversely impact the 'learning' in the organisation. As a consequence of technological advances and the interdependent nature of business, none of these cultural communities can alone solve the problems that a complex healthcare organisation like an Ambulance Service generates. For instance, use of satellite navigation and tracking technology has made it possible for Engineers to effectively use their resources but has also resulted in the Operators being 'tracked' on a continuous basis and the Executives being put under greater financial pressures to modernise their fleet and technology. Communication between the different occupational cultures will stimulate mutual understanding rather than mutual blame and will move away from the culture of 'us' versus 'them' (Schein 1996). The complexities of different aspect of organisational culture can perhaps never be fully captured. However, this study has contributed to the body of knowledge by bringing into focus the various challenges faced by senior managers in the Ambulance Service to become significant drivers of organisational cultures as a significant separate sub-culture in the organisation. This in itself is a significant finding. Schein's (1996) theoretical framework has been strengthened by identifying and classifying the three

subcultures in the Delta Ambulance Trust. Such an analysis appears to be missing in the literature. These aspects of findings clearly address R.Q. 1,6 & 7.

In the literature, culture in the Ambulance Service is often represented as a single, homogenous entity. This investigation has unveiled new facts which question this hypothesis by identifying four distinct occupational cultures in this service each with its own beliefs, values and attitudes. The lack of the strategic role being played by the managers in the Delta Ambulance Trust and the dominance of their implementation function pointed in this investigation is in conformity with the literature (Currie, 2000; Floyd and Wooldridge, 1992, 1994, 1997). In particular, the potential of managers to make an enhanced contribution in strategy is also illustrated in the case of changing the culture of the Ambulance Service. This happens in two ways. As long serving members of the Ambulance Service, they know the 'pulse' of the organisation and can 'sell' their views to the executive management (Dutton *et al*, 2001). The resultant realised strategy is then one which will be sensitive to the local context and mediates local problems such as more staff, vehicles, etc. in addition to meeting the requirement of Government policy. The findings highlighting the lack of strategic role played by the managers in an Ambulance Trust are significant to our understanding of this important emergency service. It adds to the present body of knowledge regarding the role of managers in other public sector organisations and makes contribution to that effect. Schein's (1996) framework has been extended to include the forth subculture in the Ambulance Service, namely that of the managers, this making an original contribution to learning. These aspect of the findings clearly address R.Q. 1, 6,7 and 8.

In conclusion, it will be fair to comment that the complex grouping, layering and complexities that exist in organisations can never be fully captured. This in-depth case study has helped to uncover rich descriptions of organisational life in one Ambulance Trust in England, a service which is relatively neglected in management research. Attention has also been drawn to the ways in which performance and culture interact in an iterative manner, and such links can be varied, many, contingent and multi-directional (Mannion *et al.*2005).

Notwithstanding the contribution made to strengthen the link between organisational performance and culture, there are few limitations to this analysis. The behaviour of staff could be construed as an artefact of the organisation's culture (Jackson, 1997). Such an ambiguity complicates the search between culture and performance as such a link is based on a premise that these concepts are formally distinguishable from one another. Further research in this area would be valuable to assist these findings. Despite such methodological reservations, these findings do indicate that organisational culture may indeed be a significant consideration in deciding how a high level performance can be achieved within a healthcare organisation.

These findings also have greater validity due to the cross-referencing of the interview data with other data sources. For instance, the categorisation of the different subcultures in the Ambulance Trust is 'enriched' by the observation of the functioning of the EMDC control room, observations of the executive meetings and the meetings concerning managers. The relative lack of strategic role played by the managers and their position in the Trust is supported by a clear understanding of organisational structures (Figure 4.1) and the functioning of a very large organisation. To further improve the reliability of these findings, opinion expressed by one cultural group is cross-referenced to that of another. Rival explanations are clearly brought out by discussing either the positives or the negatives of the subject matter. For example the managerial contribution was acknowledged by senior executives is discussed (p.122) along with the examples of how the strategic role of managers was developing in the Delta Ambulance Trust (p.119) or how few senior executives were concerned with the directorate system being followed in the new organisation (p.123). The symbolic importance of working conditions and facilities being offered was also captured in the description of the meeting of the executives and that of the managers which were observed by the researcher thus bringing rich contextual information.

The next chapter details the views expressed by these four sub-cultures towards their understanding of performance and specifically towards the key ambulance performance target of the eight minute response (Category 'A' Call).

Chapter Five

Understandings of performance and the targets in the Delta Ambulance Trust

Understandings of performance and the targets in the Delta Ambulance Trust

Technically at the moment you could kill a patient, be awful with them and still hit your targets because we don't measure the first two.

Senior Board Executive, Delta Ambulance Trust

Introduction

The previous chapter has presented evidence regarding the presence of four cultures of management in the Delta Ambulance Trust when compared to a single integrated ambulance culture that is argued for in the literature. The attitudes and assumptions of these four occupational communities towards merger and performance underline the complexities in understanding the working of this important emergency service within the UK NHS. It highlights the limitation of current Government policy in the UK to treat reported performance as a single barometer of organisational efficiency which hides the complexities surrounding the 'messiness' in achieving performance targets, ignores the richness of the dynamics of contribution of each of the sub-cultures within the organisation, and does not truly reflect the contribution of each of the sub-cultures in the organisation. Despite the lack of strong empirical evidence linking organisational performance to the organisational culture, organisational performance may be qualified by the culture prevalent in the organisation. This chapter draws on the primary research and is cross referenced to the literature.

This chapter builds upon the findings presented in chapter Four and will present further evidence from this investigation regarding the evaluation of Ambulance Service performance targets in the NHS. Before the discussion of the actual findings, it is important to clarify the framework of analysis used. Two broad themes (R.Q.1 are central to the evidence presented in this chapter: (1) what was the individual

understanding of performance; and (2) what does good performance look like? In particular the Ambulance Trust performance target of the Category 'A' response of reaching the scene of a life-threatening emergency in eight minutes will be examined through the views expressed by the respondents from the four occupational groups. Such a synthesis of the organisational response to ambulance performance targets has so far been lacking in the literature and provides additional analysis on the subject area.

5.1 Executive understanding of performance in the Delta Ambulance Trust

Within the Executives, there was a pragmatist view that notwithstanding the problems with the current target, the Ambulance Services are currently measured on performance against the eight minute response time target and cannot lose focus in meeting it:

> *"Clinical indicators have not been given due importance in the past. But like it or not, performance targets are here and although there is an awful lot to do in terms of 'Taking Healthcare to the Patient', we can't ignore the facts that we need to meet our 75% Category 'A' target."*
>
> *Non Executive Director 1*

Many senior executives were also of the opinion that the current target regime focuses only on measurable aspects of organisational performance by considering response time targets. But good performance, it was argued, should not simply be numbers but a combination of all the other things that will make for good performance. Doubts were raised about the usefulness of the eight minute response time as a holistic target for Ambulance Trusts:

> *"I think what we have with the response time target is an attempt to consider, if you like, the most critical factors within a single performance*

indicator...As the only measurement of pure organisational efficiency and to achieve a good response time what it requires for the organisation is to be reasonably healthy in most of the key areas."

Senior Area Executive I

But another respondent was quite forthright in his assessment of the current performance framework and expressed some concerns about the implication of the eight minute target for the organisation, especially for the frontline staff:

"If you were to look at the target from the organisation's point of view and that's looking at all staff within the organisation and whether they understand whatever the organisational performance targets are, I think I have to say possibly not.. Even though they are national standards quite a large percentage of staff are a bit confused around why we have to get there within eight minutes and why this performance target was there for eight minutes. They probably assume it is a management objective and not that it was a national target."

Senior Area Executive II

There was a clear recognition by all the respondents that the current indicators do not provide a satisfactory view of the performance of the Ambulance Service and distort the true picture. The specific focus on response time indicators has diverted attention from equally important (but unmeasured) aspects of the Trust performance especially around developing clinical performance indicators and clinical outcomes:

"The quality issue is most important as to how we provide clinical care to the patients. Traditionally this organisation is very good in measuring how fast we reach the patients. Where we are weak is on patient outcomes and how we measure those outcomes...So good performance should look like how

many lives we are saving; what added value we are giving to the society. That's a key area."

Senior Board Executive I

Another senior executive echoed these sentiments:

"What we haven't looked at very well in the Ambulance Service before is actually what difference has that made to the patient. It shouldn't just be about hitting targets, it should be about actually what service are you delivering. So I don't disagree with the target of having a time, I do fundamentally disagree with it being ***the*** *target. The 8 minutes as a barometer of everything is just complete garbage quite frankly."*

Senior Board Executive II (emphasis added)

Discussions with the executives revealed that part of the problem is that performance means different things to different parts of an organisation like the Ambulance Service. The Ambulance Service it was argued is very target driven. The system of star ratings resulted in a single minded focus on meeting the response time targets, especially the Category 'A' response of eight minutes. At the local level there was always a pressure to 'hit' eight minutes as it made it easier to obtain funding from the PCTs. Maintaining acceptable levels of local service delivery also keeps local politicians 'happy'. One senior executive stated that the constant pressure to perform was adversely affecting relations with the frontline staff. It was suggested that traditionally staff have been focused on meeting performance targets when dealing with emergencies but in the light of the recommendations of *Taking Healthcare to the Patient* (DoH, 2005a), there would be greater focus on the relationship with the patient and how staff deliver care, both clinically and in terms of that relationship, something which was not as important a management priority before.

Views of other executives in the organisation were quite similar to those expressed above. For them performance and targets were an 'inclusive' concept and incorporate various facets of the organisation in contrast to being judged against one (set of) response time target(s). Junior executives having responsibility for local service delivery stressed the lack of flexibility in the current performance measurement system. One senior Executive argued that as a healthcare organisation, they needed to provide service delivery to the satisfaction of the local people in the areas they served. The current performance framework did not provide this flexibility with regard to taking different measures in meeting differing needs as current targets are centrally directed and driven:

> *"Good performance is having an understanding of the resources we use and how they are meeting the public needs.. Because in the overall scheme of things we have to obviously meet specific things but it is also about ensuring we are actually delivering quality product to the area that we are concerned with."*
>
> *Senior Area Executive II*

The comments above bring an added 'local' element which seems to be lacking from the current targets. This aspect of 'localness' will be further dealt with in the next chapter when various unintended consequences of the current performance framework in the Ambulance Service are discussed.

5.2 Operators (paramedics) understandings of performance

There was a general feeling amongst the respondents that the current eight minute target does not reflect the need for such a quick response. Response time targets in the ambulance culture were described by the operators with expressions such as "priority", "laughable", "obsession" and "frustration". They felt that real performance meant doing something for a patient's condition with the skills they have as a

paramedic and then making the condition better subsequently and impacting on their health and their ultimate outcome. There was also a feeling amongst respondents that the eight minute response has dominated service delivery and overshadowed issues about patient care and clinical outcomes:

> *"The paradox of what good performance would mean is that we get a vehicle quickly to an incident and if that incident gets responded in the determined time and if you are looking from the perspective of the organisation, it means performance standards are met... What we actually deliver from that point onwards is important in terms of patient care, appropriate intervention and investigation. It would then give a perfect picture of the two, namely the speed of response and quality of delivery and I think we only measure the speed and I think it is* ***totally*** *inappropriate."*
>
> *Senior Paramedic I (emphasis added)*

Many respondents were of the view that the biggest challenge they faced was making a difference to the patients. This was considered particularly significant due to the repetitive nature of their work. Many respondents looked forward to getting challenges calls during their shifts:

> *"You could go on for weeks and weeks feeling partly down...But then you have a job when you thought you made a difference. That is an amazing feeling and it kick-starts you for the next few weeks or months."*
>
> *Paramedic II*

Further interaction with the Operators revealed that not only is there an issue of the appropriateness of the eight minute response time but also the safety issue of having to drive at excessive speed with lights flashing and sirens blaring. During the research many respondents raised the issue about personal safety. The experience of travelling in the back of an ambulance being driven at a speed of 50-60 miles an hour on a busy

city road whilst responding to a Category 'A' Call confirms such fears on part of the paramedics. These safety concerns have been supported by the results from a recent study which questioned the use of warning lights and sirens in reducing ambulance response times (Brown *et al.*2000). In this study it was argued that the use of lights and sirens improves the ambulance response time by an average of 1 minute, 46 seconds. Such a saving is clinically relevant in only a few cases:

> *"I think it is important that the 8 minutes responses are 8 minute response jobs. They often are not when you get there. It's perhaps not as serious as you thought and then you think 'I have just charged across the town' and you've got to think why you are charging across the town when something could have happened to you while you were doing that and your own life is as precious as everybody's else."*
>
> *Senior Paramedic III*

It was thus revealing to understand the attitude of the Operators towards the speed component of the targets. Ambulance Trusts nationally are obsessed with managing and improving the time taken to reach the scene of an emergency even if it is only a few seconds. Many paramedics mentioned that they tried to reach the scene of an emergency as fast as they could without really looking at the time. Many of them strongly argued that they would not like to put themselves at risk since in lots of jobs it does not really make a difference:

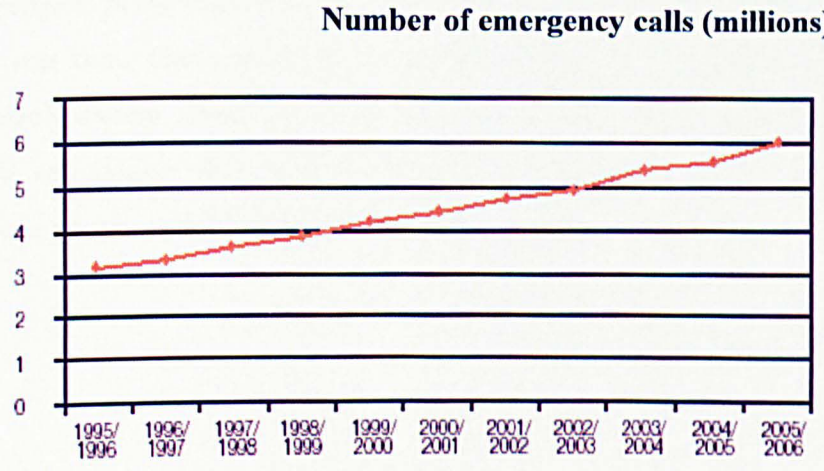
> *"Crews with an eight minute red response or a 19 minute green responses do not drive faster or slower to get to a job... For the crews, an emergency is an emergency whether it is a red, amber or green or with blue lights."*
>
> *Paramedic (Technician) IV*

The effect of continuous driving, the nature of the job in dealing with emergencies (distress and death), working long hours and often alone (solo responders) can also cause physical and emotional distress and has been also discussed in the literature

(Smith and Roberts, 2003). Sickness absence has been reported to be highest in the Ambulance Trusts amongst NHS organisations in the UK (DoH, 2004).

The issues raised by the paramedics are relevant in understanding their attitudes and views regarding response time targets. Crews usually worked in pairs and rotate together in their twelve hour shifts in the Delta Ambulance Trust. Often, in busy stations, crews are in and out of their stations depending upon the frequency of the calls. There is little opportunity to spend time with other staff during the shift. There can be real issues about loneliness of crews working in remote stations or the solo-responders who work alone (on RRVs) and have to wait in their vehicles at 'standby points' in the local community rather than in ambulance stations. With numerous media reports about the increase in the number of cases of assaults on ambulance crews, there are real concerns around safety of the crews, especially for paramedics who work on the RRVs.

There are two possible explanations regarding the views expressed by the paramedics. The first is the recognition that though the nature of the service has not changed much, there has been a steady rise in demand for the service nationally by around 6-7% a year (see Figure 5.1) which equates to an extra 250,000 responses a year (DoH, 2005a). The second concerns over-prioritisation of Category 'A' calls.



Source: drfoster intelligence (2006), p. 6

Figure 5.1: Increasing demand of NHS ambulance service in England

Many operators stressed this aspect:

"It certainly got busier. Definitely you can say that. It is a busier service".

Paramedic V

"There's no feel good factor about the job any more. You come in and you grind for 12 hours until you go home and you can't wait for the 12 hours to finish. So the staff are not bothered about performance and we don't talk about it."

Paramedic VI

Many Operators complained that the increased level of activity has resulted in greater pressure to meet the eight minute target since it is difficult to maintain the same levels of energy and response and sometimes one could lose focus. There was a general feeling amongst most of the respondents that the current regime of targets is very 'harsh' and does not give much opportunity to the organisation to step back and look at things from a detached perspective. One senior executive shared these concerns:

"The optimum performance of any individual is probably around about 75-80%, you know that's basically what you are measured on. But if you are constantly asking people to stretch and go to 90/95%, you know initially people will deliver that performance for you but that's not how you can motivate people to actually keep doing it."

Senior Board Executive III

Further recognition of the 'harshness' of the target came from another executive who argued that the targets should be viewed aggregately rather than something that has to be achieved every single day:

"Common sense tells us that when the weather is bad and the ambulance is on a 999 call, it needs to get the patient to the hospital safely. When the environmental conditions are adverse it doesn't mean that you go traversing up the road at 80 mph."

Senior Board Executive IV

The over-prioritisation of Category 'A' responses appears to be another reason for the dissatisfaction of the paramedics (see Wilson *et al.*2002). Many respondents talked about their frustration in rushing and speeding to a Category 'A' jobs which then turned out to be less serious incidents not deserving such fast levels of response:

"My last job was chest pain for a 65 year old, so I go in with two very heavy bags and they are very heavy, especially after 12 hours, up to the second floor with no lift and this guy had stomach pain. I mean not chest pain but that was a red call and it was because of the information given to the people and the way they ask their questions. So I feel in many respects we make work for ourselves.. Red calls by their nature sometimes put words into people's mouths i.e. "Do they have chest pain?" "Oh yes." "Are they breathless?" and they're going to say, yes because the public then know that the ambulance might get there a little bit quicker".

Senior Paramedic III

The problems pointed at by the paramedics have been witnessed by the researcher. Two such incidents happened during the ambulance journeys of the researcher. On reaching to a patient (Category 'A' Call) on a Saturday night at around 6.30 pm, the caller, an old person aged about 70 years, was standing near the gate of his house with a bag waiting for the ambulance to arrive. It turned out that he had a history of cardiac problems in the past but on this occasion he simply did not feel safe to be alone on a weekend and insisted to be taken to the hospital. In the second instance which was

another Category 'A' Call, the twenty year old caller (who had complained about breathlessness and dialled 999 for an ambulance) had simply run out of his inhaler. It is true that any such system can be open to abuse. But these issues reveal the limitations of the current performance measurement system in being unable to address these issues.

5.3 Understandings of performance by the Engineers (EMDC staff)

It's important for the Call takers to kick-start the eight minute process in terms of answering the 999 calls quickly. This researcher listened to 999 calls being handled which revealed that the main challenge for the Call takers is in dealing with the frantic and emotional state of callers, in obtaining the address and location of the caller and calming down the caller and assuring them that help is being arranged. Giving good customer care was cited by many respondents as a measure of good performance and many respondents felt that it was more important to answer the caller correctly rather than feel pressured to end the call:

> *"If we are worried about the time, it would distract me in doing my job and taking the call. I think handling the call is important. It is important to understand that the person on the other side of the telephone is in a desperate situation and if they hear a nice and rational voice to calm you down, then it really helps."*
>
> *Call taker I, EMDC*

From an organisational perspective, such communication difficulties during 999 calls concerning either the location of the patient or their complaint can delay the eight minute response time cycle. The AMPDS system used in conjunction with BT can accurately trace the location of the call from a fixed telephone line. But with the growing use of mobile phones, that can be a problem. These problems can be heightened by the emotional state of the caller. One study suggested that such

communication problems can be as high as 25% of the total emergency calls (Higgins *et al.*2001).

For the EMDC Call dispatchers, dispatching a vehicle in 30 seconds is one target as is the 30 seconds for crew activation and mobilisation. They have to continuously monitor the position of calls waiting in each category, availability of the paramedics and the vehicles. They are in continuous touch with the paramedics on the road. It is their responsibility to send a correct vehicle to an emergency which is not necessarily the nearest vehicle. The selection of the vehicles and the crews by the Call dispatchers can be a cause for friction between the control room staff and the paramedics. Many respondents witnessed the increased pressure to meet targets on account of the rise in the 999 emergency calls and given the limited resources and manpower:

> *"Personally, good performance to me is whether we can get a correct response to a patient in the correct time to come up with a good result in the end. To do that in all cases is an impossibility."*
>
> *Call dispatcher I, EMDC*

Another relevant factor in dealing with performance from the perspective of the Engineers was the manner of dispatch of the vehicles to an emergency. The choice of vehicle depends upon the availability of the vehicles, location of the 'stand-by' RRVs or the paramedics who might be on their meal-break. In a shift of twelve hours, the paramedics get two short breaks of thirty minutes for their meals. The tradition is to agree the times of the meal breaks with the Engineers after coming in for the shift. During these times, Operators do not like to be disturbed. The implication of this is that since the shifts start at different times in a day, there are occasions during the day when some of the vehicles or paramedics are not able to respond to 999 calls. During one visit by this researcher to the EMDC control room, it was observed that during the day, meal windows generally happened between 1-2pm. This caused some frustration for the Engineers. One strategy they have adopted is to use a resource which is available but which may not be the nearest vehicle or paramedic. This has an

implication for higher organisational costs, greater delay in dealing with 999 calls. This can also lead to friction between them and the paramedics due to the fact that some other operators might be sent to attend to an emergency in a totally new area or towards the end of their normal shifts.

Another factor which the Engineers believed to have a bearing on their performance is the distance involved in responding to 999 calls. Distances are an important factor in meeting response time targets and are often a cause for not meeting the targets by Ambulance Trusts. Currently no distinction is made in meeting a Category 'A' response within eight minutes in the hilly terrain of North East England, remote rural areas of Yorkshire or busy urban conurbation like Birmingham:

> *"I think too much emphasis on the time element creates pressure. You only need to stand at Dock Gate in a rush hour and realise how you are going to rush the ambulance from one end to the other in eight minutes."*
>
> *Call dispatcher II, EMDC*

One manager having worked in the Ambulance Service for more than 20 years echoed the frustration of his staff:

> *"There are some frustrations that we have here in the Emergency Control Room. One is the amount of incoming call volume which increases significantly year on year. The other problem is the resources level we have in terms of paramedics who we sent to deal with the calls... We have too few vehicles on the road in dealing with every emergency call effectively which means that on some days we miss our performance targets by a fairly wide margin."*
>
> *EMDC Control Manager I*

5.4 Managers' views on performance

Chapter four has already provided some insights into the role played by the managers in the Ambulance Service. The relative lack of intervention by managers during an actual 999 call has been referred to earlier. During the response process, real time information about the performance status against each category of calls is available to be viewed by senior area executives, sector managers and the executive team. But the whole process of answering a 999 emergency call and dispatch of the vehicles is controlled by the Engineers. This does not mean that the managers play an insignificant role in meeting response time targets. There are operational (sector) and support (station) managers who are responsible for the performance on their "patch" in addition to the various corporate managers who support performance through the functions of HR, clinical governance, finance, communication, IT and other such activities. Many managers keep their paramedic registration to practice up-to-date making it possible for being deployed for attending 999 emergencies and can also train for further clinical roles if they want to.

Being the headline target for measuring performance, many operational managers felt the pressure to meet the eight minute response target on a continual basis. There was a feeling amongst many managers that in their professional roles, performance was being purely looked at as hitting targets and other aspects of the organisation were often missed out. Some station managers also complained of being saddled with a variety of administrative tasks without any administrative support and this adversely impacted on developing their clinical roles against the backdrop of rising demand. Specific instances about staff sickness were stated in this regard:

> *"Things don't get done because managers are responding to incidents and are out. Sickness can rise because people are not being seen about absence and the sickness policy isn't adhered to. This can have some serious consequences because some people may then not get the help that they need or conversely milestones may be missed for disciplinary procedures and*

people may get away with more sickness than what is strictly allowed."

Area Sector Manager I

Many managers felt vulnerable due to the pressure to perform and meet these targets notwithstanding their reservations about their relevance. One of the biggest challenges mentioned by some respondents concerned the funding required to meet their targets. As mentioned earlier in Chapter Two, the services of the individual Ambulance Trusts are commissioned by local PCTs serving the local population and Ambulance Trusts are funded through block contracts which are agreed between the Ambulance Trusts and the PCTs. The PCTs themselves are growing and evolving organisations. Some managers argued that poor performance in the areas for which they were accountable was due to historical reasons of underfunding of the activity by the Commissioners in those areas:

"We've always been under funded: we've always been paid for 65% response time rather than 75%. This happens for years and years and then people start wondering why we are not performing. It is because the people giving us money don't understand the issues of the area or people who are making these targets don't fully understand that it's not achievable."

Senior Manager, Area II

Many corporate managers, some of whom had added operational or area roles shared the perception of the frontline operational managers and questioned the 'misplaced' priority in the current performance measures:

"It's a measure, but it's not necessarily always the best measure. You don't hear many ambulance staff saying I've done well because I got to that job in 6 minutes, you never hear that. But you often hear ambulance staff saying I did a good job then because that patient lived."

Area/Corporate Manager I

"Over the years it does seem to be very target driven and it doesn't matter you know what the treatment is like as long as you get there in time and I think that is the culture...I believe that the focus has always been towards financial performance or speed rather than actual quality of care."

Area/Corporate Manager II

The views expressed by the managers above confirm the overall perception from the other occupational groups in the Delta Ambulance Trust regarding the usefulness of response time targets as a true measure of performance. But the insights gained from this research also show frustration on the part of the managers in not being able to make a significant contribution towards organisational performance for reasons of operational exigencies, lack of funding and due to the need to complete the eight minute cycle on a 999 call. Evidence discussed in the preceding paragraphs points out that the performance management process should be a holistic one in which the contribution of all the occupational groups that are critical to its success are clearly recognised. The current eight minute headline target has a very narrow focus and is a bad 'proxy' for reflecting the service performance and interplay between different occupational groups within the organisation.

Conclusion

There is a universal appeal of getting a fully loaded double crewed ambulance that usually arrives on scene within a few minutes of an emergency. But its relevance in every response remains to be studied. However it has been pointed out in this chapter that strategies to meet targets can be detrimental to the health and safety of the ambulance crews and can adversely affect staff morale. There appears to be a genuine need to initiate new methods of communication and mechanisms to take on board the

views of these different occupational communities in the Ambulance Service to inform policy decisions. This will help to prevent the irrationality of the target, a view supported by most of the respondents in this research. Research evidence further suggests that a number of assumptions used by the Government concerning the clarity and understanding of performance targets are not justified due to the different perceptions and levels of understanding of targets in an Ambulance Trust.

From the discussion above it appears that the ambulance response times targets are 'misleading' in not being representative of the work being done by Ambulance Trusts. It has been also demonstrated that the different subcultures in the Delta Ambulance Trust view the organisation as a 'very target driven and very target focused'. These findings are consistent with the literature (CHI, 2003; drfoster intelligence, 2006) which has been critical of the lack of strategic function in the ambulance service and the heavy focus on response time targets and activity summaries in trust performance reports. The experience of the researcher from attendance at the Trust Board meetings and internal performance meetings in the Delta Ambulance Trust confirms this view (see section 7.3). Releasing staff from operational duties has significant cost pressures and may even be considered impacting negatively on other aspects of performance such as operational and financial performance. Evidence from this study has shown how this can have an negative impact on the organisational learning (see section 2.4) since the 'planning' is concentrated on meeting the performance target of eight minutes and the 'doing' then is reduced to meet only the operational exigencies.

Different aspects of the current Ambulance performance framework discussed in the literature (section 2.4.2) have either been corroborated in this study or in many cases new insights have been provided to the existing literature. For instance, Heath and Radcliffe's paper (2007) which raise the issue of the application of performance indicators in the Ambulance Service is only a thematic and conceptual paper providing no empirical data. This study has provided an in-depth, rich and contextual data about the current performance measurement framework in the Ambulance Service by providing evidence from the management and measurement of

performance in the case study. Similarly, Price (2006) also raises the question of Ambulance response time targets in her study which only involved a sample of 20 paramedics and her findings are specific to opinion of the paramedics. Snooks *et al.* (2002) raise the issue of alternative response to the 999 calls in those cases that are neither life threatening nor serious (p.330) and also the lack of evidence to indicate a clinically safe approach in such alternatives (p.214). But the evidence cited is conceptual rather than empirical and comes from the review of the studies mainly conducted in the USA. Literature discussing similar findings is important as well since it ties together underlying similarities in phenomenon normally not associated with each other (Eisenhardt, 1989, p.544). It also reflects that the findings from this study are valid and generalisable since others had similar findings but in different contexts. This study builds upon the published evidence and makes a significant contribution in bringing new empirical evidence to the conceptual issues raised in the literature and makes a significant contribution to the debate of Ambulance performance measurement. Being a non-clinical study in a very large Ambulance Trust, this study makes an original contribution to learning. These findings clearly address R.Q.s 1,2,8,9.

The relatively marginal role played by the managers, especially in the actual measurement of the eight minute performance target is another revealing aspect from this study. The lack of management opportunity to develop their managerial skills and personal development has also been documented. There were several occasions during the duration of this study when managers were drafted into operational duties on account of high numbers of emergency 999 calls. The comments of the managers when they talk about delay in decision making (p.120) and the lack of strategic capacity (p.121) or de-motivation (p.122) highlight this aspect very well. These findings address the tensions and challenges facing the managers in delivering good performance (R.Q.4).

These findings also have greater validity due to the cross-referencing of interview data with other data sources. For instance, the comments from the paramedics regarding the inappropriate categorisation of 999 Category 'A' call is supported by

direct observation of the researcher by travelling wit the paramedics (p.140-141) Similarly the perspective of the engineers and the managers on issues relating to performance have been supported by the close observation of the working of these two subcultures and the 'thick description' of the way these groups view performance.

The different perceptions and assumptions about performance by the four occupational cultures; the rather simplistic nature of response targets coupled with the primacy of focus on speed can lead to serious dysfunctional behaviour and can have various unintended consequences. Using the framework of Smith (1995), the next chapter details some of the unintended consequences which can occur due to primacy of response time targets in current performance measurement system of the Ambulance Trusts in England.

Chapter Six

The Unintended Consequences of ambulance response time targets: Evidence from the Delta Ambulance Trust

The Unintended Consequences of ambulance response time targets: Evidence from the Delta Ambulance Trust

Eight minute is a measure but it is not necessarily always the best measure because I'd rather have an ambulance in 9 minutes and live than having one in seven minutes and die.

Senior Manager, Delta Ambulance Trust

Introduction

Performance assessment can be found in even the smallest of organisations and makes it rather futile to argue whether such assessment is desirable or not. There are however growing concerns about the dysfunctional aspects of performance measurement in the public sector. Pidd (2005) argues that the cost of establishing and maintaining performance measurement involving staff time, financial and technical resources etc. may be easy to estimate. However, the performance lowering effects of dysfunctionalities may lead to undesirable outcomes that may be difficult to determine in terms of cost. The central argument in this thesis is not with performance measurement itself, but more a critique of the inappropriate use of performance targets and the rather clumsy way in which such schemes are implemented.

The previous chapter has presented concerns about the value of the eight minute response time target as a holistic measure of Ambulance Trust performance in England. The views expressed by many respondents from the Delta Ambulance Trust have clearly questioned the relevance of the target as a true 'proxy' of ambulance performance. This chapter presents evidence about the various unintended consequences of the current performance framework using Smith's (1995) categories of unintended consequences of performance reporting in the public sector. Building

on Smith's work, this chapter will also detail findings about other dysfunctional behaviours that occur due to the inappropriate use of performance targets.

The chapter is structured as follows. The first section will document the unintended consequences of the current Ambulance Trust performance framework from the evidence gathered in this study. Section two highlights the contradiction between the Government's objective of faster ambulance response and longer ambulance journey times by analysing these two conflicting policy initiatives. This is followed by some concluding remarks including cases of dysfunction recorded in this study and how these set of findings address the relevant research questions.

6.1 Unintended consequences of the current performance framework of Ambulance Trusts

It is argued in the literature that most public sector performance indicator designs have been implemented on the assumption of yielding gains in efficiency (and equity) without paying too much attention to the potential costs of such schemes or to the unintended consequences of such systems. Smith (1995) has presented a framework which classifies six such dysfunctional behaviours in a performance measurement framework. Evidence is presented next about the unintended consequences in the current Ambulance Trust performance measurement system recorded in this study.

6.1.1 Tunnel vision

Tunnel vision is the "emphasis by management on phenomena that are quantified in the performance measurement scheme at the expense of unquantified aspects of performance" (Smith, 1995, p.284). The investigation found clear recognition by all participants from the Delta Ambulance Trust that the current response time indicators,

and especially the eight minute target, do not give a holistic view of the Trust performance. The single minded focus on the eight minute response diverted attention from equally important but unmeasured or immeasurable aspects of performance (e.g. clinical performance). Many senior executives argued that if the service solely concentrates on the Category 'A' target, the Ambulance Service will never change. Many respondents argued that the current framework left the Ambulance Trusts with no capacity to do anything else because the Category 'A' target is such a headline target and it takes up a lot of their time and takes up a lot of their thinking to achieve it:

> *"In reality we don't want to be obsessed with 75% and I think it's a real frustration within the organisation that that 75% within eight minutes is the obsessive picture. Actually what we are interested in is what difference do we make to the patient? I don't care if we get there in 8 minutes or 7 minutes and 57 seconds or 8 minutes and 2 seconds. What difference does 5 seconds make? That isn't the issue. The issue should be what difference we make to that patient when we got there and look at the time line and say well we got to that epileptic case in 7 minutes and 50 seconds and we did this that was the outcome. When we got to that patient in 8 minutes and 40 seconds and we did the same thing that was the outcome. That's what we should be looking at and seeing if there's a difference."*
>
> *Senior Board Executive I*

As mentioned earlier, the NHS Ambulance Trusts in England are funded by the local PCTs. This funding is often based upon projections of future service demand. The weekly performance of each PCT was a regular item on the agenda of weekly internal review meetings in the Delta Ambulance Trust attended by the researcher. This was frequently cited as diverting attention and resources away from other important aspects of Trust performance such as the training of ambulance crews and managers. This resulted in a difficulty in aligning the financial objectives of the Trust with specific clinical priorities:

"You can actually pick up and have some clinical outcomes as an indicator of the quality of service we are providing. The challenge isn't so much developing the clinical indicators. The challenge is actually getting the Commissioners to pay for that service...The challenge isn't for us to deliver it. The challenge is for us to get our partners on board with us and collectively work to deliver it."

Senior Corporate Manager I (emphasis added)

"While we'd love to modernise, actually every time we get anywhere near it they {PCTs} give us another target to achieve with the money they've got and if we don't achieve the targets with the money they've given us they'll actually come back to us and say, 'You haven't achieved the targets'... If we don't, that's because they haven't invested in us. I have a very clear view about this now. They either invest in us and they get what they pay for or they don't invest and they get nothing but they can't have something for nothing.. Simple."

Senior Board Executive II

A recent policy document (drfoster intelligence, 2006, p. 21) has criticised the ambulance performance reporting for being heavily focused on response time targets and the board discussions for having an operational focus. This researcher's experience of the attendance of the performance meetings in Delta Ambulance Trust confirms this perception. Whether the Category 'A' target was met or otherwise in the previous week set the tone for the meeting:

"The board should continue to remember that we are a clinical organisation, we are not an operational organisation and we are not a financial organisation. The operations and the finance support our mission which is to deliver good clinical care."

Senior Board Executive III

It has been already argued in this thesis how the whole issue of clinical education and workforce training in the Ambulance Trusts in England appears to have been 'hijacked' to some extent by the operational exigencies of meeting eight minute response target. This hypothesis is confirmed by the views expressed by many participants that training and staff development was sacrificed and staffs were re-deployed to meet performance targets:

> *"If I'm honest, everyone says training is very important and everyone probably does think it very important. In practice, it's sacrificed to meet targets and we've done that here. So, unfortunately training is one of the first sacrificial lambs when it comes to meeting targets... Convincing colleagues is more difficult. Training staff is easy."*
>
> *Senior Training Manager*

From the discussion above, ambulance response time targets have caused a 'tunnel vision' due to the emphasis on measuring operational performance at the expense of important but unmeasured aspects of the organisation's performance (e.g. clinical outcomes). The evidence from this investigation clearly suggests the emphasis on response time targets distorts the nature of the Ambulance Service to the detriment of non quantifiable objectives. While it is important to acknowledge that no measurement scheme can hope to capture all the consequences of a complex healthcare organisation's activity, it is however important, as Smith (1995) argues, to constantly scan the environment to detect unanticipated consequences and to embed the performance measurement scheme in broader monitoring system such as peer reviews and accreditation.

6.1.2 Sub-optimisation

Sub-optimisation takes place when there is lack of congruence between local incentives and the global objectives of the organization (Smith, 1995). It is the pursuit

of narrow local objectives at the expense of the objectives of the organisation as a whole (Goddard *et al.*2000). This study found that the corporate objectives of the Delta Ambulance Trust were not always aligned with the specific incentive structure for different staff of the Trust. This was evident in the manner that good performance against the eight minute response was seen by the Trust management as an important aspect of maintaining good relations with the local PCT Commissioners who funded the Trust activities. While there was a clear executive focus on attempts to engage staff in major strategic issues and to facilitate 'clinical ownership', some participants mentioned difficulties in getting the other occupational communities 'on board':

> *"If you went down to a sector manager and said what this Trust is about, they'd say, 'operational performance.' They wouldn't even think about clinical quality. So we've got a long way to go."*
>
> *Senior Area Executive I*

The need for better clinical supervision and leadership to improve the clinical governance structure in the Trust was identified by a small number of respondents. Senior Trust executives stressed the strong desire to increase the ability of the staff. Evidence from this study suggests that there can be difficulties for staff involvement in objective setting if differences exist between different sub-cultures within an orgnaisation:

> *"If you talk to road staff about achieving Category 'A' performance they just laugh in the sense of well that's your problem to get the ambulances in the right place, to make sure we can get there within the time... Our predominant staffs are not professionalised in the way that you would expect the clinical profession to be and that's because profession has just happened to them. They haven't joined a profession."*
>
> *Senior Board Executive IV*

This view was voiced by other executives:

> "*What we actually need to do is to take a non professional blue-collar workforce and migrate it into being a professional workforce.*"
>
> *Senior Board Executive V*

> "*I think operational managers understand what the performance targets are, why we have got them. But whether they agree with them is another issue.*"
>
> *Senior Area Executive II*

Few managers shared the executive concern about the levels of commitment of frontline staff towards the performance targets:

> "*There is widespread misunderstanding amongst staff about performance targets.. Staff feel that although important, the response performance targets are not a central matter for them personally but are an organisational issue ... Staff are unsure as to their value and in some cases* ***hostile*** *to the targets.*"
>
> *Senior Operational Manager I (emphasis added)*

The reasons for these differing perceptions are quite peculiar to the Ambulance Service. Frontline staff are based in stations which are scattered over a large geographical area distant from their headquarters and work mostly without direct supervision. This makes communication within the Ambulance Service difficult. The different nature of work of the four occupational cultures places different pressures on each group. Talking to the Operators and Engineers revealed a greater 'day-to-day' approach on operational matters rather than a strategic viewpoint. The lack of a clear

perception by staff about performance targets also reflects a lack of communication and education both within the organisation and within the wider NHS. It also highlights the need for better education, publicity and appraisal of any performance targets.

6.1.3 Myopia

Myopia is the pursuit of short term targets at the expense of legitimate long term objectives (Smith, 1995). The discussion in the preceding sections of this chapter makes it quite clear that the current Ambulance Trust performance indicators distort the priority for long term clinical performance indicators. Many of the participants felt that they were sometimes pushed to deliver short term targets without a view to the long term. One such target, called "Call to Connect" that is discussed here reflects how a short-term approach can be detrimental to the development of clinical outcomes and CPIs for the Ambulance Trusts.

'Call to Connect' is one of the recommendations of *Taking Healthcare to the Patient* (DoH, 2005a) to address concerns about inconsistencies across Ambulance Services applying different performance requirements. The review recommends that "for the purpose of measuring 999 Category 'A' and Category 'B' response times, the clock should start when the call is connected to the ambulance control room" and not when the key information regarding the location of the caller and the main problem is collected by the Call taker in the EMDC control room (ibid, p.39). This change was scheduled to be introduced in April 2007 to allow sufficient time for the necessary technical and operational changes to take place and to avoid a midyear change to national performance definitions (see Figure 6.1). However due to various difficulties, the date was moved to 1st April 2008 after which the new standards became operational.

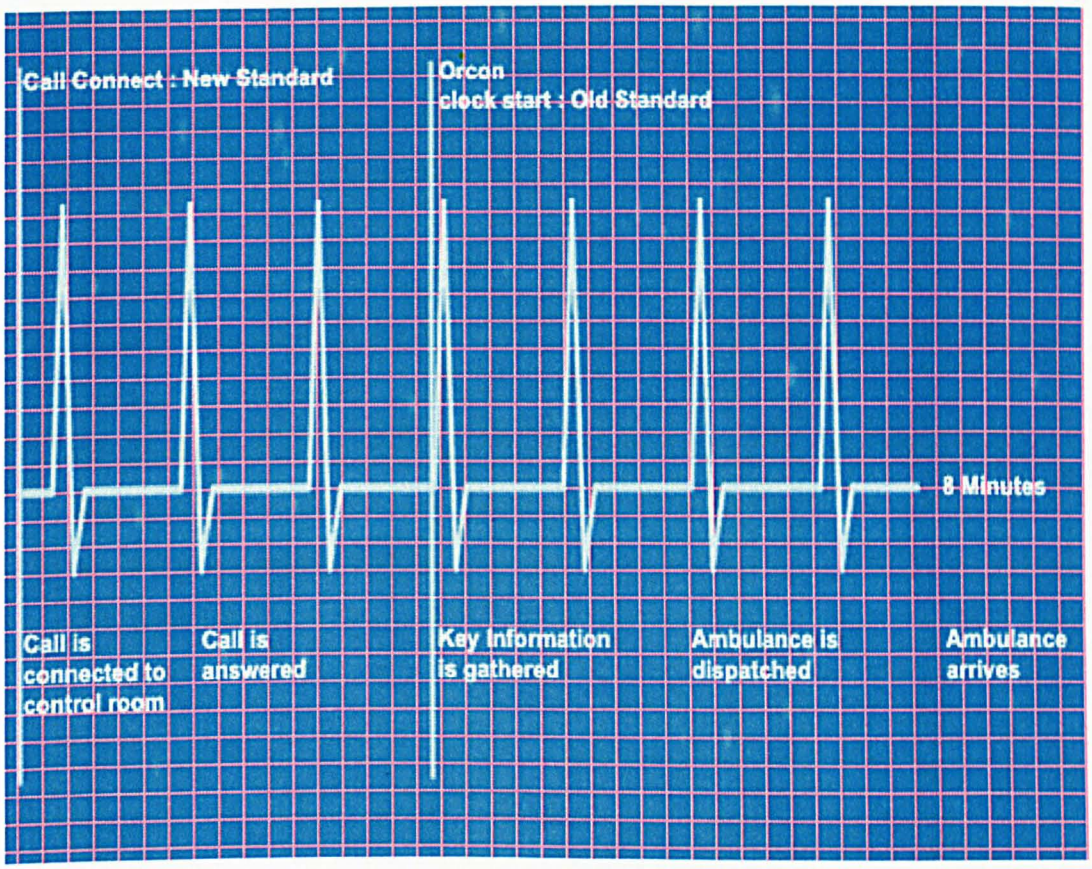


Figure 6.1: New 'Call to Connect' Standards

The implications of this change are enormous for the Ambulance Service due the manner in which the Category 'A' Call will be measured along with its impact on service delivery. This recommendation has followed the Government's earlier directive that all Ambulance Services should use a single 999 call prioritisation system and use the most up to date version of it (CHI, 2003). In practice, this has not happened. In the Delta Ambulance Trust, different versions of the call prioritisation system were used during the first two years.

Senior executives were quick to point out that immediate implication of 'Call to Connect' times was an average reduction in the eight minute target by about 50 seconds nationally. Implementing this target requires spending of additional money

by the PCTs to have any guarantee of success since it requires additional resources such as new technology, manpower etc. by individual Ambulance Trusts. Many respondents believed that the levels of investment needed to meet the new target may be difficult to raise. Evidence from the study suggests that this new target can cause 'myopia' and can lead to perverse consequences:

> *"'Call to Connect as a target will mean that we have to gain or lose 50 seconds from our current time... If we did nothing to work differently and just put the additional amount of resources required to now have enough ambulances to hit that target, that extra 50 seconds, you are talking about having to get a performance gain of around 18%. Every 2% gain you are looking at something like £1.5m costs. You are talking £25-30 million. And that's just us."*
>
> *Senior Board Executive VI*

Many respondents were concerned that the 'Call to Connect' target has the potential to derail the process of developing the clinical skills of the ambulance paramedics due to further shortening of the eight minute response time. It was also argued that this target would put further pressure on the existing resources on the backdrop of increased activity:

> *"Taking Health Care to the Patients hangs about identifying what the patient actually requires as early as possible and then doing it. Well how can you do that when you've got 8 minutes to get there which is now reduced to 7 minutes and 10 seconds anyway due to 'Call to Connect'? You can't afford to take more risks anyway. So actually in some ways 'Call to Connect' is going to put it backwards and what we are going to end up doing is actually just taking a call and getting somewhere straight away."*
>
> *Senior Board Executive IV*

One respondent blamed the politicians in going ahead with the new target:

> *"Whichever way you look it has cost a quarter of a billion pounds across the UK for no discernable benefit apart from a politician not having to apologise for making a mistake. So I think that's a really sad indictment of what's happened."*
>
> *Senior Board Executive V*

The attitude of the other three occupational cultures toward this target was mixed. Informal discussions with managers and Operators, and observations made during performance meetings suggest that many members of staff have still not grasped the real implications of 'Call to Connect' and perceive it to be a management problem:

> *"Staff thinks that 'Call to Connect' is only a control room issue and it is their job to ensure that calls are handled faster and vehicles dispatched more efficiently."*
>
> *Senior Operational Manager II*

Operators who participated in the research seemed to be aware of this new target but found it difficult to understand the rationale behind it. Informal discussions with other Operators left a feeling that 'Call to Connect' is probably seen as a route to make people do things they prefer not to:

> *"The clinicians out on the road haven't got a clue. They don't even know this is in the background. 'Call to Connect' just hasn't registered, it's just gone straight through because it means neither pay nor improvement in terms and conditions and therefore it doesn't register on a non-professional scale.. The staff think it is a conspiracy against their working conditions because of Agenda for Change and the job evaluation process."*
>
> *Senior Paramedic I*

Some respondents believe that 'Call to Connect' will really impact on the Engineers in the EMDC control room because it was their job to know time frames, dispatch details, etc. The Engineers interviewed for this research showed awareness of the target but were quite clear that it was important to make the right decisions in deciding the location of the caller or dispatching an appropriate vehicle.

During the time spent in the field, this researcher witnessed how the management of the Delta Ambulance Trust grappled with devising strategies to meet this new national target. It dominated the agenda of the internal and Trust Board meetings in the Trust and constantly occupied the minds of senior executives. While the implementation of the target is a relatively recent phenomenon (as it came into practice only from April 2008) it is however fair to say that Ambulance Services are currently spending lot of their time and efforts in meeting the 'Call to Connect' target. The concerns of the management and staff discussed above clearly indicate a need for greater debate on the subject. One respondent summed this debate up quite nicely:

> *"Let's deliver the service in a different way; let's not start the clock in a different way."*
>
> *Senior Area Executive III*

6.1.4 Measure fixation

Smith (1995, p.290) defines measure fixation as an "emphasis on measures of success rather than the underlying objective". Designing performance measures and indicators for public sector organisations to reflect on those objectives may not be such an easy task. But perverse behaviour can take place if a measure is not able to capture all the dimensions of the associated objective which may result in pursuing strategies that only enhance the reported measure (ibid, 1995).

It has been discussed that the current eight minute response target does not make any distinction between geographical localities. A cardiac arrest in London will meet the same level of response as a cardiac arrest in a remote village in Cumbria -that is eight minutes. Many respondents argued that the component organisations of the Delta Ambulance Trust could be classified as urban, rural and remote- rural and that it was impossible to reach a patient within stipulated times in rural areas thus affecting patient safety and quality of care:

> *"Rather than everything being life threatening and needing urgent responses within 8 minutes and then 19 minutes, there has to be some recognition as it is in Scotland that there is a urban model, a rural model and the remote-rural model and no matter how quickly you are wanting a technician to respond to somebody in a remote rural environment you are not going to get there in 8 or 19 minutes. It's just physically not possible."*
>
> *Senior Board Executive I*

Measure fixation was also noticed by studying the tactics used by the Trust to meet the eight minute target, jeopardising the safety of the staff and the patients. Ambulance Trusts make use of the RRVs to meet the eight minute target by using what is referred to as the 'Front Loaded Model' in the Ambulance jargon. Such a model is also in use in the Delta Ambulance Trust. What it means in practice is that once a single paramedic in a RRV (car) reaches the scene of an accident within eight minutes, the patient might then have to wait for a further period of time for an ambulance to arrive to carry the patient to the hospital since sending a back- up ambulance may not be a priority once an emergency is responded to within eight minutes. Such a practice has implications on organisational costs. Another tactic used by the Ambulance Trusts is the involvement and use of the CFRs in responding to urgent 999 calls. There is some evidence that CFRs with basic training and inadequate clinical skills were deployed in a number of inappropriate emergency situations solely to meet the targets (Price, 2006). Such tactics can have a demotivating effect on staff morale and performance. It further suggests that what has happened with the eight

minute target is that it has 'skewed' how people react. One Operator was quite critical of this aspect:

> *"Well I've been on my own and if you want to talk about taking healthcare to people and getting people well then why do I have to deal with a patient who's been knocked out for 25 minutes waiting for an ambulance..... I think I'd like to wait ten minutes for a paramedic rather than just have some person as a first responder who hasn't really got a clue but because they've got a defibrillator so you can tick the 75% box and I think that's incorrect."*
>
> *Paramedic II*

Further evidence of measure fixation was recorded by examining the actual experience of meeting the 'Call to Connect' target, discussed in the previous section, in the Delta Ambulance Trust. In order to meet the pressure of this new target, staff and vehicles were dispatched once a Category 'A' call is made to the EMDC control. This means that staff have to rush to the scene of the emergency without having any details about the main problem (e.g. social or medical condition) of the caller. This has implications for the safety of the crews.

The almost relentless nature of the response time targets for Ambulance Trusts has been highlighted in the previous sections. Another such adverse behavior noticed due to the target fixation in this research has been the constant pressure on frontline staff to meet performance targets. Such behaviour can result in lack of commitment or even outright refusal to carry out the given tasks. One such incident is analysed here. The incident relates to an inadequately equipped vehicle deployed to a Category 'A' Call by the Engineers in the EMDC Control room despite the Operators insisting that it was unsafe to attend. The vehicle in question was a spare vehicle, and the crew had immediately identified that the vehicle was missing few things and reported the serious deficiencies of kit to the Engineers in the EMDC Control room that they were unavailable until this problem had been addressed. Despite this, the duty control

manager insisted that they attend the above call in full knowledge of the equipment and drug deficiencies.

The paramedics expressed concerns, and in particular the potential implications to their professional registration. No other resource was tasked to back them up in view of lack of vital equipment. Fortunately the patient was transferred to hospital with no adverse outcome. The internal investigation by the Trust highlighted that the deployment of vehicles with missing equipment was not of infrequent occurrence, and that with the pressure of operational targets, crews are not given time to perform adequate vehicle checks. The original time allocated to perform vehicle and kit checks has been eroded. When the Operators book on duty with the EMDC, they are frequently dispatched before they have been able to check vehicle or kit.

Such a practice is also fraught with great legal risk. Potential corporate manslaughter and/or civil action against the Trust could be brought if an untoward occurrence happened as a result of deployment of a resource to an emergency, with full knowledge of deficiencies of vital life-saving equipment. This could also lead to potential adverse media coverage damaging the Trust's reputation. Individually the paramedic(s) involved could be subject to action from the HPC for not having the appropriate equipment.

6.1.5 Misrepresentation

Misrepresentation is the deliberate manipulation of data so that the reported behaviour is different from the actual behaviour (Smith, 1995). The scope for misrepresentation of data is particularly broad within any NHS Trust environment as much of the data used to measure performance is under the direct control of staff (Goddard, *et al.*2000).

No specific case of misrepresentation was recorded in the study. Senior executives were aware of the potential for such practices but felt confident that such things did not happen in their organisation:

> *"There's always a risk of that happening but it would never happen on my watch. I think that my big service ethic and my values around public service are so strong really that I just would never tolerate gaming.. So yes I think it's an unintended consequence but in the organisations which have got the wrong values."*
>
> *Senior Board Executive I*

Senior Executives however had to face an embarrassing situation when factual discrepancies in the annual Korner KA34 return for the year 2006-2007 were found. The return details the volume of activity and performance of Ambulance Trusts against DoH standards. The error was spotted after the return was sent to the Ministry. Since the submitted report could not be amended, the Trust had to take up the matter with the DoH and an agreement was reached allowing the Trust to add an explanatory footnote to its submission. The internal inquiry in the Trust identified the problem as a lack of coordination between the three control rooms and the different reporting protocols followed by the component organisations. The same error appeared in the return for 2007-2008 when the draft KA34 return was submitted by the IT department to the Executive Management Team for approval.

The above aspect of data misrepresentation does not involve deliberate manipulation of data but relates to the general quality of the data used to compile measures of performance. Many participants suggested that the NHS is a 'data rich but information poor' organisation. A small number of respondents did believe that the data used to compile performance measures was poor and subject to distortion and error:

"Nobody has got the faintest idea of really what constitutes performance. We are struggling with it all over the country in terms of Ambulance Services. I don't think anybody's really got to grips with it too much."

Senior Board Executive VI

Criticism of the quality of data in the NHS reporting systems was highlighted in the literature review along with a case of manipulation in one of the Ambulance Trusts (Audit Commission, 2004). The mergers in the Ambulance Service in July 2006 have put a spotlight on the data quality issue. Few respondents expressed their concerns in ensuring the quality of the performance data due to different data systems and protocols used by the Ambulance Trusts prior to their reorganisation. Further, it is important to examine whether the information systems that report performance reflect good practice. The AMPDS and CBD control systems used in Ambulance Trusts in England are American imports that are based on reporting the way the American emergency services operate. They work quite differently from the way Ambulance Trusts work in England. For example, where the patient does not have to go to hospital, such activity is not recorded by the system. These cases account for almost a third of the calls in England. This issue will be of greater significance in future when Ambulance Trusts are more likely to treat the patients at the scene rather than transporting them to hospital (DoH, 2005a).

6.1.6 Gaming

No specific case of gaming was noticed during this study. The dysfunctional behaviour noticed concerned the 'ratchet effect' discussed earlier (p. 45) in showing improvement against the eight minute performance target. Many respondents mentioned that they would be unwilling to reveal high gains for a year fearing that they would be expected to deliver the same or better in the future. Some respondents also thought that good performance in the Ambulance Service is often unrewarded due to the fact that the financial regimen is set around delivering only the set targets:

"If you as a service are delivering 85% against the 75% target you will quickly find your finances reigned in such that you can achieve 75.02%. That's the problem with targets...The commissioners perceive over performance against the targets as being over funding and scratch back the funding... If you look at national Ambulance Service performance target figures you will see that those services which were "over performing" in the past have been dragged back to 75%."

Senior Board Executive V

Some evidence of 'threshold effect' discussed previously (p. 45) was also found. It is argued by few respondents that the current eight minute target only measures one aspect of performance- whether Ambulance Trusts hit this target within 75% of the cases. Many respondents believed that the current measurement was too simplistic and should look across the distribution of response times rather than just considering performance at a single point of eight minutes (crowding performance towards the target):

"We need some measure of, well actually we were achieving 8 minutes but its not a skewed 8 minutes, and it's a normal distribution with 50% of people.... You know you could almost say you know it could get too complicated to manage, but it's almost 75% within 8 minutes and 50% within 6 minutes and 25% within 4 minutes. You know so you have a series so it has to be a normal distribution and not just aiming at 8 minutes so you have to have a generalised improvement."

DoH Professional Expert I

One strategy discussed in the literature to tackle gaming is to develop benchmarking of performance (Holloway *et al.*1999). But questions arise over whether the ambulance performance is appropriately benchmarked? For instance, an ambulance response involving a journey of three miles is counted the same as one of eight miles

for reporting purposes. There is also no difference in achievement of performance targets between an Ambulance Trust utilising 80% of available ambulance time per day and one utilising 50% of available time if they both return the same performance. The use of comparative data to this end is till not very reliable. As one expert commented:

> *"A Trust with a massive capital burden due to inherited estate or Private Finance Initiatives (PFI) gets the same payment per case as any other Trust under the Payment by result (PbR) tariff. The same is true of Trusts in high and low cost areas of the country."*

6.2 Systemic dysfunctions

The Government's focus is on improving the response time targets by making it more stringent in the form of new 'Call to Connect' standards. Evidence from this investigation however suggests that the stated objective is in conflict with and contradicts the broader emergency care strategy. While the new 'Call to Connect' target has the potential to put additional pressure on ambulance performance, the issue of hospital A&Es relocation can nullify any gains that might be achieved due to this new target.

In an interview with the *Guardian* (Carvel, 2006) David Nicholson, Chief Executive of the NHS revealed that there would be up to 60 "reconfigurations" of NHS services, affecting every strategic health authority in the land. He admitted that some changes were to squeeze out overcapacity that contributed to the NHS's £512m deficit in the previous financial year. He also identified A&E departments, paediatrics and maternity services as areas where provision would have to be overhauled. This decision of the Government has major implications for Ambulance Services in terms of their job cycle and can seriously undermine their performance targets. It is important for ambulance crews to complete their job cycle in time and be available for

the next job. Additional travel time to relocated A&Es or delays in transferring the patients there would further delay the crews:

> *"I think the hospital issue about reconfiguration is a really serious one because even if you look at the hospitals that have reconfigured already, they can be actually furthest from all previous hospitals.. Well that increases the travel time which means their availability for 999s back in the job cycle they have come from is obviously reduced."*
>
> *Senior Board Executive II*

Performance of an Ambulance Service will improve if the job cycle described in Figure 2.2 is completed more quickly releasing the crew for the next job. There are also issues regarding the handover of patients at the hospital A&E departments. Often ambulance crews are seen waiting outside A&E departments unable to respond to other calls. In its report the CHI (2003) expressed serious concerns about the handover of patients at A&E which sometimes may be due to the need for A&E departments to achieve their own target that no patient should wait for more than four hours from arrival in A&E to admission, transfer or discharge. During the journey with ambulance crews such delays were also noticed by this researcher. From a financial viewpoint too, longer journeys will further mean increases in the reference costs for the organisation. This example illustrates how performance requirements for one service and lack of central leadership role of the Ambulance Services in the NHS network by implication, works against good cooperation between different services within the health economy.

Some of the respondents carried the impression that the Ambulance Service has not been consulted over the issue of hospital re-organisation and will have to face the consequences: political and financial, in not meeting their targets:

> *"There's always a great load of talk about silo working isn't there? But the people who silo work the most are the Government. I think fundamentally*

they don't care because the agenda which is driving that is a political one; it is not a clinical agenda. You have to understand why they want to close hospitals."

Senior Board Executive IV

The Government's policy was defended by one expert who argued that this issue could be handled locally by individual Ambulance Trusts:

"The Ambulance Service has calculated what extra cover they need to ensure that in terms of ambulances and complete set of paramedics and that is built into the costing and the PCTs then have to fund that... It's not the department's problem. It's a local problem and I think each locality has to deal with it in its own way."

DoH Professional Expert II

Another expert however highlighted the financial implications of this decision:

"That's a big resource impact for them because you have increased their turnaround time for that case by 30/40 minutes but the commissioners don't give them any extra for it. So we are saying this is better for the patient but actually people forget the implications on the Ambulance Service."

DoH Professional Expert III

Apart from having a bearing on organisational performance, this issue has legal implications not only for the Ambulance Service, but also for the wider NHS. A recent study has suggested that a 10 km increase in straight line distance is associated with around a 1% absolute increase in mortality (Nicholl *et al.*2007). While this

evidence may not be conclusive enough to question the Government's judgement on specialist centres, it does question some of the logic behind it:

> *"The hospital closures mean that we have to take more clinical risks then we would have to. For example there is a danger of more babies being born at the back of the ambulance. Paramedics are not trained midwifes. If you look at the history of NHS litigation and the way risk is assessed, maternity services have a big chunk of those cases."*
>
> *Senior Board Executive IV*

The fears of the ambulance staff raised above are supported by the number and type of claims handled by the NHS Litigation Authority, a Special Health Authority responsible for handling both clinical and non-clinical negligence cases on behalf of the NHS in England. Clinical claims arising out of incidents occurring after 1 April 1995 are handled under the 'Clinical Negligence Scheme for Trusts' (CNST), a voluntary risk-pooling scheme for NHS Trusts, Foundation Trusts and PCTs. Out of the total number of reported CNST claims by specialty at 31/03/2006, there were 7,352 claims relating to Obstetrics and Gynaecology (second only to surgery) and involving £197 million - the highest value of the claims under all categories (NHS Litigation Authority, 2006). Greater coordination of different NHS organisations at the policy level will help not only the Ambulance Services to meet their own performance requirements by ensuring these delays are eliminated but will also contribute to reducing the increasing number of litigation claims against the NHS.

There was also recognition by the experts that there is a need for an integrated urgent and emergency strategy with the Ambulance Service an integral part of that strategy:

> *"Yes I don't think at the moment we have got a spelled out emergency care strategy but all the discussions that we have about it, it is assumed that paramedics will be well trained and that advanced paramedics or emergency care practitioners will have more training."*

DoH Professional Expert I

"The Government published its views about the need before reforming emergency care in 2001 and I'm still hard pressed as an auditor to find a functioning urgent care network so who is actually planning that big view within which the Ambulance Service fits?...I think the question is whether the urgent care strategy is going to come out with a timetable and if its going to be realistic because they gave up on that in the National Service Frameworks in the end."

Ambulance Trust specialist, Audit Commission

There is an assumption by the Government that Ambulance Trusts will play a more central role in the emergency/urgent care strategy but the experience from this case study reveals that the agenda of 'Taking Healthcare to the Patient' in building clinical leadership, the clinical governance framework for treating more patients at the scene and in the community is being threatened by the two contradictory policies of Call-to-Connect standard for faster ambulance response and hospital re-organisations leading to longer ambulance journeys. These findings clearly demonstrate the contradiction in the Government's approach in dealing with the ambulance response time targets in England. On the one hand it wants to further improve the eight minute response through the new 'Call to Connect' standard. On the other the absence of a national urgent and emergency strategy in terms of opening Specialist Centres imply longer ambulance journeys having implication for their response time targets. One respondent summed up his frustration:

"You've got these policy papers from experts coming out that say we can now take an extra 20 minutes to take a patient to hospital. So why have we got to get there so quickly if actually we can then say well actually now we are going to go 20 minutes further to reach the trauma centre. Well that doesn't stack up because what's the point of us running to get there in 8 minutes to

then say well actually you can now take 40 minutes to get the patient into hospital."

Senior Board Executive III

6.3 Dysfunctions distinctive in this study

The findings in the previous sections build on Smith's conceptual framework (1995) by finding empirical evidence for six categories identified in this study. Additionally, systematic dysfunctions' with respect to closure of hospital A&E and its implication for ambulance performance few more of such unintended consequences have been also identified in this study. Additionally few more of such unintended consequences were identified in this study. These include:

- 'systematic dysfunctions' with respect to closure of hospital A&E and its implication for ambulance performance

- 'frustration' on the part of paramedics (p.150, p.145), on account of managers for not been able to play a more 'strategic' role due to operational focus of the organisation (p.160), by senior executives about eight minutes being 'the' target (p.160)

- 'pressure to perform' on paramedics (p.154), on engineers (p.158), on managers (p.159), on the organisation to hit eight minutes and perform (p.151), on clinical training and education (p.163), due to 'Call to Connect'(p.173), on relationship with staff (p.127). Preskill and Torres (1999) also refer to this 'performance pressure' and suggest that it becomes a barrier to the process of reflection (and learning) and may be considered to be a luxury or ill-afforded

- 'obsession' on account of organisational focus to meet eight minutes (p.170), staff perception of the target (p.152)

- 'confusion' on account of actual relevance of eight minute target (p.148), as a good proxy of organisation's performance (p.168)

- 'fear of failure' seen by the senior executives in not meeting targets (p.148), reaching in 8 minutes and 3 seconds was seen as failure

- 'Hostility and resistance of the targets (p.172) leading to de-motivation of staff (p.136).

Such dysfunctional behaviour arising as a side-effect of the performance measurement framework has implications for the 'review and revise' part of the performance management cycle discussed earlier (section 2.2.3). It appears that due to the operational exigencies to meet the eight minute target, Ambulance Trusts do not spend enough time to understand and review the impact of management actions to measure and manage performance and talk to the users and stakeholders about their experience of performance and to get a better picture of changing circumstances. As a result, lessons may not be learned to change the plans for what is done so that future action is more efficient, effective and appropriate (IDeA, 2009, Garside, 1988).

Conclusion

This chapter has discussed the various unintended consequences of the current Ambulance Service performance measurement system in England. This study has clearly established that the current performance framework dominated by eight minute response target is distorting the real nature of work done by Ambulance Trusts. Views expressed by the respondents suggest that the response time targets are too simplistic, misleading and divert attention away from developing the quality

aspect of performance by way of developing targets based on clinical and patient outcomes. The difficulty in measuring the quality aspects of the organisation's performance has meant that the organisational focus on the eight minute response has pushed out indicators that are difficult to measure but might be more relevant such as the CPIs.

Evidence from the study further suggests that the current performance targets are centrally driven and centrally directed, lack flexibility to deal with local differences, put pressure on the staff to perform, and can lead to serious unintended consequences. One key consideration of decision makers in devising targets is to establish realistic levels of achievement before a target is set. Findings from this investigation suggest that the eight minute response target is one of the most difficult targets in the NHS. It is been acknowledged that as any managerial tool targets need time to develop, performance targets should have capacity to be revised in the light of the experience in their implementation and should be responsive to change. This study has revealed that the main Ambulance Trust indicator of the eight minute response has been revisited but only for the purpose of making it shorter thus putting further pressure on the organisation. Such detailed and systematic account of the unintended consequences of Ambulance performance measurement system appears to be lacking in the literature.

These findings are significant for our understanding of the current performance framework being used in the Ambulance Service in the UK. Future evaluation of the performance measurement system should take into account, the various unintended consequences documented in this study. These findings clearly address R.Q.1,2,5,7 and 8. These findings bring empirical evidence from an Ambulance Service to some of the unintended consequences of performance measurement system discussed in the literature (Smith, 1995; Bevan and Hood, 2006). Additionally, this study has also documented few specific cases of dysfunctionalities distinctive to this study (section 6.3). These findings bring fresh evidence to such an important issue and help to address the clear research gap in this area from public policy and management perspective making an original contribution to learning.

However, it will be important to carefully plan any specific policy solutions to overcome the problems identified. *Taking Healthcare to the Patient* (DoH, 2005a) suggests taking fewer numbers of people to hospital. But reducing attendance at hospitals might reduce cost recovery under a system of payment that is based on the transfer to hospital. Thus an appropriate policy response underlying the performance framework should therefore involve judicious mix of the above discussed strategies along with other instruments. Further research is needed to evaluate and conceive such responses.

These findings also suggest that performance framework should not only be evaluated on the basis of the expected behaviour in term of improvements in the chosen measures but should also take into account, the unanticipated consequences. For instance, this study has revealed that the intended policy benefits of closure of hospital A&Es and replacing them with speciality centres have a direct bearing on job-cycle times of the Ambulance Trusts in England. It also contradicts the policy focus on more stringent 'Call to Connect' standards now. Further research in this regard will help to identify the characteristics of different schemes which influence successfully the behaviour of the NHS staff to secure improved health outcomes as well as measured outcomes (Goddard, et al.2000). There appears to be a genuine need to initiate new methods of communication and learning to imbue the staff with the requisite knowledge about individual contribution and organisational role in performance measurement. This will bring significant changes in organisational culture and practices, along with the improved effectiveness in all areas.

These findings also have greater validity and reliability due to the cross-referencing interview data with other data sources. For instance, the views of the research participants from the Delta Ambulance Trust on the 'Call to Connect' target have been cross-referenced with the opinion of the senior DoH experts to bring out a balanced perspective on the issue. Similarly, the instances of measure fixation and misrepresentation recorded earlier in this Chapter have been supported by the scrutiny

of the internal documents of the Delta Ambulance Trust in describing specific instances of pressure put on staff to meet targets (p.179) and reporting errors in performance figures sent to DoH (p.181) suggesting challenges for the merged Ambulance Trusts regarding data quality.

This investigation has teased out some contradiction in the ambulance performance measurement system. At one hand, the current performance framework and the specific policy solutions mentioned earlier in this chapter focuses on the reform of the eight minute target. But the future direction of travel for Ambulance Trusts in England (DoH, 2005a) envisages amongst other things, the development of clinical performance and clinical skills of the ambulance paramedics which at present are not measured nationally. The next Chapter analyses some of the challenges before the Ambulance Service for their new role in the local health economy.

Chapter Seven

Treating the Clock and not the patient: Future challenges before the Delta Ambulance Trust

Treating the Clock and not the Patient: Future challenges before the Delta Ambulance Trust

I know most people would say that they don't like the 8 minute target but I don't know how many people are saying what they would prefer to see instead.

Ambulance Trust specialist, Audit Commission

Introduction

Based upon the views of the research participants from the Delta Ambulance Trust, it has been argued that that current ambulance performance targets do not provide a true reflection of the performance of the organisation. While there was a general consensus amongst the respondents on the need of moving beyond response time targets, various challenges in developing clinically safe alternatives to the response time targets were also mentioned. The lack of clinical measures in the current performance framework has been frequently mentioned in this investigation. Analysing the evidence from this study this chapter will present challenges facing Ambulance Trusts in England in measuring clinical aspects of performance against the current operational focus that targets response times. Previous chapters have discussed evidence from this research as to how this response model is not always appropriate and can result in dysfunctional behaviour and unnecessary risks to the general public, paramedics and the patients.

The chapter is structured as follows. The first section details the expert opinion on performance and the response time targets. Section two has a discussion on the development of Clinical Performance Indicators in the Delta Ambulance Trust. The next section evaluates the evidence for leaving or treating non-serious patients at the scene of emergency by the ambulance crews. Section four reviews the position of the

Ambulance Service in the NHS. This is followed by concluding remarks including how these set of findings address the relevant RQs.

7.1 Views of the clinicians and experts on performance

Chapter Five has presented findings regarding the perception of the four subcultures, within the Delta Ambulance Trust, on the performance measurement system and on the eight minute target as a measure for ambulance performance. Views expressed by the respondents reveal some confusion surrounding the actual purpose of the target. This section evaluates the clinical evidence behind this performance target through the opinions expressed by professional experts in this investigation.

There are no professional doctors or nurses working in the Ambulance Trusts nationally in the UK though the paramedics with the skills relevant for their jobs are registered with the Health Professions Council (HPC). Many senior managers and executives keep their registration active (can be deployed for frontline duties if needed). Only recently have medical directors and clinicians been appointed in Ambulance Trusts across England. Historically the clinical governance functions within Ambulance Trusts have been performed by operational managers without clinical educational backgrounds. As stated by one clinician:

> *"My understanding of good organisational performance at a strategic level is that we become a competent clinical organisation which delivers expert clinical care... My view as a clinician has always been as to how we use those centrally directed targets to improve clinical care."*
>
> *Clinician I*

As regards the clinical justification of the eight minute target, it was suggested that the current eight minute target lacked evidence:

"Now we could argue whether it should be 8 minutes or 10 minutes or 7 minutes or 9 minutes...What about 8, that's a bit of a compromise between 4 and 12 isn't it? And somebody goes yes, alright! These are fairly arbitrary decisions and there is no evidence which suggests 8 minutes is the target...To be honest, if it is a cardiac arrest and you are not there within 2 minutes, then 8 minutes was the tipping point to say nobody survived. So why we picked 8 minutes as the response time is a mystery to me."

Clinician II

There was recognition by senior policy experts about the relative lack of clinical evidence behind the ambulance eight minute target. There was also some awareness that the eight minute response time may not be useful for all kinds of patients even in cases of heart attack or stroke where any response beyond 3-4 minutes could be considered futile:

"Well it's pragmatic in the sense that probably 6 minutes is better but is unrealistic and I think to have something like the 8 minutes. I don't think we can make it shorter at the moment. I think, it is not unreasonable and it really keeps people on their toes. It's like in A & E its 98% target in 4 hours and I would like to see that as 100% in 3 hours, not 98% in 4 hours. But you've got to be realistic about resources and what we've got."

DoH Professional Expert I

Another policy expert agreed that the current response time regime placed too much emphasis on the time element at the cost of developing clinical aspects of patient care or clinical performance indicators. He also drew attention to the fact that the public perception of a good Ambulance Service always concerned the speed of response and argued that the recent ambulance policy document *Taking Healthcare to the Patient* (DoH, 2005a) has taken some corrective measures discussed later in this chapter. On

being further questioned about specific clinical evidence for the target, there was an admission that while speed is important, clinical interventions at the scene of emergency are equally important.

> *"But what we do know for those small number of patients who are in cardiac arrest and in London using as an example, where we've got clinical outcome measures for cardiac arrests, you can see year on year improvements for cardiac arrest survival to discharge and that's not a coincidence in year on year improvement that's performance. So there's definitely a correlation. It's not just down to one thing; its not just speed. Obviously it is what happens at the scene as well."*
>
> *DoH Professional Expert II*

Another expert was more explicit about the lack of clinical evidence for the eight minute target. He also questioned the validity of the conventional wisdom about cardiac arrest survival, often cited in the defence of the eight minute response target:

> *"I must admit I'm a big cynic of the 8 minute target...Actually a third of people who have a cardiac arrest don't even get into Category A. So you've got a third of patients who don't even need 8 minutes and don't even get into the target and of course then the target is only 75% anyway. So actually you've probably only half of cardiac arrests who get an ambulance within 8 minutes. And then there are also a lot of people who are in Category 'A' who don't have urgent needs or we don't know that 8 minutes is any better than 10, 20 or whatever."*
>
> *DoH Professional Expert III*

Having discussed the views of the experts regarding the clinical evidence of the eight minute target, it will be also pertinent to examine their views on the 'Call to Connect'

target. Policy experts seemed to agree to the views of the staff in the Delta Ambulance Trust expressed earlier. One expert believed that this new target was 'short-termist':

> *"Call to Connect, the latest short term target is putting pressure on response times. What gets sacrificed when everybody has to go out and do the job is training, education and supervision."*
>
> *Ambulance Trust Specialist, Audit Commission*

Another expert outlined the relative gains for the patients due to a quicker ambulance response but acknowledged some perverse behaviour on account of the new standard:

> *"It has affected the speed of other reforms in the service absolutely because it's been all-consuming so everyone is always looking out, everyone is always focused predominantly on performance and this target. Has affected some of the other things we would do? Yes it has. There's no doubt about that"*
>
> *DoH Professional Expert I*

Other experts were also quite candid in accepting that the current target has affected the Ambulance Service reform process set out in *Taking Healthcare to the Patient* (DoH, 2005a):

> *"I think the aim of Taking Healthcare To The Patient had been to try and move away from time targets...So the aim was to try and focus more to have speed for those that count but then the rest have outcomes or indicators or clinical indicator measures. Now, has that happened in the right order and at the right speed? The answers probably is no. Does it encourage dysfunctional behaviour? Probably yes, it does."*

During the interviews, senior executives in the Delta Ambulance Trust were asked if they took up their reservations with the DoH but the response was not very clear. One policy expert however revealed that notwithstanding all the 'noise' being made by the Ambulance Trusts, there was only a 'token' objection made to the ministers from senior ambulance executives.

Analysing the views of these policy experts and that of the four subcultures within the Delta Ambulance Trust discussed earlier, raises a number of important questions. The lack of clinical evidence as alluded to by the policy experts puts the main target for Ambulance Trusts in England under scrutiny. It can then be argued that the ambulance response to a 999 call is essentially a response to the call, not to the patient. As stated before, the AMPDS system used by most Ambulance Trusts in England (including the Delta Ambulance Trust) simply prioritises the speed of the response by Ambulance Services in terms of eight minutes (Category 'A') or nineteen minutes (Category 'B') responses. Since the tendency of the system is always to over-prioritise due to the specific nature of the questions the 999 caller is asked and notwithstanding the risk averse nature of the service, more calls are being categorised as Category 'A' than really need to be. This links to the views expressed by some of the operators who complained about the pressures of rising activity and the increased number of Category 'A' Calls, of which many did not require such an urgent response. One expert agreed that if the staff knows that it's got to be blue lights and sirens and even if only half of the time it really is needed, they would feel happy to "go for it".

It is nevertheless important to put in context any gains of the eight minute target for the Ambulance Service. The historical and cultural aspects of the integration of Ambulance Service within the NHS have been discussed earlier in Chapter Two. Due to their small organisational size, uniformed culture, and the nature of their job in dealing with emergencies, Ambulance Services have traditionally been seen both by

the public and other NHS colleagues as the health arm of the emergency services rather than an emergency arm of health services. They have still largely remained on the outer periphery of decision making networks within the NHS hierarchy. Many senior executives pointed out that the response time targets have helped Ambulance Trusts to build their capacity and capability in terms of greater funding, manpower, vehicles, and infrastructure. It was argued by many senior members of the different occupational groups-who have many years of experience in the Ambulance Service that there has been significant investment in Ambulance Trusts over the last two decades and this has helped the organisations to gain in confidence and aspire for a bigger role within the local health economy. A few senior staff spoke passionately as to how things have improved in Ambulance Trusts over the past few decades (after they became part of the NHS family in 1974).

What these findings highlight is that the eight minute target has distorted the actual functioning of Ambulance Trusts in England and has skewed the way different stakeholders react to the target. Most importantly this investigation reveals that the continuing focus on the eight minute target has a potential to adversely affect the future modernisation agenda of Ambulance Trusts towards developing clinical performance indicators and clinical education to its staff. These could be key factors in aiding their integration into the wider NHS and to their aspirations of becoming an active member in the local health economy.

7.2 Development of Clinical Performance Indicators

Many respondents were of the view that while there was an urgent need to develop appropriate indicators for measuring clinical outcomes there were genuine difficulties in doing so. One executive argued that Ambulance Services are only a part of the whole urgent care network leading to transportation of patients to the hospitals. It is difficult to get patient data from the hospitals either due to the non–availability of the Electronic Patient Record (EPR) or due to the stringent confidentiality rules within the NHS (the Caldicott Principles). So it was a big challenge to establish what benefit

accrued to patients as a result of rushing them to hospital. Many respondents acknowledged that developing such outcome based measures was easier said than done.

One clinician concurred with this view:

> *"One of the difficulties all Ambulance Services will tell you is that a person has a cardiac arrest and they've got a pulse when paramedics left them at hospital. But that's as far as the Ambulance Service can get the data. The only way they can get any more data other than that is by individually asking the hospital on individual patients."*
>
> *DoH Professional Expert I*

Currently there are no nationally defined CPIs for the Ambulance Trusts in England. Individual Ambulance Trusts have been developing their own indicators. There are six CPIs currently being developed by the Delta Ambulance Trust and reported at Board level meetings. They include Asthma, Hypoglycaemia, Pain Management, Stroke, Patient Report Form (PRF) completion and Cardiac Arrest Management. These indicators had been in use since September 2005 in one of the legacy organisations which merged into the Delta Ambulance Trust. A traffic light/colour coding system is used to indicate performance scores: the Green CPI Score for each clinical area is calculated from the number of Aspects of Care actually achieved (against agreed standards), divided by the total number of Aspects of Care within the indicator. This is then multiplied by 100 to provide a percentage score. The performance of the Trust during the first quarter of 2008-09 against the CPIs being developed in the Delta Ambulance Trust makes interesting reading (see table 7.1).

Table 7.1: Clinical Performance Indicators developed in the Delta Ambulance Trust

Green= More than 95%; Yellow= Between 75 to 95%; Red= Less than 75%		
Indicators	**Episodes of care (No. of cases)**	**Performance –April to June 2008**
Asthma	908	14%
Hypoglycaemia	1051	50%
Pain management without cardiac arrest cases	3358	17%
Stroke	745	50%
Patient Report Forms (PRF) Completion	5402	91%
Cardiac Arrest Management	412	67%

Source: Adapted from Delta Ambulance Trust Board Paper (June 2008)

It can be seen from the table that the current clinical performance is quite poor even by the Trust's own specifications. The Trust did well in the one 'non-clinical' measure which is simply about the completion of the PRF. Not everyone was convinced about the usefulness of the CPIs currently being used in the Trust. A few respondents expressed their concerns about being forced to follow the new systems of CPIs that originated in one legacy organisation. Others thought that some of the measures being currently used, and especially PRF, are too simplistic and primitive:

> *"There's no value in the clinical indicators that we are using at the moment because they are not being used to support and develop front line staff at all."*

Senior Corporate Manager I

Some respondents argued that the CPIs should be developed with the active consultation and ownership of the frontline staff and their operational management teams. It was argued that there was a big gap between the clinical knowledge and focus required to move from the "big idea" to the point where it is "ingrained" into the clinical practice of frontline staff and many operational managers:

> *"I think you have to ask a senior operational manager when was the last time at an Area Management team, or even at a Level Three team meeting, that a clinical performance indicator was discussed in anything like the same detail that 8 minute performance or mobilisation is. It's a huge* ***cultural*** *thing and we are not yet at that stage."*
>
> *Senior Corporate Manager II (emphasis added)*

In addition to the lack of agreement about the usefulness of the CPIs being developed within the Trust there was a difference in perception of the executives and managers with that of the Operators on the issue of the clinical skills of the frontline staff. Some managers argued that frontline staff needed to take greater ownership and responsibility for clinical education and development. One common comment made about the Operators was the challenge in transforming them from a 'blue collar trade' into healthcare professionals. Some executives argued that predominantly, staff in the organisation were not professional in the way that the clinical profession expects them to be. It was mentioned that though paramedics became professional in terms of the requirement to register with the HPC there was little serious effort applied to upgrade their skills. They didn't have to acquire anything to become professional in the first place:

> *"I think we do have a very big education curve to handle with the staff in terms of their understanding of what performance is in its generic sense."*

Senior Board Executive I

"It's not easy to get an individual to understand what the organisation is about and what their roles are. When you are saying to someone who may have been working in a factory making a widget, but now is actually going to go out there and save someone's life and meet them at the most vulnerable point in their lives. It's a stark reality."

Senior Training Manager

One expert did not agree with this assessment of the staff and thought that it was important to train paramedics appropriately for different clinical requirements:

"I think all these words are unhelpful. I think it's important in getting the right people for the job. You know if someone feels uncomfortable then you ensure that they are in a place where they are not made to do things that they don't feel comfortable doing."

DoH Professional Expert II

Some managers however thought that development of CPIs and the longer time at the scene envisaged in *Taking Healthcare to the Patient* (DoH, 2005a) might affect performance adversely:

"Increasing the skill sets of the staff by having more treatment options is good in principle. But it will affect response time targets since it would block resources."

Operational Manager I

Operators seemed to have a different attitude on this aspect. Some of them believed that lack of clinical training was an important issue for many frontline paramedics

because a lot of jobs were not challenging and were routine. There was a tendency to become complacent:

> *"A lot of patients can be dealt with at home but with the right training. You ought to train the staff again to do that."*
>
> *Senior Paramedic I*

Another respondent complained about the lack of publicity about *Taking Healthcare to the Patient* proposals (DoH, 2005a) regarding upgrading the skills of frontline staff. One Operator expressed some concerns that this new agenda to develop the clinical skills and knowledge of the paramedics was imposed upon them. Paramedics were now expected to make clinical judgements and take risks in dealing with patients at the scene of the emergency but on the strength of their existing skills and knowledge. Another respondent raised doubts about any worthwhile gains of becoming a clinically more professional workforce against the backdrop of ever increasing activity:

> *"The paramedics in the immediate sense will feel a little bit more empowered because they will treat and refer the patient to other agencies. But the nature of the work and the volume of work will still be the same regardless of making those decisions."*
>
> *Senior Paramedic II*

Some support for the Operators expressed above came from most of the managers and executives who participated in this research who genuinely believed that the majority of staff were committed to deliver the best care to the patients but acknowledged the concerns of the paramedics:

> *"I think there is some frustration amongst the paramedics that sometimes they feel they are deployed inappropriately or that their training is in some way not reflected in what they are asked to do. Suddenly, their skills have*

become appropriate now that they are able, as healthcare professionals, to direct the patients appropriately and deal with the problems straightway."

Senior Area Executive I

Experts acknowledged the difficulties in developing a national perspective for CPIs but defended the current targets and argued that the aim of the Government was to have a speed element for those targets which were life-threatening (Category 'A' response of eight minute) and to concentrate on other targets (Category 'B' and Category 'C') for developing clinical outcomes and CPIs:

"The Government will always want to have some speed component. So the 75% category 'A' target will always be there in my view. If we can bring that down to a realistic figure, since the actual number of category A's is 10%, whereas the actual number of calls currently is 35-40 % that would be the key. The other 80% we will measure in a different way absolutely."

DoH Professional Expert III

One senior member of the management team in the Delta Ambulance Trust described how this vision of the Government would be operationalised:

"The way we intend to operate in the future is that for Category 'A' calls which are the life-threatening, we will send a response car and an ambulance. To Categories 'B' and 'C' calls we will send one or the other. If the paramedics think that the patient does require transport by an ambulance they'll determine which ambulance because it won't just be an A & E ambulance, but the HDS {High Dependency Service} type which is of intermediary type. So the patient may need to go to hospital but they still don't need a paramedic...By doing that, we will have more and more A & E ambulances available whereas at the moment they're all tied up doing the things they don't need to be doing."

The views expressed by the professional expert and senior management executive tend to suggest that the intention of policy makers is towards reform 'on the sides' by continuing with Category 'A' response since speed is identified with public support for the Ambulance Trusts, while attempting to do away with other non-headline targets of Category 'B' and 'C' responses (introduce quality). However it is not clear as to why quality of care is not relevant to patients who need the eight minute response.

Development of clinical outcomes in the Ambulance Service in England is also hampered by a lack of national direction in clinical and workforce issues. Traditionally, and until recently, national direction on workforce issues has been provided by the ASA (Ambulance Service Association) subsumed within NHS Confederation with effect from April 2008, the employer's body of many Ambulance Trusts, and, on clinical matters, by the Joint Royal Colleges Ambulance Liaison Committee (JRCALC). The effectiveness of these bodies was undermined by lack of authority since their recommendations were not mandatory on individual Ambulance Trusts. Many Ambulance Trusts were not represented in the ASA. While most of the Ambulance Trusts in England used the job titles of 'paramedics' and 'technicians' for ambulance practitioners they have quite different job descriptions for the core ambulance roles (UNISON, 2005). One respondent questioned the co-existence of these bodies alongside a smaller formal body of eleven chief executives representing the eleven Ambulance Trusts across England which were meeting on a regular basis, each having a national lead on important matters concerning the Ambulance Service including development of CPIs:

"They need to be put back in their box, and the box that they should be in is the one about external validation and scrutiny. They seem to have got themselves in a position where they are writing the very guidelines which

drive the entirety of the Ambulance Service, which totally dis-empowers the directors of clinical care to develop the new clinical performance framework for the Ambulance Services."

Senior Board Executive III

The above discussion brings out the differences in perceptions of policy experts and different subcultures in the Delta Ambulance Trust on the issue of developing clinical alternatives to response time targets in the Ambulance Service. Views expressed above also reveal conflicting perceptions about the nature of CPIs being developed within the Delta Ambulance Trust, the limited opportunities available for clinical training and education for frontline staff due to operational exigencies of meeting response time targets, and the extent to which frontline staff agree with the new direction of travel. Heath and Radcliffe (2007) have raised the difficulty of comparing the performance of Ambulance Trusts on the basis of some CPIs. As one respondent summed up this issue:

"I think Ambulance Trusts are starting to recognise that a huge amount of paramedic training is about trauma and very little of what they actually deal with when they go out on the road is about trauma. They are starting to talk about shifting the educational base from in-service training effectively to higher educational training with a broader emphasis on diagnostic medical assessment. But that brings with it the fact that paramedics are now going to be undertaking personal clinical risks because diagnosis is a risk."

Ambulance Trust specialist, Audit Commission

7.3 Leaving or treating non-serious patients at the scene of emergency

One key aspect of developing CPIs and the clinical skills of ambulance staff is to enable them to take clinical decisions quickly on the spot as to whether to leave the

patient and treat them in the community or follow the current routine of transferring them to a hospital A&E. This is also enshrined in *Taking Healthcare to the Patient* (p.27) that will further help to ease up the pressure on hospital A&Es. It is thus vital for ambulance staff to have the requisite clinical training and education to make such clinical decisions in real pressure situations. Evidence from this investigation has put the spotlight on the clinical preparedness of ambulance staff to take such a 'leap'. This study has also highlighted the inadequacies of their skill-levels and clinical knowledge and the urgent need to increase the clinical ability of most staff. Experts acknowledged this challenge:

> *"It is assumed that paramedics will be well trained and advanced paramedics or emergency care practitioners will have more training and more autonomy.. As of now, quite a lot of them have but not all of them, and it's a question of what skills you want. I think we have to spell out very clearly what skills and competences are required for particular clinical situations. And it's a long way from you know, just dealing with a road traffic accident and carting someone off to a hospital."*
>
> *DoH Professional Expert II*

> *"One of the major challenges coming the way of the Ambulance Services is about convincing the rest of the service {NHS} that they are clinically competent and responsible people."*
>
> *DoH Professional Expert III*

Evidence from the case study questions the expectations of experts regarding the clinical preparedness of frontline staff. The various unintended consequences of the response time targets, discussed in Chapter Five, have demonstrated how the pressure of meeting response time targets was adversely affecting the important agenda for

providing clinical education and training to ambulance staff that was crucial for the success of *Taking Healthcare to the Patient* (DoH, 2005a). Senior executives were still contemplating and talking about the ways to deal with the new clinical agenda more than two years after the recommendations of *Taking Healthcare to the Patient* came into effect:

> *"I think it's a good opportunity to start afresh... We will bring in a much stronger clinical management structure at an operational level. I will now have the structure to push clinical governance forwards right down to patient level."*
>
> *Clinical Governance Manager (March 2007)*

But later:

> *"The lack of clinical governance is still there. There is a clear divide between operational management versus clinical direction. The organisation is still run very operationally."*
>
> *Clinical Governance Manager (June 2008)*

Evidence about the safety and effectiveness of alternatives is weak and there are few rigorous trials reported in the literature with conflicting evidence regarding the role which can be played by paramedics with extended skills (Snookes *et al.*2002). One study concluded that adequate means of assessment of pre-hospital care has not yet evolved due to the complexities and number of variables which make the development of indicators difficult (MacFarlane and Benn, 2003). Most ambulance crews leave the patient at the scene only when the patient refuses to travel. Few Ambulance Trusts in UK have developed protocols about non-transportation of patients (Snookes *et al.*2002). Few such protocols for categories such as 'Falls' have been developed in the Delta Ambulance Trust but senior managers complained about staff not feeling confident to leave the patient at the scene.

Along with the clinical risks involved in not transporting patients to hospital, there are significant litigation risks as well. Many interviewees expressed concerns over non-transportation of patients that adversely affects the safety of patients and ambulance crews and can attract legal action against a Trust. This is entirely consistent with some of the issues raised in the literature (Goldberg *et al.*1990). An internal investigation was begun recently in the Delta Ambulance Trust following the death of a two year old boy who was examined by paramedics after a fall (BBC News, 18 June 2008). Paramedic crews answering a 999 call examined the two year old boy after a fall and decided not to take the boy to hospital. The crews were called out again eight hours after the first incident occurred and the toddler was taken to the hospital where he died. This incident gives credence to the concerns raised both by the research participants and in the literature about the dangers of ambulance staff taking clinical risks.

A central theme running through *Taking Healthcare to the Patient* (DoH, 2005a) and underpinning its recommendations is the vision of transforming Ambulance Services as organisations: both culturally and clinically. Research evidence from this study builds upon the existing body of knowledge and adds empirical evidence to similar concerns raised in the literature. Most of the respondents agreed that current skill sets do not reflect the wider role for paramedic activity envisaged by the Government in terms of providing care and giving guidance to the patient. *Taking Healthcare to the Patient* (DoH, 2005a) also stresses the need for ambulance staff to be able to demonstrate that the users of the Ambulance Service are not only receiving quicker care, but also better care. But there are no easy answers since there is no unanimity between respondents about a safer alternative to response time targets. One expert captured the essence of these arguments:

> *"What would you replace it with? Clinical standards? Outcome measures? They are very much more threatening and challenging even if you can define them. I think ultimately people like the rules to be clear and there's not much clearer than whether the clock says 8 minutes or less."*

Ambulance Trust Specialist, Audit Commission

7.4 Ambulance Service in the NHS

The historical and cultural reasons behind the relative lack of integration of the Ambulance Service within the wider NHS have been discussed in the literature review (see section 2.5). Case study evidence confirms these perceptions of a relatively peripheral role played by the Ambulance Trusts within the local health economy (Wankhade and Brinkman, 2007). Many respondents mentioned the relative lack of ability of individual Ambulance Trusts to influence events which might have important implications for meeting their performance targets within that network:

> *"Delivering that change is going to depend on our interactions with the rest of the health economy in particular and how much we can persuade them to invest in us, at the speed necessary to deliver the change."*
>
> *Senior Board Executive IV*

> *"What we need is a total shift from a transport organisation to a healthcare organisation in order to change attitudes and perception of the external NHS organisations."*
>
> *Non- Executive Director*

In almost every meetings attended by the researcher, the attitude of the other NHS partners towards the Delta Ambulance Trust and the difficulties in communicating with the local PCTs was a routine matter of discussion:

> *"Ambulance Services did not get even an invite earlier when key decisions were made. Ambulances were low down in the chain in the NHS. However in public perception, we are at the top and people love us. Any change or*

perceived threat to the Ambulance Service is front page news. The message is quite clear in this area; ignore us at your peril."

Senior Board Executive V

Interviews with managers and frontline staff echoed similar sentiments:

"What we need is a greater integration with the NHS rather than being seen as a stand-alone service."

Senior Corporate Manager II

"Ambulance Services will have to take on board, all the stakeholders and professionalise the service."

Senior Operational Manager II

"We have to raise our profile to be seen and heard outside the organisation."

Paramedic II

There also appear to be conflicting views by the different occupational groups regarding the real purpose of the Ambulance Service and its core values. Evidence from this study suggests that senior executives and policy experts see the service as an integral part of the NHS family. The recent move to disband the ASA and merge it with the NHS Confederation reflects a clear intention on the part of ambulance chiefs in this direction. On the other hand many respondents especially senior staff and managers perceive themselves working in an emergency service which has vehicles that are driven quickly with sirens blaring and blue lights flashing and similar in every respect to other emergency services like police and fire:

"Our staff, the way they were recruited, are like 'adrenalin junkies'. They get there, they save someone's life, and they drive somewhere else delivering the patient to a team, that's all... That's why people join and the difficulty we're going to have is whether or not Ambulance Services truly are the right people to be delivering that minor illness and injured version because we don't have the right staff to do that. It's not their mindset. They didn't join up, as they will tell you, to be district nurses."

Senior Board Executive VI

Another proposal which is considered quite controversial in respect of the ambitions of the Ambulance Service and its integration within the wider NHS concerns the option given to the Ambulance Trusts in allowing them to apply for 'Foundation Status' (Health Service Journal, 2007). Senior executives talked about obvious gains concerning financial and operational autonomy. But many respondents expressed their concerns about strategic gains for the Ambulance Trusts in their quest for greater integration within the wider NHS and the local health economy:

"No is the honest answer. It obviously has some advantages from the ability to plan longer, but it has some disadvantages in that they are a bit more independent but this could make them more isolated. There are certainly plenty of Acute Foundation Trusts who have actually become more isolated in doing their own things."

DoH Professional Expert II

Staff support for the Foundation Trust status afforded to Ambulance Trusts also appears to be lukewarm. UNISON, one of the dominant staff unions representing Ambulance Trust staff, has expressed concern that such a move will in any way compliment the aims and objectives of *Taking Healthcare to the Patient* (Unison, 2005, p.1). Some respondents mentioned conflicting opinions in various other policy

documents setting the future direction of travel for Ambulance Trusts in England. One senior executive agreed that from the seventy recommendations made by the national review, few were specific and measurable (for instance 'Call to Connect' standards), and it was inevitable that the focus would be on the measurable ones. One senior Executive expressed frustration about the confusion caused by various initiatives such as PBR, Foundation Trusts, Practise-Based Commissioning, Specialist centres and Taking Health Care to the Patient:

> *"Because they are all complete opposite in terms of incentives and the direction of travel that you would take to achieve any one of those... Sometimes you can sit back and you end up laughing because otherwise you would just cry."*
>
> *Senior Board Executive II*

Policy experts were asked if the issues raised in this investigation found sympathy with the ministers. The views expressed below give us some idea about the relative impact made by the Ambulance Service:

> *"I think the ambulance target is important but it's not got the same public concern. There is not the same level of concern about them potentially as the other paths in the NHS. Therefore it affects how much time and energy and interest that gets taken inevitably... By and large they{ministers} are concerned about the patient waiting times and making sure that the public's perception of the NHS is good."*
>
> *DoH professional expert I*

> *"The general perception of the public is that we've got a great Ambulance Service. They are the people who come and save our live. So the public are happy generally.... That means therefore that if public perception is better,*

ministers are happy. Yes, I don't think Ambulance Services are seen too much as a priority."

DoH professional expert II

"I think it's no more or less important than other parts of the system.. But I wouldn't single it out as being ignored particularly or emphasised or over-emphasised."

DoH professional expert III

Ambulance Services have been part of the NHS since 1974 but their relative importance has been marginal. Case study evidence suggests that the general perception amongst many respondents is of not being consulted on important policy matters (see section 6.3). The differing perceptions of the various occupational groups regarding the actual significance of their roles have also not helped in this regard. But the vision set out in *Taking Healthcare to the Patient* aligns Ambulance Trusts more closely as an emergency health service of the NHS rather than a health arm of the emergency services. The focus towards developing and enhancing the clinical role of the paramedics is geared towards their closer integration within the NHS.

Conclusion

The arguments of the staff in Delta Ambulance Trust and the experts on the relative benefits of the eight minute target are supported in the literature:

"There appears to be no robust evidence on the health benefits resulting from improvements in response times above 8 minutes other than from reducing ambulance response times to below 8 minutes for cardiac arrest patients."

DoH (2005a), p.2

The lack of clear evidence indicating a clinically safe approach in identifying patients who make a 999 call for an emergency ambulance but who do not need transportation to hospital is also documented in the literature:

> *"Relevant research evidence concerning the benefits of triage by crews on scene to decide upon appropriate care pathway is lacking."*
>
> *Snookes et al.,(2004), p. 214*

Other recent studies outside the UK have shown similar concerns. Linwood *et al.*(2007) in reviewing the literature for pre-hospital emergency care in Australia concluded that the quality improvement approach by Australian paramedics and Ambulance Services is in its infancy (p. 405). A ten year analysis (Brice *et al.*2000) of the study designs and outcomes in Out-of-Hospital emergency medicine research in the US found them to be limited in scientific rigour due to the diversity of patient outcomes measured. O'Mara (2005) highlights the need for a generic performance framework from an Australian health services perspective in preference to the widely used emergency framework with its heavy emphasis on response time targets. Empirical evidence from this investigation is in conformity with the literature since similarity of the findings improves the validity and generalisaibilty of the evidence from this investigation since other researchers have come up with similar findings but in a rather different context.

The steady rise in 999 emergency calls has been discussed before. Many respondents talked about the real lack of alternatives available to callers to prevent abuse of the system or help address the rise in demand for the Ambulance Service. In emergencies, general practitioners continue to dial 999 for an ambulance. An urgent need for an emergence of a single NHS prioritisation system and to integrate AMPDS, CBD, NHS Direct and GP requests was strongly urged by some respondents and is also

supported in the literature (Robertson-Steele, 2004). This calls for the reconfiguration of the entire healthcare system having a holistic emergency care strategy, something which has been hinted at by experts during this investigation. If Ambulance Services are to become part of a fully integrated care delivery system rather than a patient transport service, partnership with other healthcare providers will be crucial (Ball, 2005). This will require significant efforts from ambulance personnel to move to a different performance regime.

One senior executive described *Taking Healthcare to the Patient* as a 'changeable moment' to modernise and integrate the Ambulance Service within the wider NHS. Experts have, however, agreed during this investigation that things have not happened in the right order or at the right pace and that some of the recommendations from the review (DoH, 2005a) encouraged dysfunctional behavior. The proposal regarding Foundation Trust status to Ambulance Trusts by 2010 can further isolate the Ambulance Service. Many respondents privately maintained that in the muddle of reorganisation and 'Call to Connect', *Taking Healthcare to the Patient* was put on the back burner.

The reorganisation of Ambulance Services in England in July 2006 and the various recommendations for cultural transformation and modernisation as set out in *Taking Healthcare to the Patient* (DoH, 2005a) provided a real opportunity for the Ambulance Service to play this much needed bigger role and make their contribution noticed within the local health economy. This puts greater emphasis on the role of the external environment in implementing any change programme and dealing with national policies and performance target regimes. Given the increasingly complex, multi-sector collaborative approach to health care management, there is an urgent need to understand the role and influence of inter-organisational networks both within and beyond health care organisations. This has serious implications for the success of the *Taking Healthcare to the Patient (THP):*

> *"We've decided not even to implement THP. I mean the problem of THP and the realisation throughout the year has been that it isn't actually an agenda*

for Ambulance Services but an agenda for PCTs. Ambulance Services cannot take healthcare to the patient because unless PCTs commission the services in the community there's nowhere to take that healthcare to and so we no longer talk about THP."

Senior Board Executive VI

This is not to suggest that the position of the Ambulance Service has not changed. There are increasing number of instances suggesting that senior managers from other NHS services are beginning to come into the Ambulance Service and there is a growing movement of paramedics and nurses into different sectors of the NHS. Four out of five non-executive directors of the Delta Ambulance Trust come from a non-ambulance background having either worked in other public services or elsewhere in the NHS. Increasingly, medical personnel are being employed by individual Ambulance Trusts including a Medical Director at the board level. These developments along with other initiatives like investment in technology and an increase in strategic capacity will encourage greater collaboration between the Ambulance Services and other healthcare providers within the wider NHS and will enable them to occupy a more central role within the NHS network. This aspect of the findings addresses R.Q. 12.

This study clearly shows that any efforts to bring change will necessitate a more prominent role of the Ambulance Trusts within the urgent care network of the NHS. Concerns over the Ambulance Service regarding hospital closures and lack of understanding on the part of PCTs and the implications of hospital reorganisations & closures on ambulance performance clearly point to a disjointed effort to analyse the dynamics of change within the complex healthcare network. Ambulance Services have been perceived historically as playing a supporting role to other NHS organisations. Increasingly, the provision of emergency services is a collaborative one in which traditional boundaries are "blurred" and there is a greater need to coordinate their activities with other NHS organisations. One important cultural challenge would be to enable the staff in Ambulance Services to be exposed to other parts of the NHS

in order to make them appreciate better the role Ambulance Services can play within the wider health economy, and develop effective networks with other partner NHS organisations. These findings clearly address R.Q.s 10 & 11.

These findings assume greater significance due to the different case study techniques used to improve the validity and reliability of these findings. The views expressed by the participants from the Delta Ambulance Trust is cross-referenced with that of the opinion of the experts on the issue of eight minute performance target and the 'Call to Connect' standards (p.198-199). Within the broader criticism of the eight minute target, the relative gains of the target have also been discussed to highlight the rival view point (p.200). Interview data is supported by the analysis of internal documents to highlight the challenges of developing CPI (Table 7.1). Similarly, the challenges expressed by senior executives to meet the new tougher 'Call to Connect' standards were cross-referenced with the opinion of the experts suggesting a 'token resistance' by the Ambulance Chiefs and the relative importance of the Ambulance Service for the ministers (p.200). Current evidence in treating the patient at the scene of emergency is expanded by reporting a real case regarding the death of a child due to non-transportation to the hospital by crews in the case study (p.212). The use of tables and figures help in enhancing the value of the case study evidence (Miles and Huberman, 1994).

The lack of a national strategy for paramedic education and training is also an important factor which will need to be considered if providing paramedics with greater clinical skills as envisaged by the policy makers is to take place. Findings from this study have revealed a clear recognition by clinicians and experts alike that paramedics currently lack the necessary skills to take decisions whether patients need to be taken to a hospital or not. These findings clearly address R.Q.s 4 and 10. Such an approach is also fraught with legal risks as evidence from this investigation has drawn attention to. As one respondent summed up this argument:

> *"I have a horrible feeling that if we were to have the same conversation in 5 or 10 years time, they {Ambulance Trust} will be carrying on doing more of*

the same. It will just get a bit more refined... I'm not confident that I could say in 10 years time we will have a fantastic Ambulance Service that's really adding value to the patient."

DoH Professional Expert III

Chapter 8

Conclusion-Hitting the Target, Missing the Point

Conclusion-Hitting the Target, Missing the Point

If you just do it the way you have always done, you're going to get what you have always got.

Senior Manager, Delta Ambulance Trust

Introduction

The primary aim of this investigation was exploratory in focus to understand performance measurement and the impact of culture in an emergency health service in the UK NHS. This study reflects an ambition to strengthen the evidence base which underpins these topics. To that end, the performance measurement system in the UK ambulance service has been examined; the existence of four sub-cultures within the organisation identified; and the extent of the relationship between organisational performance and the four organisational cultures also explored. A number of key research objectives were identified (p.7) along with twelve research questions (p.98-100) which were addressed through empirical study, the findings of which are reported in Chapters Four to Seven. The four research objectives identified in this study included:

- Investigation of individual understanding of 'performance' for the different sets of actors and especially that which is linked to performance improvement

- Identification of unintended consequences of the performance measurement system in the chosen organisation

- Exploration and classification of organisational culture (s) within the NHS trust and exploration of the links between organisational performance and organisational culture and the extent of any empirical relationship between them and

- Documentation of the challenges and difficulties faced in improving the performance measurement system in the Ambulance Service.

This last chapter is divided into three sections. The first section brings together the empirical work and conclusions from the findings gathered in this study along with the policy implications with respect to the research objectives (p.7) and the research questions stated on pages 98 to 100. Section two highlights the contribution made by this study to the wider body of knowledge. Section three reiterates the significance of this study to a variety of audience. Section four discusses some of the limitations of this study. The last section gives recommendations for further research along with few concluding remarks.

8.1 Bringing together the empirical work and conclusions from the findings

To elaborate on the conclusions, each of the research objectives listed above along with the research questions will be discussed separately, collating and summarising the findings from the empirical evidence discussed in Chapters Four to Eight, which were in turn informed by the theory and literature reviewed in Chapters Two.

8.1.1 Investigation of individual understandings of performance for different actors

There was an overwhelming dissatisfaction across a wide range of stakeholders, both internal (the executives, the managers, paramedics, clinicians and the EMDC control room staff) and external (DoH policy experts, Audit Commission expert) concerning the appropriateness of current ambulance response time targets and the key target of the eight minute response (Category A call). Most participants had an inclusive definition of performance. There was a clear recognition that the current performance measurement system does not provide satisfactory view of the performance of the

ambulance service and distorts the true picture of the service. The common comment made by respondents was that 'to get to an emergency in 8 minutes and 3 seconds was seen as failure'. This study highlighted that the specific focus on response time indicators has diverted attention from the equally important (but unmeasured) aspects of trust performance especially those around developing clinical performance indicators and clinical outcomes. These findings are in conformity to the evidence discussed in the literature (Rowan, et al., 2004; Audit Commission, 2000; Bevan and Hood, 2006a). These findings develop the existing literature and contribute towards our understanding of the performance measurement by way of a rounded view of the organisation in the management literature from a non-clinical perspective. This study has brought to the fore, understandings of performance not only from the four occupational groups in the ambulance service, but also adds perspectives from very senior DoH policy experts and the Audit Commission expert. Such a synthesis appears to be lacking in the available literature. These findings address R.Q.1.

It was also demonstrated that various stakeholders, including policy experts, acknowledged that the ambulance service is 'very target driven and very target focused'. There was also a recognition that clinical outcomes needed to be developed but proved difficult to implement on account of the distorted priority on the part of the DoH at the centre and the SHA at the local level. These created 'pressure' to meet the ambulance service eight minute target as funding is obtained from the PCTs and maintaining acceptable levels of local service delivery is needed to keep local politicians 'happy'. These findings are consistent with the literature (CHI, 2003; drfoster intelligence, 2006) which has been critical of the lack of strategic function in the ambulance service and the heavy focus on response time targets and activity summaries in trust performance reports. The experience of the researcher from attendance at the Trust Board meetings and internal performance meetings in the Delta Ambulance Trust confirms this view (see section 7.3). Heath and Radcliffe (2007) raise the issue of the application of performance indicators in the Ambulance Service and the of the performance measures currently being used by the Ambulance Trusts in the UK. But their paper, one of the few papers published in the NPM/public policy literature is a thematic and conceptual paper and provides no empirical data. This study while in conformity with the issue of the appropriateness of the

Ambulance performance targets, provide detailed empirical findings about the performance indicators currently being used in the UK NHS Ambulance Service and significantly builds on the issue raised by these authors. Similarly, Holloway *et al.*(1999) referred to earlier in the literature review while argue for 'benchmarking' as a vehicle for change in one Ambulance Trust in England, conclude that benchmarking is "far from being a panacea for organisational change"(p.364). This study however has highlighted the limitation of benchmarking and questioned its usefulness as a useful indicator of performance citing empirical evidence (p.183).

It was revealing to note that the most severe criticism against the eight minute response target came from the clinicians including a senior DoH policy expert who gave a very candid account of the current target regime in the ambulance service in the UK. The testimony of the paramedics' is also crucial for providing insights on two very important issues arising from the current targets. The first was that the safety of staff and patients was compromised when, in the current regime, ambulance trusts resorted to various tactics such as the use of CFRs, and solo-responders to achieve the eight minute response (p.178). The second issue is about over-prioritisation of the 999 Category 'A' responses (p.155). These findings are in conformity with the other reported evidence (Price, 2006; Snooks *et al.*, 2002) but builds on the cited evidence. For instance, the study by Price (2006) also raises the question of Ambulance response time targets and involved a sample of 20 paramedics and the findings are specific to opinion of the paramedics. Snooks *et al.*(2002, p.330) raise the issue of alternative response to the 999 calls in those cases that are neither life threatening nor serious and also the lack of evidence to indicate a clinically safe approach in such alternatives (Snooks, 2004, p.214). But the evidence cited is conceptual rather than empirical and comes from the review of the studies mainly conducted in the USA. Literature discussing similar findings is important as well since it ties together underlying similarities in phenomenon normally not associated with each other (Eisenhardt, 1989, p.544). It also reflects that the findings from this study are valid and generalisable since others had similar findings but in different context. This study builds upon the published evidence and makes significant contribution in bringing new empirical evidence to the conceptual issues raised by Price (2006) and Snooks

et al.(2002, 2004) and makes a significant contribution to the debate of Ambulance performance measurement.

Views expressed by the engineers (EMDC staff) highlighted their sole discretion in allocation and distribution of manpower and vehicles in response to every 999 emergency calls. This paints a contradictory picture. The focus of policy makers and senior management is on a coordinated approach in meeting targets. In the given case, the performance of the engineers is crucial to meet the targets. During the various performance meetings attended by the researcher, there was no occasion where the performance of the engineers was analysed when the review of the Trust's eight minute performance was done. This was in sharp contrast to the scrutiny of operational managers who had to 'defend' the performance for their sectors. The comments by the EMDC Manager (p.126) capture the essence of this argument.

The most revealing finding in meeting this research objective was the role played by managers and their overall contribution in improving performance (see sections 4.5.1 and 5.4). The lack of opportunity of clinical development and management training opportunities was startling. There were several occasions during the duration of this study when managers were drafted into operational duties on account of high numbers of the emergency 999 calls. This study identified a perception that middle management at the organisation was under-developed and that the experience and expertise of senior managers was frequently neglected during the planning and implementation of organisational policies. These findings address the tensions and challenges facing the managers in delivering good performance (R.Q.4). The comments of the managers when they talk about delay in decision making (p.134) and the lack of strategic capacity (p.135) or de-motivation (p.136) highlight this aspect very well.

Findings from this study suggest that the 'building blocks' of a good performance system (e.g. robust performance indicators, ownership of targets, clear objectives, etc.) act more as barriers since what is being measured by the current system is the

performance of response against time having no correlation with patient care or with the final outcome of the ambulance journey performed. This study has demonstrated that the rationale behind the current targets is still not clear to all the actors involved and there is still some confusion in the minds of the stakeholders about the real objective behind this target. Successful working of a performance measurement system is also conditioned and mediated by the importance it has in the organisation and the extent to which it reinforces the strategy and objectives of the organization (De Bruijn, 2007). Case study evidence suggests that the management of the Delta Ambulance Trust perceives the achievement of the targets as the key organisational achievement (addresses R.Q.8, 9) and the entire management attention and resources are geared towards this objective:

> *"I do think the Ambulance Service really suffers around this 75% because it's such a headline target and it's the only thing that people want to talk about because it's the only one that is mentioned for Ambulance Services... But as an organisation you live or die by getting to every job or every Category 'A' {call} within eight minutes, 75% of the time, and that's all that matters."*
>
> *Senior Board Executive I*

From a policy perspective it can be argued that the operation of the eight minute target in its present form, notwithstanding the relative lack of clinical evidence and benefits, is likely to continue into foreseeable future. Policy experts have argued that the response time targets have a social relevance and a faster ambulance response would confirm confidence in the service delivery of the organisation. The relevance can also be justified from a governance perspective (Bevan and Hood, 2006) since political control may be easier to be exerted by the Government through a single measure of performance.

8.1.2 Identification of Unintended consequences of performance measurement system in the Delta Ambulance Trust

Public policy formulation and implementation involves public money. It is therefore important to understand any unintended or dysfunctional consequences of the given performance framework. As any management initiative may give rise to a range of unintended side effects, evidence was sought on whether the current performance measurement system in the UK NHS ambulance service with its emphasis on response time targets actually produced such effects. Within the Delta Ambulance Trust, there was significant evidence of such unintended consequences:

- *Tunnel vision*: the study found resonance from most of the research participants (especially clinicians and the paramedics) that the current performance framework tends to focus on only the measured aspect of performance at the expense of unmeasured but more important aspects of developing tools to measure clinical performance (see section 6.1.1). It was also documented how this narrow focus was affecting the development of training and clinical education of staff and was too simplistic to capture the range of performance related activities in the organisation. The comments made by the Training manager about how training was sacrificed for operational requirements (p.170) or the comments by Senior Executive II (p.169) about the real frustration in not being able to develop any other aspects of organisation's performance due the apparent contradiction between the focus on measured results promoting increased centralisation (from the DoH and the PCTs) versus managerial flexibility and autonomy (at the local operational level). These findings address R.Q.s 2, and 10.

- *Sub-optimisation:* the lack of congruence between organisational objectives and local incentive was recorded in the difference of perceptions of performance between senior executives and to a lesser extent the managers and those of the operators. These reflected a lack of communication on account of the size of the organisation and an apparent lack of involvement of

the operators and the managers in the strategic matters of the trust. The comments by the Senior Area Executive (p.171) about the lack of understanding of the organisation as a clinical organisation or the comments by one manager about outright 'hostility' (p.172) towards the targets point to this phenomenon. The need for the Trust management to improve clinical leadership, internal communication channels and clinical governance structures was also identified in this study (p.171-172) addressing the R.Qs. 8 and 9.

- *Myopia:* the pursuit of short term targets at the expense of long term goals is clear from the preceding discussion. The study provided further evidence of such thinking on the part of policy makers. It was documented (see section 6.1.3) that the new 'Call to Connect' target was putting additional pressure on ambulance trusts across England and seriously affecting the clinical education and training agenda of the ambulance personnel in the process. The experience of the operation of this new target in the Delta Ambulance Trust suggested further perverse behaviour (R.Q.2). These findings also address the question of putting additional stress and tensions on staff and managers due to the more stringent standards and delivering good performance (R.Q.7). They assume greater significance due to the participation of the three DoH policy experts and the Ambulance Trust Specialist from the Audit Commission who candidly 'accepted' the unintended consequences of the 'Call to Connect' target (p.199).

- *Measure-fixation:* the emphasis on the measures of success rather than objectives was reflected in acknowledgement by senior management of the trust that there was a lack of organisational effort in attempting to meet targets that were considered less important. The other perverse behaviour noticed in the current performance framework was the lack of incentive for meeting or punishment for missing the targets. The various tactics used by the organisation in meeting nationally determined performance targets (p.178-179) and the recorded case of staff being put under pressure to take an ambulance without being fully kitted to meet performance targets address

R.Q.2. This aspect more importantly also highlights the need for a better review and appraisal of the current performance measurement system. This was demonstrated in the fact that when the eight minute target was revisited in terms of Taking Healthcare to the Patient (DoH, 2005a), it was only made more stringent in terms of 'Call to Connect' putting further pressure on the organisation. These findings address R.Q.5. The constant pressure to meet performance targets can result in bullying and harassment of individuals and one such important case (p.179-180) documented in the study had serious legal implications for the organisation and the individuals concerned.

- *Misrepresentation:* no deliberate case of misrepresentation was recorded in this investigation other than a recorded instance of some discrepancies in performance data submitted to the DoH. What it does highlight is an important issue of verifiability and reliability of performance data in the reorganized ambulance trusts that had different reporting systems, different data protocols, and different versions of the AMPD system used to record performance information. These findings address the suitability of the current organisational structures in encouraging good performance (R.Qs 8, 9). The cited example of the lack of suitability of the American AMPDS and CBD control systems used by the Delta Ambulance Trust (p.182) further addresses this aspect.

- *Gaming:* no specific case of fraud or manipulation of performance data was noticed during this study. The aspects of gaming which were recorded in this study concerned the 'ratchet effect' (p.182) and 'threshold' effect (183). It was also documented that how the current performance measurement system was not capable for effective benchmarking (p.183) and did not offer any incentive for the Trusts which showed performance more than the national targets (see comments by Senior Board Executive, p.183). The comments by the DoH Professional Expert (p.186) make it quite clear that the current target regime do not take into account, cost implication for each ambulance journey performed. Further it was shown that how in the current system there were no difference in achievement of performance targets between an Ambulance

Trust utilising 80% of available ambulance time per day and one utilising 50% of available time if they both return the same performance (p.184). Neither it is clear if the improvement in performance is due to better investement or better 'luck' as few respondents pointed about during the study. These findings clearly address R.Qs. 3 and 12.1.

- *Systemic dysfunctions:* the study documented a very important issue of the reorganization hospital A&E with the DoH policy focus on taking patients to specialty centers It was demonstrated how this decision did not appear to go through the full process of prior consultation with Ambulance Executives (p.185) or the acknowledgement by DoH senior experts about the apparent inability of the Ambulance service to influence decision–making networks (p.216-217) resulting in significant financial implications (comments from Expert III on p.186); increased litigation risk to the organistaion (p.187) and further delays in hitting the eight minute target (comments from Senior Board Executive on p.188). These findings clearly highlight the unintended consequences of targets and show how despite changing situation, Ambulance Trusts have remained at the periphery of decision making networks and point out how the national and local performance objectives are potentially conflicting addressing R.Q.s 2 and 11 .

As stated earlier, this study makes a significant contribution to knowledge by systematically documenting various unintended consequences of the current performance measurement framework used by the NHS Ambulance Trusts in the UK. Such detailed analysis of the various 'side effects' of Ambulance performance framework appears to be lacking in the literature. This study builds on Smith's conceptual framework (1995) by finding empirical evidence for six categories identified in this study (Chapter Six). Additionally few more of such unintended consequences were identified in this study. These included:

- 'systematic dysfunctions' (p.184) with respect to closure of hospital A&E and its implication for ambulance performance

- 'frustration' on the part of paramedics (p.150, p.145), on account of managers for not been able to play a more 'strategic' role due to operational focus of the organisation (p.160), by senior executives about eight minutes being 'the' target (p.160)

- 'pressure to perform' on paramedics (p.154), on engineers (p.158), on managers (p.159), on the organisation to hit eight minutes and perform (p.151), on clinical training and education (p.163), due to 'Call to Connect'(p.173), on relationship with staff (p.127)

- 'obsession' on account of organisational focus to meet eight minutes (p.170), staff perception of the target (p.152)

- 'confusion' on account of actual relevance of eight minute target (p.148), as a good proxy of organisation's performance (p.168)

- 'fear of failure' seen by the senior executives in not meeting targets (p.148), reaching in 8 minutes and 3 seconds was seen as failure

- 'Hostility and resistance of the targets (p.172) leading to de-motivation of staff (p.136).

Considering the contested nature of policy making, the practice of performance measurement might continue to exhibit dysfunctional effects. For example, doubts have been raised against the latest review launched in the NHS- The 'Darzi Review' (DoH, 2008a) for its centrally directed view/approach (Dickson, 2008). Comments from a policy expert for a lack of an emergency care strategy which will foster a seamless integration of ambulance service within the NHS points to this interpretation (p.188). Another policy implication is that good performance data can enable change; poor measures can easily discredit performance. This is the first systematic documentation of the unintended consequences of the performance measurement

system used in the UK NHS ambulance service. These findings gain further significance due to the facts that senior DoH policy experts have participated and expressed their independent opinion about such unintended consequences of the eight minute target. These findings are crucial for an objective evaluation of the performance framework in the future and are relevant for different audiences. They assume greater significance in the light of the corroboration by senior policy experts (see section 7.1). These findings not only bring empirical facts to theoretical frameworks discussed in the literature (Smith, 1995; Bevan and Hood, 2006), but also add new knowledge on other kinds of dysfunctional behaviour documented in this study and discussed above and contribute to our understanding of the unintended consequences of the Ambulance performance measurement. These set of findings address R.Q.s 1,2,5,7, and 8.

It was also documented how the current performance framework impacts negatively on the 'learning' for the organisation in terms of the plan-do-review-revise cycle (IDeA, 2009). Management planning seems to be concentrated on devising strategies to meet the eight minute response time target. All the action then is geared towards meeting this target. Since the organisation is operationally focused, Taking Healthcare to the Patient (DoH, 2005a) reviewed the eight minute target but only for the purpose of making it more stringent.

8.1.3 Exploration and classification of organisational cultures and links between measured and unmeasured aspects of performance.

It has previously been acknowledged that culture is complex, dynamic and often contested and any approach taken in a study like this to assess culture is likely to give only a partial glimpse of 'value infused institutions' (Selznick, 1957) underpinning organisational life. Before the study began, review of the literature suggested a typical ambulance culture with its manifestations of command and control (NHS Modernisation Agency, 2004) and tendency to blame (CHI, 2003). But this study found evidence of a multiple culture within the Delta Ambulance Trust and identified

four different occupational groups of the senior executives, managers, paramedics and the EMDC control room staff, each representative of its own cultural characteristics (p.120-123). In identifying the different occupational cultures Schein's (1996) typology of the three cultures of management (executives, engineers and operators) was used. However, the theoretical predictions generated in the literature were supported and further refined by identifying the fourth culture of management, that of the middle managers. This in itself is a significant finding. Each of these groups was shown to have their distinct assumptions and beliefs towards organisational performance and different attitudes towards culture change. These findings clearly address R.Q. 6. There is a clear research gap in identifying, classifying and understanding the nature and role of organisational culture in uniformed emergency response services. No such classification appears to be available. This study makes a significant contribution in classifying the different subcultures in the UK NHS Ambulance Trust and contributes to the debates on these issues argued in the literature (Scott *et al.* 2003, 2003a). Future research can build up on these findings.

The culture found within an organisation thus may be far from uniform or coherent (Martin, 1992). The rivalry and competition between the different culture groups identified in the study appear to be the key feature of the organisational culture in the Delta Ambulance Trust. Different sub-cultures may be more (Executives) or less (Managers and Engineers) malleable or may even be resistant to change (Operators). Apparently some organisations function more or less successfully with discordant sub-cultures, being no more than "loosely coupled" to other subcultures or subsystems (Davies *et al.*2000, p.113). So whether organisations should seek an integrated set of cultural attributes is a moot question.

Reported evidence regarding the existence of an empirical relationship between organisational performance and organisational culture is rather weak (see section 2.5). This in-depth qualitative study provided corroboration by highlighting many plausible mechanisms by which cultural expectations may influence patterns of working in each of the occupational groups and by implication, the performance. For example, the cultures of the senior executives and to some extent that of the managers showed a

more strategic view of performance when compared with the cultures of the operators and engineers. The comments by Senior Board Executives about a more task oriented view of performance (p.124) or staff being led by 'minds not monkeys'(p.128) point their basic assumptions about performance targets. The comments by the Engineers about distributing the resources without interference from other subcultures (p.126) highlight their basic assumptions about safety and technology. The comments by paramedics about performance targets (p.127) highlight the challenges and difficulties in meeting these nationally defined targets. The various issues raised by the operators regarding the pressure of meeting the performance targets on account of over prioritisation of Category 'A' calls is very well captured by one paramedic (p. 155) and directly observed by the researcher (p.155-156). These findings also address R.Qs.7 and 8.

It was shown in the study that performance and culture was seen to act in an iterative manner. The relationship of culture with the most visible performance target of eight minute response (Category A call) impacted on culture both directly and indirectly. It had a direct impact on staff morale and was evident from the critical nature of comments made by frontline staff against the eight minute target (p.127). It also had an indirect influence and was seen in the constant management effort (and emphasis) to meet the target (comments of a Non-Executive Director on p. 147). But exploring aspects of culture also leads to similar kinds of problems like that of performance. Causality may prove to be problematic and further research may be required to find relationship between organisational performance and organisational culture.

The study also highlighted how, for historical reasons, there are greater cultural challenges for the Ambulance Service when compared to other healthcare organisations in the NHS. It was also revealed that existing and past efforts on part of the Ambulance Service to fully integrate within the wider NHS were hindered by the confusion which still prevails within its members about the core value and mission of the service. The comments by a Senior Executive about staff joining the Ambulance Service to be 'adrenalin junkies' rather than 'district nurses' (p. 215) captures the essence of this argument. Being part of the NHS, they are seen by some in the service

as an emergency health service but the nature of their job in dealing with emergencies align them more closely with the other emergency services like that of police and fire. This also has implications for the marginal role they currently play within the local health economy. Despite the efforts made by Ambulance Trusts to culturally transform their outlook and workforce, they still remain a uniformed service. Non achievement of targets is still considered a taboo for senior executives. Vestiges of the old culture of command and control, hierarchical and top down management style, and resistance to change were factors mentioned by respondents as unique to the Ambulance Service and not found in other organisations within the NHS. These findings address R.Q.s 8,11 and 12.

Another revealing finding from this investigation was the lack of strategic role played by managers and their overall contribution in improving performance (see sections 4.5.1 and 5.4). There were several occasions during the duration of this study when managers were drafted into operational duties on account of high numbers of the emergency 999 calls. The comments of the Area Operational Manager (p.159) highlight this aspect. This study identified a perception that middle management in the organisation was under-developed and that the experience and expertise of senior managers was frequently neglected during the planning and implementation of organisational policies.

'Job insecurity' has been mentioned by many respondents as an important contingent factor in this study that influences the strategic contribution from the managers (Floyd and Wooldridge, 1997, 2000). The cited case of one manager in the Trust (p.137) who had to wait almost for a year for a proper role bears testimony to the de-motivational impact of such factors and also reflect on the role of the Trust management and existing organisational structures in the Trust (R.Q.s 7, 8, 9).This can also be attributed to historical lack of clinical development within the service. Ambulance Trusts are characterised by its lack of strategic focus due to its relative simplistic nature of job to transport patients to the hospitals, often criticised as a 'scoop and run' function. Over the last 30-40 years, the fundamental nature of the job of an ambulance service has not quite changed. As a result, some managers would seem to be content

with the status -quo rather than behave in a more autonomous strategic manner (see the comments of a Senior Manager on p.135). In addition, the Government's intentions are always not quite clear. At one hand, it wants to view the managers as change agents who are expected to behave in a proactive and strategic manner. But its focus on meeting performance targets and financial stability results in delayering of organisations which puts further pressure on the management to utilise the services of the managers more 'efficiently' (R.Q.10).

The study presents a rather different executive expectation of the strategic role of the managers. On the issue of organisational performance, executive management expected managers to implement a very prescriptive strategy with little or no management education and training despite talking about the real need of a strategic managerial role. On the issue of restructuring of the organisation, the executives gave a more boundary spanning role to the managers in terms of greater interaction with external partners. But the long time-delay in handling 'Business Case' for extra resources (p. 134), poor handling of the redundancies of the managers and the delay in addressing the changed job roles for service managers (p.137) gave inconsistent cues regarding executive expectations. Issues around anger, insecurity and human frailty needs to be better appreciated (Watson, 2001). Only on the issue of culture, were the expectations of the executive management consistent for the enactment of more strategic behaviour by the managers.

Such a situation is likely to invoke role conflict and role ambiguity in the managers (Floyd and Lane, 2000). This can be exacerbated if the executive management reduces discretion allowed to the managers in developing and modernising services. This was evident on the issue of organisational restructuring and their role in improving performance; the managers were subjected to unclear expectations of their roles. During the restructuring process, managers became caught between traditional and newer expectations of their role since they were still grappling with the process of change simultaneously with the relentless pressure of meeting performance targets. They were uncertain about their role and what was expected of them (p.134, last Para). Their response was one that inhibited any transition to more strategic role. It

also appeared that the management team regarded such behaviour by managers as typical of change blocking behaviour, without really involving them in the development of change (p.135). These aspects of findings address R.Q.s 2,7,8,9,

'Socialisation process' is another facet that emerged from this study regarding any role transition of managers towards a more strategic one (Currie and Procter, 2005). In case of the Delta Ambulance Trust, most of the managers were not newcomers to the organisation but were being asked to adjust to a new role of becoming a professional service which their previous organisational experience and socialisation might ill prepare them for. They have been doing more or less the same things over the last three-four decades by largely focussing on operational issues in a fairly command and control culture (p.132, last Para). Their response is more likely to orient themselves to the traditional role into which they have been socialised.

This study builds on existing theory to highlight that the experience of the managers in the Delta Ambulance Trust is one that is still evolving and managers are experiencing a role transition along with the associated problems of role ambiguity and role conflicts. It has also been demonstrated in this study that managerial empowerment and exclusion is not only about 'middle management' as argued in the literature (Currie, 2000; Currie and Procter, 1995; Floyd and Wooldridge, 1994, 1997). Different organisations have different managerial roles as evident in the given case (Watson, 2001). This study has also explored the cultural change process on the managers given the role they perform in the studied organisation and identify this area as understudied. It is further argued that a more meaningful analysis of the contribution made by middle management should include all the managers as they are called in different organisations. Potential of dysfunctional behaviour can be amplified when managers have little strategic input into management decisions (p.136). These aspects of findings address R.Q. 2, 6, 7 and 8.

8.1.4 Documentation of challenges and barriers to improve performance measurement in the Ambulance Service

Chapters Five and Six detailed findings from this study as to how the current model of response time targets to measure ambulance performance may not always be appropriate since it largely treats the clock and not the patients (Chapter Five) and can result in various unintended consequences (Chapter Six) and unnecessary risk to the general public, patients and ambulance staff. Several challenges and barriers were identified in this investigation and documented in the previous Chapter for developing a more responsive performance measurement system addressing R.Qs 4,10,11,12 and 12.1.

One of the major challenges identified in this study is the communication of the gains of the current targets to different stakeholders due to the relative lack of clinical evidence behind the main Ambulance Service performance target of eight minute response (Category 'A' call). The eight minute response time for emergency calls is based on research into resuscitation rates for people who have had acute heart attack. The views expressed by the clinicians (p.196) and the senior DoH professional experts (p.197-198) suggest that if the cardiac arrest patient is not treated within 2-3 minutes, they are unlikely to survive (p.197). So the eight minute then would represent the lowest chance of resuscitation for a patient and it gets no worse than that. These are significant findings which raise important questions about the performance targets currently being used in the Ambulance Service in the UK NHS. Accounts from the experts suggest that the eight minute target is a practical target based on the social needs of people and linked to the general psyche of a fast response linked to an emergency service. These set of findings address R.Qs. 2, 4, and 5 and bring new evidence to light by way of expert opinion by senior DoH professional experts.

Development of CPIs was mentioned as one of the possible clinical alternatives to response time performance targets (see section 7.2). The study did not find any

method/approach to measure performance in the ambulance service, which was universally acceptable as an alternative to the response time targets. One alternative concerned the role of CPIs but was found unfavorable by many respondents in the absence of a national strategy. The study also cited evidence from the experience of development of the CPIs in the Delta Ambulance Trust and argued that out of the six indicators being developed internally by the Trust, it only met target in one non-clinical category of completing PRF (see table 7.1, p.203). The study highlighted several challenges in the development of CPIs including lack of internal consultation with other subcultures (p. 204), operational exigencies taking precedence over clinical training and education (comments of Operational Manager, p.170) and cultural barriers (Senior Corporate Manager II, p.204). The lack of a national strategy and confusion regarding development of national CPIs is reflected in the multiplicity of organisations (JRCALC, NHS Confederation) legislating on such an important issue.

The study also brought out contradiction in the approach of the Government in addressing the issue of lack of clinical outcomes and patient care in the current performance targets captured in the opening quote of Chapter Five (p.131). Experts outlined the current strategy to incorporate aspect of clinical care along with speed in Category 'B and C' calls and how it would be implemented (p. 207-208). It however raises questions as to why quality of care is not relevant to patients who need the eight minute response and for whom the current strategy is to 'scoop and run' to the hospital A&E. These aspect of the findings address R.Qs. 2,4 and 10.

Non-transportation of patients to the hospital which are not serious or in life threatening conditions was identified by the national ambulance review (DoH, 2005a) as one of the preferred strategies to develop the clinical skills of the ambulance personnel which would also help to ease off the crowding of the hospital A&Es. Evidence from this research suggests question the assumption on part of the policy makers and presented the current clinical capabilities of the ambulance paramedics as still developing with their existing skill-sets largely geared towards trauma related emergencies (p.207). It was also shown how the clinical governance agenda in the chosen Trust was still evolving after two years of Taking Healthcare to the Patient

(DoH, 2005a) in operation (p.211) It was also documented how such a strategy is also fraught with legal risk by citing a specific case being investigated in the Delta Ambulance Trust (p.212).

It was also documented (section 7.4) as to how existing and past efforts on part of the ambulance service to fully integrate within the wider UK NHS were hindered by the confusion which still prevails within its members about the core value and mission of the service. The comments by a senior executive of the Trust in this regard (Adrenalin junkies versus district nurses, p.215) capture this dilemma. Being part of the NHS, they are seen by some in the service as an emergency health service but the nature of their job in dealing with emergencies align them more closely with the other emergency services like that of police and fire. This also has implications for the marginal role they currently play within the local health economy.

Few specific recommendations from the national Ambulance review, T*aking Healthcare to the Patient* (DoH, 2005a) were additionally identified as barriers to improved performance in ambulance trusts in England. The implications of two such recommendations- restructuring of the ambulance trusts (Chapter Four) and introduction of the new more stringent response time standards (Call to Connect, section 6.1.3) were specifically discussed with reference to their impact on the performance of the ambulance trusts and the future direction of their travel. This suggests that public policy is not always rational. Ambulance trusts were asked to merge and show performance at the same time.

The study also recorded the gains from the eight minute target for the Ambulance Trusts in terms of additional funding and increased organisational capacity (p.200). It was also documented how some of the recent events regarding movement of staff and senior executives from the wider NHS along with the new direction of travel (DoH, 2005a) was having a positive impact towards the changing perception of the Ambulance Trusts by the other NHS partners (p.221). These aspects of the findings clearly address R.Qs 11 & 12.

It was also documented in this study that response time targets have not been put up for scrutiny of review and have remained largely unchanged since 1996. The National Ambulance Review in 2005 (DoH, 2005a) re-visited the targets but only for the purpose of making them more stringent with the new 'Call to Connect' standards (section 6.1.3). As a result, the opportunity to look for alternative methods to measure performance has been missed. This investigation also brought out how the eight minute response time target is a bad 'proxy' for the organisation and does not reflect the whole dynamics of the operation of an Ambulance Trust. These findings address R.Q. 5.

It was also acknowledged by senior DoH professional experts in this investigation as to how the lack of national strategy and policy for paramedic training and education was impacting the development of a clinically led service (p.205). It was also revealed in this study that the current clinical knowledge and expertise of the paramedic staff was still evolving and would need to be addressed to gain confidence of other NHS partners, an agenda which was already being challenged in the light of increasing demand (p.206). Such evidence contradicts the key assumptions made regarding clinical preparedness of frontline staff by the Government in the national ambulance review (DOH, 2005a) to take the healthcare to the patient. These findings address R.Q.s 4, 10.

Successful working of a performance measurement system is also conditioned and mediated by the importance it has in the organisation and the extent to which it reinforces the strategy and objectives of the organisation. The evidence from this study suggests that the management of the Delta Ambulance Trust perceives the achievement of the targets as the key organisational achievement and the entire management attention and resources are geared towards this objective. Whether current measures of performance matches the organisation's culture is difficult to answer. If one considers the ambulance service as a transport service rather than an emergency healthcare organisation, a fast response as a performance measure might be more appropriate. But as a healthcare provider response time performance should also include some element of clinical intervention provided by ambulance personnel.

The interface between national and local objectives was also discussed in relation to the ambulance service on the issue of hospital closures and it was argued how the overall approach appeared to be have made an adverse impact on the performance of the ambulance service (R.Q.10). Ambulance performance targets are expected to be met continuously but dependent upon close interaction with other NHS partner organisations.

8.2 Original contribution to learning

After their reorganisation in July 2006 (DoH, 2005), NHS Ambulance Trusts across England have been undergoing a period of transition with changes to service delivery and cultural transition from a patient transport service to a professional emergency health service (DoH, 2005a). This study is a timely and topical analysis of their performance measurement system. It has also investigated the nature of culture(s) and explored the empirical relationship between organisational performance and organisational culture in the Ambulance Service. It is believed that this study has made an original contribution to learning in the following ways:

1. Carrying out empirical work that has not been undertaken before

This study is an attempt to understand organisational performance and organisational culture in a health care organisation by undertaking an empirical case study into the nature and working of the NHS Ambulance Service, a service that has been neglected in management research. It provides a very rich, in-depth, contextual knowledge of an emergency service which is relatively ignored in the management literature. Evidence from this study has emerged from seventy two detailed interviews from a good cross-section of interviews which included members of Delta Ambulance Trust drawn from all the four subcultures identified in this study along with four policy experts drawn from the DoH and the Audit Commission (see table 3.2, p.82). Being a non-clinical study, it brings a new perspective to our understanding of the emergency service. This is the first known study of its kind in the UK to have explored the organisational practices of the ambulance service through a detailed and in-depth exploration of one

newly re-structured large ambulance trust in a very important geographical region in the UK. This study has provided a detailed insight underpinned by theory, of the key performance targets in the ambulance service and the unintended consequences of current performance targets. This study has also highlighted the importance of organisational culture and how some of the culture change initiative can have their own 'side-effects'. While making no claims for generalisation, it is very likely that the findings from this investigation may be equally relevant for other Ambulance Trusts in the UK. The previous section has highlighted the gaps in the literature and also shown how this study has made contribution in addressing those gaps or building on the existing literature.

2. Makes a new synthesis not done before

This study is cross-disciplinary in focus and has explored the issues of performance measurement and existence of different subcultures in the Ambulance Service by way of a non-clinical investigation. The research questions have explored performance measurement and its management in an important emergency service in the UK, which is one of the most important themes of the NPM literature (Hood, 1991; Pollitt, 2003). The lack of agreement by commentators with respect to the benefit of performance measurement (p.14) necessitated to explore if there were any unintended consequences (Smith, 1995; Meyer and Gupta, 1994) of the current performance framework used in the Ambulance Trusts in the UK. The study of organisational culture(s) and its empirical relationship with organisational performance is also an important aspect of organisational studies literature (Schein, 1985, 1996; Scott *et al.*2003a). This is also the focus within the NHS and cultural transformation alongside structural and performance improvement is high on the Government agenda (DoH, 2000). The debates about the relevance of response time targets and the clinical evidence behind the eight minute Ambulance target underpin the prehospital emergency literature (Snooks *et al.*2002, 2004; Mason, 2007; Price, 2006). This study has made this rare synthesis by examining all the three above discussed themes dealt with in these three strands of literature into a logical and coherent set of findings. An in-depth case study approach which involved detailed interviews with a wide range of

research participants along with special access in the chosen organisation, provides a very rich, contextual empirical knowledge of the case. This approach is in conformity with the literature (Yin, 2003; Eisenhardt, 1989; Dyers and Wilkins, 1991).

The key findings which address all the four research objectives (p.7) bring new knowledge on these important theoretical questions argued in the literature. By examining the individual understandings of performance by the four subcultures in the Delta Ambulance Trust, this study has presented a rounded understanding of performance measurement in the Ambulance Service and highlighted the key concerns in its management. The study has documented for the first time, several unintended consequences of current performance measurement system used by the Ambulance Trusts in the UK (Chapter Six). Such a detailed analysis of the dysfunctional impact of Ambulance performance targets appear to be lacking in the literature. This study addresses this research gap and contributes to our understanding of these issues. This study has argued the existence of four separate subcultures in the Ambulance Service (section 4.3) and helped us understand how the basic beliefs and assumptions of the senior executives, managers, paramedics and control room staff can lead to conflict within the organisation but more importantly, how those same assumptions have contributed towards the success of the organisation.

Evidence from the research participants in the Delta Ambulance Trust has been cross-referenced with the views expressed by the four senior policy experts, currently working in senior DoH positions and in the UK Audit Commission (Chapters Six and Seven). The challenges and barriers to performance improvement for the Ambulance Trusts were also identified from different perspectives. This study provides empirical evidence of the impact of two key recommendations (Call to Connect and paramedic training and education) of the national ambulance review (DoH, 2005a) through an objective and impartial account of the working of the *Taking Healthcare to the Patient* (DoH, 2005a). These findings bring new knowledge about the working of the Government policy directives and are crucial for any future evaluation of the policy implications of the Ambulance Service performance.

3. Brings new evidence to bear on an old issue and looks at areas that people in the discipline haven't looked at before

The issue of unintended consequences of the performance framework has been dealt within the general NPM literature (section 2.5). The issue of organisational culture has also been discussed and debated at length in the organisational literature (see section 2.6). However the implications of culture(s) on the performance of the Ambulance Service have been under-researched. The case of the Ambulance Service relates well to the issues raised in the academic literature concerning the potentially misleading nature of performance measurement. There are individual pieces of work published in leading medical journals such as the BMJ or the EMJ that deal with specific clinical aspects of the ambulance service (inappropriate emergency calls, appropriateness of priority dispatch systems). But there is a clear research gap in dealing with performance related issues from a public policy and management perspective. This study meets that need and contributes to the wider body of knowledge.

4. Confirms to the requirements laid down by the University

This study makes original contribution to knowledge as discussed in the preceding paragraphs. The thesis is coherently structured and the findings are clearly presented by linking them to the research objectives evidencing a systematic study and coherent research design. It has been equally demonstrated that how the results from this investigation not only relate to the general body of knowledge but also make significant original contribution and these findings have both theoretical and practical significance. All of the key findings have been presented in major internal conferences generating considerable interest and are referenced in the bibliography demonstrating their worthiness to publications. It is thus believed that the study, presented in this thesis, does meet the requirement of the University for a Doctoral Award.

8.3 Significance of this study for different audience

The findings of this research will be significant for a number of different audiences:

1. For policy makers the findings will shed additional light on the challenges confronting target regimes and strategies that can be pursued to support performance management and culture change initiatives. It has been demonstrated in this study how the current performance measurement regime, which has a sole focus on response time targets, is a bad 'proxy' for the organisation and distorts the actual understanding of the organisational performance. It ha also been documented how the rather simplistic response time targets has a range of unintended consequences which can result in dysfunctional behaviour of the various actors. The study has also stressed the need for an objective appraisal of the current Ambulance eight minute target (Category A call) since the target was visited by the national ambulance review (DoH, 2005a) but only to make it more stringent (Call to Connect). These findings will help to address the issues identified in this study.

2. For the NHS organisation, the study's findings may serve as a guide to developing a stronger, more sustained performance culture within the organisation. This study has identified a multi-cultural organisation with four distinct subcultures within an Ambulance Trust. The assumptions of these groups on issues of performance targets and culture have a clear bearing on the organisation's performance. It also emphasises that culture needs to be taken more seriously than done before and the attitudes and beliefs of different subcultures need to be addressed for improving performance and service delivery of the organisation.

3. For the research community, the research will contribute to the body of knowledge to further our understanding of a service which has been comparatively neglected in the past. The contribution to knowledge and the gaps in the literature that have been addressed in this study are already discussed above.

8.4 Limitations of this study

In Chapter Three, limitations of the research design in respect of sample selection, response errors, observer bias and the case study approach have been presented. It is reiterated that these findings from a qualitative case study are based on the perceptions and subjective experience of the key individuals who participated in the research and are mediated by the time-frame of the study. While every attempt to adhere to good practices of qualitative research have been made, the reflexive position of the researcher and the methods of data collection and analysis have influenced the findings of the research (Burgess, 1984). In this section some limitations of this study are discussed.

1. Methodological limitations

The popular view is to discount the possibility of generalisation of findings from a case study research (Eisenhardt, 1989). The chosen case in this study is a very large NHS ambulance trust in England which displayed characteristics of four component organisations each with its own performance history, cultural and structural peculiarities. Though it can be argued that the findings from this investigation are representative of the other ambulance trusts in England, no such claims are being made. This study has focussed on a few key issues. This is not so that generalising beyond the present case is prevented but to allow a greater understanding of the complexity of the case. The paucity of research in a pre-hospital setting has been highlighted in the literature review. Detailed and in-depth case studies also offer the

opportunity to generate knowledge which is of relevance to the wider public service reform agenda. Such detailed explorations can then demonstrate how similar policies can be enacted differently in different contexts and how similar mechanisms can provide useful research when assessed in different contexts. Other limitations include

the time available in completion of this study; selection of a bigger sample and number of interviews carried out. However, it has been demonstrated in Chapters Three to Seven that the research aim and objectives have been met with the existing sample size, the time available for this study and the interviews carried out with the selected sample.

2. Measurement of organisational performance

Performance is a contested word and any attempt to analyse it will always be a conceptual and methodological challenge. Little was known at the beginning of this study about the organisational practices and culture in an ambulance service (the literature review did not provide much help much on this, see section 2.6). As a consequence, an exploratory framework of inquiry was adopted to understand, describe and evaluate the performance measurement system used in ambulance service through an in-depth case study of the Delta Ambulance Trust. The best way to understand this was to obtain a 'rounded' view by capturing the perceptions of performance by different sets of actors on the key organisational performance target of the eight minute response (Category A target). The reason for highlighting the eight minute response target in this investigation was the fact that organisational performance was synonymous with this target and many participants referred to it as the 'glue' binding the organisation together. Eight minute target was seen by the Ambulance Service and other NHS partners as a 'proxy' for Ambulance performance. This was also confirmed by the study results (Chapter Five). Hence the framework adopted for understanding the performance management was to detail the understanding of the key Ambulance target of eight minute response.

3. Measurement of organisational culture

Culture, like performance is dynamic, complex and equally contested. The complexities of different aspect of organisational culture can perhaps never be fully

captured or understood. The identification of the four occupational cultures in an Ambulance Trust was presented using a conceptual framework (Schein, 1996). No claims for theory generation have been made. But it is believed that evidence presented will sharpen thinking around the theory and feasibility of planned culture change in a health care organisation and build the empirical base of evidence linking organisational performance and organisational culture.

8.5 Recommendations for further research

Lack of clinical performance indicators as a viable alternative to the response time targets was mentioned by many participants in this investigation. The various efforts by individual ambulance trusts in the absence of a national programme have been hinted at before. This aspect is crucial due to the fact that the future progress of the Ambulance Service in England requires a clinically developed workforce required to make on the spot clinical decisions (including assessment of risks) in leaving patients behind arranging for their treatment in the community. Future research will help to address this issue. The findings from this study especially with respect to the culture-performance link; dysfunctional behaviour and unintended consequences of performance measurement and culture change initiatives are also relevant in respect of other public sector organisations. These suggestions are based on the findings and further implications of this study. Specific questions that warrant further exploration concern the following:

- The culture-performance link may be examined by undertaking cross-national studies of ambulance trusts to learn lessons from different countries. These may be thematic reviews or based on empirical evaluations.

- Understanding how different performance measurement systems work in the public sector and identifying best practice (comparative and international case studies in different socio-economic and political contexts).

- Evaluating the cost-effectiveness of the current service delivery model in the performance framework that is presently used by ambulance trusts.

- Documenting unintended and dysfunctional consequences of performance measurement and culture change across other public services.

- Investigating how managers are recruited and looking at ways to improve the strategic behaviour of middle management in different public sector settings.

- Examining distinct cultures in other public services and how these mediate, facilitate or inhibit the implementation of performance measurement systems.

- Investigating which are the most successful approaches to training and motivating a workforce in carrying out routine performance tasks.

- Investigating the factors that promote good rather than poor organisational performance for different settings (in-depth studies)

Performance measurement and management presents a number of challenges as seen in this study. They include difficulties in defining performance in a public sector organisation, problems of measuring output and difficulties in ensuring that the application of performance measurement systems and performance indicators do not produce undesirable outcomes. However such in-depth case studies provide us with a means to deal with the diversity of service and the rich dynamics between social actors which can be easily overlooked with a standardized quantitative methodology. Such an approach offers the opportunity to generate knowledge which can be of relevance to the wider public service reform agenda.

Despite all the difficulties surrounding performance measurement highlighted in this study, performance measurement will continue to be emphasised by public service organisations, Government, oversight, and audit bodies. The complexities involved in

running public services further suggest that the practice of performance measurement will continue to exhibit dysfunctional side-effects. Hence evaluation of a performance system should not only include the anticipated gains from measuring performance, but also the dysfunctional behaviour resulting out of any unintentional side-effects. Performance measurement systems are a means of assisting responsible management to make efficient and effective decisions. They cannot be taken as a mechanical substitute for good judgment, political wisdom or leadership (Jackson, 1988). This study has also attempted to sharpen thinking on the nature of organisational cultures in health care as a means of underpinning debates on whether or how such cultures influence the performance of the organisation (Davies *et al.*2000).

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Appendix 1

Case Study Protocol

Version 1 Dated- 28.9.2006

Study Title

An exploration of the relationships and tensions between management and performance measurement in an NHS Trust.

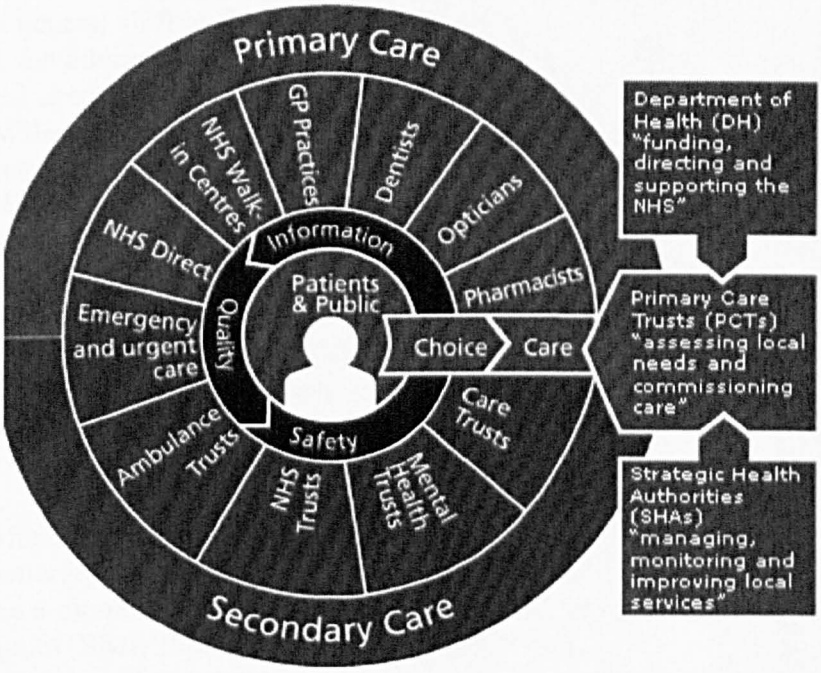
Introduction and background

New Public Management (herein after referred to as NPM) has been used as a cover term to describe and understand the administrative reform agenda in many of the Organisation for Economic Co-operation and Development (OECD) group of countries in the late 70s and 1980s (Hood, 1991; Aucoin, 1990; Politt, 1990). One remarkable feature of many NPM reforms has been the pre-occupation with organisational performance measurement despite variations within the reform movement (Carter, et al.1995; Hood, 1995; Modell, 2001; Pollitt and Bouckaert, 2000). Different opinions have been raised at both ends of the spectrum ranging from one view that "the public sector provides a leading edge on issues of performance measurement" (Lapsey and Mitchell, 1996, p.5) to that "the performance measurement systems have measured too many things and the wrong things" (Atkinson and McCrindell, 1997, p. 26). The literature suggests that there is a growing awareness that financial measures are no longer sufficient for planning and control purposes and that there is a need for the use of a multi-dimensional performance management approach to deliver the long-term objectives of the organisation and fulfill key stakeholders' interests (Pollitt, 1985, 1986; Van Peursem et al.1995; Kaplan and Norton, 1996; Aidemark, 2001).

Performance and Healthcare

Performance measurement and the pursuit of efficiency has become a central objective of policy makers within most health systems. The analysis and measurement of performance and outcomes is quite complex given the fact that there exist "conceptual challenges, multiple objectives and scope for measurement error" (Jacobs, et al.2006). The international concern was reflected in the report *The World Health Organisation 2000* which emphasised the importance as well as the difficulty in determining and measuring performance. Any health system is a complex web of accountability relationships which involve citizens, government, managers, patients, regulators and tax payers. There are tension between the doctrine of accountability to the centre and the fact of delegated responsibility to the periphery (Klein, 1989). The following diagram (Exhibit 1) illustrates the complexity of the accountability relationship in the NHS structure in England.

Exhibit 1: The NHS structure in England



Source: (NHS, 2006)

Performance framework in NHS

Defining performance measurement in a healthcare organisation is not an easy task. In a review of the determinants of organisational performance commissioned by the NHS Executive, Pettigrew et al.(NHS Executive, 1999) could not find any quality studies of the determinants of performance in Trusts and Health Authorities. Carter, et al.(1995) have argued that the performance indicator (PI) package in the NHS has addressed three main concerns which are also part of NHS history namely: concern about efficient use of NHS resources (e.g. length of stay, turnover interval, etc.); concern about value for money (e.g. breaking down cost of treatment) and concern about access to the NHS (e.g. data about admission rates, waiting lists, etc.). There is no single set of measures which can adequately identify performance.

New Labour has attempted to initiate a culture driven by performance improvement (DoH, 1997, Le Grand et al.1998). Specific long-term objectives and targets were identified within the new strategic plan (DoH, 2000). Local Health Authorities (subsequently replaced by the Strategic Health Authorities) were given the crucial role in leading their local health organisations (e.g. NHS Trusts) to deliver central government's targets. A Performance Assessment Framework (PAF) has been developed within the NHS which identifies six key dimensions (including both financial and clinical targets) according to the long-term objectives of the NHS Plan 2000 indicating a multi-dimensional performance management approach to benchmark performance (NHS Executive, 1999).

Effectiveness of performance monitoring

Despite the elaborate performance monitoring framework within the NHS and relatively long experience of public disclosure of performance data in UK, there has been little rigorous evaluation of its impact (Marshall et al.2000; Smith, 2002). There appears to be a general shift in the use of information on performance from that being primarily used for internal management control purposes to that of the use of these data for external accountability and control (Mannion and Goddard, 2000 as cited in Propper and Wilson, 2003). There is also lack of evidence of the usefulness of performance measures and ratings used widely within the public sector organisations (Propper and Wilson, 2003). The limitation of league tables has been highlighted by Goldstein and Spiegelhalter (1996) in a seminal paper presented to the Royal Statistical Society. The Audit Commission (2000) has stressed the need for developing robust performance indicators for an effective performance management system. A recent study which looked at the star ratings system and the response of the managers across 17 different NHS trusts revealed that the "star ratings system suffers from a serious lack of trust and do not drive improved performance" (Givan, 2005, p.639).

A British Medical Association (BMA) survey has found that the two thirds of accident and emergency (A& E) departments in England put in place temporary measures during a monitoring week to appear to meet the government's waiting time target of four hours (BMJ, 2003). The Public Administration Select Committee (2003) found many examples of inaccuracies in data used for targets and manipulation in response to targets across government. Bevan and Hood (2006) have also cited evidence of 'gaming' in response to targets including Ambulance Category 'A' calls. In a specific review of performance of ambulance trusts, the Commission for Health Improvement (CHI, 2002) found evidence of manipulation of data to improve the appearance of performance against key targets. The Audit Commission's last report (2004) on quality of data in 55 NHS Trusts stressed the need for reliable information. The move to transfer responsibility for auditing the quality of data in the NHS (England) from the Audit Commission to Healthcare Commission also raises a few concerns (Bevan and Hood, 2006).

Performance framework in ambulance services

Unlike other sectors (Acute Trusts, Primary Care Trusts and Specialist Trusts) within the NHS, there is little evidence of detailed research into how the ambulance service carries out its operations. They are still considered as only a patient transport service answering to 999 emergency calls. However, with an expenditure of £760 million on emergency ambulance services alone in 2003-04 and not taking into account the expenditure on ambulance trusts, their contribution is quite significant (DoH, 2005). The lack of integration of the ambulance services with the emergency care network within the NHS was highlighted in a review of ambulance services carried out by the University of Sheffield (Ambulance Service Association, 2000). A ten year strategy, *Reforming Emergency Care* (DoH, 2001) emphasises the importance of changed approach to emergency health care It is increasingly being acknowledged that ambulance trusts can make an important contribution to the performance requirements of the 4-hour performance time requirement for the Primary Care Trusts (PCTs) and the Acute Trusts (NHS Modernisation Agency, 2004). Some individual ambulance

trusts have carried out their own performance reviews (Murray and Tinston, 2005). The first national review of ambulance services in England was done recently (2004-05) when Peter Bradley CBE, National Ambulance Advisor led the first strategic national review of ambulance services in England. His report, *Taking Healthcare to the Patient: Transforming NHS Ambulance Services* (DoH, 2005a) outlines the future roadmap of the improvement of the ambulance services.

Effectiveness of the performance measurement criteria

Response time performance has been used as an indicator of ambulance service quality for many years. Standards for performance have been in place in England since 1974 after the ambulance services were integrated into the NHS. Following a review (Chapman, 1996) these standards specify that 75% of category 'A' calls should be responded to within 8 minutes and 95% within 19 minutes (Category A). A full list of the performance indicators is available on the Healthcare Commission website (www.healthcarecommission.org.uk).

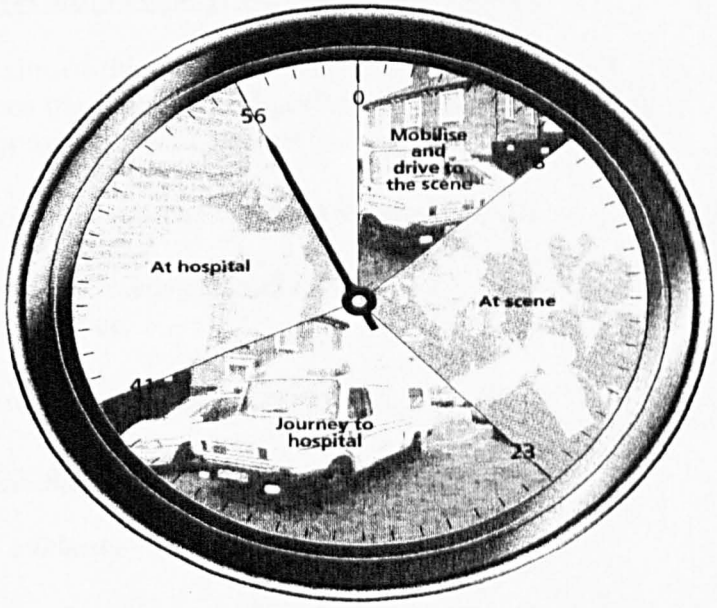
Empirical evidence tends to suggest that the primacy of response time targets in the ambulance services encourages gaming, misinterpretation and other perverse consequences and do not reflect user (patient) experience (Bevan and Hood, 2006; CHI, 2002). It will be further relevant to examine in the case study if the performance is appropriately benchmarked. For example, a patient who dies is a successful response if it is within 8 minutes but one who is saved is a failure if reached after 8 minutes. There are further issues regarding the handover of patients at the accident and emergency (A&E) departments. Often ambulance crews are seen waiting outside the A & E departments unable to respond to other calls. This could be due to the need of the A&E departments to achieve their own target that no patient should wait for more than four hours from arrival in A&E to admission, transfer or discharge (CHI, 2002). This example illustrates how the targets set for one service may work against good cooperation between different services. Ambulance services can actively contribute to improve services. For instance, with proper training and equipments, crew can take appropriate cardiac arrest patients directly to coronary care units reducing pressure on the A&E departments (Audit Commission, 1998). Targets can also be contradictory. 'Taking healthcare to the patient' suggests taking less number of people to hospitals. But reducing the attendances at the hospitals might reduce cost recovery under a system of payment that is based on the transfer to hospital. Target setting thus needs to be comprehensive and not contradictory.

The finding of a latest study (Turner at el. 2006) has further confirmed that response time targets are neither very useful indicators of quality nor a useful benchmark for comparing services. They only reflect the transport element of the service and not the care provided. The study concluded that there are no overall benefits from faster response times and "attention should be re-focussed on the clinical care provided by crews when they get to the scene rather than how fast they get there" (ibid, p. 75). This research project will take into account the views of clinicians for examining the case for targets to be also based upon clinical outcomes and the appropriateness of the information systems that report performance.

New challenges before ambulance services

The response time targets are not the only challenges faced by the ambulance service. There has been a steady rise in demand for the service nationally by around 6-7% a year which equates to an extra 250,000 responses a year (DoH, 2005a). Although the workload for any particular day or hour is roughly predicted based on the IT systems used, the exact level can never be known in advance. This requires staff to be constantly vigilant and prepared. For each patient journey performed, the ambulance crew goes through a sequence of tasks, 'the job cycle' which involves mobilising the vehicle; driving to the scène; assistance given at scene; transporting patient to hospital and time taken at the hospital (Audit Commission, 1998). The average length of the job cycle which is under an hour is illustrated in Exhibit 2.

Exhibit 2: The average job cycle in an ambulance service



Source: Audit Commission (1998, p. 27)

In its study, the Commission also found that the average time at the scene varied between different services visited by three minutes, and the time at the hospital by six minutes. It concluded that a reduction of three minutes in either component can increase productivity by 5 per cent. Performance of an ambulance service will improve if the cycle is completed more quickly and the crew become available for the next call. This will require better co-ordination with the other sectors in the NHS.

To implement any change in an ambulance service is a greater challenge than any other NHS organisation due to several reasons. Frontline staff is based on stations which are scattered over a large geographical area away from the headquarters and mostly work without direct supervision. This makes communication difficult within the ambulance service. Often there are no medical or nursing professionals. There are also cultural differences especially between the three staff groups-the crews, control room staff and the managers (Audit Commission, 1998). The different nature of work of the three groups puts different pressures on each group. Prior to the merger of ambulances services from 31 to11 (w.e.f. 1st July 2006), small size of ambulance

services was often cited as one of the reason for making it difficult to achieve economies of scale or built teams to run projects effectively. But questions have been raised that services formed from recent mergers do not on an average, perform any better than others in the 'cost and response time analysis' (Audit Commission, 1998, p. 64).

The evidence gathered will help to further our understanding of the relationship between management, performance measurement and organisational performance including their unintended consequences by gathering and analysing evidence from one case study. The chosen case study NHS Ambulance Trust is one that has recently merged, bringing together organisations with very different performance histories and challenges. Important insights will be gained into the dynamics of managing performance in this particular context.

Aims, objectives and principal outcome of the research

The principal aim of this research project is an exploration of the relationships and tensions between management and performance measurement in an NHS Trust taking a case study approach. Key objectives include:

1. Exploring how managers and staff understand and conceive performance.

2. Understanding how managers and staff cope with the conflicts and tensions inherent in performance.

3. Understanding how managers raise performance standards.

Research design and methodology

Searching for evidence

Achieving targets and improving performance are important to every organisation. However, the study of policies, institutions and human interactions are also crucial to get a larger picture. In this way, this research project is inter-disciplinary and draws from the literature, theory and methodologies from management and organisational studies, economics and health research. A comprehensive electronic search has been undertaken to look at the major empirical work on organisational performance, measurement and targets in health care organisations by examination of published work and searching various databases for related articles including the University of Liverpool/Hope electronic data sources, Department of Health data, NHS publications, British Medical Journal (BMJ), King's Fund, Medline, Cinhal and PubMed. The resulting records were assessed with the academic supervisors for their relevance to this research. Full articles which appear to have dealt with performance measurement, targets and ambulance review were retrieved and their bibliographies were also searched. In addition, discussions were also held with around ten subject specialists during four international conferences in the UK; at presentation in a health conference and through individual contacts. This makes the chief investigator reasonably confident about the project.

Choice of a case study approach

A strategy of using a single case helps to understand the case in depth and in its natural setting, recognising its complexity and its context. It also has a holistic focus, aiming to preserve and understand the wholeness and unity of the case (Bryman and Burgess, 1994; Mason, 1996; Punch, 2005). In case study research, generalisation does not depend on conventional statistical logic. Yin (1984) has held that case studies are the preferred strategy when 'how' or 'when' questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon with some real-life context. A case study method is thus the most suitable one for achieving aims and objectives of this research project. The experience of a case study will offer rich insights into complex inter-linkage between management and performance measurement and highlight the role played by senior managers and frontline staff.

A purposeful sampling strategy was used to select the newly restructured Delta Ambulance Service, NHS Trust for the case study. The trust is an amalgamation of the four ambulance trusts in England with different background characteristics and low and high performance ratings from the Healthcare Commission.

This is illustrated in Table 1 at page 8.

Table 1: Background details of the restructured Delta Ambulance Service NHS Trust

Background Characteristics	**Trust I**	**Trust II**	**Trust III**	**Trust IV**
Rural or Urban	Urban	Rural	Rural	Urban
Approx. size of the area served	550 Sq. Miles	1,100 Sq. Miles	6,824 Sq. Miles	1,150 Sq. Miles
Resident Population	2.3 Million	1.4 Million	492, 000	2.4 Million
Staff strength (2004-05)	1600	1100	400	1100
Number of calls received (2004-05)	326, 939	142,000	33,149	274,900
No. of incidents attended (2004-05)	245,921	112,183	34,879	220,000
No. of patient journeys (PTS)	763,838	245,000	229,652	621,000
Cat. 8 minutes performance 2004-05 (target 75%)	82.5 %	76.7 %	75 %	73.7 %
Performance Ratings-2004-05	3 Stars	3 Stars	1 Star	0 Stars
Performance Ratings-2003-04	3 Stars	3 Stars	2 Stars	2 Stars

Sources:

1. Annual Report (2004-05): Ambulance Trusts I-IV
2. Healthcare Commission (2005): Performance ratings for ambulance trusts

The chosen case study offers a good opportunity to examine the relationship and tensions between performance measurement and management. Given the current policy focus to turn around under performing organisations, trusts which are at the either end of the performance spectrum are more likely to provide greater contrasts in their experiences and valuable insights than a sample of middling performers. This approach is believed to represent a more efficient sampling strategy than selecting a random sample of organisations. The differences (as set out in the table) in the background characteristics and performance levels within the re-structured ambulance trust is expected to provide an interesting mix of the perceptions of the managers and staff in the case study.

Data collection methods

Qualitative data collection strategy and non-participant observation methods will be used in this research project. This includes in-depth semi-structured interviews with key managers and staff and documentary analysis. Key internal documents will include audit reports on performance and strategic plan documents (for new and erstwhile trusts).The external records which will be analysed will include Department of Health guidance and policy documents, inspection notes and NHS staff/workforce surveys. Permission will be taken from the NHS trust to attend and observe the 'performance review meetings' with the managers. This will help to develop better understanding of the various issues which have a bearing on the performance of the trust. The evidence of these sources will be combined to build a rich understanding of the tensions and the relationship between management and performance measurement in the case study.

Selection Criteria of the research participants

The study aims to access the different experiences of a range of senior managers and staff and capture their perception about issues regarding the relationships and tensions between management and performance measurement. The principal inclusion criterion of the research participants is therefore based upon their professional role within the organisation. The only exclusion criterion is the unsuitability of the professional role of the staff within the NHS organisation with the aims and objectives of the research. No discrimination will however be made on account of age, disability, gender, race and ethnic origin, religion or belief or sexual orientation of the research participants.

Informant interviews

Semi-structured in-depth interviews will be conducted with between 50 and 55 key managers and staff of the Delta Ambulance Trust, both at corporate level and those working within the three locations at Area I,II and III and will include:

- Trust Chair
- Chief Executive

- Deputy/Assistant Chief Executive
- Non-Executive trust board members
- Area Directors
- Head of Training and Development
- Director of Human Resources
- Medical Director
- Director of Finance
- Director –Information Management and Technology
- Director of Service Modernisation
- Sector Manager
- Operational Dispatcher
- Front line Paramedic

An invitation letter along with a comprehensive research information sheet will be given to each of the participant requesting permission to interview him/her. Two sets of interviews will be carried out between January 2007 and June 2008. The first set of interviews will be carried out between January 2007 and June 2007. The second will be carried out from January 2008 till June 2008. Interviews are expected to last between 60 and 75 minutes and will be carried out at the research participant's office. The first set of interviews will explore the key themes at the beginning of the research. The second will seek to explore any changes in the intervening six month period and, in particular, any changes in the performance of the Trust.

Themes covered during the interviews

The precise questions to be asked will be informed by the programme of non-participant observation and by documentary analysis. However, a number of broad themes will be of central interest to this research. These include:

- Individual understandings of organisational performance – what does good performance look like?
- Whether star ratings and targets tell an accurate/complete story?
- How do staff/managers cope with any tensions between delivering good performance and showing good performance results?
- The role of Trust management in fostering good performance – what information do they use to inform their decisions?
- What are the unintended consequences of the performance assessment framework?
- What alternative criteria might be used to measure clinical effectiveness and patient/user experience?

Since the study aims to access the different experiences of a range of senior managers and staff members and capture their perception without predetermining their viewpoint, semi-structured interviews will be used. The wording, sequence and focus of the interview will be adapted to different respondents whenever necessary keeping in mind their professional roles.

Data Analysis Strategy

All interviews will be audio taped with prior consent and will be fully transcribed prior to analysis using the qualitative method of content analysis with the aid of computer analysis packages like NVivo and/or Atlas ti. Quotes whenever used will be attributed only and as much necessary for interpretation while still protecting confidentiality. The verbatim quotes used will not link speech to specific job title unless it is absolutely necessary for interpretation. Gender of the informants will not be identified unless directly relevant to the research.

Following the initial scrutiny of the transcripts, the responses to the key themes will be discussed at a group meeting with the academic supervisors and the anonymised transcripts will be reanalysed to further explore the linkage between performance and management. This will be followed by a thematic content analysis in which emerging themes will be will be allocated codes and all statements related to each theme will be re-examined again for further sub-themes and will be shared and explored in the meetings with the supervisors. To further increase the validity of the findings of the project, the transcriptions will be cross checked against field notes and relevant internal and external documents including CHI's and the trust's own clinical governance report (adapted from Mannion et al.2005).

It is important to note that the findings of the research will be largely based on the perceptions and subjective experience of the key individuals who participate in the research. However in order to improve the validity of the findings of the research, an attempt will be made to cross reference the accounts between individuals in possible cases. To further reduce the potential for researcher bias, the analysis of the data and the development of the coding categories and themes will be discussed with the academic supervisors. While every attempt to adhere to good practices of the qualitative research will be made, the reflexive position of the researcher and the methods of data collection and analysis will have an influence over the findings of the research (Bowling, 1997; Burgess, 1984).

Being a totally non-clinical study, there is no clinical risk to the research participants. All research participants are the employees of the NHS Trust. No patients/patient records will be interviewed/examined during the research. Some inconvenience might be caused to the participants in terms of the time allocated for the interviews. However, all interviews will take place in the safe precincts of the offices of the participants to ensure full confidentiality and security. Being a student research project, it is acknowledged that there might not be any direct/personal benefit(s) to the participants. But the research will give the research participants an opportunity to express anonymously their opinion on the important issues being investigated in the study knowing that some of the ideas they express may be important in the final analysis and in the report to the Trust management team that will follow the completion of the research.

Data analysis and interpretation will be done concurrently and is likely to be completed by December 2008. The final report (PhD Thesis) is likely to be completed for submission by December 2009. It is planned to present the interim findings of the research in academic conferences to further validate the findings and invite academic scrutiny. Copies of publications and peer reviewed journal articles will also be

provided to the participants. After the completion of the research, a summary of the main issues identified in the research will be presented in a written report to the Trust Chief Executive, to be made available to the participants along with an arranged presentation.

Confidentiality of the participants/data

Looking into the exploratory nature of the research enquiry, the anonymity of the individuals and the organisation will be protected. No individuals will be named or identified. The organisation will be only identified with a pseudo name such as 'Delta Trust'. To secure further confidentiality, the years of performance ratings will not be identified. In presenting the characteristics of the four erstwhile ambulance trusts, they will be only identified as erstwhile Trusts A-D.

The analysis of the data gathered in the study will take place at the office of the Chief Investigator at Liverpool Hope University and will be undertaken under the guidance of the academic supervisors. Being a student research project, the academic supervisors will be given access to the anonymised transcribed tapes for future joint publications. Contact details of the interviewees will be stored on a single password-protected desktop computer with university firewall protection in place, in a locked private room. The contact details of the interviewees will be destroyed once the interviews have been successfully transcribed. The names of the interviewees and the transcripts will be coded by the chief investigator and will not be known to the academic supervisors. They will be identified only with a serial number. The tapes will be destroyed after the completion of study as per university guidelines. The anonymised research data from the study will be stored for ten years at the Liverpool Hope University, password and firewall protected, to be accessed by the chief investigator and/or the academic supervisors in the preparation of their reports and publications.

It is however conceivable that the study might reveal practices/instances which might not be in conformity with the NHS trust policy. In such circumstances, the Assistant Chief Executive of the trust (who has been nominated to be the first point of contact) would be alerted while still protecting the anonymity of the participants. No individual will be identified.

The research is bound by the University of Liverpool and Liverpool Hope University Research Ethics Committee standards. The procedure for handling; processing, storage and destruction of the data will be compliant with the Data Protection Act 1998 and in accordance with the University guidelines.

Significance of the research

The comparative lack of research on ambulance services was the starting point of this study. The merger of the ambulance trusts from 1st July 2006 and the different performance histories and challenges within that reorganisation in the North West of England offered a unique opportunity to examine its impact on delivery and development of services. It is expected that the triangulation of the data sources, data types and data collection methods will maximise the chances of developing a

comprehensive and integrated understanding of the various issues having the bearing on the performance of the NHS Trust chosen for study.

The findings of this research will be significant for a number of different audiences. For policy makers the findings will shed additional light on the challenges confronting target regimes and strategies that can be pursued to support performance management. For the NHS organisation, the study's findings may serve as a guide to developing stronger, more sustained performance culture within the organisation. For the research community, the research will contribute to the body of knowledge to further our understanding of a service which has been comparatively neglected by research.

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Appendix 2

NHS Research Ethics Approval letter

NHS Research Ethics Committee
England

10 November 2006

Private & Confidential
Mr P Wankhade, Postgraduate Researcher
Hope Business School
Liverpool Hope University
Hope Park
LIVERPOOL
L16 9JD

Dear Mr Wankhade

Full title of study: **An exploration of the relationships and tensions between management and performance measurement in an NHS Trust.**

REC reference number: *****

Thank you for your response to the Committee's request for further information on the above research and for submitting revised documentation. The further information has been considered on behalf of the Committee by the Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Ethical review of research sites

The Committee has designated this study as exempt from site-specific assessment (SSA). There is no requirement for other Research Ethics Committees to be informed or for site-specific assessment to be carried out at each site.

Conditions of approval

The favourable opinion is given provided that you comply with the conditions set out in the attached document. You are advised to study the conditions carefully.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Application	5.1	28 September 2006
Investigator CV	Mike Rowe	22 September 2006
Investigator CV	John Brinkman	28 September 2006
Investigator CV	Paresh Wankhade	28 September 2006
Protocol	1	28 October 2006
Letter from Sponsor		13 September 2006
Peer Review	The University of Liverpool	22 September 2006
Peer Review	Liverpool Hope University	20 September 2006
Compensation Arrangements		22 September 2006
Interview Schedules/Topic Guides	1	28 September 2006
Letter of invitation to participant	1	28 September 2006
Participant Information Sheet	2	07 November 2006
Participant Consent Form	1	28 September 2006

Research governance approval

You should arrange for the R&D department at all relevant NHS care organisations to be notified that the research will be taking place, and provide a copy of the REC application, the protocol and this letter.

All researchers and research collaborators who will be participating in the research must obtain final research governance approval before commencing any research procedures. Where a substantive contract is not held with the care organisation, it may be necessary for an honorary contract to be issued before approval for the research can be given.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

*****	**Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project

Yours sincerely

Chair Email:

Enclosure:	Standard approval conditions

Copy to:	Dr M Rowe The University of Liverpool Management School

	Chatham Street LIVERPOOL L69 7ZH Dr J Brinkman, Vice Dean Liverpool Hope University Business and Computer Sciences Hope Park LIVERPOOL L16 9JD

Appendix 3

Participant Information Sheet (PIS)

Version 2 Dated 7.11.2006

THE UNIVERSITY
of LIVERPOOL

PARTICIPANT INFORMATION SHEET

Part 1

Study Title

An exploration of the relationships and tensions between management and performance measurement in an NHS Trust

Invitation

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

- *Part 1 tells you the purpose of this study and what will happen to you if you take part.*
- *Part 2 gives you more detailed information about the conduct of the study.*

Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

This is a student research project for grant of a doctoral award (PhD) by the University of Liverpool.

The importance of performance measurement and outcomes has been growing not only in the private sector but also in the public sector, including healthcare services. Targets and performance management have been an integral part of the 'new public management', a term used to describe the public service reform programmes initiated in many of the Organisation for Economic Co-operation and Development (OECD) group of countries in the late 1970s and 1980s. There has been a growing awareness that simple financial models of performance may not be adequate to measure

effectiveness and a multi-dimensional approach to performance management might give a better perspective of an organisation's outputs and outcomes.

Despite the elaborate performance monitoring framework within the NHS, various empirical studies question the usefulness of performance measures and ratings. They cite instances of manipulation of performance data and show how performance targets can be contradictory for different providers of healthcare. However in the case of ambulance services, there has been a lack of detailed investigation and non-clinical research about the performance framework and its impact upon their operation as part of the wider health system. They are still widely seen as a patient transport service answering 999 emergency calls. Various studies have highlighted the complexities of their operations and the important role they play within the NHS. Traditionally, the ambulance services have been measured against response time targets of 8 minutes, 19 minutes and so on. However, empirical evidence suggests that this heavy emphasis on response times needs to be substituted with a broader performance framework taking into account the clinical outcomes and the care given to the patient, giving a clearer understanding of outcomes.

The overall aim of the research project is to investigate through a detailed case study, how a recently restructured Ambulance Trust manages performance. In particular, the recent merger of four distinct organisations with very different historic performance ratings raises some interesting management problems which will allow for particularly valuable insights into different understandings of performance and how to raise standards. The chosen case study NHS Ambulance Trust is one that has recently merged, bringing together organisations with very different performance histories and challenges. Important insights will be gained into the dynamics of managing performance in this particular context.

There are three key secondary research objectives in this project:

1. Exploring how managers and staff understand and conceive performance.

2. Understanding how managers and staff cope with the conflicts and tensions inherent in performance.

3. Understanding how managers raise performance standards.

Why have I been chosen?

The study aims to access the different experiences of a range of senior managers and staff and capture their perception about issues regarding the relationships and tensions between management and performance measurement. The principal inclusion criterion of the research participants is therefore based upon their professional role within the organisation and involved in the management and measurement of the overall performance of the trust.

Apart from you, other persons being invited to participate in this research project include key managers and staff of the your trust, both at corporate level and those working within the three locations and include:

- Trust chair
- Chief executive
- Deputy chief
- Non-executive trust board members
- Director of performance
- Director of human resources
- Clinical director
- Director of finance
- Director of service delivery
- Director of communications
- Director of operations
- Union representative
- Assistant managers
- Operational paramedics
- Operational dispatcher

The objectives of this research will require detailed insights into understandings of management and performance and into the practices of managers and frontline staff.

Do I have to take part?

No. It is up to you to decide whether or not to take part. If you do, you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not have any bearing on the current role you are performing in the organisation.

What will happen to me if I take part?

Your participation in this study will be by way of two semi-structured interviews. Sufficient notice will be given to arrange the interview date. Interviews are expected to last between 60 and 75 minutes and will be carried out at your office. Two interviews will be carried out with each participant. As a broad time table, the first round of interviews will be carried out between January 2007 and June 2007. The second round will be carried out between January 2008 and June 2008. The first set of interviews will explore the key themes at the beginning of the research. The second will seek to explore any changes in the intervening six month period and, in particular, any changes in the performance of the Trust. Some research participants may need to be interviewed again to cross-validate the themes.

Permission has also been taken from the NHS organisation to attend and observe the 'Performance Review Meetings' with managers (once a month) in order to develop better understanding of the various issues which have a bearing on the performance of the Trust. It will also inform the questions to be raised in semi-structured interviews with the participants. The chief investigator would be happy to withdraw from the meetings if asked to do so or if he considers that his presence is an inhibiting factor.

The confidentiality and anonymity of all participants will be protected and no individuals or the organisation will be named or identified. The organisation will be

identified as 'Delta Trust'. In presenting or comparing the characteristics of the four constituent ambulance trusts, they will only be identified as erstwhile Trusts A-D.

All interviews will be audio-taped and fully transcribed prior to analysis using the qualitative method of content analysis with the aid of computer analysis packages NVivo and/or Atlas ti with prior consent. Consent will also be obtained to use anonymous verbatim quotes in the analysis. The verbatim quotes used will not link speech to specific job title unless it is absolutely necessary for interpretation. Gender of the participants will not be identified unless directly relevant for the research. No confidential/strategic information will be used from the attendance of the 'Performance Review Meetings'.

The precise questions to be asked will be informed by the programme of non-participant observation and by documentary analysis. However, a number of broad themes will be of central interest to this research. These include:

- Individual understandings of organisational performance – what does good performance look like?
- Whether star ratings and targets tell an accurate/complete story?
- How do staff/managers cope with any tensions between delivering good performance and showing good performance results?
- The role of Trust management in fostering good performance – what information do they use to inform their decisions?
- What are the unintended consequences of the performance assessment framework?
- What alternative criteria might be used to measure clinical effectiveness and patient/user experience?

The analysis of the data gathered in the study will take place at the office of the Chief Investigator at Liverpool Hope University and will be undertaken under the guidance of the academic supervisors. Following the initial scrutiny of the transcripts, the responses to the key themes will be discussed at a group meeting with the academic supervisors and the transcripts will be reanalysed to explore further the linkage between performance measurement and management. This will be followed by a thematic content analysis in which emerging themes will be will be allocated codes and all statements related to each theme will be re-examined again. The transcriptions will be further cross-checked against field notes and relevant internal and external documents including Commission for Health Improvement (CHI) and the trust's own clinical governance reports.

What do I have to do?

The research participant's responsibilities include attendance at all scheduled interviews and giving a best possible account of the things as experienced by the participant.

What are the possible risk and benefit to me if I take part in the study?

Being a totally non-clinical study, there is no direct clinical risk to the research participants. All the research participants are employees of the NHS Trust. No

patients/patient records will be interviewed/examined. Some inconvenience might be caused to the participants in terms of the time allocated for the interviews. However, all interviews will take place in the safe precincts of the offices of the participants to ensure full confidentiality and security.

Being a student research project, it is acknowledged that there might not be any direct/personal benefit(s) to the participants. But the research will give the research participants an opportunity to express anonymously their opinion on the important issues being investigated in the study knowing that some of the ideas they express may be important in the final analysis and in the report to the Trust management team that will follow the completion of the research.

What if there is a problem?

Any complaint about the way you have been dealt with during the study or any possible harm you might suffer will be addressed. The detailed information on this is given in Part 2.

Will my taking part in the study be kept confidential?

Yes. All the information about your participation in this study will be kept confidential. The details are included in Part 2.

Contact details

Further information of the study can be obtained by contacting the research team at the following address:

Mr. Paresh Wankhade (Chief Investigator)
Postgraduate Researcher
Hope Business School
Liverpool Hope University
Hope Park
Liverpool L16 9JD
E Mail-wankhap@hope.ac.uk
Telephone-0151 291 3952; Fax-0151 291 3169

Dr. Mike Rowe (Academic Supervisor)
Lecturer in Public Sector Management,
Management School,
The University of Liverpool,
Chatham Building,
Chatham Street,
Liverpool – L69 7ZH
Telephone- 0151 795 3613; Fax No. 0151 795 3007
E-Mail- michael.rowe@liv.ac.uk

Dr. John Brinkman (Academic Supervisor)
Vice Dean

Business and Computer Sciences
Liverpool Hope University
Hope Park
Liverpool- L16 9 JD
Telephone- 0151 291 3611; Fax No. 0151 291 3169
E-Mail-brinkmj@hope.ac.uk

This completes Part 1 of the Information Sheet.

If the information in Part 1 has interested you and you are considering participation, please continue to read the additional information in Part 2 before making any decision.

Part 2

What will happen if I don't want to carry on with the study?

You are completely free to withdraw from the study and your participation is entirely voluntary. If you withdraw from the study, we will destroy the transcript of the interview(s) conducted, but we will need to use the data collected up to your withdrawal.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak with the researchers who will do their best to answer your questions.

Complaints

If you remain unhappy and wish to complain formally, you can do this through the University of Liverpool Complaints Procedure. Details can be obtained from the University website.

Harm

Being a totally non-clinical study, it can be stated that there is no clinical risk to the research participants. This is a student research sponsored by the University of Liverpool and funded by the Liverpool Hope University. The University of Liverpool does not provide cover for non-negligent harm.

With regards to any non-clinical risk to the participants, it is recognised that the research participants have busy schedules and might experience factors like stress or discomfort at some stage of their participation in this research. In such circumstances, any scheduled interviews will be deferred to a convenient time and date for the participants. In case of an on-going interview, if the participants have to attend to any other important business or have to leave the interview for some reason, the decision of the participants will be respected. The interviews will be conducted in a totally friendly and non-coercive environment. Any potential anxiety related to the nature of the questions will be suitably addressed. It will be ensured that the physical,

emotional and psychological well-being of the research participants are not affected in an adverse manner by the research.

Will my taking part in this study be kept confidential?

Contact details of the interviewees will be stored on a single password-protected desktop computer with university firewall protection in place, in a locked private room. The contact details of the interviewees will be destroyed once the interviews have been successfully transcribed. The names of the interviewees and the transcripts will be coded by the chief investigator and will not be known to the academic supervisors and will only be identified with a serial number. The tapes will be destroyed after completion of the study as per university guidelines. The anonymised research data from the study will be stored for ten years at the Liverpool Hope University, password and firewall protected, to be accessed by the chief investigator and/or the academic supervisors for future publications.

It is however conceivable that the study might reveal practices/instances which might not be in conformity with the NHS trust policy. In such circumstances, the Assistant Chief Executive of the trust (who has been nominated to be the first point of contact) would be alerted while still protecting the anonymity of the participants. No individual will be identified.

The research is bound by the University of Liverpool and Liverpool Hope University Research Ethics Committee standards. The procedure for handling; processing, storage and destruction of the data will be compliant with the Data Protection Act 1998 and in accordance with the University guidelines.

What will happen to the results of the research study?

Data analysis and interpretation will be done concurrently and is likely to be completed by December 2008. The writing of the final report, in the form of a PhD thesis, is likely to be completed for submission to the University of Liverpool by December 2009. A copy of the thesis will be available in the university library for the participants.

It is planned to present the interim findings of the research at academic conferences to further validate the findings and invite scientific scrutiny. Copies of publications and peer reviewed journal articles will also be provided to the participants. After the completion of the research, a summary of the main issues identified in the research will be presented in a written report to the Trust Chief Executive, to be made available to the participants along with an arranged presentation.

Who is organising and funding the research?

This is a student research for grant of doctoral award (PhD) and is sponsored by the University of Liverpool and fully funded by the Liverpool Hope University.

Who has reviewed the study?

This study was given a favourable ethical opinion for conduct in the NHS by the *** REC.

The participants will be given a copy of the information sheet and a signed consent form to keep.

The participants are also thanked for considering taking part in this study.

Appendix 4

THE UNIVERSITY
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CONSENT FORM

Title of Project: An exploration of the relationships and tensions between management and performance measurement in an NHS Trust

Name of Researcher: Paresh Wankhade

Please initial box

1. I confirm that I have read and understand the participant information sheet dated 07.11.2006 (Version 2) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. ☐

3. I agree to the audio-taping of the interviews and their subsequent transcription to aid analysis of the data. ☐

4. I agree that verbatim quotations from my interviews may be used anonymously. ☐

5. I understand that being a student research, relevant sections of any of the data collected during the study may also be looked at by the academic supervisors, where it is relevant to my taking part in this research. I give permission for these individuals to have access to the anonymised data for joint academic publications. ☐

6. I agree to take part in the above study. ☐

Name of Participant	Date	Signature
Name of Person taking consent (if different from researcher)	Date	Signature
Name of Researcher	Date	Signature

When completed, 1 for participant; 1 for researcher's file

Appendix 5

Interview Schedule

Participant no.	Designation of the interviewee	Date of first interview	Date of second interview
1	Deputy Chief Executive	8.1.2007	18.12.2007
2	Medical Director	10.1.2007	18.12.2007
3	Chair	10.1.2007	
4	Chief Executive	17.1.2007	3.12.2007
5	Finance Director	18.1.2007	
6	Asst. Director of Performance	18.1.2007	
7	Director of Human Resources	26.1.2007	
8	Non-Executive Director-1	26.1.2007	
9	Area Director-1	29.1.2007	21.12.2007
10	Head of Services-1	1.2.2007	21.12.2007
11	Operational Sector Manager-1	9.2.2007	
12	Director of Service Development & Modernisation	9.2.2007	
13	Director of Information Management and Technology	12.2.2007	
14	Non-Executive Director-2	21.2.2007	
15	Control Room Manager	2.3.2007	21.12.2007
16	Control Room Call Taker	2.3.2007	
17	Operational Sector Manager-2	2.3.2007	30.5.2008
18	Operational Sector Manager-3	8.3.2007	17.12.2007
19	Head of Services-2	8.3.2007	
20	Control Room Call Taker-1	15.3.2007	
21	Head of Communications-1	15.3.2007	17.12.2007
22	Area Director-2	15.3.2007	
23	Head of Governance-1	16.3.2007	17.12.2007
24	Senior Paramedic-1	16.3.2007	
25	Senior Paramedic-2	19.3.2007	
26	Head of HR-1	28.3.2007	
27	Clinical/Medical Director-1	28.3.2007	
28	Control Room Call Taker-2	25.4.2007	
29	Area Director-3	25.4.2007	10.6.2008
30	Head of services-3	25.4.2007	
31	Head of IM&T/Estates-1	25.4.2007	

32	Control Room Call Dispatcher -1	26.4.2007	
33	Senior Paramedic-2	26.4.2007	
34	Control Room Manager-2	26.4.2007	
35	Head of Training-1	2.5.2007	
36	Head of Finance-2	2.5.2007	
37	Head of IM&T-2	2.5.2007	
38	Head of Governance-2	4.5.2007	10.6.2008
39	Head of HR-2	4.5.2007	
40	Head of Estates-3	9.5.2007	
41	Business Continuity Manager-1	11.5.2007	
42	Head of Communications-2	11.5.2007	
43	Head of Governance-3	14.5.2007	
44	Non-Executive Director-3	16.5.2007	
45	Operational Station Manager	18.5.2007	
46	Clinical/Medical Director-2	21.5.2007	
47	Non-Executive Director-4	22.5.2007	
48	Asst. Director of Service Delivery Support	5.6.2007	
49	Head of Corporate Communications	5.6.2007	
50	Control Room Call Taker-3	6.6.2007	
51	Control Room Call Dispatcher -2	6.6.2007	
52	Deputy Director of Finance	15.6.2007	
53	Control Room Call Dispatcher -3	15.6.2007	
54	Asst. Director of Service Strategy & Commissioning	25.6.2007	
55	Head of Informatics	4.7.2007	
56	Senior Ambulance Trust Specialist-Audit Commission	18.12.2007	
57	Director of HR-2	18.12.2007	
58	DoH Professional Expert-1	6.3.2008	
59	DoH Professional Expert-2	26.3.2008	
60	DoH Professional Expert-3	31.3.2008	

Appendix 6

Interview Themes- Round I

- Individual understandings of organisational performance – what does good performance look like?

- Whether star ratings and targets tell an accurate/complete story?

- How do senior executives/staff/managers cope with any tensions between delivering good performance and showing good performance results?

- The role of Trust Board in fostering good performance – what information do they use to inform their decisions?

- What are the unintended consequences of the performance assessment framework?

- What alternative criteria might be used to measure clinical effectiveness and patient/user experience?

- To what extent is the restructuring of the organisation influence performance management? How to manage transition within the wider NHS?

- In your opinion, what are the major challenges and opportunities for the organisation in the next two years?

Appendix 7

Interview Themes- Round II

1. What has been the driver for 'Taking Healthcare to The Patient'?

2. Is there total synergy in between the emergency care strategy and the future direction of travel for the ambulance service? If/in what ways, the Darzi review will deal with the ambulance service?

3. How do you assess the performance of the re-organised ambulance trusts in England since their merger in July 2006? Have there been significant changes in service delivery and the measurement of ambulance service performance?

4. Do you think the management efforts into merger and 'Call Connect' has affected the pace of reforms and the merit of the proposals contained in THP?

5. Ambulance performance indicators are sometimes referred to be too simplistic and even 'crude,' having a potential of encouraging dysfunctional behaviour. What is your perception about this issue?

6. In the literature, the lack of clinical evidence in support of ambulance response time targets, especially 'Category A' target of eight minutes is increasingly being debated. Is there a case for a review of these targets? What alternate measures of performance can be used in that case?

7. Why, despite the policy attempts to remedy the lack of understanding about the ambulance service, they still remain on the periphery with little say about the ways the integration with the rest of the NHS should proceed?

8. What are the major challenges faced by ambulance trusts in your opinion to transform itself from what some people in the field refer to as a 'blue collar trade' into a professional health service?

9. What are the positive developments, namely, the ways in which the ambulance trusts establish themselves closer to the centre of the decision making networks?

10. From your own experience of working form a policy perspective, how directly interested do you think are the ministers in the ambulance service performance?

11. How do you see the future of the ambulance trusts in the next 5-10 years in terms of their performance measurement and the ways they deliver their service?

Appendix 8

Summary of Codes

1. **Organisational performance**
2. public sector performance-complexity
3. different facets of performance- operational; financial ,perception
4. elements of performance- cost, volume and quality
5. problems of definition
6. to be seen as a competent clinical performance

7. **Performance in ambulance services**
8. areas of success- response time targets
9. areas of failure-clinical audit; CPI
10. flexibility in targets
11. robust performance indicators
12. hit headline target of eight minutes
13. role of RRVs and CFRs
14. front loaded model

15. **Eight minute target**
16. clinical evidence
17. justification
18. relevance
19. consequences
20. effect
21. motivation
22. stressful
23. emphasis on time
24. clinical outcomes
25. clinical interventions
26. short-termism
27. pressure
28. pragmatic

29. **Gains of eight minute target**
30. capacity
31. investment
32. capability
33. confident

34. **Clinical Performance Indicators**
35. nature and role
36. national strategy
37. local experiment
38. perception of staff
39. consultation

40. value
41. big idea
42. current clinical training
43. education
44. operational pressure
45. multiplicity of bodies- JRCALC, DoH, ASA

46. **How staff understand performance**
47. safety of patients as a barometer of good performance
48. developing clinical performance indicators
49. public confidence in PM framework
50. responsive aspect of performance
51. benchmarking of performance
52. how to use centrally directed targets to improve clinical care
53. to develop competent clinical organisation
54. what difference is made to the patients
55. operational focus versus clinical priorities
56. linked to cultural assumptions

57. **Problem of PM in health-NHS**
58. balance between cost and quality
59. organisational structure/position to improve PM
60. stakeholders understanding of PM
61. prevalence of misinformation
62. developing patient pathways of care (ambulance service)
63. management duty to defend exception/complaints
64. role responsibility of media-urge to report exceptions
65. organisational interaction with public- staff/patient/MORI surveys

66. **Targets/star ratings effectiveness**
67. what added value/ information do they provide
68. whether true indicator of organisational status/wellbeing
69. challenges in meeting with targets and benchmarks
70. identifying stakeholder interest and common ground
71. identifying correct management practice (joined up approach)
72. public perception of ratings/performance
73. institutional mechanism to deal with public perception- PPI forums

74. **Staff handling of PM**
75. creative tension process?
76. whether organisation focuses too much on meeting targets/performance
77. need for organisational/staff development
78. role of senior executives in supporting organisational missions/vision
79. role of senior leadership in decision making- paid for handling pressure?
80. levels of understanding of organisational goals by staff-managers and frontline staff
81. role of managers- managers should manage

82. **Organisational communication and performance**
83. nature of communication channels in the organisation

84. how effective is current setup and how/if needs to be improved
85. role of informal networks
86. problems in effective communication

87. **Role of trust management**
88. organisational delegation of role/responsibility
89. levers of organisation decision making process- trust board, executive meeting , programme board, Amt. Area committee Meeting
90. transparency in DM process
91. information system and operational framework supporting DM process
92. management style- consulting or imposing or joined up
93. staff management relations- role of staff unions
94. organisational structures- whether fit for purpose?
95. leadership style
96. role of middle managers
97. role of non-exec directors
98. board governance and performance

99. **Merger and performance**
100. in what ways does it affect performance
101. whether improves strategic capacity/capability
102. provides chance to revisit delegation
103. helps to develop framework to change mindsets
104. develop strategies to focus on clinical leadership and supervision
105. improves engagement with external partners/stakeholders (commissioners)
106. takes eyes of the balls
107. builds capacity and improves capability
108. complex restructuring
109. lack of visibility of senior executives
110. delays in decision making
111. can't impact and hence doesn't matter
112. nothing changed for frontline delivery
113. take-over and power-issue

114. **Ambulance culture**
115. composite or multi-level culture
116. command and control
117. risk-averse culture
118. occupational communities-Maan and Barley
119. develop framework to enable cultural change-staff still has trade attitude
120. assumptions of different cultural groups
121. extent of identification with the new organisation
122. whether to develop new culture or identify and respect different models, geographical diversities

123. **Paramedics as separate culture**
124. evolves locally
125. team work
126. hierarchy and rules-paramedic and technician

127. foot soldiers
128. pressure to perform 24/7
129. assumptions about performance

130. **EMDC as separate culture**
131. knowledge of technology to be used
132. safety concerns
133. less reliance on humans
134. control over technology
135. non-interference
136. assumptions about performance

137. **Managers as separate culture**
138. role played in eight minute target
139. strategic versus implementation role
140. job-insecurities
141. lack of external exposure
142. boundary spanning
143. reluctant
144. link in the organisation
145. role ambiguity
146. socialisation
147. assumptions about performance

148. **Executives as separate culture**
149. priorities
150. perception towards targets
151. strategic focus
152. raising profile
153. building partnerships
154. hierarchical and task focus
155. financial survival
156. assumptions about performance

157. **Culture-performance link**
158. iterative
159. dynamic
160. eight minute target
161. symbolic behaviour

162. **Perception of external partners in wider NHS**
163. historical and cultural factors
164. contradiction- high in public perception
165. low in esteem by wider NHS
166. strong urge for change in this perception
167. Gerry Robinson experiment- public private debate
168. Changing nature of emergency care network
169. seen as an emergency service like police and fire
170. non-clinical organisation

171. more integration needed
172. adrelin junkies
173. district nurses
174. ministerial importance of ambulance service
175. changing perception- more movement of people from outside

176. **Unintended consequences of PM**
177. evidence of gaming
178. putting pressure on staff to deliver
179. paramedic training and education sacrificed over RTT
180. manage microseconds- but ambulances wait at A&E for hours (trolley wait target)
181. lack of CPI
182. clinical audit and governance
183. Call to Connect- a step backward- legal, financial, cultural implications
184. de-motivates staff
185. myopia
186. sub-optimisation
187. tunnel vision
188. misrepresentation
189. measure-fixation
190. closure of hospital A&Es-contradiction between long journeys and fast response
191. role of solo responders
192. CFRs
193. lack of strategic focus
194. pressure to perform
195. hostility
196. confusion
197. obsession
198. fear of failure
199. frustration
200. gaming
201. ratchet effect
202. threshold effect

203. **Alternate criteria to measure clinical performance**
204. work towards CPI
205. patient not in a state to recall intervention
206. NHS pathways of Care programme
207. developing different models of care- one size fits all-urban, rural remote rural
208. whether response model right
209. AMPDS-whether flawed
210. giving paramedics more underpinning knowledge
211. benchmarking-limitaions

212. **Staff development**
213. role of paramedics- how to professionalize

214. strategies- short, medium and long term
215. Role of external agencies in developing clinical education- ASA, JRLAC, Royal college
216. responsibility of trust management
217. Role of medical directors- local needs vs. national picture?
218. positive developments- away days, business cases, vision briefings
219. compartmentalisation- working in directorates

220. **Major challenges**
221. cultural change
222. sense of ownership
223. developing clinical agenda-PI, leadership, education
224. stabilising commissioner relations
225. use of improved technology-EPS
226. application of technology and its use to staff
227. develop alternatives to 999 response
228. prevent abuse of system- not a taxi service
229. clinical education and training to staff
230. convince staff about gains from merger
231. implications of call to connect
232. risk of leaving patients at the scene
233. culture management
234. paramedic training and education
235. lack of clinical governance
236. legal and political risk in leaving patients
237. lack of real alternatives to 999 calls- NHS Direct

238. **Main drivers for change**
239. taking healthcare to the patient
240. external funding and investment
241. urgent care strategy
242. foundation status