Developing organisational learning in the Ambulance Service: An evaluation of the North West Ambulance Service’s ability to learn and develop knowledge from adverse incidents to improve organisational performance.

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## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Tables and Figures</td>
<td>iv</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>v</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>vi</td>
</tr>
<tr>
<td><strong>Chapter 1. Introduction</strong></td>
<td>1</td>
</tr>
<tr>
<td>1.1 About the author</td>
<td>1</td>
</tr>
<tr>
<td>1.2 The area under investigation</td>
<td>1</td>
</tr>
<tr>
<td>1.3 National Context</td>
<td>2</td>
</tr>
<tr>
<td>1.4 Local Context</td>
<td>4</td>
</tr>
<tr>
<td>1.5 Strategic significance of the area under investigation</td>
<td>5</td>
</tr>
<tr>
<td>1.6 Research Question and Objectives</td>
<td>6</td>
</tr>
<tr>
<td><strong>Chapter 2. Literature Review &amp; Conceptual Framework</strong></td>
<td>7</td>
</tr>
<tr>
<td>2.1 History</td>
<td>7</td>
</tr>
<tr>
<td>2.2 Organisational Learning as a Social Process</td>
<td>8</td>
</tr>
<tr>
<td>2.3 Individual and Collective Learning</td>
<td>9</td>
</tr>
<tr>
<td>2.4 The Link between Organisational Learning &amp; Knowledge Management</td>
<td>10</td>
</tr>
<tr>
<td>2.5 Knowledge Management</td>
<td>10</td>
</tr>
<tr>
<td>2.6 Types of Knowledge</td>
<td>12</td>
</tr>
<tr>
<td>2.7 The use of Knowledge</td>
<td>13</td>
</tr>
<tr>
<td>2.8 Learning Organisations</td>
<td>14</td>
</tr>
<tr>
<td>2.9 Models for Organisational Learning</td>
<td>15</td>
</tr>
<tr>
<td>2.10 Knowledge Creation</td>
<td>19</td>
</tr>
</tbody>
</table>
Chapter 3. Research Methodology

3.1 Research Paradigm & Philosophy 29
3.2 Positivism 29
3.3 Social Constructionism 30
3.4 Relativist 32
3.5 Philosophical Position 33
3.6 Research Strategy 35
3.7 Research Methodology 37
3.8 Secondary Analysis 38
3.9 Self-completion Questionnaire 40
3.10 Semi-structured Interviews 42

Chapter 4. Research Findings and Analysis

4.1 Culture 50
4.2 Leadership 65
4.3 Structure 78
4.4 Human Resource Practices 89
4.5 Information Systems 98
4.6 Communities of Practice 112
4.7 Evaluation of Findings 118
LIST OF TABLES

Table 1 Definitions of knowledge management 11
Table 2 Four Modes of Knowledge Conversion 19
Table 3 The main characteristics of the Learning Organisation 22
Table 4 Contrasting implications of positivism and social constructionism 31
Table 5 Advantages and disadvantages of positivism and social constructionism approaches to research 32
Table 6 Methodological implications of different epistemologies within social science 33
Table 7 Review of research methods to demonstrate methodological triangulation 44
Table 8 Cross Mapping Matrix 46
Table 9 Implementation Plan 133

LIST OF FIGURES

Figure 1 Single and double-loop learning Argyris and Schon (1978) 15
Figure 2 The Learning Cycle (DH 2000) 18
Figure 3 Key steps in learning from adverse events (DH 2000) 25
Figure 4 Conceptual Framework for learning from adverse incidents 26
Figure 5 Three principle areas of investigation 28
Figure 6 Relationship between research objectives and the conceptual framework 38
Figures 7–59 Results 47 to 113
Figure 60 Revised Conceptual Framework for learning from adverse incidents 121
Acknowledgements

I would like to express my thanks and gratitude to my supervisor Peter Moran, for his invaluable help and guidance during this research.

I am particularly grateful to my manager Neil Barnes, for his continued support from a work perspective that has enabled me to complete this research. Greater Manchester Ambulance Service (now part of the North West Ambulance Service) are also to be thanked for funding my MBA during the past three years.

My many thanks and appreciation go to the staff who have contributed to this research through their willing participation.

Lastly, I would like to thank my wife Gill, who has been incredibly supportive and patient throughout the duration of my studies. This is dedicated to her.
Executive Summary

The role of ambulance services within the NHS is undergoing significant change following publication of *Taking Healthcare to the Patient: Transforming Ambulance Services* (DH 2005). The report sets out over seventy recommendations, which over the next five years will result in a greater emphasis on the provision of health services within the primary care setting. The North West Ambulance Service was formed in July 2006 and is the result of a merger of four Ambulance Trusts within the North West of England. It is perceived that the merger process, to form a larger Trust, will bring greater strategic capacity and improved organisational efficiency and effectiveness. The new organisation brings together different cultures, structures and ways of working including different ways for managing adverse incidents and any learning or management of knowledge thereafter. It is of strategic importance that the new organisation has the ability to capture knowledge and learn, thus improving overall organisational effectiveness. It is also important that the organisation uses this opportunity to ensure that new structures and systems support the notion of knowledge management and organisational learning.

The objectives of the study were; to investigate the organisation’s ability to recognise, and record adverse incidents, investigate development of new knowledge and learning from information within the organisation, investigate the organisation’s implementation of new learning and knowledge to improve organisational performance and to make proposals/recommendations that will improve organisational learning and knowledge management in the context of the ambulance service.
A case study design was utilised consisting of; secondary data from the 2006 NHS Staff Survey, a self-completion questionnaire and semi-structured interviews.

The organisation does not exhibit all the qualities of a learning organisation. There are effective systems to gather information in relation to adverse incidents but the transfer of the information within the organisation is often delayed and not adequately shared or used. The hierarchical structure and the lack of effective leadership within the operational environment do not support team working and learning. Despite evidence of the Trust supporting an open and fair culture there is evidence of a perceived blame culture. As a result, incident reporting is primarily driven by a culture of self preservation. There is evidence of single loop learning occurring at an individual level, although even this is significantly limited due to operational work pressures. More systematic learning and knowledge development is evident when significant incidents occur, although the inability to communicate information back to staff effectively is a limiting factor. There is also a lack of ability for staff to communicate other types of information upwards within the organisation.

Recommendations include; a full review of the operational management structure and capacity within the operational workforce, purchasing of an electronic incident reporting system, development of an Organisational Learning Strategy and Policy, a review of specific human resource policies and establishment of an Incident Review Forum.
CHAPTER 1
INTRODUCTION

1.1 About the author

The author is employed as the Clinical Governance Manager for the Greater Manchester Area by the North West Ambulance Service NHS Trust (NWAS or the ‘Trust’). The role currently functions within the Medical Directorate and includes the management of a small team (see appendix 1), reporting to the General Manager of Healthcare Governance.

The two main aspects of the role are:

- Reviewing and developing clinical services delivered by the Trust, and
- Developing methods of measuring and assuring the quality of patient care delivered.

Much of the role is involved with change management and directly influenced by national initiatives and therefore organisational priorities.

1.2 The area under investigation

The problem area to be investigated is the management of knowledge within the organisation and how this supports organisational learning. Particular emphasis will be on the management of knowledge from adverse incidents such as near misses, clinical and non-clinical incidents. Many of these are managed by different departments across the
Trust and at different levels. The outcomes and learning from these incidents often occurs at an individual level but not at a Trust-wide level.

The geographical area that the Trust serves and the ‘command and control’ management style within the operational environment are not conducive to the features of a learning organisation that is required to support organisational learning. Ambulance staff tend to work in pairs with limited opportunity to function as collective teams or to interact with other staff.

1.3 National Context

The provision of pre-hospital care by ambulance staff is one of the youngest roles within the NHS and one of the fastest developing. Nationally, ambulance services are being seen as key in redesigning the way patients access and use the NHS, and how care is delivered. The main driver for this is Taking Healthcare to the Patient: Transforming Ambulance Services (DH 2005). The vision within the report includes developing an increasing range of mobile healthcare and delivering services within primary care. This is also underpinned by recommendations to develop the workforce by redesigning the education pathways and by developing extended clinical roles such as Emergency Care Practitioners (ECPs).

The report sets out seventy recommendations which, over a period of five years, aim to create conditions whereby ambulance services are;

“Transformed from a service focusing primarily on resuscitation, trauma and acute care towards becoming a mobile health resource for the whole NHS.” (DH 2005)
In 2000, the Department of Health published *An Organisation with a Memory* (DH 2000), a report on learning from adverse events in the NHS. The report identified three key areas where the NHS falls short of being a learning organisation:

- There is too often a ‘blame’ culture.
- No account is taken of near misses.
- There is little culture of self-appraisal.

The recommendations of the report included; encouraging a reporting and questioning culture in the NHS, encouraging staff to look critically at their own actions and those of their teams and to make better use of existing sources of information on adverse events.

> “Organisational learning has been identified as a central concern for a modernised NHS. Continuing professional development has an important role to play in improving learning but there is also a need to pay more attention to collective (organisational) learning.” (Nutley and Davies 2001 p 35)

Taking Healthcare to the Patient supports this view within the context of ambulance services, with one of the key recommendations being:

> “Ambulance managers need to continue to focus on their own development as professional healthcare managers….Leadership needs to focus more fully on cross-organisational team work, building relationships and coaching and supporting staff to improve patient care.” (DH 2005 p60)
Generally, within health care organisations the rapid evolution of new techniques creates new possibilities for change of organisation, work flow and decision making. Demands for higher quality services and the evolution of a customer consumer perspective are also an influencing factor (Nikula 1999).

1.4 Local Context

The North West Ambulance Service was formed in July 2006. It is the result of a merger of four ambulance services (Cumbria, Lancashire, Greater Manchester and Mersey Regional). Despite the formal existence of the new organisation since July, the merger process is still ongoing with many of the lower structures yet to be developed or agreed. This change is also the result of *Taking Healthcare to the Patient: Transforming Ambulance Services* (DH 2005). Within the report was a recommendation that thirty one ambulance services in England were reduced to eleven and that their new boundaries should be in line with the Strategic Health Authorities (SHA). The perception is that the increase in organisational size will build strategic capacity and therefore improve organisational efficiency and effectiveness (DH 2005). The new organisation employs approximately 4500 staff, providing services across a geographically diverse area of 5,500 square miles to nearly seven million people.

Due to the size of the new organisation it has been split into three ‘areas’ (Cumbria & Lancashire, Manchester and Mersey & Cheshire). These are led by an Area Director and an Area Committee. The purpose of these is to ensure that the new organisation is locally responsive – reflecting current commissioning arrangements, local knowledge and capabilities (NWAT 2006).
The new Chief Executive has also produced a vision statement for the new Trust that refers to the development of integrated service programmes and with alternative pathways of care being developed. All of which is underpinned by a commitment to develop the workforce modernisation programme for clinical staff to ensure a highly competent and committed workforce (Burnside 2006).

While the national context suggests huge changes in the way ambulance services operate and deliver services over the next five years, the merger of four ambulance services presents a variety of complex issues in the shorter term. These include:

- Different cultures
- Different management styles and structures
- Variations in operational practice and management
- Different operating environments – rural and urban
- Variations in clinical practice and skills

It is unclear yet how many, if any, of these issues will be managed and resolved. What is clear is that they will be much more difficult to achieve than some of the areas discussed within the national context.

1.5 Strategic significance of the area under investigation

The new organisation brings together different cultures, structures and ways of working; there are different policies and procedures for managing adverse incidents and any subsequent learning or management of knowledge thereafter.
It is of strategic importance that the new organisation, as a whole, has the ability to capture this knowledge and learn from it, thus improving overall organisational effectiveness. It is also important that the organisation uses this opportunity to ensure that new structures and systems support the notion of knowledge management and organisational learning.

1.6 Research Question and Objectives

How can the organisation capture information more efficiently from adverse incidents and; how can this information be used to generate new knowledge that supports organisational learning?

Research Objectives

1. To investigate the organisation’s ability to recognise, identify and record adverse incidents.
2. To investigate development of new knowledge and learning from information within the organisation.
3. To investigate the organisation’s implementation of new learning and knowledge to improve organisational performance.
4. To make proposals/recommendations that will improve organisational learning and knowledge management in the context of the ambulance service and; propose how the model or concept could be improved as an analytical tool.
CHAPTER 2
LITERATURE REVIEW & CONCEPTUAL FRAMEWORK

- Concepts relating to organisational learning and knowledge management.

2.1 History

The concept of organisational learning being a key process in supporting change and improving organisational performance can be traced back to the 1960s, with research being undertaken by; Cyert and March (1963) Argyris (1964), Cangelosi and Dill (1965). Cyert and March’s (1963) work is considered to be the foundation of organisational learning; that organisations could learn independently of the people within it (Easterby-Smith and Lyles 2005). Argyris and Schon (1978) developed the concepts of single and double loop learning, based on the detection and correction of error and focused more on an organisation’s capability to engage in learning. Further contributions in the 1980s (Hedberg, 1981; Shrivastava, 1983; Daft and Weick, 1984 and Fiol and Lyles, 1985) helped to define the terminology and provide a greater understanding of the distinction between organisational learning and unlearning. These theories and concepts are known as the technical view (Easterby-Smith and Araujo 1999), which are based on individual learning theory and the development of mental models or ‘maps’ (Elkjaer 1999).

This view assumes that organisational learning is about the effective management of information by an organisation, helping them to adapt to the external environment (Elkjaer 2005). March (1991), Huber (1991), Epple et al(1991) and Simon (1991) all published highly influential articles (Easterby-Smith and Lyles 2005) in Organization Science that further developed this view. It was also assumed that people themselves were often obstacles to
the effective management of information and that individuals or organisations do not always behave according to rational calculations, particularly where political agendas take precedence (Easterby-Smith and Araujo 1999). Senge’s (1990) seminal book The Learning Organisation adopted a systems perspective, emphasising the need for individuals to develop; systems thinking, a desire to learn and mental models that were shaped to the organisations vision.

Throughout the 1990s organisational learning gained much wider recognition with Easterby-Smith and Araujo (1999) attributing this to two factors; scholars from a variety of backgrounds realising that the ability of organisations to learn faster or better was key to business success, and that consultants and companies realised the commercial benefits of organisational learning.

2.2 Organisational Learning as a Social Process

An alternate view that also developed during the 1990s suggested that organisational learning was a social process based on people making sense of their experiences at work (Easterby-Smith and Araujo 1999). Brown and Duguid (1991) and Orr (1990) viewed organisational learning as a form of social construction, where informal exchanges of information through social interaction (such as story-telling and narration) enabled individuals to learn and perform more effectively. Central to this view was that knowledge existed not on paper or within individuals but within a ‘community’ as a whole. Probst and Buchel (1997 p14) also define organisational learning as ‘learning by a social system that pursues the creation of social capital’. Organisational learning as a social process is also seen to overcome some of the limitations of the technical view, by recognising that no
matter how well organisations manage information, it is meaningless until people determine what it means (Easterby-Smith and Araujo 1999).

2.3 Individual and Collective Learning

‘Organisational learning’ is said to concern the processes of individual and collective learning - both within and between organisations (Prange 1999). Tsang (1997) also supports this view, adding that it is largely concerned with the academic study of the learning processes of and within organisations –understanding and reviewing what is taking place. Despite this, organisational learning remains a little-understood concept, perhaps because many of the definitions provided are quite complex, abstract and diverse. Prange (1999 p24) refers to an ‘organisational learning jungle, which is becoming progressively dense and impenetrable’. Easterby-Smith and Araujo (1999) state that this is a result of the work of a wide variety of scholars that have studied organisational learning such as; business strategists, economists and sociologists.

Fiol and Lyles (1985 p29) define learning as ‘the process of improving actions through better knowledge and understanding’. However, this definition does not emphasise that organisational learning is a collective learning process. Cyert & March (1963) state individuals are the ‘agents’ of organizational learning. Although organisational learning is accomplished by individuals, it would be a mistake to conclude that organizational learning is nothing but the cumulative result of their members’ learning (Hedberg, 1981). Wang and Ahmed (2003 p 9) also state; ‘individual learning has a significant impact on the concept and practices of organisational learning’ and that; ‘learning starts with the individual’. However, individual learning does not necessarily lead to organisational learning (Ikehara
Organisational learning should therefore be the result of individuals deliberately interacting through learning from experience (Kolb, 1984; Honey and Mumford, 1992).

### 2.4 The link between Organisational Learning & Knowledge Management

Dodgson (1993 p377) describes organisational learning as ‘the way firms build, supplement, and organize knowledge and routines around their activities and within their cultures and adapt and develop organizational efficiency by improving the broad skills of their workforces’. This definition is more reflective of the processes involved, with a greater emphasis on collective knowledge acquisition and the value of the workforce. It also recognises that culture has an important part to play in learning and establishes a clear link with improving organisational performance. This is reinforced by Huber (1991) who claims the processes by which knowledge is acquired, shared, commonly understood, and stored contribute to organisational learning. Lyles (1988) also refers to organisational learning as the changes in the state of knowledge.

### 2.5 Knowledge Management

The concept of knowledge management is viewed as a more recent development in management (Easterby-Smith and Lyles 2005 and Davenport and Prusak 2000). However, Hansen et al (1999) contends organisations have always used knowledge management, just not in a deliberate or systematic way. During the 1990s knowledge management became popularised through the publication of Nonaka and Takeuchi’s (1995) “The Knowledge Creating Company” and the development of information technology and the internet -
provide sophisticated knowledge management tools (Vera and Grossan 2005). Despite its popularity there is still a degree of confusion when trying to define knowledge management. (Cong and Pandya, 2003; Vera and Grossan, 2005). A summary of knowledge management definitions is provided in table 1 below.

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<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Van der Spek and Spijkervet (1997 p43)</td>
<td>The explicit control and management of knowledge within an organization aimed at achieving the company's objectives.</td>
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<td>O’Leary (1998 p34)</td>
<td>The formal management of knowledge for facilitating creation, access, and reuse of knowledge, typically using advanced technology.</td>
</tr>
<tr>
<td>Liebowitz and Wilcox (1997 pl)</td>
<td>The ability of organizations to manage, store, value and distribute knowledge.</td>
</tr>
<tr>
<td>Cong and Pandya (2003 p27)</td>
<td>An ability of an organisation to use its collective knowledge through a process of knowledge generation, sharing and exploitation enabled by technology to achieve its objectives.</td>
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Scarborough and Swan (2005) identify three themes within knowledge management literature; performance improvement, capturing and managing knowledge as a strategic resource, and the processing and storage of knowledge. Vera and Grossan (2005) summarise knowledge management as ‘managed learning’, with an assumption that it will have a positive impact on performance. Knowledge management concepts and theories are prescriptive in terms of what organisations should do to manage knowledge (Vera and Grossan 2005) and follow a similar technical view of organisational learning (Easterby-Smith and Lyles 2005). Conversely, organisational knowledge is viewed as a resource that provides competitive advantage and the study of it is concerned with the processes of how knowledge is created, developed, shared and transferred (Argote and Ingram, 2000; Nonaka and Takeuchi, 1995; Pisano, 1994; Szulanski, 1996). Organisational knowledge is stored partly in individuals in the form of skills, experience and personal capability, and partly into the organisation, in the form of rules, regulations and standards (Weick and Roberts 1993).
2.6 Types of Knowledge

Knowledge can be classed as two types; tacit knowledge and explicit knowledge (Polyani 1966). Tacit knowledge is the knowledge that people have in their minds, which is personal and difficult to formalise or share with others. It also provides context for people and is made up of cognitive and technical aspects (Nonaka and Takeuchi 1995). The cognitive aspect consists of what Johnson-Laird (1983) calls ‘mental models’ that people develop of the world and their experiences – an individual’s images of reality and visions for the future (Nonaka and Takeuchi 1995). The technical aspect is concerned with the specific skills and crafts that have been developed (Nonaka and Takeuchi 1995). Explicit knowledge is more formal and systematic, which can be communicated easily. This type of knowledge tends to be more objective and specific, relating to past events (Nonaka and Takeuchi 1995).

Hansen et al (1999) propose similar classifications of knowledge when discussing strategies for its management: a codification strategy and a personalisation approach. Codification strategies tend to be computer centred; knowledge (explicit) is codified and stored in databases and then accessed and used by authorised personnel. In a personalisation approach the knowledge (tacit) is more closely linked with individuals and the sharing of knowledge through person to person communication. Whether strategies of codification or personalisation are used, or a mix of both, depends on a variety of factors (Hansen et al 1999).

However, Cook and Brown (1999) contend that tacit and explicit knowledge are not sufficient to fully understand the concept of knowledge. They suggest that the notion of knowing should be added to reflect what somebody actually knows. While tacit and explicit knowledge is possessed by people, knowing is about ‘practice’ and interacting with the social and physical world. Knowledge is mostly concerned with cognitive functions such as skills and facts (know what), while knowing is more concerned with behavioural –
knowledge as action (know how) (Vera and Grossan 2005). This additional aspect to knowledge is useful since it places more emphasis on people actually putting knowledge into practice rather than just its creation, storage and transfer. Brown and Duguid (1998) also believe that the core competency of organisations requires the knowing (know how) to put knowledge (know what) into practice. Cook and Brown (1999) also put the elements of knowledge and knowing into a learning context by suggesting they are the content of learning processes; that learning is a change in knowledge and knowing, resulting in changes to people’s cognition and behaviour.

2.7 The use of Knowledge

A more important consideration of organisational learning is how the knowledge is then used. Nutley and Davis (2001 p36) suggest ‘the management of past and present knowledge is an important part of organisational learning’. Organisational learning is also concerned with the building and adaptation of knowledge (Stonehouse and Pemberton 1999), with one of the most important roles being to confirm that individual learning leads to organisational knowledge (Pemberton and Stonehouse 2000). Nonaka and Takeuchi’s (1995) knowledge creation model provides an understanding of the impact of organisational learning on knowledge management, explaining the process of knowledge transfer between individual, group, organisational and inter-organisational levels. However, Wang and Ahmed (2003 p 12) state, ‘part of knowledge between an organisation and individuals is complementary and part of it incongruent to each other’s belief systems’. Alder et al (1999) suggest it is management’s role to create a learning environment that supports the interaction of the organisation and individuals to share and build knowledge. This requires organisations to have systems or processes in place to use the acquired knowledge to change or develop. ‘Organisations that deliberately seek to develop
organisational learning are often referred to as learning organisations’ (Nutley and Davies 2001 p.36). Dodgson (1993 p.14) defines a learning organisation as; ‘One which purposefully constructs structures and strategies so as to maximise organizational learning’. The concept of learning organisations is also seen as key to organisations being able to cope with continuous change (Dixon 1994), and becoming more adaptable and responsive to change (Peters and Waterman, 1982; Kanter, 1989; Senge, 1990). This is particularly relevant within the healthcare sector. Ranade (1997) states that managing in and for uncertainty will remain a reality in the health service, which will require enhanced capacity for social learning.

2.8 Learning Organisations

According to Senge, a learning organisation is one in which people continually expand their capacity to create the results they truly desire and learn how to learn and perform well together (1990). This definition is highly dependant on the culture within an organisation and individuals being motivated to learn. Garvin (1993 p.80) defines a learning organisation as one that creates, acquires and transfers knowledge and modifies its behaviour to reflect new knowledge and insights. This definition is more closely linked to Dodgson’s (1993) view of organisational learning.

From this discussion it can be summarised that:

- Organisational learning and knowledge management are clearly linked.
- The process of learning is linked to the knowledge creation process.
- Knowing is a key consideration for ensuring knowledge is put into action.
- For organisational learning to occur the organisation needs to develop structures and systems that encourage individual learning but also support the social learning process and therefore the subsequent creation, sharing and capturing of knowledge.
- The organisation needs to have systems in place to store and use acquired knowledge as a core competency, so that it supports its adaptation, change and development.

### 2.9 Models for Learning Organisations

Argyris and Schon (1978) provide a model for learning organisations, based on single and double loop learning. Senge (1990) refers to these as ‘learning routines’. Senge (1990) also suggests that the types of learning routines used by organisations can be distinguished as adaptive and generative learning. Figure 1 illustrates these:

![Diagram of Single and Double Loop Learning](image)

**Single-loop Learning**

1. Step 1 = the process of sensing, scanning, and monitoring the environment
2. Step 2 = the comparison of this information against operating norms
3. Step 2a = the process of questioning whether operating norms are appropriate
4. Step 3 = the process of initiating appropriate action

**Double-loop Learning**

1. Step 1 = the process of sensing, scanning, and monitoring the environment
2. Step 2 = the comparison of this information against operating norms
3. Step 2a = the process of questioning whether operating norms are appropriate
4. Step 3 = the process of initiating appropriate action

Figure 1. Single and double-loop learning Argyris and Schon (1978)
Source: Morgan (1997)

Single-loop (adaptive) learning refers to the ability to detect and correct errors in relation to pre-set norms or standards. The norms or standards could be derived from organisational
policy, standards or objectives. According to Dodgson (1993), adaptive learning can add to an organisation’s knowledge base or routines without altering the fundamental nature of the organisation’s activities. It involves incremental change, narrowing the gap between desired and actual conditions. Single-loop learning is the most prevalent form of learning in organisations (Iles and Sutherland 2001). Senge (1990) refers to this type of learning as ‘coping’.

Double-loop (generative) learning refers not only to the ability to detect and correct errors, but also to question the norms or standards. Dodgson (1993) states that this type of learning can change an organisation’s knowledge base, its routines or activities. This type of learning can lead to transformational change (Iles and Sutherland 2001).

Both single and double-loop learning however, could be considered as focussing too heavily on problem based learning, developing a reactive learning culture that may not be proactive. The models assume, and are dependant on, organisations having an open and blame free culture where individuals feel confident to report errors or question the norms. It has already been established that many NHS organisations do not have a culture that encourages the reporting of incidents (DH 2000). The models do not reflect the complexity of larger organisations and make the assumption that individual processes within an organisation can be mapped against these.

There is also the issue of who or what controls the process and at what levels these types of learning should occur in an organisation. The objective of double-loop learning is to challenge the norms and question ‘why’. If not managed or controlled effectively this type of learning could lead to disharmony and disorganisation, resulting in failure to achieve organisational goals. As discussed earlier, a key part of organisational learning is an
improvement in organisational performance or efficiency. Therefore double-loop learning would need to occur within defined parameters, which may change according to levels within an organisation.

There is also an assumption that organisations should aspire to move from single to double-loop learning. This is perhaps not entirely true in the real world since there are probably many core, routine tasks or functions within organisations that rely on single-loop learning to ensure they are completed as efficiently as possible. It could also be argued that single-loop learning is required to embed the results of double-loop learning, providing periods of stability to develop new routines and un-learn old routines. There is probably a careful balance to be achieved in relation to the two levels of learning, ensuring that the organisation does not become ‘disorganised’, while all individuals are able and willing to contribute and are not resistant to change.

A fundamental weakness in this model is its focus on individual learning. There is no explanation offered as to how individual learning is linked or leads to organisational learning. Many organisational learning theories or models are focused on the activities of individuals of organisations, which leads to ‘individual action bias’ (Huysman 1999). These tend to overlook the role played by structural conditions, institutional forces, history, cultures and organisational norms and values.

Another concept is that of organisational learning being a continuous process (Easterby-Smith and Araujo 1999). The DH (2000) adapted a model used by British Petroleum in relation to knowledge management (see figure 2).
The process is intended to be used, in relation to adverse incidents, either before, during or after the event. The first half of the cycle is concerned with monitoring and developing solutions or learning opportunities, while the second half focuses on putting the learning into practice. This is similar to Dixon’s (1994) model that includes four stages; the generation of information about internal and external performance, a sustained effort to integrate the information into the organisational context, a collective attempt to interpret information through improved interaction and reduced hierarchy, and encouragement for individuals and groups to take appropriate action on the basis of the shared understanding of the problems to be addressed. However, the DH model differs in that it seems to be a closed system that focuses primarily on service delivery. It does not show how new information or knowledge is captured from external sources or even from internal sources such as staff feedback or suggestions. The cycle also suggests that change may only come about as a result of potential or actual risks. The term ‘monitor service delivery’ could also be perceived as a term that is exclusive to management. The learning element of the cycle does recognise the need for individuals and organisations to understand the experiences for true learning to occur. Similar to Argyris and Schon’s (1978) concept there is probably a tendency to be more reactive, focusing on the ‘here and now’ rather than monitoring for
wider environmental changes. The model is also uni-directional and similar to their single loop model; suffering from similar limitations. There is little acknowledgement of the social processes involved in developing tacit knowledge. Similarly the cycle does not reflect the complexities of change, with particular focus on making changes to explicit knowledge such as policy and practice.

2.10 Knowledge Creation

Nonaka and Takeuchi (1995) propose a model based on the theory of knowledge creation. Their view is that organisational learning occurs from a process in which individual (tacit) knowledge is transferred and shared upwardly to an organisational level. The model is made up of four different modes of knowledge conversion that create a spiral effect, converting from tacit to explicit to tacit knowledge (see table 2 below). The process is a ‘continuous and dynamic interaction between tacit and explicit knowledge’ (Nonaka and Takeuchi 1995 p 70).

Table 2: Four Modes of Knowledge Conversion (adapted from Nonaka and Takeuchi 1995)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Knowledge Conversion</th>
<th>Content of knowledge created</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socialisation</td>
<td>Tacit to tacit knowledge</td>
<td>Sympathized learning</td>
</tr>
<tr>
<td></td>
<td>Knowledge is transferred through interactions between individuals, which may be in an informal manner. Mental models or actual skill may be shared, even without the use of language.</td>
<td></td>
</tr>
<tr>
<td>Externalisation</td>
<td>Tacit knowledge to explicit knowledge</td>
<td>Conceptual knowledge</td>
</tr>
<tr>
<td></td>
<td>Tacit knowledge is communicated as ‘explicit concepts’ (Nonaka and Takeuchi 1995 p 64). This may be in the form of writing or language, often using metaphors (p64).</td>
<td></td>
</tr>
<tr>
<td>Combination</td>
<td>Explicit to explicit knowledge</td>
<td>Systemic knowledge</td>
</tr>
<tr>
<td></td>
<td>The concepts or models are developed through interaction with other colleagues or individuals. Knowledge is shared, discussed and then combined to from new knowledge. This may be done through conversations, meetings, emails or networks.</td>
<td></td>
</tr>
<tr>
<td>Internalisation</td>
<td>Explicit knowledge to tacit knowledge</td>
<td>Operational knowledge</td>
</tr>
<tr>
<td></td>
<td>The newly developed explicit knowledge is converted back to tacit knowledge with the individual. This referred to as ‘learning by doing’ (p69). This process is facilitated by the documenting of explicit knowledge in the form of manuals, procedures or diagrams. Documents help individuals internalise knowledge and also the transfer of knowledge (p69).</td>
<td></td>
</tr>
</tbody>
</table>
The exchange and development of knowledge that describes the knowledge creation process is initiated and dependant on individual employees. There is an assumption that employees will be committed to knowledge creation and therefore learning. Nonaka and Takeuchi (1995 p72) suggest that the organisation has to mobilise and enlarge the tacit knowledge, through; ‘expanding communities of interaction that cross sectional, departmental, divisional and organizational boundaries’. The use of information technology can support and facilitate this process. There is a risk however, that in larger organisations, the enlarging process may lead to ‘distortion’ or ‘dilution’ of the original concept. Leadership within an organisation also needs to support the sharing of knowledge and manage the knowledge creation process (Nonaka and Takeuchi 1995), with organisation structure and culture seen as key components for knowledge management success (Santoro and Gopalakrishnan 2000).

The model provides a clear narrative on how knowledge can be developed but is highly dependant on organisational structures and culture – particularly the motivation of individuals. In 2000, the Department of Health published An Organisation with a Memory, which was a report on learning from adverse events in the NHS. The report identified three key areas where the NHS falls short of being a learning organisation; there is too often a ‘blame’ culture, no account is taken of near misses and there is little culture of self-appraisal. Li and Gao (2003) also question the transferability of the model since most of the most of the case studies are based on assembly line production in Japanese manufacturing companies. Clearly these areas of concern present a challenge to the application of Nonaka and Takeuchi’s concept within the healthcare organisation, with further work needed to identify ways of resolving these issues.
2.11 Learning Organisations

Senge (1990) proposes five disciplines that organisations need to practice to facilitate organisational learning, and become learning organisations. These are; mental models, personal mastery, shared vision, systems thinking and team learning. Huber (1991) identified four constructs related to organisational learning: knowledge acquisition, information distribution, information interpretation and organisational memory. He proposed that organisational learning is influenced by the processes through which knowledge is acquired, shared, commonly understood, and stored for future use. In addition Wenger and Snyder (2000) and Brown and Dugdid (1991) emphasise the importance of informal communities of practice and the unified view of work and learning. Many of these constructs however, are still very conceptual and do not provide a great deal of practical guidance on the actual ‘doing’ process of transforming an organisation to a learning one. Senge’s five disciplines are based on the assumption that individuals want to develop and contribute to these collectively. Senge’s ‘whole systems’ approach, which is based on seeing wholes and not parts also seems to contradict the notion of organisational learning being based on individual learning. Garvin (1993) is perhaps more insightful, stating that learning organisations are not built overnight. Most successful examples are the products of carefully cultivated attitudes, commitments and management processes that have accrued slowly and steadily over time. He states that the first step is to foster an environment that is conducive to learning.

Iles and Sutherland (2001) completed a review of literature on learning organisations and identified five key characteristics that were ‘more concrete’ in terms of how organisations should be designed and managed to promote effective learning. These are shown in table 3.
Table 3: The main characteristics of the Learning Organisation (Iles and Sutherland 2001)

| Structure | Learning Organisations have flat managerial hierarchies that enhance opportunities for employee involvement in the organisation. Members are empowered to make relevant decisions. Such structures support teamwork, strong lateral relations, and networking across organisational boundaries both internal and external (e.g. project teams). These features promote systems thinking, information sharing and openness to information necessary for organisational learning. Temporary forms are favoured as they cater for current needs but can be shaped through experimentation to respond to future changes. |
| Information Systems | Learning Organisations require information beyond that used in traditional organisations where information is generally used for control purposes (single-loop learning). Transformational change requires more sophisticated information systems that facilitate rapid acquisition, processing and sharing of rich, complex information that enables effective knowledge management. |
| Human Resource practices | People are recognised as the creators and users of organisational learning. Accordingly, human resource management focuses on provision and support of individual learning. Appraisal and reward systems are concerned to measure long-term performance and to promote the acquisition and sharing of new skills and knowledge. |
| Organisational culture | Learning Organisations have strong cultures that promote openness, creativity and experimentation among members. They encourage members to acquire process and share information, to nurture innovation and provide the freedom to try new things, to risk failure and to learn from mistakes. |
| Leadership | Like most interventions aimed at securing significant organisational change, organisational learning depends heavily on effective leadership. Leaders model the openness, risk taking and reflection necessary for learning and communicate a compelling vision of the Learning Organisation, providing empathy, support and personal advocacy needed to lead others towards it. |

These characteristics are much more tangible and provide clearer ‘next steps’ for organisations to follow. The five characteristics still underpin the main concepts of other theories but are more explicit. It provides an explanation as to some of the features that support systems thinking and refers to rewards systems that may act as an incentive for individuals to learn and actively contribute to the organisation. There is also an emphasis on effective leadership being a key factor, leading by example. Risk taking is also acknowledged as part of learning, which is a key part of the double-loop learning process – when trying something different.

2.12 Communities of Practice

One of the key themes that have developed from this literature review is that organisational learning is highly dependant on the sharing and development of knowledge through social processes. Collective learning and systems thinking have also been identified as critical
success factors. However, none of the models have provided a definitive solution as to how these are achieved. The term ‘communities of practice’ was developed by Lave and Wenger (1991) in relation to their work on situated learning. Wenger (1996) states learning is most effective when it is part of a social process and that the transfer of knowledge should not be isolated from practice, but combined within the context that it exists (Lave and Wenger 1991). This view is based upon the principle of social learning theory, where individuals learn from social interaction within an organisation and knowledge is socially constructed (Elkjaer 2005). The social interaction provides individuals with the opportunity to share their mental models and put meaning to them (Elkjaer 2005). Social learning theory also supports the change of knowledge to becoming the active process of knowing (Elkjaer 2005). Communities of practice can be described as “groups of people…with shared expertise…who share knowledge in free-flowing, creative ways that foster new approaches to problems.” (Wenger and Snyder 2000 p3). Hildreth and Kimble (2004) also identify these as groups where such types of knowledge are nurtured, shared and sustained.

The principle of communities of practice can therefore be viewed as an effective method of:

- Developing the skill of putting knowledge in practice, which Brown and Duguid (1998) refers to as a core competency for learning organisations.


- Supporting the interaction of the individual and organisation to share and build knowledge, thinking collectively.

Communities of practice, however, present a paradox for learning organisations since they are essentially informal, self-organising groups of people. As discussed, learning
organisations purposely construct structures and strategies to maximise learning (Dodgson 1993 p14). However, Wenger and Snyder (2000 p10-11) suggest that communities of practice can be ‘cultivated’ by management using three steps:

1. Identifying potential communities of practice that will enhance the organisation’s strategic capabilities.
2. Provide an infrastructure and resources to support the communities.
3. Use non-traditional methods to evaluate the value of the communities – such as collecting anecdotal evidence in a systemic way.

Communities of practice are also recognised as being effective within public sector organisations and that they assist with the sharing of tacit knowledge (Cong and Pandya 2003). Elkjaer (2005) also suggests that communities of practice can be enhanced by considering Dewey’s (1966) concepts of inquiry, reflection and experience to help bind the concepts of epistemology (how humans become knowledgeable) and ontology (how humans become humans) together.

2.13 Development of a Conceptual Framework

The Department of Health’s (2000 p80) ‘key steps in learning from adverse events’ (see figure 3) will be used as the basis for developing a conceptual framework that will support the investigation of organisation’s effectiveness at learning from adverse incidents. These are recognised as crucial steps for the whole process to work effectively (DH 2000).
The use of these key steps will assist in providing some context to the identified concepts or models and help represent their relationship and purpose within the framework.

The conceptual framework (see figure 4) will be developed using Iles and Sutherland’s 5 characteristics (2001); combined with communities of practice to demonstrate how the key steps in figure 2 can be supported and achieved. Nonaka and Takeuchi’s (1995) four stages of knowledge development will also be incorporated to help represent the relationship between organisational learning and the knowledge creation/management process. The key steps ‘standardised reporting’ and ‘database maintenance’ have been combined in the conceptual framework to ensure alignment with Iles and Sutherland’s characteristics of an information system.
The conceptual framework demonstrates that:

1. Culture is considered as an overarching factor for all aspects of the model.

2. Structure and leadership are integral to the success of every level by; integrating different departments, supporting team working and also communication.
3. Human resource systems and leadership at local level should support the development of an open and fair culture and the vision of a learning organisation (socialising tacit knowledge) and to champion communities of practice.

4. The information systems would support the reporting, collection and codification of information (externalisation of knowledge). The information systems would also support the provision of information to communities of practice.

5. The communities of practice would help the social development of knowledge and support the development of systemic knowledge (combination).

6. Human resource systems and leadership would support the outcomes of the communities of practice by developing operational knowledge through the development of procedures and policy and the subsequent process of internalisation (learning to do). The underpinning information systems would also support by assisting with the storage and transfer of knowledge.

The pyramid shape helps represent the ‘funnelling’ effect of collecting information and its subsequent refinement as it moves through the framework to become, in theory, highly developed knowledge.
Figure 5 highlights the three principle areas of investigation that the research will focus on as per the objectives set.

Chapter three will consider the different approaches to research and identify the most suitable methods to investigate the organisation’s effectiveness against the developed conceptual framework in figure 4.
CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research Paradigm & Philosophy

The purpose of this chapter is to discuss and understand the philosophical positions and issues associated with research and to ensure that the research design is appropriate to the topic in question with satisfactory outcomes.

Easterby-Smith et al (2004 p27) suggest three reasons why an understanding of philosophy in relation to research is beneficial:

- It can help clarify research designs, providing good answers to the basic questions being investigated.
- It can help the researcher to know what research designs will work and not work.
- It can help identify and create/adapt research designs to more specifically meet the constraints of the research area.

There are two contrasting philosophical views in relation to social science research; positivism and social constructionism.

3.2 Positivism

Positivism is an epistemological position that supports the use of scientific methods to study social reality in an objective manner (Bryman 2001). Positivism assumes that the
social world (reality) exists externally, is objective and should therefore be measured through objective methods. Bryman (2001) describes this ontological assumption as social phenomena and their meanings having an existence that is independent of social actors. 

Smith (1998) provides a useful insight into positivist thinking within social sciences by stating “Positivist approaches to the social sciences . . . assume things can be studied as hard facts and the relationship between these facts can be established as scientific laws.” There is also an assumption that knowledge can only be of any value if based on observed facts (Easterby-Smith et al 2004).

However, people can be subject to many influences on behaviour, feelings, perceptions, and attitudes that positivists would reject as irrelevant (Crossan 2003). Critics of the positivist approach also argue that it generates useful but limited data that only provide a superficial view of the phenomenon it investigates (Bond 1993, Moccia 1988, Payle 1995). The elements of positivist philosophy have a number of implications for social research. These are summarised in table 4.

3.3 Social Constructionism

A different and opposing view that has developed during the past half century (as a result of applying positivism to social sciences) is that reality is socially constructed and given meaning by individuals. Social constructionism focuses on how people make sense of the world through sharing of their experiences with others (Easterby-Smith et al 2004). This view recognises the relationship between individual behaviour, attitudes, external structures and socio-cultural issues (Crossan 2003). Proctor (1998) also suggests that among the various factors that influence reality construction, culture, gender and cultural beliefs are the most significant. The focus of research should therefore relate to what people are
thinking and feeling, with attention paid to the ways that they communicate with each other, verbally and non-verbally. The principle aim should be to understand and explain why people have different experiences rather than search for external causes to explain behaviour (Easterby-Smith et al 2004). The implications of this view are summarised in table 4.

Table 4 also helps highlight the contrasting views of the two research philosophies discussed.

Table 4: Contrasting implications of positivism and social constructionism (Easterby-Smith et al 2004 p30)

<table>
<thead>
<tr>
<th></th>
<th>Positivism</th>
<th>Social Constructionism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The observer</strong></td>
<td>Must be independent</td>
<td>Is part of what is being observed</td>
</tr>
<tr>
<td><strong>Human interests</strong></td>
<td>Should be irrelevant</td>
<td>Are main drivers of science</td>
</tr>
<tr>
<td><strong>Explanations</strong></td>
<td>Must demonstrate causality</td>
<td>Aim to increase general understanding of situation</td>
</tr>
<tr>
<td><strong>Research progresses through</strong></td>
<td>Hypotheses and deductions</td>
<td>Gathering rich data from which ideas are induced</td>
</tr>
<tr>
<td><strong>Concepts</strong></td>
<td>Need to be operationalised so that they can be measured</td>
<td>Should incorporate stakeholder perspectives</td>
</tr>
<tr>
<td><strong>Units of analysis</strong></td>
<td>Should be reduced to simplest terms</td>
<td>May include the complexity of ‘whole’ situations</td>
</tr>
<tr>
<td><strong>Generalisation through</strong></td>
<td>Statistical probability</td>
<td>Theoretical abstraction</td>
</tr>
<tr>
<td><strong>Sampling requires</strong></td>
<td>Large numbers selected at random</td>
<td>Small numbers of cases chosen for specific reasons</td>
</tr>
</tbody>
</table>

A number of advantages and disadvantages relating to these different approaches to research are summarised in table 5.
### Table 5: Advantages and disadvantages of positivism and social constructionism approaches to research
(adapted from Saunders et al 2000)

<table>
<thead>
<tr>
<th></th>
<th><strong>Positivism</strong></th>
<th><strong>Social Constructionism</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advantages</strong></td>
<td>1. Economical collection of large amounts of data.</td>
<td>1. Facilitates understanding of how and why.</td>
</tr>
<tr>
<td></td>
<td>2. Clear theoretical focus for the research from the outset.</td>
<td>2. Enables researcher to be alive to changes, which occur during the research process.</td>
</tr>
<tr>
<td></td>
<td>3. Greater opportunity for researcher to retain control of the research process.</td>
<td>3. Good at understanding social processes.</td>
</tr>
<tr>
<td></td>
<td>4. Easily comparable data.</td>
<td>4. Data collection can be time consuming.</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
<td>1. Inflexible, direction often cannot be changed once data collection has begun.</td>
<td>2. Data analysis is difficult.</td>
</tr>
<tr>
<td></td>
<td>2. Weak at understanding social processes.</td>
<td>3. Researcher has to live with the uncertainty that clear patterns may not emerge.</td>
</tr>
<tr>
<td></td>
<td>3. Often doesn’t discover the meanings people attach to social phenomena.</td>
<td>4. Generally perceived as less credible by non-researchers.</td>
</tr>
</tbody>
</table>

### 3.4 Relativist

A third philosophical viewpoint is the relativist position. This is based on the assumption that different observers may have different viewpoints and that, ‘what counts for the truth can vary from place to place and from time to time’ (Collins, 1983 p88). A variant of the relativist position is that of critical realism. This can be considered to be a compromise between the two extreme positions discussed earlier.

Easterby-Smith et al (2004) state that critical realism not only recognises the social world and its influencing factors but that there are also concepts and structures that are human constructions. Bryan (2001 p13) provides a useful description of critical realism as a viewpoint; “First, it implies that, whereas positivists take the view that the scientist’s conceptualisation of reality actually directly reflects that reality, realists argue that the scientist’s conceptualisation is simply a way of knowing that reality”.

32
Critical realism recognises that reality exists separately from human thought processes and that some external factors will affect how the world is perceived. It also has similarities to positivism in that it recognises the need for similar scientific methods to support robust data collection and measurement. However, critical realism is not confined to the physically observed and will consider unobserved social phenomena in its explanations (Bryan 2001). It is similar to social constructionism, in that it recognises that people cannot be studied as in the natural sciences.

Relativism is therefore more concerned with exposing and identifying what reality is as opposed to inventing or discovering it. Easterby-Smith et al (2004) state that a number of different approaches may be used on this basis, including triangulation of methods and surveying large samples of people. Table 6 represents the three philosophical views discussed and corresponding methodological implications.

Table 6: Methodological implications of different epistemologies within social science (Easterby-Smith et al 2004 p34)

<table>
<thead>
<tr>
<th>Elements of Methods</th>
<th>Social Science Epistemologies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positivism</td>
</tr>
<tr>
<td><strong>Aims</strong></td>
<td>Discovery</td>
</tr>
<tr>
<td><strong>Starting points</strong></td>
<td>Hypotheses</td>
</tr>
<tr>
<td><strong>Designs</strong></td>
<td>Experiment</td>
</tr>
<tr>
<td><strong>Techniques</strong></td>
<td>Measurement</td>
</tr>
<tr>
<td><strong>Analysis/interpretation</strong></td>
<td>Verification/falsification</td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
<td>Causality</td>
</tr>
</tbody>
</table>

3.5 Philosophical Position

The principle objective of this research project is to investigate the organisation’s effectiveness at knowledge management and learning, from adverse incidents, using the conceptual framework developed in chapter 2 (figure 4).
The literature review clearly identified organisational learning and knowledge management are highly dependant and influenced by the social processes that exist within an organisation. Many elements from the conceptual framework (figure 4) are also closely linked to social processes. Culture is seen as an overarching factor for all aspects of the model, with leadership integral to each level of the pyramid. Communities of practice are central to the framework and support the social development of knowledge. These would appear to justify a social constructionism approach to the research design.

However, there are some tangible elements to the framework that would lend themselves more to a positivist approach. Human resource practices are a key element within the framework and concerned with having appropriate systems in place to support learning. These may take the form of policies, procedures and appraisal or reward systems. Information systems are also a key element to the success of the framework. These may be made up of ‘physical’ Information Technology systems or exist as formalised procedures. However, the influence they may have on individuals and their behaviour may suggest that a relativism approach is more appropriate than positivism.

Structure is another integral element at each stage of the framework. There are clear, tangible elements that exist in relation to structure but the effect that they have, good or bad, on the social elements of learning and people’s behaviours also need to be considered. A relativist approach is again, the most appropriate method.

Overall the combination of tangible ‘real’ elements and social processes, within the conceptual framework, indicate that a relativist approach is the most suitable when considering the research design.
3.6 Research Strategy

There are many research strategies that exist including; experimental, cross-sectional, longitudinal, and fieldwork. A case study design has been identified as most appropriate since the research intends to focus on a specific area of the organisation, for a specific topic or ‘case’. Bryman (2001) states that case studies relate to a community, location or organisation with an emphasis on the detailed examination of the setting. The case study design is also viewed as a more intermediate position between the two extremes of experimental (positivist) and fieldwork (social constructionism) (Easterby-Smith et al 2004), which supports the relativist approach identified previously. Case studies are also considered to be closer to action research, with greater concern to deliver change within the research setting (Stake 1995). Another important consideration of the case study design is that of external validity and generalisability. It is recognised that the research will only have internal validity to the organisation and cannot be used to generalise about other ambulance services.

The case study design is often (and wrongly) associated with qualitative research; however both qualitative and quantitative methods are frequently used (Bryman 2001), which again reflects the intermediate view of Easterby-Smith et al (2004).

Quantitative research is normally related to a positivist approach and is emphasised by quantification in the collection and analysis of data. Quantitative includes:

- a deductive approach to the relationship between theory and research, in which the accent is placed on the testing of theories;
- the practices and norms of the natural scientific model and of positivism in particular; and
- embodies a view of social reality as an external, objective reality (Bryman 2001 p20).

This type of research tends to be measurable and numerical in nature with high reliability, low validity.

Qualitative research is normally more concerned with words and meaning and a research strategy that;

- emphasises an inductive approach to the relationship between theory and research, in which the emphasis is on the generation of theories;
- has rejected the practices and norms of the natural scientific model in preference for an emphasis on the ways in which individuals interpret their social world; and
- embodies a view of social reality as a constantly shifting emergent property of individuals’ creation (Bryman 2001 p20).

This type of research tends to be subjective using non-standardised data, with the development of classifications and concepts. The results tend to have high validity but low reliability.

Despite the distinction between the two strategies, and the distinction between the two paradigms, there are increasing arguments to combine the two strategies (Easterby-Smith et al 2004; Bryman 2001), because it provides a wider perspective on the subject under investigation. The combination of the two strategies will also ensure high reliability and validity. The relativist position and case study design, in terms of research strategy, are also
distinct in that they allow the use of multiple sources of data and perspectives to be considered. However large sample sizes are required for this approach and there is risk of not being able to reconcile data discrepancies.

### 3.7 Research Methodology

Having already established a relativist approach for the research project and that a case study design is appropriate; it is necessary to use a combination of both quantitative and qualitative methods for the research methodology to achieve methodological triangulation. Todd (1979) suggests this is an effective way of maximising data collected. The aim of developing this methodology is to ensure that the results are both reliable and valid and that the weaknesses of any one single method will be offset by another. Husey and Husey (1997) state that triangulation will also assist elimination of personal bias and reduce the risk of an unproductive study.

Three different techniques for gathering data have been identified for this study: secondary analysis, self-completion questionnaires and semi-structured interviews.

The research objectives 1, 2 and 3 from chapter 1 will be used to form the basis of the research methodology. Figure 6 demonstrates the relationship between the objectives and the elements of the conceptual framework to be investigated. The culture, leadership and structure elements are considered integral to all stages of the framework and will therefore be investigated as part of each objective.
The research and data collection is limited to the Greater Manchester Area of the Trust (the author’s geographical area of work). This is due to the time constraints of the study, ease of managing the project and ability to access evidence and staff as part of the research.

### Figure 6: Relationship between research objectives and the conceptual framework

**Objective 1**
To investigate the organisation’s ability to recognise, identify and record adverse incidents.

**Objective 2**
To investigate development of new knowledge and learning from information within the organisation.

**Objective 3**
To investigate the organisation's implementation of new learning and knowledge to improve organisational performance.

### 3.8 Secondary Analysis

Secondary analysis is the analysis of data that has been collected by another researcher – normally as part of another research project. Data from other organisations, such as national statistics may also be used as secondary data. There are some advantages to this
method including; improved cost and time efficiency, potential for high quality data and more time to focus on the analysis. However, there are some disadvantages such as; lack of familiarity with the data, lack of control over data quality (it may be too old) and it may not be sufficiently context specific.

The NHS Staff Survey 2006, which was conducted in October 2006, was used as a quantitative method for data collection. The results are published on a Trust by Trust basis. Only the survey results for The Northwest Ambulance Service Trust were used. The survey is not specifically designed to investigate organisational learning but aspects of it do relate closely to the elements of the conceptual framework under investigation. The Picker Institute are responsible for managing the survey and production of the results. The use of Self-completion questionnaires to collect data also has some disadvantages including; closed questioning, limited depth of questioning, unable to prompt or guide the respondent and uniformity of answers. A more in depth consideration of the advantages and disadvantages is provided in table 8.

Specific areas of the survey that are useful for secondary analysis include:

- Management including; appraisal, training and development
- Errors, near misses and incidents
- ‘Your job’ including team working, leadership and the organisation
- Work/life balance, pay and other motivational factors

**Secondary Analysis Sample Size**

A total of 4298 staff within the Trust were identified as eligible to receive the survey. Questionnaires were sent to a random sample of 842 staff. 398 completed questionnaires
were returned; representing a return rate of 47%, which is average for ambulance trusts in England (HCC 2006).

The 398 returns represent 9.26% of the Trust workforce and with a confidence level of 95%, provide a confidence interval of 3.57%.

A total of 129 completed questionnaires were received from the Greater Manchester Area, which represents nearly one third (32.4%) of the total returns for the Trust.

3.9 Self-completion Questionnaire

A self-completion questionnaire was designed to quantitatively investigate the elements of the conceptual framework (Appendix 1). The questionnaire was also used to investigate further any areas of interest or enquiry from the secondary analysis. The questionnaire consisted of closed, scale questions. A Likert scale rating was used for the majority of questions, ranging from one to four, thus avoiding a middle non-committal answer. Some questions also provided an opportunity for additional comments to be added. The questionnaires were designed to be anonymous.

Self-completion questions have several advantages including; cost and time efficient, absence of interviewer effects, convenience for respondents and also lack of interviewer variability in terms of asking questions in different ways. There are also a number of disadvantages that include; closed questioning may limit data collected or depth of questioning, unable to prompt or guide the respondent, difficult to ask a lot of questions and potentially low response rates. A more in depth consideration of the advantages and disadvantages is provided in table 7.
The questionnaire was initially piloted with ten employees. This led to a number of modifications including; an additional comments box at the end of the questionnaire to collect more general comments or information, an indicator of how long the questionnaire would take to complete and also the option to include name and contact details for participation in the semi-structured interviews.

**Self-completion Questionnaire Sample Size**

The sampling for distribution of the self-completion questionnaires was completely random. A sample size calculator from http://www.raosoft.com/samplesize.html was used to identify a sample size that would ensure the results achieve a confidence level of 95% with a confidence interval of 5%. 302 was identified as a suitable sample size from a population of approximately 1400 employees in the Greater Manchester area.

A total of 700 self-completion questionnaires were distributed equally among the 35 ambulance stations and offices in the Greater Manchester Area (20 per station). A single collection folder was also supplied to each station. Arrangements were then made for folders to be collected after a period of two weeks. Promotional posters, with clear instructions and timescales, were placed on every station to increase staff awareness. The self-completion questionnaire was also emailed to every member of staff in the area. A reminder email and memo was distributed after the first week.

**Return Rate**

The return rate for the Self-completion Questionnaire was 173 (24.7%). This was significantly lower than expected. Assuming a confidence level of 95%, the confidence interval for the results was 6.98%.
3.10 Semi-structured Interviews

Semi-structured interviews were used as a qualitative method of cross-checking and validating the data collected from the secondary analysis and self-completion questionnaires, including gaining a more in-depth understanding of the area under investigation. Interviewees were selected from across different departments within the area. A series of questions were used to cover specific points that were either identified developing themes or concepts from the earlier data analysis or elements of the conceptual framework that had not been adequately investigated (Appendix 2). A framework was developed to record answers for each of the questions under the headings of: awareness of the topic/issue, positive and negative aspects. The interviews also provided an opportunity to ask more open questions and to allow greater flexibility in the direction of questioning and the responses from the interviewees. It was acknowledged that some of the interviewees may have felt reluctant to be completely open and honest when answering the questions due to the author's managerial position within the Trust. Every effort was made to ensure that the interviews were as informal as possible and that the interviewees understood the process was confidential and that the collected data would be anonymised.

The interviews were set for one hour per interviewee, with most of them being completed within this time. The interviews were recorded using a digital recorder and notes were also taken. The interviewees were informed of how the data would be collected and all consented to this. Table 7 provides a more in-depth consideration of the advantages and disadvantages of this method.

Semi-structured interviews have the advantage of allowing much greater interest in the interviewee's views; identifying what is important and relevant to them. It also provides scope for the interview to depart from the set line of questioning, which may identify previously unconsidered areas and also provide much richer, in-depth answers. Conversely,
the interviewee may feel reluctant to be honest due to the lack of anonymity associated with a face to face interview. The interviewer also requires a degree of skill to ensure that the interview does not depart too far from the subject under investigation.

**Semi-structured Interviews Sample Size**

Due to the time constraints of the study it was necessary to select a small sample of eight staff for participation in the semi-structured interviews. The following staff groups were interviewed from the Greater Manchester Area:

- 1 x Area Director – responsible for overall management of the Area.
- 1 x Sector Manager – responsible for managing the operational aspects of a specific sector area (there are three sectors).
- 1 x Risk & Safety Manager – has responsibility for managing incident reporting procedures and ensuring appropriate action is taken.
- 3 x Operational clinical staff – responsible for delivering pre-hospital care to patients, including reporting incidents when they occur. These staff were selected from details provided on returned questionnaires. One clinical staff member was selected from each sector.
- 1 x Clinical Practice Trainer – a Paramedic who also provides operationally based education and training to staff.
- 1 x Human Resource Manager – responsible for the provision of human resource advice and support.

Table 7 on the next page provides a comparison of the three methods used and demonstrates that methodological triangulation was achieved.
<table>
<thead>
<tr>
<th>Secondary Analysis of NHS staff survey</th>
<th>Reduced cost and time to complete +</th>
<th>Unknown quality of data. Data may be too old. -</th>
<th>Anonymity – improved honesty of answers +</th>
<th>More time for data analysis +</th>
<th>Reanalysis may offer new interpretations +</th>
<th>Lack of familiarity with data -</th>
<th>Complexity of data -</th>
<th>No control over data quality –</th>
<th>Not specific enough to area of research –</th>
<th>Lack of opportunity for more comprehensive replies/difficult to make forced choice answers mutually exclusive -</th>
<th>No face to face contact/lack of visual clues –</th>
<th>Variation in the interpretation of forced-choice answers. Answers may be uniformed. –</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-completion Questionnaire (closed questions)</td>
<td>Some cost. Low amount of time to complete +</td>
<td>High Quality recent data +</td>
<td>Anonymity – improved honesty of answers +</td>
<td>Efficient method for collecting data +</td>
<td>Enhanced comparability of answers/easy to analyse +</td>
<td>Familiar with data +</td>
<td>Reduced variability in the recording of answers +</td>
<td>Control over data quality – closed questions can clarify meaning for respondents +</td>
<td>Questions designed to ensure context specific +</td>
<td>Lack of opportunity for more comprehensive replies/difficult to make forced choice answers mutually exclusive -</td>
<td>No face to face contact/lack of visual clues –</td>
<td>Variation in the interpretation of forced-choice answers. Answers may be uniformed. –</td>
</tr>
<tr>
<td>Semi-structured Interviews (open questions)</td>
<td>Some cost. Large amount of time to complete –</td>
<td>High quality recent data +</td>
<td>Face to face – lack of anonymity – possible lack of honesty when answering –</td>
<td>Time consuming process for collection of data –</td>
<td>Difficult to compare answers due to varying structure to interviews/difficult to analyse –</td>
<td>Familiar with data +</td>
<td>Increased variability in the recording of answers +</td>
<td>Reduced control over data quality – open questions and less structure –</td>
<td>Questions designed to ensure context specific +</td>
<td>Good opportunity to gain more comprehensive replies/improved flexibility to answer questions freely +</td>
<td>Face to face contact/ability to gauge reactions to questions +</td>
<td>Ability to clarify nature/content of questions with interviewee +</td>
</tr>
</tbody>
</table>

Table 7: Review of research methods to demonstrate methodological triangulation

**COMPARISON OF ADVANTAGES & DISADVANTAGES OF RESEARCH METHODS**
Cross Mapping Matrix

The Cross Mapping Matrix (table 8) is designed to ensure that triangulation of the methods will occur for each of the objectives and that the conceptual framework is fully utilised in the investigation. The conceptual framework has been split into six principle elements, with the objectives designed to investigate their role at different stages in the framework (as previously described in figure 6).
Table 8: Cross Mapping Matrix

<table>
<thead>
<tr>
<th>Research Objectives</th>
<th>Element of Conceptual Framework</th>
<th>SD Questions</th>
<th>SCQ</th>
<th>SSI</th>
<th>SD Questions</th>
<th>SCQ</th>
<th>SSI</th>
<th>SD Questions</th>
<th>SCQ</th>
<th>SSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>To investigate the organisation's ability to recognise, identify and record adverse incidents.</td>
<td>Culture</td>
<td>34A, B, C, I</td>
<td>2A, B, C, D, I</td>
<td>C.1.1</td>
<td>34D</td>
<td>2E, F, G</td>
<td>C.2.1, C.2.2</td>
<td>34E</td>
<td>2H</td>
<td>7A</td>
</tr>
<tr>
<td></td>
<td>Structure</td>
<td>22D</td>
<td>3A, B, C</td>
<td>S.1.1, S.1.2</td>
<td>15A, C, D</td>
<td>3C, D, E, F, G</td>
<td>S.2.1</td>
<td>22B</td>
<td>3C, H, I</td>
<td>S.3.1</td>
</tr>
<tr>
<td></td>
<td>Human Resource Practices</td>
<td>24B</td>
<td>1A, B, D</td>
<td>HR.1.1</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>7A, B, 8A, B, C, 13B</td>
<td>7C</td>
<td>1E, F, G, H</td>
</tr>
<tr>
<td></td>
<td>Information Systems</td>
<td>10E, 32C</td>
<td>1C, 5A, B, C</td>
<td>IS.1.1</td>
<td>34F</td>
<td>5D, E, G</td>
<td>IS.2.1, IS.2.2</td>
<td>34G</td>
<td>5F</td>
<td>7D, E</td>
</tr>
<tr>
<td></td>
<td>Communities of Practice</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>15D</td>
<td>6A, B, C, D, E, F</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
CHAPTER 4  
RESEARCH FINDINGS & ANALYSIS

This chapter presents the findings from the selected research methods discussed in chapter 3. The findings will be structured and presented by the elements of the conceptual framework (figure 4) and then by research method, using the following headings:

- Element of Conceptual Framework
- Secondary Data Results
- Self-completion Questionnaire Results
- Semi-structured Interview Results
- Commentary in relation to the objectives and secondary literature

Demographic Profile of staff completing NHS Staff Survey (Secondary Data)

Of the 393 respondents, 61% were male and 39% female. The number of years that the respondents had worked for the organisation was as follows:

![Number of Years Worked for the Organisation](image)

Figure 7
Analysis of the respondents by occupational groups was as follows:

<table>
<thead>
<tr>
<th>Occupational Group</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other qualified Allied Health Professionals</td>
<td>1%</td>
</tr>
<tr>
<td>Paramedic</td>
<td>26%</td>
</tr>
<tr>
<td>Ambulance Technician</td>
<td>21%</td>
</tr>
<tr>
<td>Ambulance Control Staff</td>
<td>10%</td>
</tr>
<tr>
<td>Patient Transport Service</td>
<td>24%</td>
</tr>
<tr>
<td>Administrative &amp; Clerical</td>
<td>6%</td>
</tr>
<tr>
<td>Central Functions/Corporate Services (e.g. HR, Finance, Information Systems, Information Technology)</td>
<td>4%</td>
</tr>
<tr>
<td>Maintenance/Ancillary</td>
<td>2%</td>
</tr>
<tr>
<td>General Management</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
<tr>
<td>Did not specify</td>
<td>1%</td>
</tr>
</tbody>
</table>

Figure 8

Demographic Profile of staff completing Self-completion Questionnaires

Of the 173 respondents, 58% were male and 42% female. The number of years that the respondents had worked for the organisation was as follows:

<table>
<thead>
<tr>
<th>Number of Years Worked for the Organisation (n = 173)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years                                             24%</td>
</tr>
<tr>
<td>6-10 years                                            52%</td>
</tr>
<tr>
<td>11-20 years                                            9%</td>
</tr>
<tr>
<td>21+ years                                             15%</td>
</tr>
</tbody>
</table>

Figure 9
Analysis of the respondents by occupational groups was as follows:

<table>
<thead>
<tr>
<th>Occupational Group</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative &amp; Clerical</td>
<td>3%</td>
</tr>
<tr>
<td>Ambulance Technician</td>
<td>28%</td>
</tr>
<tr>
<td>Clinical Practice Supervisor/Trainer</td>
<td>9%</td>
</tr>
<tr>
<td>Emergency Care Practitioner</td>
<td>2%</td>
</tr>
<tr>
<td>Paramedic</td>
<td>43%</td>
</tr>
<tr>
<td>Paramedic Emergency Service Manager</td>
<td>2%</td>
</tr>
<tr>
<td>Patient Transport Service Manager</td>
<td>2%</td>
</tr>
<tr>
<td>Senior Manager</td>
<td>3%</td>
</tr>
<tr>
<td>Support Service Manager</td>
<td>5%</td>
</tr>
<tr>
<td>Support Service Staff</td>
<td>3%</td>
</tr>
<tr>
<td>Training Manager</td>
<td>2%</td>
</tr>
</tbody>
</table>

Figure 10

Demographic Profile of staff participating in semi structured interviews

Of the 8 interviewees, 75% were male and 25% female. The number of years that the interviewees had worked for the organisation was as follows:

<table>
<thead>
<tr>
<th>Number of Years Worked for the Organisation (n = 8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
</tr>
<tr>
<td>6-10 years</td>
</tr>
<tr>
<td>11-20 years</td>
</tr>
<tr>
<td>21+ years</td>
</tr>
</tbody>
</table>

Figure 11
Analysis of the interviewees by occupational groups was as follows:

<table>
<thead>
<tr>
<th>Occupational Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulance Technician</td>
<td>13%</td>
</tr>
<tr>
<td>Clinical Practice Supervisor/Trainer</td>
<td>13%</td>
</tr>
<tr>
<td>Paramedic</td>
<td>25%</td>
</tr>
<tr>
<td>Paramedic Emergency Service Manager</td>
<td>13%</td>
</tr>
<tr>
<td>Senior Manager</td>
<td>13%</td>
</tr>
<tr>
<td>Support Service Manager</td>
<td>25%</td>
</tr>
</tbody>
</table>

4.1 Culture

4.1.1 Objective 1: The organisation’s ability to recognise, identify and record adverse incidents.

Secondary Data Results

Figure 13
Self-completion Questionnaire Results

![Bar chart showing responses to different questions with Agree and strongly Agree categories highlighted.](chart.png)

- **2a. I would feel confident reporting an adverse incident that involved myself or another member of staff to my line manager.**
- **2b. The Trust supports an open and fair culture, including the reporting of adverse incidents, through policies, procedures and standards.**
- **2c. The Trust has an open and fair culture.**
- **2d. I am encouraged to report all adverse incidents.**

<table>
<thead>
<tr>
<th>2d. I am encouraged to report all adverse incidents. (n = 173)</th>
<th>Agree Strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19%</td>
<td>42%</td>
<td>36%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Semi-structured Interview Results

**QC1.1**

*How would you describe the culture in relation to staff recognising the importance of reporting adverse incidents within Greater Manchester?*

All staff acknowledged the importance of reporting incidents and felt that there was a good level of awareness among the majority of staff with regard to incident reporting and its importance. All interviewees expressed the view that staff had a tendency to only report...
incidents that directly affected themselves and would not necessarily report near misses or observed incidents involving others. When questioned about this further, two key themes emerged;

1. staff reported incidents ‘to cover themselves’ in case of a future complaint or claim and;
2. because they viewed work from a very individual point of view and didn’t consider the ‘bigger picture’.

The managers felt there was also an abuse of the reporting system by some staff, including over reporting by certain individuals. Examples included; disturbed meal breaks and grievances about working late.

The operational staff also expressed concern about reporting incidents or near misses that affected patients in case it led to further action against them:

“Staff can get away with near misses since nothing actually happened… people just deal with it at the time.”

The interviewees, that were not part of the operational structure, felt that incident reporting was only undertaken within the operational environment and that staff in other directorates would not necessarily utilise it.

The culture within management was also discussed. It was felt that at a senior level there was commitment to an open and fair culture and that the “right things were said”. Management, within the operational environment, was viewed as being very supportive in
relation to personal issues but less supportive or effective in relation to more complex organisational issues or issues involving other organisations.

Two reasons were suggested for this:

1. Operational pressures to maintain levels of resource i.e. focussing on individual cases to reduce the risk of a member of staff going sick.

2. Managers lack of knowledge to deal with more clinically related or complex incidents. It was emphasised that this was not necessarily a criticism of the individuals but the organisation for not providing sufficient education or support.

It was also felt that some Operational Managers lacked ownership of the incident reporting process.

Commentary

The results indicate that the Trust encourages staff to report incidents and that staff are generally confident to report incidents. The Secondary Data (SD) and Self-completion Questionnaire (SCQ) both showed that the majority of respondents (66% and 61% respectively) agreed the Trust encouraged them to report adverse incidents. However, it was apparent that staff and management had a tendency to think of incident reporting at a very individual level. There was failure to recognise the ability of incident reporting for identifying wider organisational issues such as meal breaks; that could assist in improving overall organisational performance. This is reflected within the wider NHS, with a recognised need to ‘think systems’ and that a person-centred approach is still the ‘dominant
tradition’ (DH 2000 p20). Senge (1990) highlights ‘systems thinking’ as one of the five disciplines required for a learning organisation.

56% of the respondents to the SCQ agreed that the Trust was supportive of an open and fair culture through policies and procedures, yet only 43% agreed that the culture was open and fair, with 56% agreeing there was a culture of blame and punishment. The SD also indicated that only 37% of respondents agreed that the Trust treated staff fairly following an adverse incident, with 47% non-committal in their response. This was apparent in the interviews where staff also suggested that they only reported what they had to. Senior management is supportive of an open culture; however lower levels of management tend only to be supportive of issues that have an immediate positive impact on operational resources. Undue focus on the immediate event, a tendency to manage or blame individuals and difficulties in ‘making sense’ of complex issues are also acknowledged as barriers to organisational learning within the wider NHS (DH 2000).

The NPSA (2004 p23) suggest that:

“Leadership is central to setting the values and beliefs of an organisation’s culture…..a vital role to play in building a safety culture that is open and fair. They need to establish an environment where the whole organisation learns from safety incidents and where staff are actively encouraged to report”

This is closely linked to what are considered the key elements of the initial ‘socialisation’ mode of knowledge creation (Nonaka and Takeuchi 1995).
4.1.2 Objective 2: The development of new knowledge and learning from information within the organisation.

Secondary Data Results

Q34d. My trust blames or punishes people who make errors, near misses or incidents. 
(n= 390)

- Strongly Agree: 5%
- Agree: 18%
- Neither Agree nor Disagree: 51%
- Disagree: 22%
- Strongly Disagree: 4%

Figure 16
Self-completion Questionnaire Results

![Bar chart showing self-completion questionnaire results](chart.png)

**Figure 17**

Semi-structured Interview Results

**QC2.1**

**How would you describe the culture in relation to learning and developing knowledge from adverse incidents?**

All interviewees agreed that there was a culture of learning but to differing degrees and in different contexts.

The operational staff all suggested that individuals probably learned from adverse incidents. When the interviewees were questioned further about what they meant by learning it was more a case of “they wouldn’t do it again”. The lack of support and information sharing from management and protected time to encourage learning was also mentioned:
“Managers must be aware of what goes on since they see virtually every incident report. They don’t share it with staff and most of the time they just tell the staff involved to read a policy or not to do it again.”

“The managers are more interested in 8 minute performance and it is difficult to get time off the road for anything other than mandatory training days, which we don’t have a say in.”

Some interviewees suggested that staff would be more concerned about learning from more severe incidents. Conversely, the less severe incidents were reported simply as part of the incident reporting process with no concern about learning or change as a result.

The managers felt there was a learning culture within management, with an increasing focus on systematic learning the more senior the management became. When asked why staff might not agree with this view it was suggested that:

“Most of the work goes on behind the scenes, such as in Healthcare Governance, and staff only see a finished product with little understanding of the work involved or why the reason for the change.”

“Staff only tend to hear about when somebody is disciplined. There is not enough publicity about staff that have learned through the Untoward Incident Review process and how positive they found it. We don’t share the learning from these reviews either, which doesn’t help.”

It was also suggested that the learning culture within lower levels of management was inconsistent from area to area, with some managers more focused on simply preventing re-occurrence by taking action against the staff involved. It was also suggested that some
operational managers felt that the “learning bit” was undertaken by the other departments and that “it wasn’t their job”.

The Clinical Effectiveness Forum was mentioned by some of the interviewees as a useful opportunity for staff to discuss clinical issues openly, with a focus on learning collectively. The Trust Untoward Incident Review Policy was cited by the majority of interviewees as an effective method of encouraging staff to reflect and learn from adverse incidents.

QC2.2

Does the culture support the sharing of knowledge?

Two clear themes emerged from the interviewees regarding this question; formal and informal sharing of knowledge.

From a formal perspective it was felt that the culture, at an operational level, wasn’t supportive of sharing knowledge. There was also the view that knowledge was often shared “up the way” from staff to management but that it was never used or there was never any feedback. The Untoward Incident Review and disciplinary processes were also mentioned as being too confidential; supporting an individual learning culture and not encouraging the learning to be shared.

Staff Forums were mentioned by many of the interviewees as a positive step to encouraging staff to share knowledge.

Poor sharing of knowledge between operational managers was highlighted as a concern. It was felt that there was an element of competitiveness between operational groups where “knowledge or information is still viewed as power”. When questioned further about this, it became
apparent that this was probably a result of the performance culture in relation to ambulance response times; where each operational group was benchmarked against each other.

From an informal perspective the majority of interviewees felt that there was a strong culture of knowledge sharing, particularly by operational staff. The predominant examples cited were “mess room chat” and “crews waiting outside Accident and Emergency departments”, where staff frequently discuss recent events.

“Crews will come into the mess room and quite happily start talking about what just happened to them or tell their peers what or who to watch out for, but they won’t tell the managers.”

“Staff will often hang about outside of Accident and Emergency while having a drink and talk to each other about problems they have encountered with patients or work that day – particularly if they have missed their meal break!”

Interestingly, many of the managers expressed concern about the accuracy of the information that was shared via these methods, with one using the term “rumours” to describe the information shared.

**Commentary**

An individualistic learning culture is apparent; however, it appears to be one that primarily focuses on being reactive to significant single events. There is also some evidence of a blame culture existing, with inconsistencies in management behaviour between operational groups. The SD indicated only 26% of respondents disagreed that the Trust blamed or punished staff who make errors, with 51% non-committal in their response. The majority
of respondents to the SCQ felt the Trust did not encourage staff to suggest new ideas or ways of working (57%) or have a culture of staff working and learning together (61%). Iles and Sutherland (2001) suggest that a strong culture is required to encourage staff to share information and work together with an openness to try new things and learn from mistakes.

The lack of action or concern with regard to less significant incidents is also evident. There also appears to be a reluctance to identify the root causes of incidents, which may help lead to more systemic learning. An understanding of the link between learning from these types of events and improving organisational performance was not apparent. Dodgson (1993) recognises culture as a key element in supporting collective learning and establishing the link with improving organisational performance.

There are some examples of where a more collective learning culture is encouraged but this is not widespread. The performance focussed culture in relation to response times and a lack of capacity within management appear to be the key limiting factors.

There is evidence of a more systematic approach to learning within more senior management and support management functions. However, this is not well publicised or perhaps as inclusive of staff. This has led to lower levels of management having the view that learning and knowledge development is not part of their responsibilities.

Culture supporting the sharing of knowledge within the organisation appears to be effective mostly at an informal level between staff. The Trust policies and processes in relation to adverse incidents also focus on learning at a very individual level; with a strong emphasis on confidentiality. This has limited the transfer of developed knowledge into the
organisation as a whole. This is similar to the challenges facing the knowledge conversion process of Nonaka and Takeuchi’s (1995) Four Modes of Knowledge Conversion; particularly how the organisation can develop systemic knowledge.

4.1.3 Objective 3: The organisation’s implementation of new learning and knowledge to improve performance.

Secondary Data Results

Figure 18

Q34e. When errors, near misses or incidents are reported, my trust takes action to ensure that they do not happen again. (n = 392)
Self-completion Questionnaire Results

![Chart showing survey results](chart.png)

**Figure 19**

Semi-structured Interview Results

**QC3.1**

Can you describe the Trust’s culture with regard to taking action or making improvement following adverse incidents?

The majority of interviewees felt there was a positive culture in relation to taking action following adverse incidents; however, this was mainly associated with more severe types of incidents.

The operational staff expressed the view that there was less of a focus on taking action as a result of clinical incidents by local managers and that action taken was often only against the individuals involved. Some of the managers agreed with these points and felt that many of the local managers didn’t necessarily have the knowledge to tackle what were viewed as more complex problems. Some suggested this was more a failing of the Trust, through lack
of investment in education and development for lower levels of management. The current merger and lack of clarity around the re-structuring processes were also cited as a demotivating factor for many managers.

The performance culture was seen, by the majority of interviewees, to have an influence on whether operational managers would be supportive of any actions or changes proposed. It was also suggested that operational managers do not believe part of their role is to implement learning outcomes and that was the role of other directorates.

“In the short time I have been with the service, the quality of some manager’s investigation and action has improved……. We need to identify practical ways of getting the message across to managers (and staff), and of cascading well written policies and guidance into practical application at the operational end of the organisation – with inbuilt feedback systems to identify what is working and what is not.”

It was highlighted by most interviewees that staff are often resistant to changes in clinical practice. When asked why this was two themes emerged:

- That staff are often unaware of why the change has come about.

- The recently introduced national pay scheme, Agenda for Change, has left some groups of staff unhappy with their pay scale and some groups of staff at the top a pay scale; feeling there is no incentive to change or develop their practice.

The managers felt that senior management were very supportive of change and effective at identifying and agreeing what action was required. However, concern was raised about the
quality and of implementation at an operational level. The lack of review following actions or changes, to assess their effectiveness, was also highlighted as a concern.

**Commentary**

41% of respondents in the SD agreed or strongly agreed that the Trust takes action to prevent re-occurrence, with only 14% disagreeing. The SCQ identified that 50% of respondents agreed the Trust took action to improve organisational performance and 53% were aware of changes as a result of an adverse incident.

The semi-structured interviews identified however, that the culture of action is predominantly centred on individuals and non-clinical incidents. It is also apparent that this culture of action is not always a result of true learning, as identified in 4.1.2, but simply a reaction to prevent re-occurrence.

A culture of action resulting from clinical incidents was less apparent at an operational level but more apparent within other directorates or senior management. Lack of ownership within operational management may also be why senior management expressed concerns over the quality of implementation. This is a key challenge to the final part of Nonaka and Takeuchi’s (1999) knowledge conversion process whereby explicit knowledge is converted back to tacit knowledge to create operational knowledge.

Staff supporting action or change as a result of clinical incidents seems to be adversely affected by poor communication of the history behind a change and poor morale as a result of the Agenda for Change pay awards. One of the key concepts of learning organisations is their ability to adapt and respond to change (Peters and Waterman, 1982; Kanter, 1989; Senge, 1990), with an ability to manage for uncertainty – particularly within
the NHS (Ranade 1997). Iles and Sutherland (2001) state that learning organisations should have a strong culture where staff are encouraged to experiment and try new things.

4.2 Leadership

4.2.1 Objective 1: The organisation's ability to recognise, identify and record adverse incidents.

Secondary Data Results

Figure 20
Q18b. How satisfied are you with...The support I get from my immediate manager (n = 396)

![Bar chart showing satisfaction levels with support from immediate manager]

Figure 21

Self-completion Questionnaire Results

![Bar chart showing responses to managers as leaders and clear vision]

4a. Managers are viewed as leaders within the Trust.
4b. Managers communicate a clear vision of the organisation’s aims.

Figure 22
Agree | Strongly Agree | Disagree | Disagree Strongly
--- | --- | --- | ---
0% | 51% | 37% | 11%

Figure 23

Semi-structured Interview Results

QL1.1

Can you discuss how managers are perceived within the Trust; in relation to them acting as leaders to support an open and fair culture?

The majority of staff suggested that their managers were supportive of an open and fair culture. However, all interviewees indicated that not all managers acted in an open and fair way.

“Some staff wouldn’t be able to tell some managers about what went wrong and what needs changing.”

The operational staff stated that many of the operational managers did not have the respect of the staff and they wouldn’t consider them to be leaders. When questioned further, the interviewees suggested that many of the managers had no recent clinical experience yet they were expected to investigate and “judge staff’s actions” when adverse clinical incidents occurred. The interviewees also felt that there was a lack of face to face presence for managers to be considered leaders. The operational staff also felt that there was too much of a focus on performance by managers for them to act as true leaders in an open and fair way. The terms “militarised” and “command and control” were used to describe the style of management as a result of the focus on performance.
“There is too much focus on performance; it’s all about the times and not patient care.”

In contrast, when some of the operational staff were first asked this question they went on to describe how their managers were very supportive at dealing with their individual problems such as access to physiotherapy or occupational health following injury or illness. An area that was identified by most interviewees was the lack of twenty four hours support for staff.

The managers felt that the majority of operational managers did act in an open and fair manner but didn’t necessarily act as leaders. When asked why they didn’t consider them to be leaders three themes were identified:

- Lack of investment in leadership education
- Lack of capacity within the role to lead effectively
- A perceived lack of support from senior managers

“We don’t have professional managers or leaders, we have senior ambulance men.”

When asked about leadership at more senior levels and other directorates within the Trust there were three distinct views:

1. That there was excellent leadership from a corporate perspective, with “fresh faces” recruited from outside the Trust, providing a new “more open and professional” style of leadership that was less “operationally focussed”.

68
2. That much of the new senior management teams were too detached from the staff at lower levels, with a “distinct lack of visibility” in terms of being leaders. It was felt that communication of key corporate messages were also lost as a result.

3. The increased size of the new Trust and having centralised corporate leaders/teams would potentially cause local leadership to suffer.

**Commentary**

60% of respondents from the SCQ disagreed that managers were viewed as leaders and only 34% agreed that managers communicated a clear vision of the organisation’s aims. Although, 56% of respondents in the SD agreed that they had clear planned goals and objectives for their job. The lack of clinical competency and face to face presence of local managers appear to be the key reasons for them not to be considered leaders. The lack of twenty four hour support for staff is also an area of concern.

Management generally support an open and fair culture but this is inconsistent across the operational groups, with more authoritarian approaches to management being applied. The focus on performance appears to limit a more open approach to leadership. Effective leadership is a key aspect of the learning organisation, particularly leaders modelling a culture of openness (Iles and Sutherland 2001).

A lack of capacity and investment in education for management roles is another cause for the lack of leadership within the operational environment. Nationally, it is recognised that there has been a lack of investment in developing ambulance service management and that there needs to be an increased focus on developing leadership and organisational management skills (DH 2005).
It is evident however, that staff do feel supported by their manager when they encounter personal difficulties at work. The SD identified that 61% of respondents found their manager supportive in a personal crisis and 42% satisfied with the support provided. 51% of respondents from the SCQ agreed that their managers acted with sympathy and support when managing adverse incidents. These qualities are recognised as key components of effective leadership for learning organisations (Iles and Sutherland 2001).

The large size of the new Trust and the tension between corporate and local management poses a risk to how effectively the open culture and visions of the Trust are communicated. The ability for organisations and leaders, to communicate a vision of learning is required for a learning organisation (Iles and Sutherland 2001).

### 4.2.2 Objective 2: The development of new knowledge and learning from information within the organisation.

**Secondary Data Results**

![Figure 24](image-url)
Self-completion Questionnaire Results

Figure 25

<table>
<thead>
<tr>
<th>Q4</th>
<th>Agree Strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>4c. Managers within the Trust are inclusive of staff when considering organisational change or ways to improve organisational performance.</td>
<td>0%</td>
<td>71.4%</td>
<td>22.9%</td>
<td>5.7%</td>
</tr>
<tr>
<td>4d. Managers act in a democratic manner when managing staff.</td>
<td>25%</td>
<td>35%</td>
<td>25%</td>
<td>10%</td>
</tr>
<tr>
<td>4e. Managers are authoritarian when managing staff.</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Figure 26

Semi-structured Interview Results

QL2.1

Can you discuss how managers support learning and knowledge development from adverse incidents?

The majority of interviewees said that managers were supportive of learning from adverse events. Use of the Untoward Incident Review Policy was cited as the principle reason behind this. However, it was felt that the learning being encouraged was simply re-enforcement of existing policies and procedures as opposed to development of new...
knowledge. The operational staff and CPT felt that although the managers supported the principle of learning they were not always fully supportive of what was required to facilitate the learning; in particular the reluctance to provide protected non-operational time for the learning to occur. Some of the managers also identified this as a “conflict” between operational performance pressures and learning.

“Some managers will just take shortcuts and write to staff after an incident; telling them to do some learning and reflection or to read a policy. They won’t ask for any kind or review or feedback to prove that learning has occurred. As far as they are concerned they have covered themselves.”

**QL2.2**

**Can you discuss how managers involve staff to suggest new ways of working?**

Some of the operational staff had experience of groups or forums and found them beneficial, although there was degree of scepticism that the same staff were always picked for the different groups, which limited the number of staff involved. The level of support from management for staff to attend the groups or forums was also varied.

The lack of capacity within the operational environment was also cited as a reason why some operational managers were reluctant to release staff. This was attributed to a lack of support from an organisational perspective.

“The Trust is right by trying to involve staff more but they keep asking for more and more out of operations without giving any additional funding or resources to support things like staff attending meetings or courses.”
All managers felt that they had ample opportunities to be involved with new ways of working and that their managers were very supportive of this.

**QL2.3**

**How do managers support the sharing of knowledge?**

The majority of interviewees felt that most of the operational managers did not support the sharing of knowledge. The managers raised concerns that although knowledge may be shared at a local level, many Operational Managers did not share knowledge with other Operational Managers. The nature of the service and lack of capacity within management resources were attributed to this:

> “Only 25% of the workforce are on duty at any one time and even then they are out working in a mobile, unsupervised environment, 24 hours a day and 7 days a week. This makes it extremely difficult for the current management to share knowledge or information effectively with staff - if they wanted to.”

**Commentary**

60% of staff in the SD felt that they were not involved in decisions affecting their work, with only 16% agreeing that managers actually try to involve staff in important decisions. The SCQ also supported this with only 34% of respondents agreeing the Trust was inclusive of staff when considering change. 61% of respondents also felt that managers were authoritarian, with only 31% agreeing managers acted democratically. 71.4% of the respondents however, agreed the concept of reflection was encouraged following adverse incidents, which is recognised as one of the skills that effective leaders should support (Iles and Sutherland 2001).
The semi-structured interviews revealed that managers were generally supportive of learning from adverse incidents, although the quality of learning and support for it to be undertaken effectively were questionable. Lack of capacity and lack of investment by the organisation to support this way of working were highlighted as reasons. Leaders of learning organisations should be encouraging the concepts of team learning, shared vision and openness when considering change (Senge 1990; Iles and Sutherland 2001)

Operational Managers do not appear supportive of the sharing of knowledge, although this could be attributed to the nature of the operational environment. Leadership is seen as key in supporting the sharing of knowledge, particularly when developing new systematic knowledge from combined explicit knowledge (Nonaka and Takeuchi 1995).

4.2.3 Objective 3: The organisation's implementation of new learning and knowledge to improve performance.

Secondary Data Results

![Bar chart showing survey results](image_url)

- Q16b. I often have trouble working out whether I am doing well or poorly in this job. (n= 394)
- Q19d. I get clear feedback about how well I am doing my job. (n = 395)
- Q20c. My immediate manager gives me clear feedback on my work. (n = 397)
Self-completion Questionnaire Results

![Survey Results Chart]

Figure 28

Semi-structured Interview Results

QL3.1

Can you discuss how committed managers and staff are to making changes or improvements as a result of adverse incidents?

The majority of interviewees felt that senior managers were more committed to change than staff and Operational Managers. When asked why, all interviewees cited poor communication of information, which led to a lack of understanding why the change was required. Another reason why staff were resistant to change was the Agenda for Change pay scheme, which was considered a significant barrier in terms of no financial incentive to encourage their personal development. Most interviewees felt that there was a commitment for action at an individual level but it wasn’t necessarily a change or improvement; it was simply a preventative measure.
Many of the interviewees felt that operational managers didn’t ‘manage’ change; they “simply passed information on”. It was also apparent that there was a lack of ownership by some operational managers.

“Managers don’t always see the need to manage change; they just do the minimum, which is often sending a memo or instruction out.”

QL3.2
Can you discuss how staff are acknowledged or thanked when they make contributions to improving organisational performance?

All interviewees stated that there was little or no acknowledgement of contributions. Some of the manager interviewees stated that their managers would say often thank you when pieces of work were completed. The sending of corporate emails to all staff containing thank you messages or letters from the Chief Executive was given as an example but considered insufficient.

Commentary
The results indicate that a commitment to making changes or improvements exists primarily at a senior management level, with a lack of ownership regarding change management at lower levels of management. This is one of the challenges of developing the operational knowledge from Nonaka and Takeuchi’s (1995) Knowledge Conversion process; converting newly developed explicit knowledge back to tacit knowledge. Poor communication from senior management appears to be the key reason why there is a lack of ownership. Leaders communicating a shared vision and being open are two of the key elements to support organisational learning (Iles and Sutherland 2001; Senge 1990). Local management action also appears to be focused on individuals, with a little emphasis on
change or improvement. A unified view of learning (Brown and Dugdid 1991) and a team learning approach (Senge 1990) are also key for learning organisations.

The SD showed that 62% of staff did not feel that they received clear feedback about how well they were doing their job, with 47% disagreeing that their immediate manager gave them clear feedback about their work. Only 24% agreed that their immediate manager did provide clear feedback. The SCQ results indicated that 75% of the respondents did not feel staff were acknowledged for contributing to learning or knowledge development. Only 31% of the respondents agreed that staff were regularly provided with individual feedback following adverse incidents. Iles and Sutherland (2001) recognise, within human resource practices, the importance of having appraisal systems for staff and also incentives for individuals to contribute to organisational development. Leadership is key to supporting these by being open and supportive to staff; encouraging them to learn and work towards the same vision (Iles and Sutherland 2001).
4.3 Structure

4.3.1 Objective 1: The organisation’s ability to recognise, identify and record adverse incidents.

Secondary Data Results

Q22d. On the whole, the different parts of the trust communicate effectively with each other. (n = 395)

![Pie chart showing survey results]

Figure 29
**Self-completion Questionnaire Results**

![Bar chart showing survey results](chart.png)

<table>
<thead>
<tr>
<th>Question</th>
<th>Agree Strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a. The management structure supports the reporting of adverse incidents.</td>
<td>55%</td>
<td>40%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>3b. The management structure supports an open and fair culture.</td>
<td>65%</td>
<td>30%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>3c. The management structure supports sharing of information from operational level to management.</td>
<td>60%</td>
<td>35%</td>
<td>5%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Semi-structured Interview Results**

**QS1.1**

**How would you describe the management structure in the Greater Manchester Area?**

The majority of interviewees described the operational management structure as; “hierarchical”, “rank based” and “command and control”. The operational staff felt that there were too many stages in the structure and that was insufficient first line management support. The operational staff also felt that the structure was too rigid and that they had to ask certain managers for certain things and too often managers had to speak to another manager to get authorisation to make a decision.

Despite the criticisms, some of the interviewees felt that a hierarchical and rank based type of structure was required. The critical nature of the service provided, which is highly...
dependant on the deployment of suitable resources, and the large geographical area covered were the principles reasons cited to support this view.

“The command and control structure is a necessary evil to ensure that staff and resources are adequately managed to provide the right level of cover to hit our response time targets.”

When the interviewees were asked about other directorates within the area they showed little understanding of what other structures looked like. The majority of managers felt that there was a still a hierarchical style of structure within each directorate with ‘heads of’ for each directorate. However, some stated that day to day business was conducted in a less structured way; more closely related to a matrix style structure.

**QS1.2**

**Can you discuss how the structure supports the reporting of adverse incidents?**

All but one of the interviewees felt that the operational management structure was generally effective at supporting the reporting of adverse incidents. However, the lack of support outside of normal working hours was raised as a concern by the operational staff and some of the managers.

“What happens if an incident occurs on a Friday night at 23:00? No real action is taken until the Operational Manager sees the incident report on the Monday morning. An Assistant Operational Manager or supervisor may support the individual at the time of incident but they will just leave it for the staffs ‘real’ manager to deal with later.”

Concern was raised by one manager that the hierarchical structure within the operational directorate can often delay the reporting of incident information to other departments.
Interviewees were also asked what influence they thought the structure had on an open and fair culture. The majority of staff felt that the operational structure was not conducive to an open and fair culture due to the command and control style and that it led to a “top down” approach to information. One of the managers felt that the structure did not encourage staff to “question or query things enough”.

Commentary

64% of respondents in the SCQ agree that the structure supports the reporting of incidents, which was substantiated by the semi-structured interviews. However, the lack of capacity within the structure and the lack of twenty four hour support are limiting factors. It was also identified that the hierarchical structure can delay the transfer of information to other directorates. The command and control style structure also appears to have an adverse effect on an open and fair culture. 59% of the SCQ respondents disagreed that the structure supported an open and fair culture, which was substantiated by the semi-structured interviews. The knowledge creation process is dependant on being initiated by individual staff, with the organisation having the ability to mobilise the tacit knowledge (Nonaka and Takeuchi 1995). Structure is viewed a key component for the success of this process (Santoro and Gopalakrishnan 2000). Iles and Sutherland (2001) also suggest the structures should be flat to support effective information sharing and the openness required to involve staff more.

Structures within other directorates appear to be hierarchical, with a tendency to work independently of each other. The SD highlighted that only 9% of respondents agreed that different parts of the Trust communicate effectively with each other. Nonaka and Takeuchi (1995) suggest that tacit knowledge needs to be mobilised across directorate boundaries as part of an effective knowledge creation process.
4.3.2 Objective 2: The development of new knowledge and learning from information within the organisation.

Secondary Data Results

Figure 31
Self-completion Questionnaire Results

$n = 173$

3d. The structure supports team working to share learning and knowledge.
3e. The structure provides informal opportunities (such as protected time or breaks) to share and discuss information with other staff.
3f. The structure provides formal opportunities (such as team meetings, forums etc) to share and discuss information with other staff.

Figure 32

Comments in relation to Question 3e – examples of informal opportunities

Current work levels permit very little free time for such discussion.
I think operational staff on larger stations do get the opportunity to share experiences in an informal way – whether it is the type of issues you would want them to be sharing is another matter.
Protected training time. KSF
Staff have the opportunity to take time out after an adverse incident and can talk to AOM's.
Too busy, too much pressure of work to even do own job.
Whilst ambulances waiting at casualty for triage. When on station out of the system. Meals with other crews.

Figure 33

<table>
<thead>
<tr>
<th>Agree Strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.9%</td>
<td>45.7%</td>
<td>40.0%</td>
<td>11.4%</td>
</tr>
</tbody>
</table>

3c. The management structure supports sharing of information between operational staff.
$(n = 173)$

Figure 34
Semi-structured Interview Results

QS2.1

How effective is the structure at supporting interaction, team working and networking to enable learning and knowledge development.

All interviewees agreed the operational management structure was not supportive of staff interaction or team working. However, some of the interviewees attributed this to the nature of the service; that the majority of the workforce worked in pairs, in a mobile resource, with limited opportunity to interact formally with others. They felt that operational management had a tendency to focus only on their geographical area of responsibility, which led to limitations in terms of wider area working and information sharing.

Another theme identified from the managers was a lack of capacity within the existing structure to release staff to participate in networking or team working opportunities. One manager stated:

“The current operational structure has been designed simply to put ambulances on the road and bums on seats. The structure is centred around staff and resource management and hitting performance targets. There is little capacity for these people to start working across networks on issues that aren’t seen to have a direct impact on these three things.”
The majority of managers felt that each directorate had a tendency to work in “silos”, with limited cross-over between functions. It was also felt that each directorate had a limited understanding of the other directorates. The majority of managers indicated that the directorates did work together when it was required. The Area Management Team was cited as a useful meeting forum that had improved cross-directorate working and knowledge sharing.

Commentary

80% of the respondents in the SD stated that they worked in a team, with 83% requiring team working to achieve objectives. However, only 25% said that the teams met regularly. The self-completion questionnaire data showed only 36% agreed that the structure supported team working, with 47% of respondents agreeing they had formal opportunities to share information with other staff. Only 20% agreed they had informal opportunities to share or discuss information with other staff. Comments received from the SCQ indicated that opportunities were limited by work pressures. Learning organisations require structures that support team working and networking (Iles and Sutherland 2001).

Different directorates appear to work independently of each other. Although some cross directorate working does occur, but predominantly through formally arranged groups or opportunities with staff having a poor understanding of other directorate’s functions. Flatter structures should support stronger lateral relations (Iles and Sutherland 2001), which in turn encourage greater systems thinking and team learning (Iles and Sutherland 2001; Senge 1990).

“Teams need to be firmly linked into the wider management structure to ensure that alliances within them do not hamper learning.” (DH 2000 p. 39)
Structure is also one of the components that support the interaction of individuals to develop systematic knowledge as part of the knowledge conversion process (Nonaka and Takeuchi 1995; Santoro and Gopalakrishnan 2000).

4.3.3 Objective 3: The organisation’s implementation of new learning and knowledge to improve performance.

Secondary Data Results

Q22b. Communication between management and staff is effective. (n = 396)

- Strongly Disagree: 26%
- Disagree: 38%
- Neither Agree nor Disagree: 23%
- Agree: 12%
- Strongly Agree: 1%

Figure 36
Self-completion Questionnaire Results

![Bar chart showing responses to questions 3c, 3h, and 3i.]

Figure 37

Semi-structured Interview Results

**Q3.1**

**How effective is the Greater Manchester area management structure at supporting the implementation of new ways of working/change or learning from adverse incidents?**

Most of the interviewees felt that the senior management structure was good at decision making to implement new learning from adverse incidents. However, one of the managers felt that the decision making process was often limited to the directorate involved, with little interaction with the directorates involved in the actual implementation. Two of the operational staff also raised concern that there was limited opportunity for staff to be involved in the initial decision making processes.
All interviewees expressed the view that the operational structure did not support the implementation of change or new initiatives particularly well. Lack of capacity within lower levels of management was the most frequently cited reason for this. The operational staff felt that the Clinical Practice Supervisor (CPS) role, which was considered first line management, was not effective enough because they were always operational and had no protected time to support new initiatives. One manager stated that the operational command and control structure was not conducive to supporting “real change” since it was designed to focus primarily on resource management and performance issues.

“Quite often a memo or instruction will come out telling us about a change in a drug protocol or piece of equipment. There is hardly ever anybody available, who knows enough about it, to ask questions to. Or, if the memo goes missing there is nobody to ensure another one is printed…… I have found out about things weeks after the memo came out of the change happened.”

The majority of interviewees acknowledged that the Clinical Practice Trainer (CPT) structure worked well when a significant change or new practice was required. This was attributed to the fact that the CPTs have protected time with staff to deliver training or education.

Commentary

54% of the respondents to the self completion questionnaire did not think that the management structure supported information sharing from management to operational level. The SD also showed that only 13% of the respondents agreed that communication was effective between management and staff.
The SCQ identified that only 29% of respondents agreed the organisation’s structure was flexible enough to meet changing needs. 77% agreed that the structure was fixed and bureaucratic, making it difficult to change. Iles and Sutherland (2001) suggest that structures should be flexible enough to respond to changes. The semi-structured interviews identified that the operational structure, lack of capacity at lower management levels and isolation from other directorates limited the ability to implement learning from less significant incidents. Lack of cross directorate working and staff involvement also limited the effectiveness of operational implementation. Flatter structures, improved employee involvement, teamwork and lateral relations are necessary for organisational learning (Iles and Sutherland 2001). Limited opportunity for face to face contact with management adversely affected the operational implementation process. Alder et al (1999) suggest that it is management’s role to support interaction of the organisation and individuals to share knowledge. Nonaka and Takeuchi’s (1995) knowledge conversion process, from systematic to operational, requires strong lateral relations to ensure that it is transferred effectively without risk of distortion or dilution.

4.4 Human Resource Practices

4.4.1 Objective 1: The organisation’s ability to recognise, identify and record adverse incidents.

Secondary Data Results

<table>
<thead>
<tr>
<th>Q24b. Whistle-blowing - Is there a system to report such concerns confidentially? (n = 393)</th>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>52%</td>
<td>10%</td>
<td>38%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 38
Self-completion Questionnaire Results

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. I know what an adverse incident is. (n = 173)</td>
<td>86.1%</td>
<td>13.9%</td>
</tr>
<tr>
<td>1b. I know how to report an adverse incident. (n = 173)</td>
<td>83.3%</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

Figure 39

Semi-structured Interview Results

QHR1.1

Can you discuss how the human resource systems support the identification and reporting of adverse incidents?

All interviewees acknowledged the Untoward Incident Review Policy as supportive in terms of encouraging staff to be open about adverse incidents. Many of the interviewees
also mentioned the Whistle-blowing Policy as supportive in terms of staff being able to report concerns in a confidential manner. However, the operational staff said that many staff were still cautious of the open and fair context of the policies. Two of the operational staff felt that the human resource function was only ever utilised at the later stages of adverse incidents when staff were being disciplined; therefore staff associated human resource involvement with them being “in trouble”. The lack of early human resource involvement was also associated with some operational management not using policies correctly and a blame culture being created.

“There is no confidence among staff with regard to human resource policies providing support when things go wrong. I heard about a crew being sent a letter from their manager because they didn’t press the button to open the garage door quickly enough, when they answered a call to go on an emergency. One of the crew was a new starter who had only been here a couple of months. That will sit on their files now for twelve months.”

The human resource manager stated that human resources were accessible to staff and managers but only a small number of staff would contact them directly, although the number was increasing. The human resource manager also said that he viewed the human resource function as being independent but this was probably not the perception of staff. Some of the managers felt that human resources were not pro-active enough at promoting their role in relation to adverse incidents.

**Commentary**

70% of the SCQ respondents agreed that human resource policies encourage staff to be open and honest when reporting adverse incidents. However, only 52% of the SD respondents were aware of a whistle-blowing system to report concerns, with 38% stating
they didn’t know. The SCQ identified the majority of staff knew what an adverse incident was (86.1%) and how to report one (83.3%).

The semi-structured interviews identified that the lack of human resource involvement at the early stages of managing adverse incidents had limited the impact of policies supporting an open and fair culture. The lack of human resource involvement has also resulted in some managers using policies inappropriately. The role of human resources are probably not publicised enough to staff. Human resource practices should ensure that people are considered to be the creators and users of organisational learning (Iles and Sutherland 2001). Publicising individuals responsibilities for reporting adverse incidents and promoting the organisation’s role in ensuring staff are treated fairly are key to developing a reporting and learning culture (DH 2000).
4.4.2 Objective 3: The organisation’s implementation of new learning and knowledge to improve performance.

Secondary Data Results

Figure 41

Figure 42
Q13b. Do you think the Agenda for Change re-banding you have received is fair? (n = 395)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Don't know</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>26%</td>
<td>57%</td>
<td>13%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Figure 43

Self-completion Questionnaire Results

Figure 44
1e. There are incentives to develop and share new knowledge or learning.
1f. The Trust actively encourages staff to learn and develop new knowledge.
1g. I have learned and developed new knowledge as a result of an adverse incident.

Figure 45

<table>
<thead>
<tr>
<th>Comments in relation to Question 1g – examples of learning from an adverse event</th>
</tr>
</thead>
<tbody>
<tr>
<td>As part of my job I read many incident reports of adverse incidents. I have identified the root cause of many of these incidents and learned from them.</td>
</tr>
<tr>
<td>Complaining about staff attitudes in A&amp;E have led to improvements hence better patient care.</td>
</tr>
<tr>
<td>Directory of training. KSF. Incident management policy. Untoward incident policy.</td>
</tr>
<tr>
<td>Learning and development courses on offer</td>
</tr>
<tr>
<td>Obviously this is not a clinical example but we had a tribunal case which resulted from a system and procedure breakdown and we learned from that incident and reviewed and changed processes as a result, recognising that it was a systems failing.</td>
</tr>
</tbody>
</table>

Figure 46

Semi-structured Interview Results

QHR3.1

What human resource systems are there in place to encourage staff to learn and develop new skills or knowledge?

All interviewees mentioned the Untoward Incident Policy as a system that encourages individuals to learn from adverse events. However, many of the interviewees highlighted that the policy did not support the sharing of any learning.
The Knowledge and Skills Framework (KSF) was cited by the majority of interviewees as a process to encourage appraisal, learning and knowledge development. Two of the operational staff expressed concern however, that the KSF process was simply undertaken with staff as a "tick in the box" exercise. One member of staff stated:

"Staff are suspicious of the KSF process since they have to meet with their line manager. They are often nervous and lacking in confidence since staff normally only meet with their manager when something is wrong."

The Risk and Safety Manager and the Human Resource Manager also highlighted that the KSF process was not linked well enough with adverse incident information to enable more systematic learning or knowledge development.

Agenda for Change was cited by the majority of interviewees as having an adverse effect on staff wanting to participate in the KSF process. The interviewees highlighted the fact that majority of operational staff were at the top of their pay scale and there was no incentive to learn or develop. Limited opportunities for career development were also cited by two of the interviewees as negative influence on the KSF process.

The Learning and Development Team, which sits within the Human Resources directorate, was also cited as being a valuable facility to support learning and knowledge development by the interviewees. The operational staff stated that lack of support from their local manager to get released from operational duties sometimes made it difficult to attend courses or development opportunities. The Sector Manager also acknowledged that the learning and development systems had not been "thought through properly" with no consideration of the impact on resource management.
Commentary

62% of respondents to the SCQ agreed that the Trust actively encouraged staff to learn and develop new knowledge, with the same number agreeing that they had actually learned and developed new knowledge as a result of an adverse incident. The Untoward Incident Review Policy is effective in relation to adverse incidents at an individual level. The principles of the KSF process appear to be supportive of learning and knowledge development although additional policies or systems to improve support for staff release are required. The KSF is not linked sufficiently with learning from adverse incidents. Only 17% of the SCQ respondents agreed that feedback from adverse incidents was used as part of the appraisal process.

“Although most adverse events are not related to serious problems of poor professional performance, there must be appropriate links between systems for learning from failure and those for detecting and addressing poor performance.” (DH 2000 p. 72)

The SD showed that 43% of respondents had an appraisal during the last twelve months, with 61% finding the appraisal useful in improving how they do their job. 77% of respondents agreed a Personal Development Plan as part of the appraisal process, with 52% agreeing that the identified training and development had been delivered (23% also stated that it was too early to confirm this). 58% of the respondents also agreed that their manager was supportive in accessing the training or development. The SCQ however, showed 49% of respondents agreed that there was an appraisal system that encouraged learning and the development of new skills.

Only 43% of respondents to the SCQ agreed that there were incentives to develop and share new learning or knowledge. The SD also showed that 57% of respondents felt that their Agenda for Change pay band was unfair. The semi-structured interviews highlighted
the pay system and lack of career opportunities as having an adverse influence on the motivation for individuals to develop. The human resource practices should support individual learning, with appraisal and reward systems to support the sharing of knowledge and development of new skills (Iles and Sutherland 2001).

4.5 Information Systems

4.5.1 Objective 1: The organisation’s ability to recognise, identify and record adverse incidents.

Secondary Data Results

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q10e. Have you received any training, learning or development (paid for or provided by your trust) in Computer skills (e.g. using trust systems, internet, etc)? (n = 395)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not applicable to me</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Yes, in the last 12 months</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Yes, more than 12 months ago</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>No 69%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 47

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q32c. I know how to report errors, near misses or incidents. (n = 392)</td>
<td>86%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Figure 48
Self-completion Questionnaire Results

1c. I know what information is required for documenting and reporting an adverse incident. (n = 173)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>72%</td>
<td>28%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 49

Semi-structured Interview Results

QIS1.1

Can you discuss the how effective the incident reporting system is for identifying and recording adverse events?

All interviewees felt the incident reporting system was effective for the initial identification and recording of incidents, with a perception that all staff knew how to use the reporting system. The Human Resource Manager did however, feel that the reporting system was under utilised in other directorates. The majority of interviewees agreed that the form used
to record incidents was sufficient and easy to use. Some of the managers felt that a computer system would be better than the current paper-based one. Operational staff agreed that an electronic solution would be better but stated it would not work due to lack of access to computers. The Risk and Safety Manager raised concern that the incident reporting system was geared towards recording actual incidents and not the recording or reporting of near misses. When the operational staff were asked about this they agreed and suggested that a different anonymous, simpler form would help the reporting of near misses by staff.

One of the operational staff raised concern about the passing of the completed incident report form onto managers and that there were often long delays before feedback was received. Another operational staff member stated:

“Most of the time nothing is done. The form goes into the manager’s office and you never hear anything again. People just fill the forms out to cover themselves.”

When the managers were asked about the management of incident report forms they raised concern about a lack of consistency in how they were managed by different managers. The Sector Manager and Risk and Safety Manager felt that the process was correct but that some managers did not necessarily fulfil their responsibilities. Lack of ownership of the process, lack of investigation to “add value” to the information and delays in the transfer of information to other departments or managers were the main causes identified. The Sector Manager felt that delays in the transfer of the information related back to the issues associated with the operational management structure and how it had to be passed up through different levels of management. Other managers also felt that because the system was paper based it contributed to delays in the transfer of information between managers.
and departments. The majority of managers felt that an electronic incident reporting solution would resolve the concerns raised regarding the initial management of adverse incident information.

Commentary

The SD identified that 86% of respondents knew how to report an adverse incident, with 72% of the SCQ respondents agreeing that they knew what information was required for reporting. The semi-structured interviews substantiated this; with the perception that all staff knew how to use the process although concern was raised about awareness outside the operational structure.

“Detecting and accurately recording errors is a fundamental step in learning from experience”

(DH 2000 p.38)

56% of the SCQ respondents also agreed that the Trust had efficient systems for the reporting and recording of incidents. However, the system was not considered as effective for the identification of near misses.

“Safety information systems need to collect, analyse and disseminate information from incidents and near misses……... research in industry demonstrated that for each accident causing serious injury, there were a far greater number of accidents which resulted in minor injuries or no injury at all – near misses.” (DH 2000 p.38)

The semi-structured interviews identified that an electronic solution would also help overcome some of the issues associated with the management of the adverse incident information; in particular reducing delays in the transfer of information. However, the lack
of access to computers was cited as a barrier to this. Although, the SCQ identified that 72% of the respondents did have regular access to a computer in the workplace. The SD showed that 69% of respondents had not received any form of training in computer skills.

The operational structure was also highlighted as a barrier to the transfer of timely adverse incident information. Only 31% of the SCQ respondents agreed that the Trust had effective systems for the management of adverse incidents. Iles and Sutherland (2001) state learning organisations require information systems that allow the rapid acquisition, processing and sharing of information to support knowledge management. These systems will also support the knowledge conversion process from tacit to explicit knowledge to provide conceptual knowledge (Nonaka and Takeuchi 1995).

4.5.2 Objective 2: The development of new knowledge and learning from information within the organisation.

Secondary Data Results

Q34f. We are informed about errors, near misses and incidents that happen in the trust. (n = 391)

![Pie chart showing responses to Q34f]

- Strongly Agree: 2%
- Agree: 20%
- Neither Agree nor Disagree: 36%
- Disagree: 33%
- Strongly Disagree: 9%

Figure 51
Self-completion Questionnaire Results

Figure 52

Semi-structured Interview Results

QIS2.1

Can you describe the types of information systems that you use to share information, learning or knowledge with others?

The operational staff stated that they predominantly shared information verbally with other staff. The use of email was mentioned but lack of access to computers limited this method significantly. The operational staff also stated that many staff do not have work email addresses. The incident reporting system was mentioned by two staff as an information system used. The Clinical Practice Trainer (CPT) also said that they produced and circulated memos to staff to share information. The CPT also produced a newsletter, which was circulated to staff, providing them with an update on what was discussed at the Clinical Effectiveness Forum. However, this was limited to the operational group that the CPT
worked in. The lack of systems to communicate information upwards to management, other than incident reporting, was highlighted by the operational staff and CPT.

“The communication of information in the service is non existent. It’s a one way process, downwards only. Meetings are called but do not happen due to lack of resources on the day. Staff are often given wrong information.”

The managers provided many different examples of how they shared information or knowledge with others. Email was the most frequently cited method. Other methods included:

- Newsletter articles
- Memos
- Staff forums
- ‘Pigeon holes’ for staff
- Trust Intranet site
- Management Briefing Meetings

The Risk and Safety Manager highlighted the use of a national web-based discussion forum, where information could be shared with other risk managers in other Ambulance Trusts.
QIS2.2

Can you discuss your experience of how information is used from adverse events to develop knowledge or learning?

All interviewees highlighted the Trust Untoward Incident Review process as an example of where information is used to develop new knowledge or learning. This however, was considered, by the majority of interviewees, to be limited to the individuals involved in the incident. The operational staff felt that the information communicated from adverse incidents was predominantly based on re-enforcement of existing policies or procedures. There was a perception by the majority of interviewees that information was only used from more severe incidents to develop learning or knowledge. The Risk and Safety Manager highlighted the use of information to learn from adverse incidents was primarily focused on the volumes and trends of incidents.

“The paper-based reporting system, combined with a basic database system is time consuming and limits our ability to truly analyse and understand the data in anything more than numbers or trends. Because of this it is often only when a significant event occurs that we take time to really use information to develop new knowledge.”

The majority of managers did feel that information from adverse incidents was used to support change or new ways of working. However, it was also acknowledged that it often took time to implement changes and the evidence behind the change was often lost in the process or not communicated sufficiently at the point of implementation.

Commentary

The information systems only appear to support the downward communication of information from management to staff. Only 28% of SCQ respondents agreed that the
Trust had systems or technology that allowed staff to formally record new knowledge or ideas. Iles and Sutherland (2001) highlight the requirement for organisations to be able to rapidly acquire and process information. Nonaka and Takeuchi’s (1995) knowledge conversion process, where explicit knowledge is combined to form systemic knowledge, is also dependant on the organisations ability to mobilise knowledge. The semi-structured interviews highlighted a lack of access to Information Technology facilities as a significant barrier to the upward communication of information from an operational level. In contrast, 72% of the SCQ respondents agreed that they had access to email at work. Managers cited email as their most commonly used method of information sharing. Many of the other information systems used by management appear to be verbal or paper-based and focussed on the downward communication of information to staff.

The use of information to learn or develop new knowledge limited to individuals or when a significant incident occurs. The SD showed that only 22% of respondents agreed that they were informed about near misses and errors that happen. The information from adverse incidents is predominantly used to re-enforce existing procedures. Iles and Sutherland (2001) suggest that learning organisations need to progress from single loop learning where information is used for control purposes.

“It is far more difficult for effective learning to take place if the initial understanding of what has occurred is seriously flawed.” (DH 2000 p.29)

Limitations in the information systems used for incident reporting appear to limit the capacity to develop quality information to support knowledge development. The proper analysis of data is required to ensure that learning can be identified (DH 2000).
4.5.3 Objective 3: The organisation’s implementation of new learning and knowledge to improve performance.

Secondary Data Results

Q34g. We are given feedback about changes made in response to reported errors, near misses and incidents. (n = 391)

![Pie chart showing responses to Q34g.](image)

Figure 53

Self-completion Questionnaire Results

![Bar chart showing responses to 7d and 7e.](image)

Figure 54

7d. The organisation considers information from adverse incidents when developing new services, policies or procedures.

7e. The organisation communicates what learning or changes have occurred as a result of adverse incidents.
Semi-structured Interview Results

QIS3.1

Can you discuss your experience/knowledge of how information systems support the implementation of new knowledge i.e. its documentation and communication to staff?

All the interviewees agreed that the organisation was good at producing information but concern was raised about how effectively it was communicated to staff. The operational interviewees cited paper-based systems such as Paramedic Emergency Service Instructions, Clinical Handbooks and Self Directed Learning packs as the most common methods they had experience of. The biggest concern raised however, was that not all staff see or read the memos. Two reasons were identified for this:

1. Because the memos are paper-based they had a tendency to go missing easily, with only one copy sent out per station. It was also mentioned that some staff would keep the memo for themselves, which meant nobody else was able to read it.
2. Many staff don’t proactively check for new information and there was no system to ensure that, when information was issued, they were made aware and actually read it.

The CPT highlighted an area of good practice in one operational group where every member of staff was provided with a ‘pigeon hole’. Any new information was then copied to all staff via the ‘pigeon hole’ system. Two of the operational staff also mentioned glass fronted notice boards on stations which were used to display all Paramedic Emergency Service Instructions. However, ensuring staff actually read them or that they were aware of a new instruction being displayed was still considered an issue.

“I'm sure the Trust/Management has good intent, however due to the size of the organisation, communication is very slow and not always a two way, process, which leads to misunderstanding and mistrust. Incidentally, I feel the Unions are no better in this respect.”

The Self Directed Learning packs and Clinical handbooks were considered effective by the majority of interviewees for ensuring that staff had received the information since these were issued using staff lists where they had to sign for receiving them. It was also felt that these were used by staff as a reference document. However, the managers and CPT were concerned that there was no follow process to ensure that they had read the information, understood it and used it.

The managers raised concern about the large volume of information that was communicated to operational staff. It was felt that not enough time was spent at a local level managing the communication element, which was mainly attributed to operational performance pressures. The Sector Manager also raised concern that staff had limited
opportunity or facilities to feedback or raise questions in relation to the information communicated down.

“We are good at sending information out but we can’t ensure that every member of staff reads it and understands it every time. What happens if a Paramedic comes on duty at 19:00 at night, reads a new instruction and then has some questions about it? Who can he ask? Who can he speak to that will be fully briefed and knowledgeable about the change?”

The majority of managers agreed that information systems were generally effective in supporting their roles at a management level. Email and the Trust intranet site were the two most cited examples. The Human Resource Manager felt that a lot of information about new operational changes was not circulated enough to other directorates. The managers also highlighted a number of face to face opportunities, such as the Management Briefing Meetings (MBMs), as useful information systems to support implementing change. However, it was acknowledged that these were for management only and there was limited opportunity within the operational environment to cascade the information in a similar manner.

Commentary

Only 26% of the SD respondents and 29% of the SCQ respondents agreed that feedback was communicated in relation to changes made as a result of adverse incidents. The semi-structured interviews also identified that little background information was communicated as part of the implementation process. However, 60% of the SCQ respondents agreed that the organisation considers information from adverse events when developing new service or procedures.
The information systems supporting implementation at an operational level are not particularly robust. Ensuring staff have read the information and understand it are the two key issues. The final part of Nonaka and Takeuchi’s (1995) knowledge conversion process is the creation of operational knowledge by converting explicit knowledge into tacit knowledge using documents, procedures diagrams etc. The ability for staff to feedback up the information system is also a concern that may limit the organisation’s ability to learn about the impact of the change and also the effectiveness of its information systems. Failure to embed learning sufficiently into practice is one of the most common reasons why learning from adverse incidents fails (DH 2000).

54% of the SCQ respondents agreed that the Trust provided systems/technology to search and retrieve stored knowledge or information. The ability of to share information rapidly is a characteristic of learning organisations (Iles and Sutherland 2001).

Information systems at a management level do seem to be more effective, which is primarily attributed to improved access to IT facilities and greater opportunity to participate in face to face communications.
4.6 Communities of Practice

4.6.2 Objective 2: The development of new knowledge and learning from information within the organisation.

Secondary Data Results

<table>
<thead>
<tr>
<th>Q15d. Does the team meet regularly to discuss its effectiveness and how it could be improved? (n = 308)</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25%</td>
<td>75%</td>
</tr>
</tbody>
</table>

Figure 56

Self-completion Questionnaire Results

Figure 57

- 6a. The Trust supports the interaction of individual and organisation to share and build knowledge.
- 6b. The Trust has established forums or groups that are designed to share knowledge and learning.
Comments in relation to Question 6b – examples of groups or forums

Clinical Effectiveness Forum x 3
Certain groups exist, maybe more feedback from these groups to staff could be done.
KSF. Introduction and education for all staff.
Mandatory training groups / individual PDP's
Performance consultation group and vehicle working party.

<table>
<thead>
<tr>
<th>Figure 58</th>
</tr>
</thead>
</table>

| n = 173 |

Figure 59

Semi-structured Interview Results

QCP2.1

Can you discuss how the organisation supports the interaction of individuals to share and build knowledge?

Two of the operational staff referred to the Clinical Effectiveness Forum as an example of how the organisation supported individuals coming together to develop knowledge. Concern was expressed by one interviewee however, that membership was limited to only one member of staff from each operational group. The Clinical Practice Trainer (CPT) referred to the operational study days as an opportunity that the organisation had created
for staff to come together. Staff forums were also cited as an example of an opportunity where staff could meet with management.

The Sector Manager felt that the organisation supported the principle of individuals interacting to develop knowledge but that they hadn’t supported it from the perspective of providing additional resources to allow the release of staff. The Human Resource Manager and Risk and Safety Manager were able to give several examples of how the organisation supported the interaction of individuals including the Black, Minority and Ethnicity Group, Equality and Diversity Working Group and the Manual Handling Working Group. The Area Director referred to focus groups that were being utilised to develop and implement the Trust’s vision.

QCP2.2

What opportunities exist – in relation to adverse incidents – for staff to share and develop knowledge?

All interviewees cited the Untoward Incident Review process but stated that it was limited to the individuals involved in the incident. One of the operational staff referred to the Maternity Guidelines Group. None of the interviewees were able to identify any opportunities where operational staff or management could meet in relation to adverse incidents. One operational member of staff and the CPT suggested that staff had informal opportunities in the mess room or outside hospitals to share and develop knowledge.

QCP2.3

How would you describe the level of support that is provided by managers for staff to be part of knowledge sharing activities?

Two out of the three operational staff felt their managers were supportive of in terms of attending forums or meetings. The support included payment of overtime on days off,
assistance with swapping shifts or time back in lieu. The CPT acknowledged that they were given a high level of support by their training manager to participate in meetings or forums. One operational member of staff said that operational performance was the only concern of their manager and there was little support for attending meetings. The Sector Manager highlighted the lack of organisational support to allow managers to be supportive in this respect.

“There is too much of a reliance on the good will of managers to juggle limited resources to release staff to attend. We are only funded to meet performance targets, with little or no capacity in the system to undertake what are not seen as core tasks. If they want a consistent approach then they need to fund it properly.”

Concern was raised by all managers about the conflict between operational performance pressures and the release of staff to participate in meetings or forums. One manager suggested that the Operational Managers may be more supportive of staff participating in groups if they were given greater support to participate themselves.

**QCP2.4**

*Are staff encouraged to use the concepts of enquiry, reflection and experience when sharing knowledge?*

The majority of interviewees agreed that the concepts were really only ever encouraged on an individual basis as part of the work-based training system and the Untoward Incident Review. One of the operational staff felt the Clinical Effectiveness Forum functioned on the basis of these concepts. The CPT stated that they tried to encourage these concepts to be used more openly as part of the training days that staff attend.
The managers all stated that they tried to use these concepts themselves and were supportive of other staff using them also. The Human Resource Manager suggested that the Knowledge and Skills Framework should support the use of these concepts at an individual level through appraisals.

QCP2.5

How effective is the organisation at developing new knowledge from networks or groups of staff in this context?

The majority of interviewees thought that the organisation was effective at developing new knowledge from groups. Two main concerns raised by operational staff were; the time it took to introduce changes and lack of ability to ensure all staff actually change their practice. The operational staff and CPT also suggested that there was insufficient promotion of the groups used to develop new knowledge or practice and this may help encourage other staff to adopt the changes more readily.

The managers felt that the organisation was better at developing knowledge when engaged with external networks or groups. This was partly attributed to the fact that these were higher profile initiatives, with some additional funding attached. Concern was also raised by the majority of managers about how knowledge was then shared and implemented with operational staff. The lack of capacity within the operational management structure was the most frequently cited reason for this.

Commentary

The SCQ showed that only 37% of the respondents agreed that Trust supported the interaction of individuals and the organisation to share and develop knowledge. However, the semi-structured interviews provided many examples of opportunities that the Trust had
provided for staff interact. The SCQ also highlighted that 73% of respondents felt confident to discuss issues in an open manner within the forums. It was identified that although the principle of staff participation was supported there needed to greater support in terms of resource provision. There is limited evidence of any opportunities for staff to share or develop knowledge from adverse incidents. The development of systematic knowledge from Nonaka and Takeuchi’s (1995) knowledge conversion process is highly dependant on the interaction of individuals within an organisation.

The SCQ indicated that only 28% of respondents felt their manager encouraged them to attend forums or groups with only 26% of respondents agreeing that their manager provided support for them to attend. The SD also identified that only 25% of respondents agreed their team met regularly to discuss its effectiveness and how it could be improved. The semi-structured interviews identified that some managers were supportive of staff attending groups but there were inconsistencies in the levels of support offered. This was attributed to the lack of investment in additional resources and the conflict with operational performance pressure. A lack of participation, and therefore understanding, by Operational Managers was another barrier. The provision of an infrastructure and resources by organisations is identified as one of the ways that communities of practice can be supported (Wenger and Snyder 2000). Management also have a role in helping cultivate communities of practice (Wenger and Snyder 2000) and to support the interaction of individuals and the organisation to share and develop new knowledge (Alder et al 1999).

57% of the SCQ respondents agreed that the concepts of enquiry, reflection and experience were used within forums or groups. All interviewees also agreed that these concepts were encouraged and used by most staff. However, the semi-structured interviews identified this was considered to be at an individual level, which limited wider
organisational knowledge development. Dewey’s (1966) concepts of enquiry, reflection and experience are considered to enhance the way communities of practice function (Elkjaer 2006).

The development of knowledge from networks or groups was considered to effective although the time taken to implement and lack of communication about the knowledge development process were identified as limiting factors. The skill of putting knowledge into practice is considered as a core competency for learning organisations (Brown and Duguid 1998).

4.7 Evaluation of Findings

One of the most significant findings was that of an individual learning culture, which limited the recognition of less severe incidents and was primarily centred on single loop learning. There was also some evidence of a blame culture within the operational environment despite an open and fair culture in senior management and other directorates.

It became apparent that the culture, structure and leadership elements of the framework were closely linked; with the latter two having a significant influence on the culture. The hierarchical structure and the lack of effective leadership within the operational environment do not support team working and learning. It also appears ineffective at communicating the open and fair culture promoted by senior management. The performance focussed nature of the service is wrongly perceived to be incongruent with a more open style of leadership required for a learning organisation. The nature of the
service delivered (a mobile unsupervised workforce operating in pairs) does however, present significant challenges in terms of developing an affordable structure and leadership model to support organisational learning. The framework also identified that the relationship between organisational learning and improving organisational performance was not fully understood.

The research identified the importance of information systems in supporting all aspects of the process. The most significant finding was the importance of a two way information system, which was not sufficiently emphasised in the literature or conceptual framework. The information systems were also significantly influenced by the structure of directorates. The limited ability of the organisation to provide effective feedback to staff and to communicate the culture or vision from senior management had a negative influence on creating a learning culture.

The human resource element of the framework did identify systems to encourage learning and personal development. However, the link between individual learning and organisational learning was not apparent. The human resource element appears highly dependant on effective leadership and information systems to support the relationship between individual and organisation.

The research identified that the knowledge conversion process does fit with the different aspects of managing adverse incidents. However, this again is highly dependant on structure and leadership supporting both the mobilisation of knowledge from individuals, through a culture of openness, and opportunities for staff to learn and develop knowledge collectively. The concept of communities of practice also appears to support the
knowledge development process but again is incongruent with a predominantly mobile workforce.

The importance of a vision to support organisational learning is discussed within the literature and identified within the research. However, it was evident that this was not sufficiently communicated or embedded within the culture, which was partially attributed to an overarching focus of operational performance. Inclusion of vision as an element of the conceptual framework may prove beneficial.

In light of the research findings it has been necessary to review and modify the conceptual framework. Figure 60 represents the revised conceptual framework.

The framework now demonstrates that leadership, structure and vision influence the culture and that culture has a greater role in enabling each of the stages. Information systems are also represented as two way and as an integral part of each stage. The information systems and culture are also seen as key in communicating the vision of the organisation - to learn and develop knowledge collectively.
Figure 60: Revised Conceptual Framework for learning from adverse incidents
CHAPTER 5
CONCLUSIONS

The following conclusions have been drawn from the findings presented in chapter four and are discussed in relation to the six elements of the conceptual framework. They are presented in descending order of importance.

5.1 Structure

The structure, at an operational level, is the most significant limiting factor in relation to achieving organisational learning. The hierarchical command and control structure is not conducive to the team based approach required. However, even if this was resolved there are still the physical constraints and working patterns in relation to the nature of the service, which would limit effective team working. There is also a lack of capacity within the current structure to provide adequate leadership and to release staff from operational duties; allowing them to participate more in the organisations activities and to function more effectively as teams. The lack of provision of twenty four hour management support to staff appears to be a concern for both staff and managers.

The current operational structure only appears to support a one way communication process from management to staff; however, the effectiveness of this is limited by a lack of capacity at first line management levels. More significantly, the rank based structure appears to inhibit staff from challenging practices or procedures or generally communicating information back up to management. The operational structure is also too isolated from other directorates, which limits and delays the sharing of information. Additionally, there is evidence to suggest that cross directorate communication and working, as a whole, could be greatly improved within the organisation.
5.2 Leadership

There is evidence of effective leadership at a senior level within the organisation; however, the translation of this to lower levels of the organisation is adversely affected by the size of the new organisation and the relationship between corporate and local area management. A lack of clinical competency and lack of investment by the organisation in education and development for Operational Managers has led to a lack of respect from clinical staff and inconsistencies in the way that managers behave. This has also resulted in an inability to understand and learn from more complex clinical incidents. Re-enforcement of existing policies or practice by managers appears to be the pre-dominant approach to what is considered learning i.e. single loop learning.

The operational performance pressures appear to limit the perceived scope for a more open and inclusive approach to leadership within the operational directorate, which have led to a more authoritarian approach to managing staff. Failure by lower levels of management to link learning from adverse incidents to improving overall organisational performance is also apparent. The lack of face to face opportunities with management appears to be contributory factor to why leadership is not perceived to be effective at an operational level. The current concerns over the next stages of the re-structure process have also had an adverse effect on the motivation of lower levels of management, which may impact on their behaviour as leaders.

5.3 Culture

Despite evidence of the Trust supporting an open and fair culture there is still a degree of scepticism among staff with evidence of a perceived blame culture. As a result, incident reporting is primarily driven by a culture of self preservation, focusing on incidents that directly affect staff and have to be reported. Little consideration is given to near misses and
the linking of individual incidents to wider organisational issues. An individualistic learning culture is also prevalent that focuses on the re-enforcement of existing practices. There is also a distinct lack of a questioning culture within the organisation. The predominant performance culture within the operational directorate is a limiting factor, which does not support a collective learning culture, particularly between operational managers. Trust policy, in relation to learning and action from adverse incidents, has created a culture of confidentiality, which has prevented individuals or the organisation to share any learning or knowledge developed. Agenda for Change has also resulted in poor staff morale and had a negative influence in terms of being motivated to learn or develop more.

There was evidence of a knowledge sharing culture at an informal level between operational staff, with evidence of some learning being shared. However, the organisations ability to capture this is limited. Management’s failure to recognise this as valuable knowledge or information that is worthy of capturing is a concern.

A systems thinking culture is apparent at more senior levels within the organisation with a commitment to being open and fair. A culture of action to implement new learning or knowledge is also apparent at a senior level within the organisation. However, poor communication has limited this culture becoming more widespread. There is some evidence of learning, change and action as a result of more serious incidents. The quality of implementation is however, a concern. Much of this can be attributed to the issues associated with structure and leadership previously discussed.

5.4 Information Systems

The information systems to support incident reporting are effective from an operational perspective; the system is easy to access and use and collects the correct information.
However, the system does not support the reporting of near misses due to lack of anonymity and a simpler recording process. The transfer and management of information within operational management are not effective. There are two principle reasons for this; the need to transfer up through a hierarchical structure, which causes delays and the limited ability by managers to improve the quality of the information. There is also evidence of delays in transferring information across directorates. The introduction of an electronic incident reporting system was widely acknowledged as an effective solution to improve the rapid transfer of information. However, a lack of access to Information Technology (IT) equipment by operational staff has limited the ability to move from a paper-based system to an electronic solution.

The use of information systems to support sharing of knowledge, at a management level, does appear to be effective with evidence of a variety of methods being utilised. Information systems, at an operational level, are much less effective with a lack of systems to support the transfer of information upwards to management. The use of information systems to develop knowledge or learning from adverse incidents is a time consuming process due to the paper-based reporting system. The lack of sophisticated analysis also appears to limit the development of the information into anything other than trend or volume analysis of incidents.

There is evidence of knowledge from adverse incidents being used to effect change or develop practice. However, there is a failure of information systems to support the downward communication of feedback from adverse incidents and the implementation of learning in general. The inability of information systems to support the upward communication of feedback, following implementation, prevents the organisation gaining assurance that all staff been provided with the correct information. This also limits the
organisations ability to assess how effective implementation has been and the impact of any changes made. The reliance on paper-based systems to implement change appears to be a contributory factor to these issues. A ‘pigeon hole’ system was identified as an example of good practice that ensured every member of staff was provided with a copy of paper-based communications. Improved access to IT and the use of electronic learning solutions may overcome some of the issues identified. It is also apparent that the effectiveness of information systems is influenced by the structure and leadership within the organisation.

5.5 Human Resource Practices

The human resource policies are supportive of an open and fair culture that supports the reporting of adverse incidents. However, the confidential nature of the policies and an emphasis on management of individuals does not support organisational learning and the sharing of knowledge. The application of the policies by Operational Managers is inconsistent and has led to some concerns over their effectiveness. Human resources are underutilised in the management of adverse incidents and their independent role is not publicised well enough to staff. This has led to a negative association with their involvement when they are utilised.

Learning and knowledge development is supported at an individual level by the human resource policies in relation to adverse incidents. The Knowledge and Skills Framework (KSF) and the Learning and Development Team are also very supportive of learning and development however; they are not sufficiently linked with information from adverse incidents to support organisational learning. There is evidence of appraisals being undertaken and staff being supported to access further training or development. However, this is limited by the lack of capacity within the operational structure to release staff.
Further work is required to develop organisational policy to ensure that staff are adequately supported in terms of release to participate in learning and development. Similarly, further work is required to assess the full impact of supported learning activities in terms of the required operational resources. The Agenda for Change pay scheme and the lack of career opportunities has had a negative influence on the majority of the operational workforce in terms of being motivated to learn and develop more skills. It is recognised however, that this is a national pay scheme and is out with the direct control of the organisation.

5.6 Communities of Practice

There was some evidence of groups that the organisation had established to support the interaction of staff to develop new knowledge or ways of working. These appear to be effective, with evidence of the organisation implementing the knowledge or learning developed from working groups or forums. However, excessive time taken to implement changes and the lack of communication regarding the role of the groups or forums in developing the change is not communicated sufficiently.

There was no evidence of self-forming groups or groups in relation to adverse incidents. The nature of the service significantly limits the ability of groups to self form. The level of support offered by managers for staff to attend established groups or forums was varied, which was attributed to the lack of capacity within the operational structure.

The concepts of enquiry, reflection and experience appear to be embedded at an individual level and also within the established working groups or forums. Staff are also confident to act in an open and honest manner when attending forums or groups. The principles of communities of practice are evident within existing working groups and forums. These principles could be used to good effect to collectively review adverse incident information
and develop new knowledge and learning. However, increased capacity within the organisational structure and more effective information systems, to improve the quality of information, is required to maximise the benefits of such a group.

5.7 Further research

Further research is required in relation to the cultural aspects of the organisation with particular focus on understanding the dominant operational performance orientated culture and the failure to link this with other aspects of organisational performance.

More in-depth research in relation to the information needs of the organisation and identification of suitable communication methods would also prove beneficial in the context of organisational learning.

Additional research to identify and understand, in more detail, the factors affecting staff motivation to support organisational learning and personal development is recommended.

Lastly, it is recommended that further research is undertaken in the other two areas of the Trust, using the conceptual framework, to provide a more accurate understanding of the whole organisation's ability to learn.
CHAPTER 6
RECOMMENDATIONS

The following recommendations are presented in descending of importance:

6.1
A full review of the operational management structure is undertaken; to provide greater capacity for management to support staff and provide more effective leadership. Consideration must be given to the flattening of the operational management structure and increasing the first line management resource; particularly twenty four hour support. This would greatly improve the level of contact with staff, provide an opportunity for two-way communication and reduce some of the delays in transferring information. An additional part of the review should focus on levels of authority, empowering lower levels of management to make more decisions and communicate more laterally with other directorates. A Scheme of Delegation to clearly define management roles in different scenarios may assist with this.

6.2
The capacity within the operational directorate should be reviewed in relation to current levels of demand. Specific consideration should be given to identifying what capacity is required and what capacity there is to release staff from operational duty to participate in activities to develop organisational knowledge and activities to support their own personal learning and development.
6.3
A review of management’s development needs should be undertaken once recommendation 6.1 has been completed. This should include identification of the required competencies for effective leadership and the appropriate educational pathways to support development. A timetable for delivery of the educational programmes should also be developed.

6.4
A business case, for submission to the Trust Board should be produced following completion of recommendations 6.1 to 6.3. This should outline associated costs, timescales, benefits, risks and measures of success.

6.5
The Trust should purchase an electronic incident reporting system. This would operate concomitantly with the paper-based system. Staff could utilise the electronic reporting solution where facilities exist. A simplified near miss form could also be developed as an option on the electronic system. Management could also utilise the system to transfer information from paper, which would facilitate much more rapid sharing of information across the organisation. The electronic solution would provide staff and management with the ability to monitor the progress of reported incidents; thus overcoming some of the issues associated with poor feedback from paper-based systems. The electronic solution would also facilitate improved analysis and reporting of incident data.

6.6
The Trust should develop an Organisational Learning Strategy and Policy, which clearly signals it’s commitment to developing the qualities and systems associated with a learning
organisation. This should provide the Trust with a vision that positively influences the culture at all levels within the organisation. The document should focus on using information and knowledge from all aspects of the organisation, not just adverse incidents. It should make explicit the link between knowledge development and improving overall organisational performance. The document should be developed by a small working group that incorporates representatives from all directorates, including operational staff.

6.7

The Trust should review its current Untoward Incident Policy to support the sharing of learning outcomes at the end of the review process. The emphasis should be on anonymity and the development of themes to be shared with the wider organisation.

6.8

The Trust should implement a simplified near miss form that allows staff to report quickly and easily with the option of anonymity.

6.9

An Incident Review Forum should be developed, using the principles of communities of practice, to collectively develop learning and knowledge from adverse incidents, complaints and claims. This forum should also review outcomes from the untoward incident review process. Membership of the group should include representation from all directorates, including operational staff. The forum should produce a quarterly ‘Lessons Learned’ newsletter for staff.
6.10

The Trust should review the Knowledge and Skills Framework process to ensure that adverse incident information is considered as part of the appraisal process.

6.11

The Trust should undertake an audit of current availability to IT equipment for operational staff, including the provision of work email addresses for staff. The audit should also assess the number of staff who require computer training.

6.12

A Quality Improvement Portal should be developed on the Trust Intranet site to support the sharing of and development of information between staff. The principle aspect of the portal would be a forum where staff can raise issues for discussion with other staff including managers. This would allow the organisation to ‘listen’ to what staff concerns are and to provide some immediate responses where appropriate. The forum would be managed by the organisation to limit any inappropriate use by both staff and management. The organisation would be able to identify themes or areas of concern that require further investigation. Another aspect of the portal would be to act as a ‘one stop’ information source. Adverse incident information, clinical guidelines, staff memos, newsletters, clinical audit reports, online training packs and web-links to external resources could be stored here.

6.13

The following implementation plan (Table 9) provides an outline of the anticipated costs and timescales involved.
Table 9: Implementation Plan

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Task</th>
<th>Actions</th>
<th>Lead Person</th>
<th>Time required</th>
<th>Expected Completion Date</th>
<th>Costs</th>
</tr>
</thead>
</table>
| 1.       | To undertake a full review of the Operational Management Structure to provide greater capacity for management to support staff and provide more effective leadership. | 1. Use Mersey Internal Audit to undertake review of current structure.  
2. Involvement of finance to identify cost implications.  
3. Presentation of report to Trust Executive Team.  
4. Consultation with operational management staff.  
5. Presentation of final report to Trust Board. | Deputy Chief Executive | 3 months | 1st December 2007 | Cost of Mersey Internal Audit is covered by a Service Level Agreement. There is currently spare capacity within the agreement for them to undertake additional activities such as this.  
Cost of changes to management structure not yet known. |
| 2.       | The capacity within the operational directorate is to be reviewed in relation to current levels of demand. Specific consideration should be given to identifying what capacity is required and what capacity there is to release staff from operational duty to participate in activities to develop organisational knowledge and activities to support their own personal learning and development. | 1. Analysis of current activity and demand for the financial year.  
2. Mapping of current staffing levels and against the activity levels.  
3. Involvement of finance to identify costs of additional resources required.  
4. Presentation of report to Area Management Team.  
5. Consultation with staff.  
6. Presentation of report to Trust Executive Management Team. | Head of Service | 2 months | 1st November 2007 | Nil cost for the analysis work – only management time.  
Cost of additional resources not yet known. |
| 3.       | A review of management’s development needs should be undertaken once task 1 has been completed. This should include identification of the required competencies for effective leadership and the appropriate | 1. Identify the key skills and competencies required to fulfil the new management roles from task 1.  
2. Development of competency frameworks for each of the roles.  
3. Identification of suitable academic and non-academic programmes to develop key skills and competencies. | Associate Director of Workforce Development | 3 months | 1st March 2008 | Nil costs – management time only.  
Cost of additional education and training not yet known. |
**Action Plan Updated:** 1st September 2007

**Author:** Stephen Barnard, Head of Clinical Governance

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Task</th>
<th>Actions</th>
<th>Lead Person</th>
<th>Time required</th>
<th>Expected Completion Date</th>
<th>Costs</th>
</tr>
</thead>
</table>
| 4.       |      | 1. Production of business case providing an options appraisal of tasks 1 to 3.  
        |      | 2. Full costings for each option produced.  
        |      | 3. Risk assessment of each option completed.  
        |      | 4. Presentation of the business case to the Trust Executive Team.  
        |      | 5. Presentation of the business case to the commissioners to agree funding support. | Deputy Chief Executive | 2 months | 1st May 2008 | Nil costs – management time only.  
        |      | Costs of options not yet known. | | | | |
| 5.       | Implementation of the new operational management and staff structures. | 1. Establishment of a working group.  
        |      | 2. Development of a project plan.  
        |      | 3. Implementation of plan. | Deputy Chief Executive | 12 months | 1st May 2009 | Not yet known |
| 6.       | Purchase and implementation of an electronic incident reporting system. | 1. Evaluation of available systems.  
        |      | 2. Identification of preferred system.  
        |      | 3. Production of a business case to support purchase.  
        |      | 4. Presentation to Trust Executive Team.  
        |      | 5. Undertake tender process.  
        |      | 6. Purchase of system  
        |      | 7. Implementation of system and training of users. | Head of Risk and Safety | 6 months | 1st February 2008 | £15,000 revenue (10 x £1500 administrator licenses)  
        |      | £2000 non-revenue (10 x train the trainer places) | | | | |
        |      | 3. Development of draft for consultation.  
        |      | 4. Finalised draft to Trust Executive Team for approval.  
        |      | 5. Approval at Trust Board.  
        |      | 6. Development and implementation of an action plan.  
<pre><code>    |      | 7. Communication of strategy and policy to all staff. | Head of Clinical Governance | 12 months | 1st September 2008 | Nil costs – management time only. |
</code></pre>
<table>
<thead>
<tr>
<th>Task No.</th>
<th>Task</th>
<th>Actions</th>
<th>Lead Person</th>
<th>Time required</th>
<th>Expected Completion Date</th>
<th>Costs</th>
</tr>
</thead>
</table>
| 8.      | The Trust should review its current Untoward Incident Policy to support the sharing of learning outcomes at the end of the review process. | 1. Presentation of policy at Clinical Governance Sub-committee for review.  
2. Consultation with staff.  
3. Re-presentation of policy at Clinical Governance Sub-committee for approval.  
4. Presentation to Trust Board for approval.  
5. Communication of policy amendments to organisation. | Head of Clinical Governance | 6 months | 1st February 2008 | Nil costs – management time only. |
| 9.      | The Trust should implement a simplified near miss form                | 1. Identification of information required on near miss form.  
2. Design of form.  
3. Amendment of Trust Incident Reporting procedures to support use of form.  
4. Consultation with staff.  
5. Get quote for printing of form.  
6. Presentation of amended procedures and form to the Trust Risk Management Sub-committee for approval.  
7. Identification of funding from existing printing budget.  
8. Ordering of forms and implementation.  
9. Communication of new guidance to all staff and managers. | Head of Risk and Safety | 2 months | 1st November 2007 | £1000 revenue (printing of 3000 forms per year) |
| 10.     | An Incident Review Forum should be developed, using the principles of communities of practice, to collectively develop learning and knowledge from adverse incidents, complaints and claims. | 1. Identification of appropriate membership for the forum.  
2. Production of draft Terms of Reference.  
3. Approval of the forum at the Clinical Governance Sub-committee.  
4. Advertise for staff members to attend the forum.  
5. Hold first meeting and agree Terms of Reference. | Medical Director | 3 months | 1st December | £2400 revenue (pay costs for 6 operational staff to attend quarterly meetings for half a day) |
| 11.     | The Trust should review the Knowledge and Skills Framework process to ensure that adverse incident information is considered as part of the appraisal process. | 1. Presentation of policy at Clinical Governance Sub-committee for review.  
2. Consultation with staff.  
3. Re-presentation of policy at Clinical Governance Sub-committee for approval. | Assistant Director of Workforce development | 6 months | 1st February 2008 | Nil costs – management time only. |
<table>
<thead>
<tr>
<th>Task No.</th>
<th>Task</th>
<th>Actions</th>
<th>Lead Person</th>
<th>Time required</th>
<th>Expected Completion Date</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td></td>
<td>4. Presentation to Trust Board for approval.</td>
<td></td>
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<tr>
<td>5.</td>
<td></td>
<td>5. Communication of policy amendments to staff and managers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td>Audit to be undertaken by IM&amp;T department.</td>
<td>Head of IM&amp;T</td>
<td>2 months</td>
<td>1st November 2007</td>
<td>Nil costs – management time only. Cost of additional resources not yet known.</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td>Report presented, including a proposed action plan and any identified costs to the Area Management Team for consideration.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>The Trust should undertake an audit of current availability to IT equipment for operational staff, including the provision of work email addresses for staff. The audit should also assess the number of staff who require computer training.</td>
<td>1. Audit to be undertaken by IM&amp;T department.</td>
<td>Head of IM&amp;T</td>
<td>2 months</td>
<td>1st November 2007</td>
<td>Nil costs – management time only. Cost of additional resources not yet known.</td>
</tr>
<tr>
<td>13.</td>
<td>A Quality Improvement Portal should be developed on the Trust Intranet site to support the sharing of and development of information between staff.</td>
<td>1. Development of a product specification.</td>
<td>Head of Health Informatics</td>
<td>7 months</td>
<td>1st March 2008</td>
<td>All development undertaken by in-house staff therefore no costs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Consult with staff and managers as to what would be beneficial.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>3. Development of a small project group.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>4. Development of a project plan.</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>5. Design and development of the portal.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>6. Testing of functionality of portal.</td>
<td></td>
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<td></td>
<td></td>
<td>7. Promotion of launch of portal.</td>
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</tbody>
</table>
APPENDICES
Dear colleague

My name is Steve Barnard, Head of Governance for the Greater Manchester Area. I am currently undertaking a research project as part of a Masters in Managing Health and Social Care. The research project is to investigate the organisation’s effectiveness at knowledge management and learning, from adverse incidents; using a conceptual framework that I have developed.

As part of my research I have chosen to produce and distribute a questionnaire for staff and managers to complete.

It would be greatly appreciated if you could spare a short amount of your time to complete the attached questionnaire.

The questionnaire is completely anonymous and confidential. Nobody will be able to identify your individual responses.

The questionnaire is made up of a series of statements with a 4 point answer scale ranging from agree strongly to disagree strongly or the option of yes or no.

Please read each question carefully and circle the answer that most accurately reflects your personal view. If you change your mind then place a cross through the first circled answer and then re-circle your revised answer. Some questions or statements may ask you to provide some additional information depending on your answer. Space will be provided directly under the question or statement. If you are completing it electronically then please place an X in the box that represents your answer. The questionnaire should take no longer than 10 minutes to complete.

Once you have completed the questionnaire please return it by one of the following methods:

1. Place it within the designated folder provided on station.
2. If you have received it via email then you can return it to the email address below.
3. Return it via internal post to:

   Steve Barnard  
   Head of Governance  
   Healthcare Governance Department  
   Greater Manchester Area Office  
   Whitefield Ambulance Station

Please return the completed questionnaire no later than the 15th May 2007.

Many thanks for your assistance and for taking the time to complete the questionnaire.

If you have any questions or require assistance please contact me on 0161 796 7222 or 07780 668427 or steve.barnard@nwas.nhs.uk.

Kind Regards  
Steve Barnard
### 1. Human Resource Practices

Please read each question carefully and circle the answer that most accurately reflects your personal view. If you change your mind then place a cross through the first circled answer and then re-circle your revised answer.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) I know what an adverse incident is.</td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b) I know how to report an adverse incident.</td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c) I know what information is required for documenting and reporting an adverse incident.</td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>d) Human resource policies and procedures encourage staff to be open and honest when reporting adverse incidents.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e) There are incentives to develop and share new knowledge or learning.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

*If you agree strongly or agree, please provide examples of the incentives:*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>f) The Trust actively encourages staff to learn and develop new knowledge.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g) I have learned and developed new knowledge as a result of an adverse incident.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

*If you agree strongly or agree, please provide an example:*
The Trust has an appraisal system that measures individual performance and encourages learning and the development of new skills or knowledge.

2. Culture

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) I would feel confident reporting an adverse incident that involved myself or another member of staff to my line manager.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b) The Trust supports an open and fair culture, including the reporting of adverse incidents, through policies, procedures and standards.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c) The Trust has an open and fair culture.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d) I am encouraged to report all adverse incidents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e) Learning is encouraged from adverse incidents at an individual level.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f) The Trust encourages staff to be innovative and suggests new ideas or ways of working.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g) The Trust has a culture that supports staff to work and learn together to develop new knowledge.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>h) The Trust is committed to taking action to improve organisational performance as a result of adverse incidents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>i) The Trust has a culture of blame and punishment.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
### 3. Structure

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
</table>
a) | The management structure supports the reporting of adverse incidents. | 1 | 2 | 3 | 4 |

b) The management structure supports an open and fair culture.

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
</table>

c) The management structure supports sharing of information:

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>From operational level to management</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>From management to operational level</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between operational staff.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

d) The structure supports team working to share learning and knowledge.

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
</table>

e) The structure provides informal opportunities (such as protected time or breaks) to share and discuss information with other staff.

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you agree strongly or agree, please provide examples of opportunities:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

f) The structure provides formal opportunities (such as team meetings, forums etc) to share and discuss information with other staff.

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>If you agree strongly or agree, please provide examples of opportunities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>g)</td>
<td>The structure supports networking across organisational boundaries, internally and externally.</td>
</tr>
<tr>
<td>h)</td>
<td>The organisation’s structure is flexible and organic and can be shaped to meet changing needs.</td>
</tr>
<tr>
<td>i)</td>
<td>The organisation’s structure is fixed and bureaucratic and is difficult to change to meet changing needs.</td>
</tr>
</tbody>
</table>

### 4. Leadership

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Managers are viewed as leaders within the Trust.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b)</td>
<td>Managers communicate a clear vision of the organisation’s aims.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c)</td>
<td>Managers within the Trust are inclusive of staff when considering organisational change or ways to improve organisational performance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d)</td>
<td>Managers act in a democratic manner when managing staff.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>e)</td>
<td>Managers are authoritarian when managing staff.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
f) Managers act with empathy and support when managing adverse incidents. | 1 | 2 | 3 | 4

g) Staff are acknowledged for contributing to organisational learning or knowledge development. | 1 | 2 | 3 | 4

h) Staff are encouraged to reflect on adverse incidents. | 1 | 2 | 3 | 4

5. Information Systems

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) The Trust has effective information systems for the management of adverse incidents (reporting through to; action, learning and feedback).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b) The Trust has efficient systems for the reporting and recording of adverse incidents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c) I regularly have access to a computer in the workplace.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d) I have access to email at work and regularly use it to communicate with other staff.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e) The Trust provides a communication network for staff to share learning, knowledge or ideas.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f) The Trust provides systems/technology that allows staff to search and retrieve stored knowledge or information.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g) The Trust provides systems/technology that allows staff to formally record new knowledge or ideas</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
6. Communities of Practice

Communities of practice can be described as “groups of people...with shared expertise...who share knowledge in free-flowing, creative ways that foster new approaches to problems.” (Wenger and Snyder 2000 p3). Hildreth and Kimble (2002) also identify these as groups where such types of knowledge are nurtured, shared and sustained.

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>The Trust supports the interaction of individual and organisation to share and build knowledge.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b)</td>
<td>The Trust has established forums or groups that are designed to share knowledge and learning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>If you agree strongly or agree, please provide examples of the groups or forums:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Managers encourage staff to attend forums or groups.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d)</td>
<td>Managers provide support for staff to attend forums or groups.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>e)</td>
<td>Staff are confident to discuss issues or new knowledge in an open manner within the forums or groups.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>f)</td>
<td>Staff are encouraged to use the concepts of enquiry, reflection and experience within these forums or groups.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

7. Action and feedback

<table>
<thead>
<tr>
<th></th>
<th>Agree strongly</th>
<th>Agree</th>
<th>Disagree</th>
<th>Disagree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>I am aware of changes made by the Trust as a result of adverse incidents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b)</td>
<td>Staff are regularly provided with individual feedback in relation to adverse incidents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Agree strongly</td>
<td>Agree</td>
<td>Disagree</td>
<td>Disagree strongly</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>-------</td>
<td>----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>c) Feedback from adverse incidents is used as part of the Trust appraisal system.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d) The organisation considers information from adverse incidents when developing new services, policies or procedures.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e) The organisation communicates what learning or changes have occurred as a result of adverse incidents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f) The risk of adverse incidents recurring has been reduced due to the organisation’s ability to learn and implement change.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

8. About you

<table>
<thead>
<tr>
<th></th>
<th>Male / Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Gender</td>
<td></td>
</tr>
<tr>
<td>b) Number of years you have worked for the organisation</td>
<td></td>
</tr>
<tr>
<td>c) Occupational Group (Please tick only one of the following)</td>
<td></td>
</tr>
<tr>
<td>Care Assistant</td>
<td></td>
</tr>
<tr>
<td>Ambulance Technician</td>
<td></td>
</tr>
<tr>
<td>Paramedic</td>
<td></td>
</tr>
<tr>
<td>Emergency Care Practitioner (equivalent)</td>
<td></td>
</tr>
<tr>
<td>Ambulance Control Staff</td>
<td></td>
</tr>
<tr>
<td>Clinical Practice Supervisor/Trainer</td>
<td></td>
</tr>
<tr>
<td>Paramedic Emergency Service Manager</td>
<td></td>
</tr>
<tr>
<td>Patient Transport Service Manager</td>
<td></td>
</tr>
<tr>
<td>Paramedic Emergency Control Manager</td>
<td></td>
</tr>
<tr>
<td>Training Manager</td>
<td></td>
</tr>
</tbody>
</table>
Administrative & Clerical
Support Service staff
Support Service Manager
Senior Manager ('Head of')
Executive

Please provide details of where you work (i.e. Operational Group, HR, IMT):


Please place any additional comments/information in relation to any part of the questionnaire in the box below:


Part of the research also involves speaking to some staff directly, to further explore their understanding. If you would like to take part in this additional research please provide your details below. It is anticipated that this part of the research will require no more than one hour of your time. If you do not wish to participate in this part of the research then please leave blank.

Name:

Workplace:

Contact Telephone Number:

Email address:

Many thanks for time and assistance.
## Culture

<table>
<thead>
<tr>
<th>Objective 1: The organisation’s ability to recognise, identify and record adverse incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1.1 How would you describe the culture in relation to staff recognising the importance of reporting adverse incidents within Greater Manchester?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective 2: Development of new knowledge and learning from information within the organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2.1 How would you describe the culture in relation to learning and developing new knowledge from adverse incidents?</td>
</tr>
<tr>
<td>C2.2 Does the culture support the sharing of knowledge?</td>
</tr>
</tbody>
</table>

### What would you say are the positives and negatives in relation to...?

<table>
<thead>
<tr>
<th>Awareness</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Positives</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Negatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Objective 3:</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leadership</th>
<th>What would you say are the positives and negatives in relation to…?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Awareness</td>
</tr>
<tr>
<td><strong>Objective 1:</strong></td>
<td>The organisation’s ability to recognise, identify and record adverse incidents</td>
</tr>
<tr>
<td></td>
<td>L1.1 Can you discuss how managers are perceived within the Trust; in relation to them acting as leaders to support an open and fair culture?</td>
</tr>
<tr>
<td>Leadership</td>
<td>What would you say are the positives and negatives in relation to...?</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Awareness</td>
</tr>
<tr>
<td><strong>Objective 2:</strong></td>
<td></td>
</tr>
<tr>
<td>Development of new knowledge and learning from information within the organisation</td>
<td></td>
</tr>
<tr>
<td>L2.1 Can you discuss how managers support learning and knowledge development from adverse incidents?</td>
<td></td>
</tr>
<tr>
<td>L2.2 Can you discuss how managers involve staff to suggest new ways of working?</td>
<td></td>
</tr>
<tr>
<td>L2.3 How do managers support the sharing of knowledge?</td>
<td></td>
</tr>
<tr>
<td><strong>Objective 3:</strong></td>
<td></td>
</tr>
<tr>
<td>The organisation’s implementation of new learning and knowledge to improve organisational performance.</td>
<td></td>
</tr>
<tr>
<td>L3.1 Can you discuss how committed managers and staff are to making changes or improvements as a result of adverse incidents?</td>
<td></td>
</tr>
<tr>
<td>Leadership</td>
<td>What would you say are the positives and negatives in relation to…?</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Awareness</td>
</tr>
<tr>
<td>L3.2 Can you discuss how staff are acknowledged or thanked when they make contributions to improving organisational performance?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Structure</th>
<th>What would you say are the positives and negatives in relation to…?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Awareness</td>
</tr>
<tr>
<td><strong>Objective 1:</strong> The organisation’s ability to recognise, identify and record adverse incidents</td>
<td></td>
</tr>
<tr>
<td>S1.1 How would you describe the management structure in the GM area?</td>
<td></td>
</tr>
<tr>
<td>S1.2 Can you discuss how the structure supports the reporting of adverse incidents?</td>
<td></td>
</tr>
<tr>
<td>Consider: Operational to management, management to operational and between operational staff.</td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td>What would you say are the positives and negatives in relation to...?</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Objective 2:</strong>&lt;br&gt;Development of new knowledge and learning from information within the organisation</td>
<td></td>
</tr>
<tr>
<td>S2.1 How effective is the structure at supporting, interaction, team working and networking to enable learning and knowledge sharing and development.</td>
<td></td>
</tr>
<tr>
<td><strong>Objective 3:</strong>&lt;br&gt;The organisation’s implementation of new learning and knowledge to improve organisational performance.</td>
<td></td>
</tr>
<tr>
<td>S3.1 How effective is the GM area management structure at supporting the implementation of new ways of working/change or learning from adverse incidents?</td>
<td></td>
</tr>
<tr>
<td>Human Resource</td>
<td>What would you say are the positives and negatives in relation to...?</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Awareness</td>
</tr>
<tr>
<td><strong>Objective 1:</strong></td>
<td>The organisation’s ability to recognise, identify and record adverse incidents</td>
</tr>
<tr>
<td>HR1.1 Can you discuss how HR systems support the identification and reporting or adverse incidents?</td>
<td></td>
</tr>
<tr>
<td><strong>Objective 3:</strong></td>
<td>The organisation’s implementation of new learning and knowledge to improve organisational performance.</td>
</tr>
<tr>
<td>HR3.1 How effective would you say the HR systems are at encouraging individuals to develop new skills or knowledge?</td>
<td></td>
</tr>
<tr>
<td>Info Systems</td>
<td>What would you say are the positives and negatives in relation to...?</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Awareness</td>
</tr>
<tr>
<td><strong>Objective 1:</strong> The organisation’s ability to recognise, identify and record adverse incidents</td>
<td></td>
</tr>
<tr>
<td>IS1.1 Can you discuss how effective the incident reporting system is for identifying and recording adverse events?</td>
<td></td>
</tr>
<tr>
<td><strong>Objective 2:</strong> Development of new knowledge and learning from information within the organisation</td>
<td></td>
</tr>
<tr>
<td>IS1.1 Can you describe the types of information systems you use to share information, learning or knowledge with others?</td>
<td></td>
</tr>
<tr>
<td>IS2.2 Can you discuss your experience of how information is used from adverse events to develop knowledge or learning?</td>
<td></td>
</tr>
<tr>
<td><strong>Info Systems</strong></td>
<td><strong>What would you say are the positives and negatives in relation to...?</strong></td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Objective 3:</strong></td>
<td><strong>Awareness</strong></td>
</tr>
<tr>
<td>The organisation’s implementation of new learning and knowledge to improve organisational performance.</td>
<td></td>
</tr>
<tr>
<td>IS3.1 Can you discuss your experience/knowledge of how information systems support the implementation of new knowledge i.e. its documentation and communication to staff?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Communities of Practice</strong></th>
<th><strong>What would you say are the positives and negatives in relation to...?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 2:</strong></td>
<td><strong>Awareness</strong></td>
</tr>
<tr>
<td>Development of new knowledge and learning from information within the organisation</td>
<td></td>
</tr>
<tr>
<td>CP2.1 Can you discuss how the organisation supports the interaction of individuals to share and build knowledge?</td>
<td></td>
</tr>
<tr>
<td>Communities of Practice</td>
<td>What would you say are the positives and negatives in relation to...?</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td><strong>Awareness</strong></td>
</tr>
<tr>
<td>CP2.2 What opportunities exist – in relation to adverse incidents or other areas - for staff to share and develop knowledge?</td>
<td></td>
</tr>
<tr>
<td>CP2.3 How would you describe the level of support that is provided by managers for staff to be part of knowledge sharing activities?</td>
<td></td>
</tr>
<tr>
<td>CP2.4 Are staff encouraged to use concepts of enquiry, reflection and experience when sharing and developing knowledge?</td>
<td></td>
</tr>
<tr>
<td>CP2.5 How effective is the organisation at developing new knowledge from networks or groups of staff in this context?</td>
<td></td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY


http://www.healthcarecommission.org.uk/_functions/download.cfm?use_id=0&fde_id=17055
(accessed 10th May 2007)


