Measuring and Assessing Organisational Culture in the NHS (OC1)

Research Report

Produced for the National Co-ordinating Centre for the National Institute for Health Research Service Delivery and Organisation Programme (NCCSDO)

June 2008

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Acknowledgements

The Report

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1 Introduction

Many individuals and agencies concerned with health care quality and performance have emphasised the need for cultural change to be wrought alongside structural, financial and procedural reforms (Mannion et al 2005). This interest in understanding and shaping the basic values, beliefs and assumptions that underpin patterns of behaviour among health professionals calls for better understanding about the nature of organisational culture, how it can be assessed and measured, and how such assessments can be integrated into beneficial programmes of change. In view of the widespread policy, managerial and clinical interest in this area, it is important to know what tools are used currently in the NHS to assess organisational cultures and how well these tools meet the practical requirements and domains of interest of those interested in assessing and changing cultures within their organisation and across local health care communities.

This report details the findings of a two year National Institute of Health Research Service Delivery and Organisation programme funded project into the measurement and assessment of organisation culture in the NHS undertaken by an inter-disciplinary consortium of researchers based at the Universities of York, St Andrews, Edinburgh and Manchester.

Aims and objectives of the study

The overall aim of the project was to investigate, through literature work and empirical study, the range of extant tools, instruments and approaches that have been developed for the assessment of organisational culture – and to assess the extent to which these may have some utility in the NHS. Specifically we sought to:

- identify the range of existing tools, instruments and qualitative approaches available for measuring, assessing and understanding organisational cultures in health care, as well as assessing their scientific properties, practicability and the levels and dimensions of culture they tap into;
- review the extent to which these culture assessments tools and qualitative approaches have been tested and used in the NHS and other health care contexts;

- explore with key NHS stakeholders their needs and interests with regards to understanding, assessing and shaping organisational cultures, and explore how various stakeholders might use culture assessment methods to address these issues;
- gauge the degree of 'fit' between existing approaches to measurement and assessment, and the needs and interests of NHS stakeholders;
- obtain information on the views and interests of users, patients and carers regarding the value domains they would wish to see expressed in organisational (culture) change programmes and assessments;
- undertake in-depth case study work to assess the development, use and impact of culture assessment methods within current policies and programmes in the NHS;
- make recommendations for instrument use, future tool development and a new research agenda in the context of informing (culture) change programmes in the NHS.

Previous work by the authors

The study builds on the accumulated experience of members of the research team gained from a previous Department of Health Policy Research Programme funded project which documented a range of culture assessment tools. Our previous study concluded that more research was required into the theoretical and practical aspects of measuring and assessing cultures, to inform the work of a range of agencies interested in understanding, assessing and changing cultures in the NHS (Mannion et al 2003). As part of our earlier study we reviewed the (mainly quantitative) instruments available to health service researchers wishing to measure culture and culture change (Scott et al 2001, 2003a). Our literature search identified 84 articles that appeared to report the development or use of culture assessment instruments, and over two dozen tools were assessed as having potential relevance to health care organisations. We identified a number of general themes across these instruments. First, such tools either adopt a typological approach in which the assessment results in one or more 'types' of organisational culture, such as the Competing values Framework (Cameron and Freeman 1991) or a dimensional approach, which describe a culture by its position on a number of continuous variables, such as the Organisation Culture Inventory (Cooke and Rousseau, 1988). Second, some of the instruments have a strong theoretical and conceptual provenance, while others have been developed in a more pragmatic way. Third, the instruments vary in scope, some focusing on the assessment of one or more specific dimensions of organisational culture, others assessing a more comprehensive range of issues. Fourth, they differ in terms of the levels of culture they tap into, with none convincingly addressing the deeper underlying assumptions and that guide attitudes and behaviour and inform the stable substrate of culture. Finally, the instruments vary in the extent of their use in empirical studies, and the degree to which their scientific properties have been

evaluated. Thus previous review work reveals a diversity of potential approaches to culture measurement and assessment, but little practical application of those tools, and only limited connection with ongoing policy, managerial or service preoccupations.

Research design and project overview

The study of organisational cultures and how these may be measured and assessed are the focus of many disciplines, including health services research, industrial sociology, anthropology and organisation studies. Thus the project was avowedly multi-disciplinary and multi-method from its inception.

In essence the study consisted of three distinct but interlocking strands:

1. *A literature review* based on systematic principles that sought to uncover developed tools and approaches (quantitative, qualitative and multi-method), and both document and assess these against an explicit framework that prioritises 'fitness for purpose'.

2. *A stakeholder mapping exercise* that sought to understand the interests and needs of NHS stakeholders around the assessment and shaping of health care organisational culture. Core stakeholders identified include: regulatory agencies (e.g. CHAI, MONITOR); organisations with representative or developmental roles, health service delivery organisations; and patients, users and carers.

3. *An empirical assessment of culture tool application*, using case-study methods to gain insights into the practical application of culture assessment tools in NHS organisations.

Section Two explores the roots of notions of organisation culture, the relevance of these to understanding health care delivery, and the associated issues of cultural change and leadership. *Section Three* presents a review of extant instruments and tools for measuring organisational culture, including a practical assessment of their utility in health care settings. *Section Four* sets out the interests and practical needs of a range of key stakeholders interested in assessing and shaping organisational cultures in the NHS. *Section Five* reports on case studies which explored the practical application of culture assessment tools in NHS organisations. The report concludes *(Section Six)* with both an examination of the policy implications of our findings and a look forward at the emerging research agenda around these issues.

2 MAKING SENSE OF ORGANISATIONAL CULTURE IN HEALTH CARE

Any project designed to explore the use and impact culture instruments in the NHS requires an understanding of the conceptual underpinnings and the key concerns with using organisational culture as a lever for health care improvement as well as a knowledge of the policy context within which culture change has occurred within the NHS.

This section begins the process of unpacking what is meant by 'organisational culture'. It introduces some of the sources of ideas, conceptual underpinnings and different approaches to understanding and managing organisational cultures. The conceptual unpacking that follows is informed by the specific review of culture tools and the much broader reading around in support of that review. First however, we review briefly some of the key policy and cultural changes that have been wrought over recent decades in the NHS.

2.1 Policy context and culture change in the NHS

Interest in managing organisational cultures in health care is not entirely new. Many previous policy reforms in the NHS have also invoked the notion of culture change through attempts to instil new values and modes of working in the organisation. Almost twenty years ago the reforms inspired by the Griffiths' report led to the development of general management in hospitals and the greater involvement of clinicians in budgeting and financial matters through a series of resource management initiatives (DHSS, 1984). Much of the logic underpinning these changes was extended by the internal market reforms a decade later (Le Grand, 1998). Central to these reforms were attempts to strengthen managerial control and accountability in the NHS and to nurture a competitive 'business culture' throughout the organisation (Davies and Mannion, 1999). However, resistance and resilience to these changes was more evident than a wholesale transformation of professional values and behaviour (Jones and Dewing, 1997; Broadbent et al, 1992).

When elected in 1997 the New Labour Government made quality and performance improvement the central reform issues in the NHS (Goddard and Mannion, 1998). The new strategy for quality was set out in the 1998 White Paper The new NHS: modern, dependable (Secretary of State for Health, 1998) and supporting policy documents (Department of Health, 1998; NHS Executive, 1998). These reforms comprised a detailed set of interlocking strategies and supporting activities targeted at three levels:

- Defining appropriate quality standards;
- Delivering health care congruent with these standards;
- Monitoring to ensure that uniformly high quality of care is achieved.

In articulating a coherent strategy needed to reinvigorate health care delivery, official documents stressed the inter-linking of three different strands: clinical governance, life-long learning, and professional self-regulation. Underpinning and binding each of these was the notion of cultural transformation as a primary driver for quality improvement:

"…achieving meaningful and sustainable quality improvements in the NHS requires a fundamental shift in culture, to focus effort where effort is needed and to enable and empower those who work in the NHS to improve quality locally…" and *"Clinical governance needs to be underpinned by a culture that values lifelong learning and recognises the key part it plays in improving quality."* (paragraphs 5.6 and 3.28, Department of Health, 1998).

In 2001, the highly influential report published by the Public Inquiry into Children's Heart Surgery at the Bristol Royal Infirmary (Kennedy, 2001) concluded that the culture of healthcare in the NHS *'which so critically affects all other aspects of the service which patients receive, must develop and change'.* It described the prevailing culture at the Bristol Royal Infirmary at the time of the tragic events as a 'club culture', which focused excessive power and influence around a core group of senior managers[1].

The report concluded *'the inadequacies in management were an underlying factor which adversely affected the quality and adequacy of care which children received'* (Kennedy, 2001, p203). Kennedy recognised that while some problems were specific to Bristol, in many ways the Bristol experience exemplified what were and are national issues in the NHS. He then proceeded to pinpoint, with clinical accuracy, the cultural characteristics of the NHS that had colluded in fostering a climate where dysfunctional behaviour and malpractice were not effectively challenged. In making recommendations Kennedy highlighted a number of cultural shifts seen as necessary to transform the NHS into a high quality, safety-focused institution, one that was sensitive and responsive to the needs of patients.

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[1] In referring to a 'club culture' the Kennedy Report was invoking a cultural typology reported by Charles Handy (Handy, 1988). Here the central individuals of an organisation are seen as behaving like a club of like-minded individuals. At the centre are one (or a few) very influential 'rulers' (Handy likens these to Zeus, principal god of the Greek pantheon, and prone to personal and capricious interventions). In club cultures, lines of influence are much more important than lines of accountability.

The government largely accepted the findings and recommendations of the Bristol Inquiry, and in its published response, the Department of Health announced a range of new measures and supporting tactics aimed at tackling the systemic problems identified in the Bristol report (Department of Health, 2001). These included: the setting up of a National Patient Safety Agency; a new independent body – the Council for the Regulation of Health Care Professionals, charged with strengthening and co-ordinating the piecemeal system of professional self-regulation; and further release to the public of clinical outcome data (outcomes data were already made publicly available under the Performance Assessment Framework, but this was now extended to individual level data, starting with risk-adjusted mortality rates for all cardiac surgeons in England).

Alongside the reforms outlined above (designed to improve clinical quality, safety and performance) the government also set in train a series of radical changes designed to devolve greater authority and decision-making power to patients and frontline staff. The package of reforms as set out in the NHS Plan (Department of Health, 2000) and 'Shifting the Balance of Power' documentation (Department of Health, 2001a) made clear that cultural change needed to be wrought alongside structural and procedural reform if the anticipated benefits were to be realised. The key challenges as set out in accompanying documentation included:

- empowering front line staff to use their skills and knowledge to develop innovative services with more say in how services are delivered and resources allocated;
- empowering patients to become informed and active partners in their care involving them in the design, delivery and development of local services;
- changing the NHS culture and structure by devolving power and decision-making to frontline staff and Primary Care Trusts (PCTs), and by building clinical networks across organisations.
  (Shifting the Balance of Power: the next steps, p2)

More recently, health policy in England has seen a revisiting of market incentives and an embracing of 'new localism', including devolution of control through 'earned autonomy'. The principle of earned autonomy is that the highest performing organisations are subject to less central control, have lighter touch scrutiny procedures, and can gain automatic access to funds for which a bidding process would normally apply. One consequence of such an approach has been the introduction of a new type of organisation – NHS Foundation Trusts – that can escape from the vertical hierarchies of control emanating from the Department of Health (Department of Health, 2002; 2002a). A primary tool for deciding on eligibility for various levels of earned autonomy are the NHS Performance Ratings, which award various 'star ratings' (zero through three) to existing NHS Trusts (Department of Health, 2002a;

2003; Mannion et al, 2002; 2004). Indeed, policy stipulations dating from 2003 (Department of Health, 2003) suggest that all NHS hospitals should be demonstrating the high levels of performance needed to make them eligible for Foundation status. It is clear from supporting policy documents that the government expects behavioural and cultural changes – especially around innovation, service redesign and customer care – to result from such a freeing up from central control.

Since 2004 the government has pressed much further than any of its predecessors in introducing market style competition into the English NHS. Key recent structural changes on the demand side include the extension of patient choice of service provider, intended to empower patients to put pressure on hospital providers to improve the quality of elective services; and the development of practice based commissioning with the aim of providing GPs with incentives to reduce inappropriate hospital referrals. These changes have been matched by reforms on the supply side, including an expanded role for independent and voluntary sector providers.

Underpinning and binding these structural reforms is a new prospective funding system termed Payment by Results (PbR) under which hospitals are paid on the basis of the type and amount of work they undertake. PbR replaces block contracting arrangements, according to which hospitals receive a fixed annual sum in order to provide a pre-specified level of activity. Moreover, instead of locally negotiated prices, PbR introduces a set of national prices (tariffs) which fix the amount payable for the provision of hospital care to each type of patient.

The stated aims of PbR are to stimulate hospital activity (thereby reducing waiting lists), reward efficiency, facilitate patient choice and encourage a mixed economy of provision by allowing 'money to follow the patient'. By design, the new financial arrangements will create high powered incentives for NHS organisations to behave differently and have the potential to drive major changes in the work cultures of NHS organisations. However, the extent to which NHS organisations will conform to expectations and respond in ways desired by policy makers is as yet unclear and hard to predict given the complexity of concurrent reforms in the health service (Mannion et al, 2008).

The current policy agenda thus highlights cultural change (broadly defined) as one means (alongside structural and procedural reform) of bringing about improvements in health service performance. Yet in any consideration of the role of organisational culture in facilitating high quality and performance in the NHS it is necessary to explain what is meant by 'organisational culture' and how it has emerged as a key issue in health care reform. It is to this literature that we turn to next.

2.2 The Emergence of Organisational Culture as a field of study

The notion of organisational culture comes in many guises. It may be couched in terms of institutional excellence, empowerment, total quality management, or human resource management (Beil-Hildebrand 2002). In other instances it is referred to as company, workplace, or corporate culture (Linstead and Grafton-Small 1992). Since the early 1980s it has emerged as one of the key themes in organisational research. Few competing ideas can rival its prominence: the existing literature is beset with special issues on culture, its impact, dynamics as well as content, and managers are strongly and persistently urged to consider the implications for their organisation of its culture (Ogbonna and Harris 2002). Links between culture and organisational variables that have been explored include leadership (Block 2003), performance (Ogbonna and Harris 2002; Shover and Hochstetler 2002; Sørensen 2002; Fey and Denison 2003; Scott, Mannion et al. 2003; Moynihan and Pandey 2004; Flamholtz and Kannan-Narasimhan 2005; Mannion, Davies et al. 2005b), learning (Lin, Tan et al. 2002; Akgün, Lynn et al. 2003; Lea 2003; Aksu and Özdemir 2005), change (Chin, Pun et al. 2002; Cunha and Cooper 2002; Rashid, Sambasvian et al. 2003; Jones, Jimmieson et al. 2005), job satisfaction and staff retainment (Conway and McMillan 2002; Gifford, Zammuto et al. 2002; Lund 2003; Carmeli 2005; Raiger 2005), as well as employee attitudes and behaviour (Cabrera, Cabrera et al. 2001; Svarstad, Mount et al. 2001; Haas, Allard et al. 2002; Alas and Vadi 2004; Bowen 2004; Enes and de Vries 2004).

However, many of the ideas and themes raised by the organisational culturists from the 1980s onwards were not original. In this connection, some authors have gone to extremes, arguing that the concept of organisational culture made its first appearance on historical records as early as 431 BC, when Pericles reckoned that strong, unified teamwork was Athens' key to winning the Spartan war (Fisher 2000). More moderately, the conceptualisation of organisational culture that emerged from the 1980s onwards can be seen as a continuation of a trend that started at the beginning of the 20th century.

The focus on studying organisational 'culture' is generally recognised to indicate a move away from the mechanistic perceptions of organisations associated with the work of Frederick Winslow Taylor and the concept of 'scientific management', also known as 'Taylorism' (e.g. Schultz 1994; Hawkins 1997). Taylor advocated the idea that an in-depth understanding of the technical means of production, combined with time study and financial incentives, could lead to a substantial improvement of an organisation's efficiency (Sheldrake 1996). The principles and practices that resulted from this approach – characterised by a division of labour into the smallest and simplest jobs combined with a close co-ordination of the

sequence of tasks – often delivered impressive improvements in productivity; simultaneously, though, these principles also led to a dehumanised perception of workers and ignored the social dimensions of work (Calhoun 2002).

Nonetheless, the common perception that Taylor's sole interest was the pursuit of efficiency with no regard for the human costs involved is a distortion; his interests included the individual worker, his or her pursuit of individual goals, and the use of incentive payments as a source of motivation (Sheldrake 1996). A more appropriate conceptualisation of Taylor's work indicates that amongst his main concerns were cultural issues. As such, his thinking pre-empts not only Durkheimian strands of human relations theory, but also parts of the organisational culture literature (Taksa 1992; Parker 2000). Indeed, as Taksa (1992) notices, Taylor cannot only be seen as one of the founding fathers of the contemporary discourse on organisational culture, but popular management writings on organisational culture are informed by his ideas and the driving forces of scientific management:

> '[E]xcellent companies are the way they are because they are organised   to obtain extraordinary effort from ordinary human beings' (Peters and Waterman jr 1982: 81).

Another, less contested, influence on the discourse of organisational culture has been the human relations movement of the 1930s. Of special importance in that respect are the works of Elton Mayo (1933) and Chester Barnard (1968). Influenced by both, the ideas of the 'Pareto Circle' at Harvard University, and anthropological thinking, their writings underline the importance of informal social structures when trying to obtain a more accurate understanding of human behaviour in organisations (Diamond 1991; Parker 2000). It appears that especially Elton Mayo opened the door to anthropology within the study of organisations: being friends with the anthropologists Malinowski and Radcliffe-Brown, Mayo drew on anthropological research methods and expertise (Mayo 1933; Trice and Beyer 1993; Wright 1994). Although anthropologists made a special contribution to the field of organisation studies during the 1930s (e.g. Wright 1994) and researchers in the area of organisational culture often trace their intellectual roots to a number of key anthropologists such as Benedict, Mead, Radcliffe-Brown, Malinowski, or Geertz (Ouchi and Wilkins 1985), the notion of culture within organisations emerged as much from within organisational studies as from anthropological influence (Scott, Mannion et al. 2001). Other areas that have contributed to the organisational culture, albeit to a lesser degree, include psychology and economics (Moorhead and Griffin 1989).

The idea of culture within organisations was explored further during the 1950s and 60s, mainly at Harvard University and Britain's

Tavistock Institute (Diamond 1991). Conventionally cited works from that time include Donald Roy's (1960) study of Banana Time[2] which explored job satisfaction and informal interactions amongst a small workgroup of factory machine-operatives, and Elliott Jacques' (1951) *The Changing Culture of a Factory*.

The latter focused on authority and participation amongst workers and management of an engineering factory. Nonetheless, up to the advent of the 'corporate-culture boom' of the 1980s, studies in the area of organisational culture were sparse (Parker 2000).

Despite the fact that Pettigrew (1979) appears to have coined the term 'organisational culture' and that there were early theoretical contributions by the likes of Baker (1980) and Hofstede (1980), the main driving force in raising broader, popular managerial interest in the concept of organisational culture was the publication of three bestsellers: Ouchi's (1981) *Theory Z*; Peters and Watermans' (1982) *In Search of Excellence*; and Deal and Kennedy's (1982) *Corporate Cultures*. Common to all three books, and many that followed, was the mantra that in order to be successful organisations needed to focus on their 'cultures' (Jordan 1994). The importance of this message was underlined by the perceived threat to American businesses from their Japanese competitors (Jordan 1994). Not only was culture considered to be the key to improving performance and productivity, but also a way of establishing supportive relationships at work (Ouchi 1981).

> *'Without exception, the dominance and coherence of culture proved to be an essential quality of the excellent companies. Moreover, the stronger the culture and the more it was directed toward the marketplace, the less need was there for policy manuals, organization charts, or detailed procedures and rules' (Peters and Waterman jr 1982: 75)*

> *'[A]ny worker's life is a whole, not a Jekyll-Hyde personality, half machine from nine to five and half human in the hours preceding and following' (Ouchi 1981: 195)*

The overall tenor and underlying structure of the books, frequently rooted in the authors' consultancy background, have been criticised for being more similar to business self-help texts with their 'chatty' and 'anecdotal' style than academic writing (Wright 1994). Despite their lack of theoretical rigour, or because of this, these books sparked a culture revolution. The 'seductive promises' of the concept (Martin, Frost et al. 2004) meant that the buzzword amongst managers, the press, and scholars became 'culture'.

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[2] The concept of Banana Time encapsulates the ways in which employees have made workplaces more tolerable by participating in off-task camaraderie. It originates from the collectively determined break-time of factory workers, the start of which was signalled with a lunch box banana.

In an era marked by economic downturn, manager-employee conflicts, disillusionment with rational and bureaucratic perceptions of organisations, and an academic trend away from quantitative and quasi-experimental research designs, this development is unsurprising (Trice and Beyer 1993): the organisational culture approach offered practitioners a potential answer to the perceived failure of traditional organisational analysis and academics an answer to the gist of mainstream organisational research which emphasised quantitative and neo-positivist views; due to its reliance on a rational model of human behaviour, a structural approach to questions of organisational strategy and a love of numerical analysis the latter was increasingly considered to be arid and fruitless. (Martin, Frost et al. 2004).

Although often despised as a management fad that every now and then starts *'to show its trendy head again'* (Fisher 2000: 43), the appeal of organisational culture continued unabated. From the private sector's initial fascination with the idea, the notion moved on to captivate the public sector, especially the areas of education and healthcare.

2.3 Conceptualising Organisational Culture

Notwithstanding its widespread use by researchers, managers, and policymakers, the concept of organisational culture is far from being conceptualised universally. For example Ott (1989) lists 74 elements of organisational culture which have been put forward by various authors, while a review of the organisational culture literature by van der Post et al. (1997) identified over 100 dimensions associated with the notion (see Box A.1). Any such definitional problems are confounded by the fact that there is little agreement on the meaning of either of the underlying concepts, 'organisation' and 'culture'. For example, a critical review of dimensions associated with the term 'culture' by Kroeber and Kluckhohn (1963) identified 164 unique definitions of the term, the overall number almost reaching 300. The multi-layered nature of the dimensions put forward further complicates the issue. As can be seen in Box 2.1, dimensions span abstract ideas, such as 'warmth', 'satisfaction', or 'esprit de corps' on the one hand and observable phenomena like 'rituals' and 'structures' on the other.

To some extent such obstacles can be overcome by clustering the various dimensions of organisational culture into different categories and perceiving them as constituting different levels of culture. The most frequently cited of these approaches is Schein's (1989) distinction of artefacts, values, and basic assumptions which is illustrated in Box 2.2. Artefacts form the top level of an organisation's culture and are the most visible and tangible manifestations thereof. They include the physical environment of an organisation, its products, technology used or not used, as well as patterns of behaviour, and the use of language and other symbolic

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forms. The second level is made up of values which, underlie and influence behaviour. Unlike artefacts which can be perceived as 'what is', values represent 'what ought to be'; they incorporate moral and ethical codes, ideologies, and philosophies. The final level forms the basis for real cultural understanding; it comprises basic underlying assumptions: enshrined fundamental beliefs, values, and perceptions that impact on individuals' thinking, behaviour, and feelings. This level differs from values, which are espoused, in that assumptions are those values which have become so internalised as to drop out of consciousness (Schein 1989).

Numerous adaptations of Schein's typology have been put forward within the literature. Usually the focus has been on refining the typology's scope by further subdivision of the existing levels or introduction of new ones. For example, Ott (1989) subdivides the first level into 1A and 1B. The first, 1A, contains artefacts, such as technology and art while the latter, 1B, consists of patterns of behaviour. These include audible and visible behavioural patterns, familiar management tasks and norms. Hawkins (1997) goes even further and distinguishes between five levels of organisational culture: artefacts, behaviour, mindset, emotional ground, and motivational roots (see Box 2.3). Although offering a way of accommodating different aspects of organisational culture, one concern with such clusters is that they usually do not cater for what is commonly referred to as sub- or micro-cultures. Instead they seem to assume that there is an overarching organisational culture shared by all members within an organisation.

The culture found within an organisation may be far from uniform or coherent. Indeed, looking for commonality may be less rewarding than an examination of differences. Although some cultural attributes may be seen across an organisation, others may be prominent only in some sections of that organisation. Thus different cultures may emerge, for example, within different occupational or professional groups. These groups may even seek to differentiate themselves from one another by their cultural artefacts or values. Such sub-cultures may be associated with different levels of power and influence within the organisation, whose dynamics may alter over time - witness, for example, the dominance of the medical culture in the NHS and the relatively recent rise of the management culture. In many respects the NHS is notoriously 'tribal' and hence cultural assessments should be alert to these sub-groupings in any empirical work.

Given the current trend towards increasingly fragmented and differentiated organisational forms (Bolon and Bolon 1994)[3], it is likely that either along with, or instead of, one singular organisational culture, a number of subcultures will be in existence. This is

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[3] Bolon and Bolon (1994) point out that it might be better to speak of idiocultures in order to avoid the mistaken impression that subcultures are necessarily derived from organisational culture.

especially likely in hospital settings since the subdivision into different wards provides a perfect setting for the emergence and development of subcultures (Lok, Westwood et al. 2005). This is illustrated by Scott et al. (2003) who, selecting a number of cultural layers proposed by Hofstede (1980), draw attention to various levels of organisational subcultures that need to be considered within the NHS: ethnicity, religion, class, occupation, technology, division and specialism, gender, secondary groups, primary groups, and leadership. As a result, it is useful to perceive organisational culture as an interwoven web of subcultures that combine individual and aggregate cultural properties (Jordan 1994; Kemp and Dwyer 2001; Jaskyte and Dressler 2004). These might coincide with or diverge from any overall organisational culture (Lok, Westwood et al. 2005). If the divergence is to such a degree that an uneasy symbiosis exists between the overall organisational culture and a subculture, the latter can be perceived as a counterculture (Martin and Siehl 1983). Rivalry and competition between groups may appear as a key feature of the overall organisational culture (health care is notoriously tribal in this respect).

Different subcultures may be more or less malleable (susceptible to managed change of their artefacts, values and beliefs) or may even be avowedly resistant to change. Indeed it is apparent that some organisations function more or less successfully with discordant sub-cultures, with each subculture being no more than 'loosely coupled' to other subcultures or subsystems. Nonetheless different subgroups may still share certain key cultural attributes, while conflicting on others. For example, while doctors and managers may differ culturally, they both inhabit a shared culture of medical autonomy. It remains an open question as to whether it is even desirable that an organisation should seek an integrated set of cultural attributes.

While on the one hand organisational culture can be fragmented into various subcultures, it needs to be remembered that organisational culture itself is a subculture within a larger set of supracultures. As is illustrated in Box 2.4, a whole range of supra- and sub-cultures exists, each of which has the potential to influence and be influenced by the other existing levels and impact and be impacted upon by individual behaviour (e.g. Briody 1989; Hofstede, Neuijen et al. 1990; Hofstede 2001; Boisnier and Chatman 2003; Liu 2003; Nelson and Gopalan 2003; Fisher, Ferreira et al. 2004; Karahanna, Evaristo et al. 2005; Lok, Westwood et al. 2005). As such, any exploration of culture needs to clarify which level of culture is to be examined.

Given the plethora of dimensions and multitude of cultural levels, it is unlikely that there will ever be an accepted monolithic definition of organisational culture (Ott 1989; Jordan 1994). Indeed, some authors have questioned if such a definition, or any definition for that matter, is actually useful when exploring organisational culture. Approaching organisational culture with a pre-defined, default classification can obscure rather than clarify a culture within a specific human situation: culture is context- and problem-dependent.
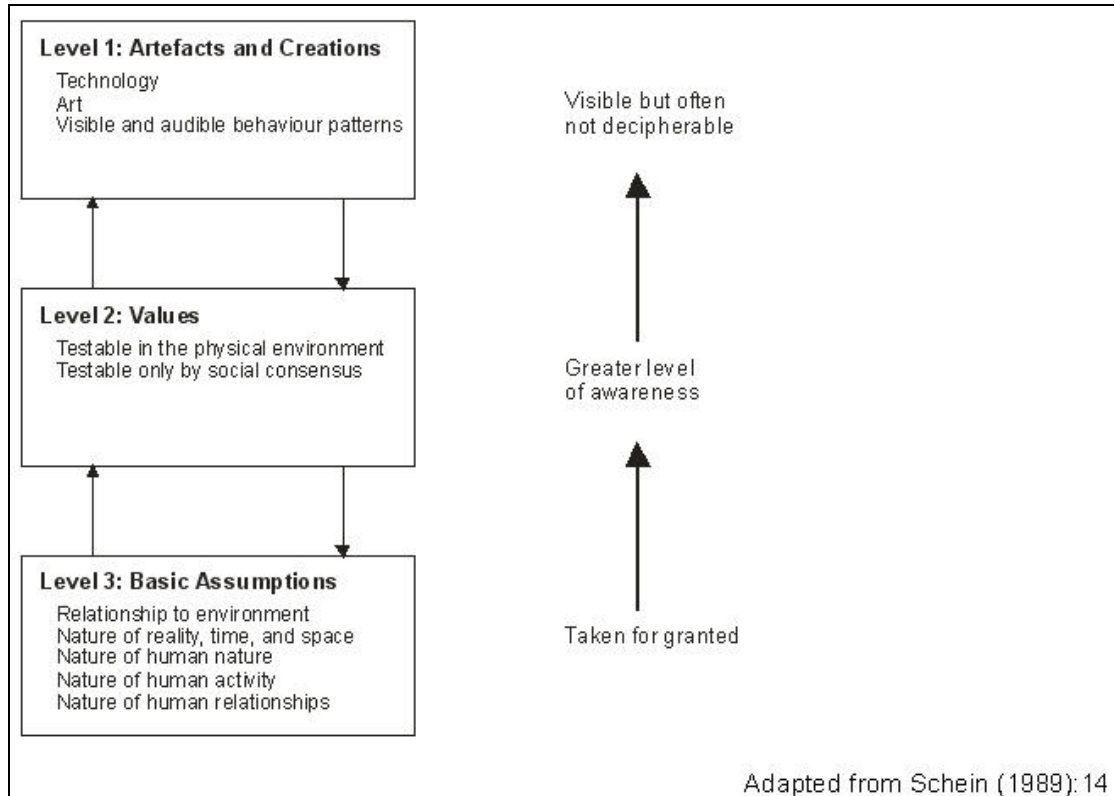
The organisational aspects under consideration influence the appropriate understanding of and approach to organisational culture (Jordan 1994). At the same time, though, being too open and taking too broad an approach means that the concept faces the danger of becoming vacuous: it can easily be used to cover everything and consequently nothing (Alvesson 2002).

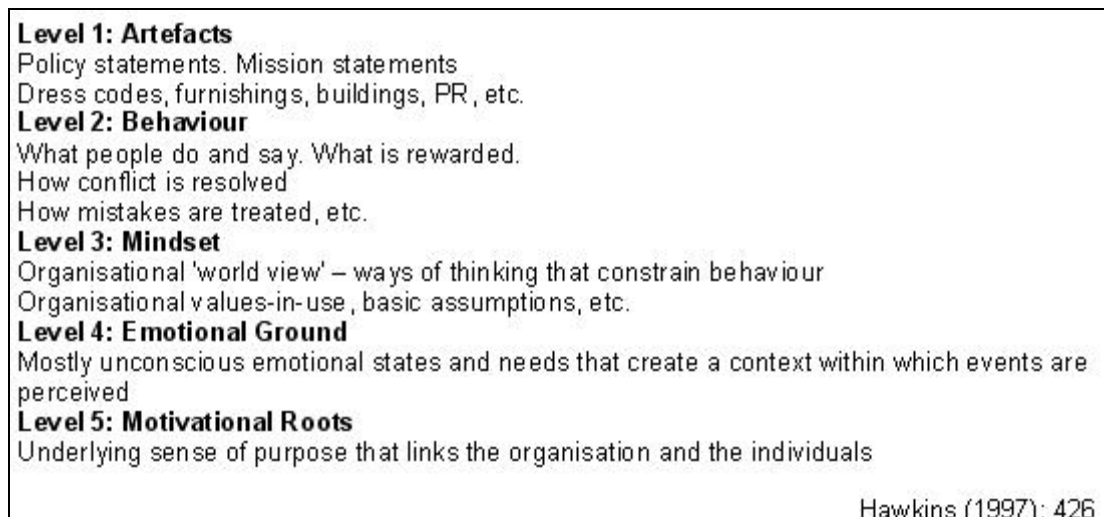*Box 2.1 Various Dimensions of Organisational culture*

Absence of bureaucracy	Management support
A bias for action	Management style
Action orientation	Motivational process
Autonomy and entrepreneurship	Market and customer orientation
Attitude towards change	Organizational clarity
A shared sense of purpose	Organization integration
Clarity of direction	Organizational vitality
Control	Openness in communication and supervision
Conflict tolerance	Organization of work
Communication patterns	Organizational reach
Compensation	Performance orientation
Closeness to customer	Personal freedom
Conflict	Productivity through people
Communication process	Performance goals
Control process	People integrated with technology
Confrontation	Performance facilitation
Conflict resolution	Policies and procedures
Commitment	Peer support
Concern for people	Peer team building
Communication flow	Peer goal emphasis
Co-ordination	Peer work facilitation
Conflict resolution	Performance clarity
Compensation	Performance emphasis
Direction	Risk tolerance
Decision-making	Reward system
Decentralized authority	Responsibility
Delegation	Reward
Decision-making practices	Risk
Decision-making process	Rituals to support values
Excitement, pride and esprit de corps	Rewards and punishments
Empowering people	Social relationships
Emphasis on people	Strong value systems
Encouragement of individual initiative	Stick to the knitting
Goal integration	Simple organization structure
Group functioning	Structure
Goal-setting process	Support
Human resource development (organisational focus)	Standards
Human resource development (individual focus)	Supportive climate
Influence and control	Strategic organization focus
Integration	Standards and values
Individual initiative	Supervisory support
Integration	Supervisory team building
Identity (degree)	Supervisory goal emphasis
Identity (feeling)	Supervisory work facilitation
Interaction process	Satisfaction
Job involvement	Task support
Job challenge	Task innovation
Job reward	Top management contact
Job clarity	Team work across boundaries
Leadership process	Training
Leader-subordinate interaction	Teamwork
	Warmth

van der Post, de Coning et al. (1997): 154-157

Box 2.2 Schein's Levels of Organisational Culture and their Interaction

Adapted from Schein (1989):14

Box 2.3 Hawkins Five levels of Organisational Culture

Level 1: Artefacts
Policy statements. Mission statements
Dress codes, furnishings, buildings, PR, etc.
Level 2: Behaviour
What people do and say. What is rewarded.
How conflict is resolved
How mistakes are treated, etc.
Level 3: Mindset
Organisational 'world view' – ways of thinking that constrain behaviour
Organisational values-in-use, basic assumptions, etc.
Level 4: Emotional Ground
Mostly unconscious emotional states and needs that create a context within which events are perceived
Level 5: Motivational Roots
Underlying sense of purpose that links the organisation and the individuals

Hawkins (1997): 426

Box 2.4 Cultural Levels

Interrelated Levels of Culture (Adapted from Karahana, Evaristo & Srite 1998)

Supranational

National

Organisational

Professional

Group

Individual
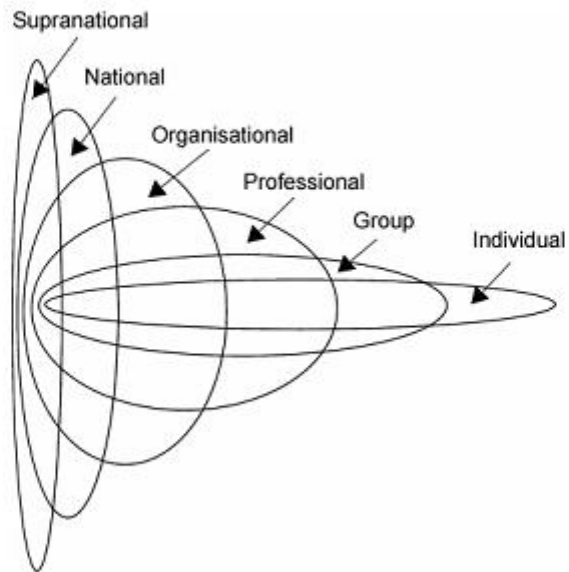
Karahanna, Evaristo et al. (2005): 6

Anthropological Perspective of Cultural Levels

Larger Cultures

Organisational Culture

Nested Subcultures

Cross Cutting Cultures
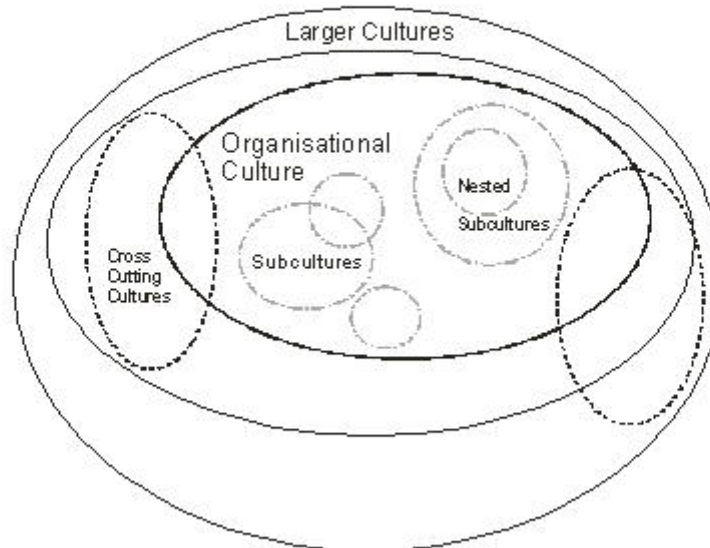
Subcultures

Jordan (1994): 6

In order to deal with this dilemma and provide guidance on how to approach organisational culture's fuzzy nature within different settings, two approaches offer themselves. First of all, the nature and role of organisational culture can be clarified by reference to other metaphors. Within the discourse on organisational culture Alvesson (2002: 38-39) identifies eight underlying metaphors that are used for paraphrasing culture. Culture can be considered as:

- ***Exchange-regulator:*** Culture operates as a control mechanism in which the informal contract and the long-term rewards are regulated. This is aided by a common value and reference system and a corporate memory.
- ***Compass:*** Culture gives a sense of direction and provides guidelines for priorities.
- ***Social glues:*** Culture, made up of common ideas, symbols, and values, is a source of identification with the group/organisation and counteracts fragmentation.
- ***Sacred cow:*** Basic assumptions and values point at the organisational core to which people are strongly committed.
- ***Affect-regulator:*** Culture provides guidelines and scripts for emotions and their expression.
- ***Disorder:*** Culture is defined by disorder, ambiguity, and fragmentation.
- ***Blinders:*** Culture has un- or non-conscious aspects. Such taken-for-granted ideas lead to blind spots
- ***World-closure:*** Culture, its ideas and meanings, creates a fixed world within which people adjust, and are unable to critically explore and transcend existing social constructions.

Secondly, when examining existing definitions, it becomes apparent that a lot of them cover similar ground. As such it can help to extract key themes and ideas, for example, Elliot Jacques (1951: 251) in The Changing Culture of a Factory states:

'The culture of the factory is its customary and traditional way of thinking and of doing things, which is shared to a greater or lesser extent by all its members, and which new members must learn, and at least partially accept, in order to be accepted into service in the firm…[It] consists of the means or techniques which lie at the disposal of the individual for handling his relationships, and upon which he depends for making his way among, and with, other members and groups.'

Forty years later, Edgar Schein (1991: 111) provided the following characterisation of organisational culture:

'Culture can now be defined as a pattern of basic assumptions, invented, discovered, or developed by a given group, as it learns to cope with its problems of external adaptation and internal integration, that has worked well enough to be

> *considered valid and, therefore is to be taught to new members as the correct way to perceive, think, and feel in relation to those problems'.*

As can be seen, both definitions cover similar aspects. When extrapolating the elements of organisational culture on which people are likely to agree from various existing definitions it becomes apparent that:

- organisational culture is holistic;
- organisational culture is historically determined;
- organisational culture is related to the 'things studied by anthropologists';
- organisational culture is socially constructed, soft, and deeply engrained (Hofstede 2001: 179-180; see also Lundberg 1990).

2.4 Organisational Culture and Climate

Organisational culture is often equated to the notion of organisational climate. Both concepts share features of complexity and multidimensionality (Pettigrew 1990), have been linked to organisational outcomes, and started to emerge within comparable timeframes (Sleutel 2000). It has been argued that traditionally the two concepts could be distinguished on the basis of the research approach applied – culture's was qualitative, climate's quantitative. With the beginning of quantitative research studies in the organisational culture domain, however, it has been argued that the two concepts have become virtually indistinguishable (Denison 1990).

Despite some overlap between the two concepts, there exist important differences; it is therefore a mistake to use the two concepts interchangeably (Glendon and Stanton 2000; West and Spendlove 2006). First of all, the two metaphors are borrowed from two distinct domains: culture is anthropological while climate is meterological (Scott, Mannion et al. 2003; West and Spendlove 2006). Secondly, they address different levels: climate focuses on members' perceptions of behaviour, policies, practices, goals, or methods of goal attainment at their workplace (Hoy 1990; Meudell and Gadd 1994; Sleutel 2000; Parker, Baltes et al. 2003). As such organisational climate might be perceived as a subsection of the broader area of organisational culture (Bell 2003) and understood as 'the perceived quality of an organisation's environment' (Glendon and Stanton 2000: 198). While organisational climate is thus influenced and influences organisational culture (McMurray 2003) it has been considered as more of an index, rather than a causative factor of an organisation's health (Furnham and Gunter referred Approaching Organisational Culture). Whatever the difficulties of disentangling culture and climate, this review has confined itself to the former as this was the deferred focus of the original Research Brief and the basis on which funding was allocated.

2.5 Approaching Organisational Culture

Along with the broad spectrum of definitions, multiple ways of approaching organisational culture have been advocated. These include classic perspectives within organisational theory such as Rationalism, Functionalism, or Symbolism (Schultz 1994) (see Box 2.5). However, most commonly reference is made to either Smircich's (1983) distinction between organisational culture as a variable or as a root metaphor, or the three perspectives of Integration, Differentiation, and Fragmentation as identified in the work of Martin (1992; Martin, Frost et al. 2004).

Box 2.5 Perspectives on Organisational Culture: Rationalism, Functionalism and Symbolism

Perspective	Organisational paradigm	Organisational Culture
Rationalism	The organisation is a means to efficient achievement	The culture is a instrument for achievement of organisational goals
Functionalism	The organisation is a collective which seeks survival by performing necessary functions	Culture is a pattern of shared values and basic assumptions which perform functions concerning external adaptation and internal integration
Symbolism	The organisation is a human system which expresses complex patterns of symbolic actions	Culture is a pattern of socially constructed symbols and meanings

Adapted from Schultz (1994):14

The multiplicity of perspectives and the 'paradigm wars' that continue to take place over them have led some observers to comment that the field of organisational culture mirrors the 'king of the mountain' game, where

> *'[o]ne king or queen's temporary triumph at the top of the sand pile is rapidly superseded by the reign of another would-be monarch, until a succession of short-lived victories and a plethora of defeats leave the pile flattened'* (Martin, Frost et al. 2004: 4).

The key dispute underlying the struggle for intellectual dominance relates to the question if culture is something an organisation is, or something an organisation has.

In her classic examination of culture's significance within organisational analysis Smircich (1983) divided the field into two polarised camps of researchers: proponents of the idea that culture

is a variable and therefore something an organisation has and those that perceive culture as a root metaphor and thus something an organisation is. The difference between the two is illustrated in Box 2.6 and their distinguishing characteristics are summarised in Box 2.7.

Proponents of the idea that culture is a variable consider the concept to serve four main functions (Smircich 1983): it provides members of an organisation with a sense of identity, it facilitates the commitment to a larger whole, it enhances social system stability, and it serves as a sense-making device which can guide and shape the behaviour of organisational members. As such, culture is one further aspect which can be used strategically to influence and direct the course of an organisation. The question that presents itself is *'how to mould and shape internal culture in particular ways and how to change culture, consistent with managerial purposes'* (Smircich 1983: 346). This raises the issue of the extent to which culture can be 'taught' or 'caught' through processes of socialisation and interactions in the organisational setting. In practice of course, <u>both</u> these processes may apply to different extents at different times. Based on organismic perceptions of organisations which assume that an organisation's environment imposes various behavioural imperatives, the emerging research agenda is to examine different cultures, identify successful cultural 'adaptations', and use the insights gained to draw lessons for organisational effectiveness (Smircich 1983). As such, certain similarities between this school of thought and the previously discussed notion of scientific management can be noticed.

The perception that culture is a root metaphor goes beyond the instrumental and adaptive ideas put forward in the view of culture as a variable. It promotes the idea that culture has a 'non-concrete' status and perceives organisations as a particular form of human expression: culture is something that penetrates every aspect and layer of an organisation (see Box 2.5). This perspective considers culture as less prone to managerial interference than the previous one. While managers might be able to change some outward manifestations of culture, the basic assumptions held by organisational members will be the same (Buchanan and Huczynski 1997). Given that organisations exist only as patterns of 'symbolic relationships and meanings sustained through the continued processes of human interaction' (Smircich 1983: 353), organisations should not merely be approached in economic or material terms, but in light of their expressive, ideational, and symbolic aspects:

> *'the researcher's attention shifts from concerns about what do organisations accomplish and how may they accomplish it more efficiently, to how is organisation accomplished and what does it mean to be organised?'* (Smircich 1983: 353).

Box 2.6 Culture as a variable or a Root Metaphor I

Adapted from Alvesson (2002): 26
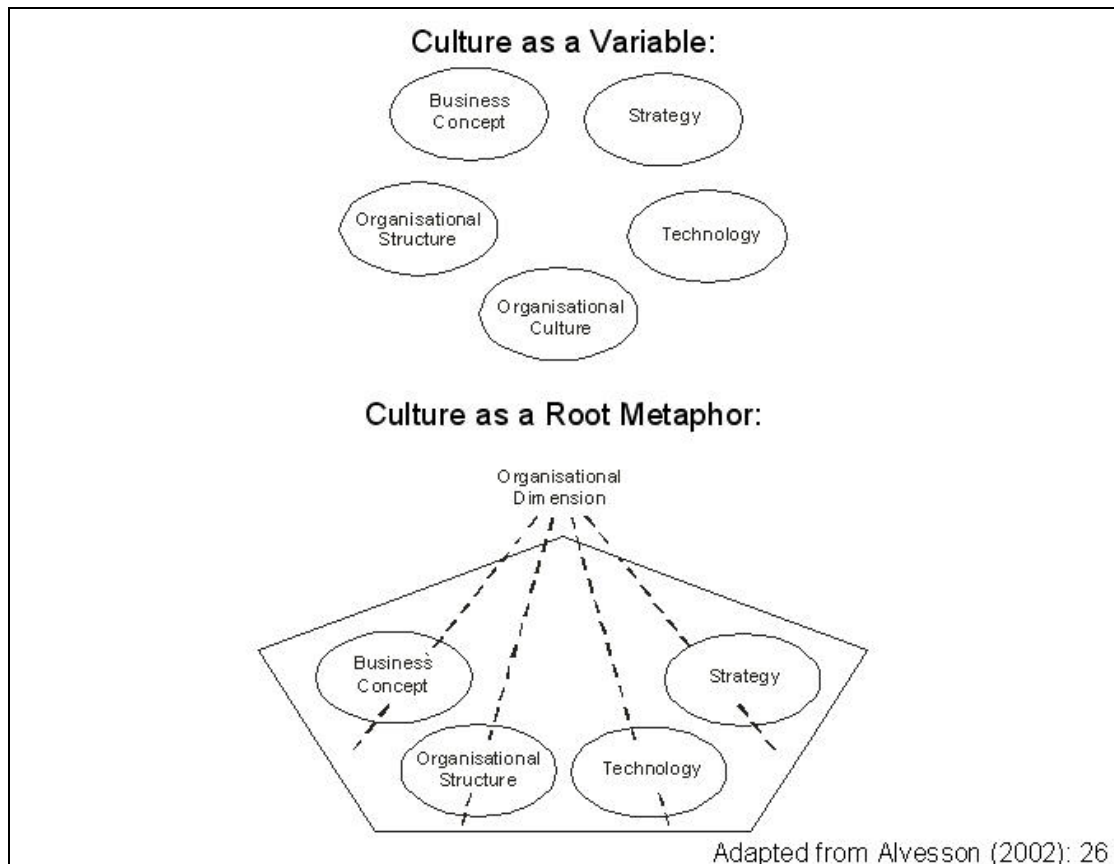
Box 2.7 Culture as a Variable or a Root Metaphor II

Culture as a Variable	Culture as a Root Metaphor
Positivist	Phenomenological
Anthropology/ Biology	Social Biology
Single, agreed upon culture	Several, parallel, sub-cultures
Physical reality	Mental state
Provides an adaptive-regulating mechanism to maintain status quo	Cultural conflicts can engender change
Directed by actions of senior management changing artefacts and espoused values	Reproduced by all culture members in an ongoing way through their negotiation and sharing of symbols and meaning
Senior management only manipulate culture for organisational success	Managers, as well as other individuals and groups, all influence cultural direction of company

Buchanan and Huczynski (1997): 514 – based on work by Legge

When trying to sub-divide the field along the lines of variable and root metaphor, though, it soon becomes obvious that in a lot of cases no clear distinction can be made. Many researchers do not easily fit into either category or they fall somewhere in between the two; they refrain from reducing culture to a variable without fully viewing organisations as cultures either (Alvesson 2002). Signs of the dilemma are evident in Smircich's own work. As Alvesson (2002) highlights, a number of the authors cited as examples in her 1983 overview appear in both sections, discussing culture as a variable on the one hand and invoking culture as a metaphor on the other hand. This paradox seems to be rooted in the difficulty that the notion of culture as a variable is weakened by the fact that cultural concepts frequently do not lend themselves to quantification or strict variable thinking. Conversely, the notion of culture as a root metaphor, with its focus on symbols and meaning, neglects the economic and other non-symbolic dimensions of organisation (Alvesson 2002).

To an extent the work of Martin (1992; Martin, Feldman et al. 1983; Martin and Siehl 1983; Martin, Frost et al. 2004) mirrors that of Smircich. Within the Integration perspective, culture is considered to be characterised by consistency, organisation-wide consensus, and clarity of purpose. This is supposed to aid organisational effectiveness as a result of greater cognitive clarity, commitment, control, productivity, and profitability. As such, it resonates with the ideas put forward within the perception of culture as a variable: culture is one organisational facet that can be manipulated by managers in order to control the behaviour of organisational members and increase organisational effectiveness. While the Integration perspective focuses on similarity, the Differentiation perspective focuses on dissimilarity. The latter questions the notion of organisational-wide consensus and is similar to the idea of root metaphor. It is assumed that organisations are marked by the existence of subcultures. Any organisational consensus is restricted to these individual subcultures. Approaching organisations from this view, the workings of power, conflicts of interest between groups, and differences of opinion are highlighted. Within this perspective, there is no agreement as to the impact of various cultural configurations on organisational performance. The third category put forward by Martin is Fragmentation. Proponents of this perspective reject both consistency and inconsistency hypotheses as proposed by Integration and Differentiation views. Instead, the focus is on subjective ambiguity, perceived as 'a lack of clarity, high complexity, or a paradox'. This ambiguity means that multiple explanations are plausible (Martin 1992: 134). As a result of multiple possible views consensus is rarely, if ever, achieved. Accordingly, organisational culture is understood as:

> *'A web of individuals, sporadically and loosely connected by their changing positions on a variety of issues. Their involvement, their subcultural identities, and their individual self-definitions fluctuate, depending on which issues are activated at a given moment'* (Martin 1992: 153).

Based on the perception that decisions are made as a result *of 'accidental timing between choice opportunities, solutions, problems, and participants under conditions of high uncertainty'* (Schultz 1994: 13), Schultz (1994) has equated the Fragmentation perspective with the garbage-can model of Cohen, March and Olsen. The differences between the Integration, Fragmentation and Differentiation perspectives are summarised in Box 2.8.

Box 2.8 Defining Characteristics of the Integration, Differentiation and Fragmentation Perspectives

Perspective	Integration	Differentiation	Fragmentation
Orientation to consensus	Organisation-wide consensus	Subcultural consensus	No consensus (Multiplicity of views)
Relation among manifestations	Consistency	Inconsistency	Complexity (neither clearly consistent nor inconsistent)
Orientation to ambiguity	Exclude it	Channel it outside subcultures	Focus on it
Metaphors	Clearing in jungle, monolith, hologram	Islands of clarity in sea of ambiguity	Web, jungle

Adapted from Martin (1992): 13

Whereas Smircich focuses on subdivision and fragmentation, Martin takes a more unifying perspective: organisational culture should be explored from all three perspectives, each offering different insights. Rather than perceiving the different approaches to exploring organisational culture as mutually exclusive, combining them brings different facets of the 'same' phenomenon to light (Martin 1992; Martin, Frost et al. 2004). Of course, some of these approaches can be applied across whole organisations, but each must also take account of the important sub-groups that may be present.

2.6 Concluding remarks

Health care policy in the UK (as elsewhere) frequently invokes notions of 'cultural change' as a key means of achieving performance improvement and delivering good quality health care. However, although frequently invoked, notions of organisational culture are often under-specified. Unpacking the character of these, and exploring the nature of any linkages between culture(s) and performance, thus remains an important task. This review of the recent policy changes in the NHS and the conceptual underpinnings of notions of culture and culture change therefore serves as a means of providing some structure against which the empirical work around

culture assessment instruments could be devised, analysed and interpreted.

The diversity and contested nature of understanding about culture will necessarily mean that there will be diverse and contested means of assessing it. Therefore a multiplicity of approaches and tools is expected, and simple notions of "best tool" are misplaced. Therefore the conceptual unpacking reviewed in this section serves to frame the diversity of tools subsequently uncovered.

The next section provides a review of the different tools and instruments that have been devised for assessing organisational cultures in health care and elsewhere. In addition to a consideration of the technical and psychometric properties of each instrument we also include an assessment of their practical utility and 'fitness for purpose' in health care settings.

3 REVIEW OF INSTRUMENTS, TOOLS AND APPROACHES FOR MEASURING AND ASSESSING ORGANISATIONAL CULTURE

This section reviews documents on existing qualitative and quantitative instruments for the exploration of organisational culture and provides an assessment of different instruments' characteristics and their technical properties. Overall, seventy instruments for culture exploration are identified; of these, forty-eight are subjected to psychometric testing.

3.1 Methodology

The methodology used to identify instruments for the exploration of organisational culture was based on the established guidelines for systematic reviews provided by the Centre for Reviews and Dissemination at the University of York (see Khan, Riet et al. 2001). In order to meet the requirements of the diffused substantive nature of the organisational culture arena, these were adapted where necessary.

Electronic searches of the eleven bibliographic databases listed in Box 3.1 were conducted. These databases had been identified as useful sources for identifying relevant literature in a previous review of the field (see Scott, Mannion et al. 2001; 2003). The searches for the present review had two objectives: to identify relevant publications that had emerged since the publication of the previous review (ibid.) and to locate qualitative instruments that had been used in the assessment of organisational culture, an area excluded by the previous review.

The search strategy was informed by the search strategy utilised in the prior review. It included citation searching of papers in the previous review and a subject search for instruments to measure organisational culture.

The search strings for the latter were based on a synonym list for organisational culture and measurement/assessment instruments. This was drawn up amongst the team members. The terminology used covered natural language- and, where available, thesaurus-searching. While due to the diverse nature and workings of the eleven databases the precise search strategy had to be tailored to the individual database layouts, the search strings applied to Medline is provided as a model example in Box 3.2.

In line with the two objectives, two separate searches were made. The first, conducted in December 2005, looked for work on qualitative and quantitative instruments and approaches for the

assessment of organisational culture that had been published since 2001 (the cut-off date of the previous review). It retrieved 6,762 potentially relevant publications. The second search, carried out in February 2006, found 5,613 potentially relevant references regarding qualitative instruments that had been published prior to 2001. In both cases the bibliographic details were imported into Reference Manager databases before being exported into an Endnote database. This was necessary due to differences in IT packages provided by team members' institutions.

In order to arrive at a list of references that was as comprehensive as possible, while at the same time being manageable within the timeframe and resources available, an intra-search within the identified references was carried out. This used the search facilities provided within the Endnote software package. Following team discussions it was decided to include only those references which referred directly to 'culture' in either the title, or the abstract; in light of resource constraints and the large number of references identified this was deemed necessary. This resulted in a list of 2,577 references from the first search and 2,185 references from the second search. Based on the title and abstract, each of the references was screened and assessed for potential relevance by one member of the team. This narrowed down the result to 488 references from the first dataset and 389 references from the second.

Box 3.1 List and Description of Databases searched

ABI Inform	Covers U.S. and international articles on business and management.
COPAC	The merged online catalogues of members of the Consortium of University Research Libraries (CURL).
Cumulative Index to Nursing & Allied Health (CINAHL)	Covers the majority of English literature related to nursing and allied health.
EMBASE (Excerpta Medica)	Covers the worldwide literature on biomedical and pharmaceutical fields
Emerald	Covers Emerald's journals on strategy, leadership, library and information management, marketing and human resource management, plus various engineering, applied science and technology titles.
Health and Psychosocial Instruments (HaPI)	Covers medical measurement instruments.
Healthcare Management Information Consortium (HMIC)	Covers data held in the Library & Information Services of the Department of Health England and the King's Fund Information & Library Service.
Medline	Covers the fields of medicine, nursing, dentistry, veterinary medicine, the health care system, and the preclinical sciences.
PsychInfo	Covers the abstracts of psychological literature.
Science Citation Index	Covers more than 150 disciplines related to science and technology.
Social Science Citation Index	Covers more than 50 disciplines related to the social sciences.

Box 3.2 Example search protocol – Medline

```
1.  organizational culture/
2.  Organi?ation$ culture.ti,ab.
3.  Organi?ation$ climate.ti,ab.
4.  informal organi?ation.ti,ab.
5.  organi?ation$ properties.ti,ab.
6.  organi?ation$ characteristics.ti,ab.
7.  organi?ation$ factors.ti,ab.
8.  cultural assessment.ti,ab.
9.  culture assessment.ti,ab.
10. internal characteristics.ti,ab.
11. corporate culture.ti,ab.
12. organi?ation$ symbolism.ti,ab.
13. management culture.ti,ab.
14. organi?ation$ anthropolog$.ti,ab.
15. or/1-15
16. qualitative research/
17. og.fs.
18. sn.fs.
19. psychometrics/
20. questionnaires/
21. comparative study/
22. sociometric techniques/
23. dimension?.ti,ab.
24. instrument?.ti,ab.
25. measure$.ti,ab.
26. measuring.ti,ab.
27. interpret$.ti,ab.
28. method$.ti,ab.
29. instrument$.ti,ab.
30. model$.ti,ab.
31. questionnaire?.ti,ab.
32. survey$.ti,ab.
33. framework$.ti,ab.
34. quantitative.ti,ab.
35. qualitative.ti,ab.
36. scale?.ti,ab.
37. index$.ti,ab.
38. indices.ti,ab.
39. or/17-39
40. 15 and 39
```

The unit of analysis for the study was the instrument rather than particular publications. Therefore, every reasonable attempt was made to obtain a full copy of each instrument identified, along with all relevant full-text publications that were identified by the search strategy. As part of this process, an instrument's author(s) or owner(s) were contacted, where contact details could be identified. Nonetheless, from the pool of identified instruments for cultural assessment not all could be retrieved (e.g. neither the Organisational Assessment Questionnaire (OAQ), the Survey of Organisations-2000 (SOO-2000), nor the English version of the Inventario de Comportamiento de Estudio could be obtained). The main reasons for this were a failure by instruments' author(s) and/or owner(s) to

reply, unwillingness of author(s) and/or owner(s) to co-operate, and limited accessibility and/or availability of relevant publications.

It was decided that such a lack of accessibility indicated that the instruments were not readily available for application and as a result were excluded from this report. Based on this, the overall number of instruments identified in this report is seventy (see Section 3 – Box 3.5). This number should not be considered as absolutely comprehensive in that it is partly based on subjective judgements made by the authors. While in general individual instruments could be clearly identified on the basis of their unique title, in some instances terminological imprecision and extensive variations and amendments to an instrument made the task more difficult; it was left to the authors to reach a final decision on the uniqueness of an instrument.

Each of the culture assessment instruments that could be obtained and for which psychometric information could be acquired – forty-eight in total – was categorised and evaluated against the framework provided in Box 3.6. This framework was applied flexibly to reflect the diverse nature of cultural assessment approaches. In some cases, author(s) and/or owner(s) were only willing to provide limited access to the instrument itself or information thereon. As a result, the assessment of such instruments is limited by the scope of access granted and the extent of the selective information provided.

The instruments identified in the literature search were categorised as quantitative or qualitative in nature. For the purposes of this review, a quantitative measure of culture was defined as:

an explicit and systematic method which can be applied to an entity in order to define a score, rating or code which describes the cultural quality or qualities of an entity.

The instruments meeting this definition were each subjected to psychometric critical appraisal by two of the researchers. This involved two stages: data extraction and psychometric quality assessment.

It should be stressed that in all cases, data extraction and quality assessment was restricted to those studies which were identified in the primary search. If relevant papers were not identified by that search or were not available at the time of data extraction, then the data extraction and quality assessment may not be comprehensive. The methods adopted for the review prioritised the identification of the widest range of measurements of culture, rather than a comprehensive assessment of a smaller number of specific relevance to health care.

3.2 Data extraction

A data extraction sheet was formulated with six main assessment headings as outlined in Box 3.3 or 3.7. This was generated principally on the basis of the evaluation criteria for patient-based outcome measures put forward by Fitzpatrick et al. (Fitzpatrick, Davey et al. 1998). The papers underwent primary extraction by one of the two researchers and this was subsequently checked by the other researcher.

Box 3.3 Assessment Framework

- Description
  - Country of origin
  - Development date
  - Available versions
  - Stated definition and/or intended conceptual model of culture
  - Intended purpose for measure
  - Format
  - Dimensions, items and response scale
  - Level of measurement
  - Procedure for deriving scale scores, including aggregation procedures
  - Level of measurement
  - Methods used in item generation and reduction
  - Methods used in item reduction and modification
- Appropriateness
  - Face validity
  - Acceptability
  - Feasibility
  - Susceptibility to systematic bias
- Reliability
  - Internal consistency
  - Reproducibility over time (test-retest)
  - Reproducibility over respondents (inter-observer)
- Validity
  - Content
  - Criterion
  - Predictive/concurrent
  - Convergent
  - Discriminative
  - Cross-cultural
  - Dimensional structure
- Responsiveness
- Interpretability
  - Norms
  - Calibration
- Applications

Description
The issues subsumed under this heading were largely descriptive in nature and included issues relating to the origin, theoretical underpinning, purpose, format and structure of the measure in question.

Appropriateness
The issues under appropriateness were related to the suitability of a measure as a tool for measuring culture in an organisational setting. Face validity assesses whether or not the measure appears to measure what it purports to measure. Subjective judgment of respondents themselves or of 'experts' in the field is at the core of this property and is maximized by the involvement of such informants in an instrument's development process. Acceptability relates to the burden placed on the respondents completing the measure in terms of the time needed for its completion, the complexity of the questionnaire itself and the difficulty of the language used. Feasibility is closely related to this in that it addresses the burden placed on the administrator of the measure, for example the need for training, specialist scoring software or algorithms. Finally, the susceptibility of the measure to systematic bias relates to halo-effects where responses to one or more questions carry over to responses to others and the propensity of the instrument to elicit socially desirable responses.

Reliability
Reliability concerns the degree to which an instrument is free from random error, that is, whether the measures produces scores that are consistent and/or reproducible across items (internal consistency), time (test-retest reliability) and respondents (inter-observer reliability or agreement). Internal consistency is the mainstay of reliability assessment and is usually assessed in the form of Cronbach's alpha coefficients. This assesses the degree of inter-relatedness between the items that make up a scale. While such inter-relatedness is necessary for a scale to be homogeneous, the alpha coefficient is also affected by the number of items in a scale, such that long scales will yield a higher alpha, all other things being equal. Test-retest reliability assesses the degree of random measurement error that occurs over time, an essential property for a measure to be used to track changes longitudinally. A final assessment of reliability is its reproducibility over respondents. The issue of relevance, particularly where culture is considered to be a shared phenomenon, is the extent to which different organizational members give a consistent response.

Validity
Validity relates to whether an instrument measures what it purports to be measuring. Such a broad concept is inevitably associated with a wide variation of methods in its assessment. Many different forms of validity have been defined (e.g. predictive, concurrent, construct, convergent, discriminant). Whilst each of these can be distinguished

in theory, in practice there is much overlap in their assessment and at times confusion in their labelling; this is particularly so where the variable of interest is a theoretical concept (i.e. a construct) rather than a directly observable phenomenon.

For the purposes of this review, validity assessment was considered under five sub-headings:

- *Content validity* – where the measure represents all the different elements of the construct of interest.
- *Criterion* – where the measure is compared against a gold-standard measure of the variable of interest.
- *Predictive and concurrent validity* – where the measure is compared with a theoretically related variable (e.g. performance).
- *Convergent validity* – where the measure is compared with another measure of culture.
- *Discriminative validity* – where scores on the measure are compared between groups that are known to differ in some way (e.g. different organizations).
- *Cross-cultural validity* – where scores derived from different language or culture versions of a measure are compared.
- *Dimensional structure* – where the internal dimensional structure of the measure is shown to be consistent with the intended measurement model.

Responsiveness
Also known as sensitivity to change, responsiveness relates to whether the measure is able to detect changes over time and in response to an intervention such a culture change program.

Interpretability
Interpretability concerns how scores should be understood, and involves issues such as the availability of published norms for various reference groups and attempts at calibration i.e. describing relationships between measures and interpretable outcomes, such as the expected increase in productivity (in dollars) associated with a change in culture score. .

Applications
The final assessment heading related to the specific contexts and populations in which the measure has been used. Of primary interest was whether or not it had been applied within the health care sector.

3.3 Psychometric quality assessment

Based on the extracted data, a psychometric quality assessment was undertaken for each of the instruments. This was done by coding the data identified by the searches according to the criteria outlined in Box 3.4. Each instrument was scored by two researchers independently and any differences were discussed and resolved through discussion.

Unlike quality appraisal in other areas (such as trial quality in conventional systematic reviews), there is no consensus over the exact standards to be met before a measure is considered 'validated' or 'developed'. Any quantitative measure requires at a minimum some test of reliability, to provide an assessment that the measure is at least assessing some construct in a reproducible way, even if the exact nature of that construct and its relationship with other variables is as yet unclear. Assessments of validity are often seen as a crucial second stage, with assessments of associations with relevant outcomes (especially those measured prospectively, rather than cross-sectional) seen by some as the optimal test of validity. Only then may resources be used to assess other issues (such as responsiveness and interpretability).

However, instrument development and testing does not always follow a specific, structured programme; developers may legitimately prioritise particular aspects depending on the nature of the scale and the purpose for which it has been designed. Therefore, the application of quality standards is complex, and the quality assessment presented here is intended as a broad guide to the amount of information available from the searches about the performance of a measure on the key indices in the assessment framework (Box 3.3). Clearly, multiple studies are sometimes available for any individual measure, and the current project did not have the resources to conduct a quality assessment of each study which reported data of relevance, despite the fact that there will be variation in the quality of studies used to assess validity and reliability, as well as variation in those assessments. The ratings in Appendix 3 can only provide a relatively crude summary of the available information and can take little account of quality and contextual issues. Some aspects of the quality ratings (for example, whether a factor analysis 'confirms a hypothesised dimensional structure') are inherently arbitrary and subjective.

It should also be noted that the specific criteria used to judge the quality of an instrument is closely tied to the intended purpose. For example, more stringent criteria might be required of a measure that is to be used to make decisions about individual members of staff, as opposed to those which are expected to be used for general group description and comparison.

Therefore, the overall assessment provided in Appendix 2 should be used as a guide to selection of candidate instruments, together with the information provided in the fuller data extractions in Appendix 1.4. Readers can use appendices 1 and 3 and the tables in part 2 to identify instruments that meet broad criteria (e.g. a self reported measure developed in the UK with adequate evidence of reliability, some assessment of association with outcomes, and evidence of use in UK health care settings), and then use the full extraction to identify relevant references for a more fine grained analysis.

Limitations

It is important to bear a number of potential limitations in mind. Firstly, relying on electronic searches opens the door to possible problems: downloading or retrieval restrictions, programming flaws in database designs, and the potential loss of record as a result of export features – from database to software or across different software packages. A second limitation results from our pragmatic strategy – adopted due to resource constraints – of using intra-searches in which explicit reference to 'culture' was a requirement. This relies on authors' terminological precision: if authors do not explicitly refer to 'culture' in their abstracts or titles, their publication will not have been picked up. Thirdly, it would have been optimal to conduct another set of searches following the development of the list of identified instruments, searching on titles and authors to pick up additional references. With a smaller number of included instruments this would have been possible, but the decision was made to go for breadth rather than depth. Finally, there is always the possibility of human error whereby potential instruments were not identified during the sifting process. That said, given the high levels of ambiguity and imprecision that exists within this field, both in the literature and in the databases available, we think it unlikely that a more thorough literature search could have been carried out without a disproportionately large disposition of additional resources; this search is therefore likely to be the most exhaustive yet undertaken.

Box 3.4 Psychometric Quality Assessment Criteria

Internal consistency	No assessment	No assessment identified
	Unclear	Assessment identified BUT: not on the complete and/or final version OR not on all main scales OR coefficients for a number of scales (>20%) fall below 0.70.
	Adequate	Assessment identified for the complete and final version of the measure AND coefficients for the majority of the main scales (>80%) are above 0.70.
Test-retest reliability	No assessment	No assessment identified
	Unclear	Assessment identified BUT: not on the complete and/or final version OR not on all main scales OR coefficients for a number of scales (>20%) fall below 0.70.
	Adequate	Assessment identified for the complete and final version of the measure AND coefficients for the majority of the main scales (>80%) are above 0.70.
Aggregation	No assessment	No assessment identified
	Unclear	Assessment identified but validity of aggregation not confirmed by ICC or Rwg or ANOVA
	Adequate	Assessment identified and the validity of aggregation was confirmed by ICC or Rwg or ANOVA
Association with descriptive characteristics	No assessment	No assessment identified
	None	Non significant associations with descriptive characteristics
	Minimal	Associations with descriptive characteristics only in a single study
	Moderate	Associations with descriptive characteristics in multiple studies
	Extensive	Associations with a wide range of descriptive characteristics in multiple studies
Association with outcomes	No assessment	No assessment identified
	A	Measure associated with subjective outcomes in cross sectional study
	B	Measure associated with objective outcomes in cross sectional study
	C	Measure predicts subjective outcomes in longitudinal study
	D	Measure predicts objective outcomes in longitudinal study
Association with measures of culture	No assessment	No assessment identified
	None	Non significant associations with a validated measure of culture
	Minimal	Associations with a validated measure of culture only in a single study
	Extensive	Associations with a validated measure of culture in multiple studies
Dimensional structure	No assessment	No assessment identified
	Unclear	Assessment identified BUT not on the complete and/or final scale OR hypothesised dimensional structure was not confirmed.
	Adequate	Assessment identified for the complete and final scale structure of the measure AND the hypothesised dimensional structure was mostly confirmed.
Responsiveness	No assessment	No assessment identified
	Unclear	Evidence that the measure is not correlated with organisational change.
	Adequate	Evidence that the measure is correlated with organisational change

3.4 Findings and discussion

Seventy instruments and approaches for exploring and assessing organisational culture were identified (see Box 3.5); of these forty-eight were submitted to psychometric assessment (see Box 3.6):

some were not appropriate for the psychometric assessment framework, and others had no data to extract.

In light of the limited vocabulary relating to 'organisation', 'culture', 'instrument' and 'assessment', the instruments' titles display a certain degree of overlap (e.g. Hospital Culture Questionnaire and Hospital Culture Scales; Organisational Culture Inventory, Organisational Culture Survey and Organisational Culture Profile); consequently, instruments can easily be confused with one another. This danger is compounded by the problem that several distinct instruments with exactly the same title were found. For example, the title Organisational Assessment Survey (OAS) is used in an instrument by both MetriTech and the United States' Office of Personnel Management (OPM), while the term Organisational Culture Profile (OCP) is used as the title of an instrument by Ashkanasy et al. (2000) and O'Reilly et al. (1991).

In some cases, such as the OAS or the OCP, the instruments can be distinguished on the basis of the cultural dimensions employed. For example, Ashkanasy et al.'s (2000) version of the OCP focuses on leadership, structure, innovation, job performance, planning, communication, environment, humanistic workplace, development of the individual, and socialisation on entry, while O'Reilly et al.'s (1991) instrument concentrates on innovation and risk taking, attention to detail, orientation towards outcomes or results, aggressiveness and competitiveness, supportiveness, emphasis on growth and rewards, collaborative team orientation, and decisiveness; in other instances, however, the dimensions or the overarching framework are similar and there are only slight variations in regard to the questions or methodology used: for example Chang and Wiebe (1996), Howard (1998), and Zammuto and Krakower (1991) all refer to a Competing Values Instrument for Organisational Culture (CVF).

In developing existing tools, authors frequently do not amend an instrument's title to reflect such changes. Amongst the identified instruments it is common that different versions of the same instrument have been developed over time. When examining the OCP [O'Reilly et al.], one can notice that it was amended by other authors through the reduction of items (Windsor and Ashkanasy 1996; Cable and Judge 1997) and through changes in methodology from Q-method to Likert-scale (Sarros, Gray et al. 2005). Similarly, within the CVF one can find four- and five-item ipsative measures (e.g. Quinn and Kimberley 1984; Zammuto and Krakower 1991; Zammuto and O'Connor 1992), Likert-scales (e.g. Quinn and Spreitzer 1991; Chang and Wiebe 1996; McDermott and Stock 1999; Øgaard, Larsen et al. 2005) and Q-methodology (Howard 1998). While in some cases such differences are reflected by way of additional qualifiers in an instrument's title (e.g. the Nursing Work Index (NWI) was re-named as Nursing Work Index – Revised (NWI-R)) such instances are the exception rather than the rule; most commonly different versions co-exist under the same name.

The field is also marked by a large degree of borrowing and integration: O'Reilly et al.'s (1991) OCP formed the basis for Tepeci's Hospitality Industry Culture Profile (HICP) (Tepeci 2001; Tepeci and Bartlett 2002); the Competing Values Instrument for Organisational Culture by Zammuto and Krakower (1991) forms part of the National VA Quality Improvement Survey (NQIS), while Quinn and Spreitzer's (1991) version of the Competing Values Instrument for Organisational Culture was a subset of the Organisational Assessment Survey for Improvement in Neonatal Intensive Care (NIC/Q 2000) (see Baker, King et al. 2003). In combination with the other terminological obstacles this means that drawing boundaries around an instrument and demarcating it clearly from any other one is in many instances almost impossible. As a result, the list of instruments provided in Box 3.5 should not be considered as fixed; other ways of classification are possible and, depending on the perspective taken, longer or shorter lists of instruments can be justified. However, this should not be seen as an obstacle or even a problem. Instead, it seems to be a defining feature of research and work in the field of organisational culture to wander off the paths meticulously mapped by predecessors (see Appendix 1).

3.5 Origin and Context of Application

Culture is largely dependent on and influenced by temporal and socio-cultural contexts. It is important to bear these in mind when setting out to apply an instrument for exploring organisational culture. The listed instruments have emerged over more than five decades. The oldest instruments can be traced back to the middle of the 20th century and include the Critical Incident Technique (1954), Laddering (1965), the Nurse Self Description Form (1967) and Wallach's Organisational Culture Index (1968). However, in line with the broader interest in organisational culture that captivated organisation studies from the 1980s onwards (see Appendix 1), a surge in the development of instruments can be identified from that point onwards. While this trend seems to continue – several instruments have been designed since the year 2000 (e.g. Assessing Learning Culture Scale, CULTURE, General Practice Learning Organisation Diagnostic Tool) – most of the identified instruments emerged during the 1990s (see Box 3.7).

While in some cases an instrument's country of origin could not be clearly identified (e.g. Cultural Consensus Analysis and Laddering), two clusters can be noticed: the largest number of instruments appears to have been developed within the US: almost half of the identified instruments have their origin within a North American context (see Box 3.8). To some extent this is attributable to the fact that the notion of organisational culture as a remedy for failures in organisational performance, analysis and research has had its strongest advocates within the US (see Appendix 1). While various instruments from different geographic areas and countries were identified (e.g. Estonia: Questionnaire of Organisational Culture;

Hong Kong: School Values Survey; South Africa: van der Post Questionnaire; Scandinavia: Women Workplace Culture Questionnaire, CULTURE), the second largest cluster of instruments has its origin within the UK. This might be attributable to the UK's infatuation with the concept of culture; however, it is most likely simply a reflection that instruments for cultural assessment outside English-language-databases have not been picked up.

It can be assumed that similarities between originating and receiving context would facilitate the transfer and application of an instrument. As such, in the transfer of ideas, policies and practices, it is usually the case that the first ports of call are those countries that are perceived to be most similar, rather than those in close geographic proximity (Pierson 2003). In the case of Britain, these countries are assumed to be the US and Australia rather than her European neighbours. Notwithstanding any assumed similarity between Anglophone countries, though, any transfer and application of an instrument from such nations can still not circumnavigate questions of congruence. As such, it is noteworthy that some instruments are the result of international efforts (e.g. FOCUS, GLOBE, Perceived Cultural Compatibility Index); such international input and collaboration might facilitate the cross-cultural application of such instruments.

Traditionally, the sectors most interested in organisational culture have been business, healthcare and education. This is reflected in the contexts from which the identified instruments have emerged and to which they have been applied: although a large number of instruments have a business background, numerous of these have seen some application in healthcare settings (see Box 3.9), mainly within an US and/or Australian context. The few instruments that have been applied within British healthcare settings include the Competing Values Framework, Critical Incident Technique, Organisational Culture Survey, Practice Culture Questionnaire, General Practice Learning Organisation Diagnostic Tool, the Ward Organisational Feature Scales, and Perceived Organisational Culture. However, other instruments that to-date have not seen any application within the healthcare arena might still be worth considering: with hospitals sharing numerous characteristics of hospitality organisations, one such example might be the Hospitality Industry Culture Profile.

Box 3.5 Instruments and Approaches for Exploring Organisational Culture

- Assessing Learning Culture Scale
- Assessment of Organizational Readiness for Evidence-Based Health Care Interventions
- Competing Values Framework
  - Competing Values Instrument for Organisational Culture [Chang and Wiebe]
  - Competing Values Instrument for Organisational Culture [Howard]
  - Competing Values Instrument for Organisational Culture [Quinn and Spreitzer]
    - NIC/Q 2000 Tool
  - Competing Values Instrument for Organisational Culture [Zammuto and Krakower]
    - National VA Quality Improvement Survey (NQIS)
  - Organisational Culture Assessment Instrument (OCAI) [Cameron and Quinn]
- Concept-Mapping and Pattern-Matching Approach
- Contextual Assessment of Organisational Culture (CAOC Approach)
- Core Employee Questionnaire
- Corporate Culture Questionnaire
- Culture Gap Survey
- Culture Snapshot
- Culture Survey [Mackenzie]
- Critical Incident Technique
- The Cultural Audit
- Cultural Assessment Survey
- Cultural Consensus Analysis (CCA)
- Denison Organisational Culture Survey (DOCS)
- Ethnography
- Five Window Culture Assessment Framework
- FOCUS Questionnaire
- General Practice Learning Organisation Diagnostic Tool
- Global Leadership and Organisational Behavior Effectiveness (GLOBE) Culture Scales
- Grid/Group Model
- Group Practice Culture Questionnaire
- Hofstede's Measure of Organisational Culture
  - Hofstede's Measure of Organisational Culture (Organisational Practices)
  - Hofstede's Measure of Organisational Culture (Values)
- Hospital Culture Questionnaire
- Hospital Culture Scales
- Hospitality Industry Culture Profile (HICP)
- Interactive Projective Test (IPT)
- Interviews
- Inventory of Polychronic Values (IPV)
- Japanese Organisational Culture Scale (JOCS)
- Laddering
- Metaphorical Analysis
- Narratological Approach
- Norms Diagnostic Index
- Nurse Medication Questionnaire
- Nurse Self-Description Form (NSDF)
- Nursing Unit Cultural Assessment Tool (NUCAT)
- Nursing Work Index (NWI)/ Nursing Work Index – Revised (NWI-R)
- Organisational Assessment Survey (OAS) [MetriTech]
- Organisational Assessment Survey (OAS) [OPM]
- Organisational Commitment Questionnaire (OCQ)
- Organisational Culture and Core Task (CULTURE) Questionnaire
- Organisational Culture Assessment Instrument (OCA)
- Organisational Culture Inventory (OCI)
- Organisational Culture Profile (OCP) [Ashkanasy]
- Organisational Culture Profile (OCP) [O'Reilly]
- Organisational Culture Questionnaire [Harrison]
- Organisational and Team Indicator (OTCI)
- Organisational Culture Survey
- Organisational Development Questionnaire (ODQ)
- Organisational Norms Opinionnaire (ONO)
- Perceived Cultural Compatibility Index (PCC)
- Perceived Organisational Culture
- Personal, Customer Orientation, Organisational and Cultural Issues (PCOC) Model
- Practice Culture Questionnaire (PCQ)
- Questionnaire of Organisational Culture (QOC)
- Repertory Grids
- School Quality Management Culture Survey
- School Values Inventory Form-I (SVI Form-I)
- School Work Culture Profile (SWCP)
- Semiotics
- Storytelling
- Thomas' Questionnaire on Organisational Culture
- Time Dimension Scales
- Twenty Statements Test
- van der Post Questionnaire
- Wallach's Organisational Culture Index

Box 3.6 Instruments and Approaches subjected to Psychometric Assessment in this review

Assessing Learning Culture Scale
Competing Values Framework Measures (Ipsative)
Competing Values Framework Measures (Likert)
Corporate Culture Questionnaire
Cultural Audit
Cultural Assessment Survey
Cultural Consensus Analysis
CULTURE Questionnaire in the Contextual Assessment of Organisational Culture
Culture Survey
Denison Organizational Culture Scale (DOCS)
FOCUS
General Practice Learning Organisation Diagnostic Tool
Global Leadership and Organisational Behaviour Effectiveness (GLOBE)
Group Practice Culture Questionnaire
Hofstede's Measure of Organisational Culture
Hospital Culture Questionnaire
Hospital Culture Scale
Hospitality Industry Culture Profile
Inventory of Polychronic Values
Japanese Organizational Culture Scale (JOCS)
Norms Diagnostic Index (NDI)
Nurse Medication Questionnaire
Nurse Self-Description Form (NSDF)
Nurses' Opinion Questionnaire (NOQ) [Ward Organisational Features Scales (WOFS)]
Nursing Unit Assessment Survey (NUCAT-2)
Nursing Work Index Revised
Organizational Culture Scales of the Spectrum / Organizational Assessment Survey (OAS) [MetriTech]
Organizational and Team Culture Indicator (OTCI)
Organizational Assessment Survey (OAS) [OPM]
Organisational Culture Assessment Tool (OCA)
Organizational Culture Index (OCI) [Wallach]
Organizational Culture Inventory (OCI)
Organizational Culture Profile (OCP)
Organisational Culture Profile (O'Reilly)
Organisational Culture Survey
Organisational Development Questionnaire (ODQ)
Perceived Cultural Compatibility Index (PCCI)
Perceived Organizational Culture
Personal, Customer Orientation, Organisational and Cultural Issues (PCOC) questionnaire
Questionnaire of Organisational Culture
School Quality Management Culture Survey (SQMCS)
School Values Inventory (SVI)
School Work Culture Profile
Thomas' Professional Accounting Sub-Culture (PASC) Questionnaire
Time Dimensions Scales
Values Survey Module
van der Post Questionnaire
Women Workplace Culture Questionnaire (WWQ)

Box 3.7 Timeline of Development Dates

Development date	Measure name
1954/2003	Critical Incident Technique (CIT)
1961 for original version, 1967 for nursing version	Nurse Self-Description Form (NSDF)
1965	Laddering
1968/1979/1983	Organisational Culture Index (OCI) [Wallach] US
1980	Norms Diagnostic Index (NDI)
1980-1994	Values Survey Module
1983	Organisational Culture Survey
1983-1989	Organizational Culture Inventory (OCI)
1985	Organizational Culture Scales of the Spectrum / Organizational Assessment Survey (OAS) [MetriTech]
1985	School Work Culture Profile
1985 in referenced thesis	Interactive Projective Test
1986	Concept Mapping and Pattern Matching
Based on work conducted in 1966, validation paper 1987	Time Dimensions Scales
Original theory paper 1988, described study was 2004	Cultural Consensus Analysis
1989	Thomas' Professional Accounting Sub-Culture (PASC) Questionnaire
1990	Hofstede's Measure of Organisational Culture
1990-1994	Organizational Assessment Survey (OAS) [OPM]
1991	Organisational Culture Profile (O'Reilly)
1991	Cultural Audit
1991-1996	Competing Values Framework Measures
1992	Perceived Organizational Culture
1992	FOCUS
1993	Hospital Culture Questionnaire
1993	Nursing Unit Assessment Survey (NUCAT-2)
1993	Organisational Development Questionnaire (ODQ)
1993	Corporate Culture Questionnaire
1994	Organizational Culture Profile (OCP)
1994	School Values Inventory (SVI)
1994	Nursing Work Index Revised
1995	Hospital Culture Scale
1995	Nurses' Opinion Questionnaire (NOQ) [Ward Organisational Features Scales (WOFS)]
1995	Culture Survey
1996	Group Practice Culture Questionnaire
1996	Denison Organizational Culture Scale (DOCS)
1997	Perceived Cultural Compatibility Index (PCCI)
1997	van der Post Questionnaire
1997/2002	Women Workplace Culture Questionnaire (WWQ)
1998	Inventory of Polychronic Values
1998-2003	School Quality Management Culture Survey (SQMCS)
2000	Hospitality Industry Culture Profile
2000	Japanese Organizational Culture Scale (JOCS)
2001	Organisational Culture Assessment Tool (OCA)
2001	Nurse Medication Questionnaire (earlier version published 1992)
2001	Personal, Customer Orientation, Organisational and Cultural Issues (PCOC) questionnaire
2001	Assessing Learning Culture Scale
2002	Global Leadership and Organisational Behaviour Effectiveness (GLOBE)
2002	Questionnaire of Organisational Culture
2002 for COAC, 2004 for CULTURE questionnaire, 2005 for CULTURE02 questionnaire	CULTURE Questionnaire in the Contextual Assessment of Organisational Culture
2003	General Practice Learning Organisation Diagnostic Tool
2004	Organizational and Team Culture Indicator (OTCI)
2005	Cultural Assessment Survey

Box 3.8 Instruments' Country of Origin

Country of origin	Measure name
Australia	Organizational Culture Profile (OCP)
Denmark/Netherlands	Hofstede's Measure of Organisational Culture
Estonia	Questionnaire of Organisational Culture
Finland	CULTURE Questionnaire in the Contextual Assessment of Organisational Culture
Hong Kong	School Values Inventory (SVI)
South Africa	van der Post Questionnaire
Sweden	Women Workplace Culture Questionnaire (WWCQ)
UK	Perceived Organizational Culture
UK	Personal, Customer Orientation, Organisational and Cultural Issues (PCOC) questionnaire
UK	Thomas' Professional Accounting Sub-Culture (PASC) Questionnaire
UK	Nurses' Opinion Questionnaire (NOQ) [Ward Organisational Features Scales (WOFS)]
UK	Culture Survey
UK	Cultural Audit
UK	General Practice Learning Organisation Diagnostic Tool
UK. Available in 17 different languages.	Corporate Culture Questionnaire
USA	Values Survey Module
USA	Organisational Culture Profile (O'Reilly)
USA	School Work Culture Profile
USA	Organizational Culture Inventory (OCI)
USA	Hospital Culture Questionnaire
USA	Japanese Organizational Culture Scale (JOCS)
USA	Inventory of Polychronic Values
USA	Norms Diagnostic Index (NDI)
USA	Nursing Unit Assessment Survey (NUCAT-2)
USA	Organizational Culture Scales of the Spectrum / Organizational Assessment Survey (OAS) [MetriTech]
USA	Organizational Assessment Survey (OAS) [OPM]
USA	Organizational Culture Assessment Tool (OCA)
USA	Organizational and Team Culture Indicator (OTCI)
USA	Organisational Development Questionnaire (ODQ)
USA	School Quality Management Culture Survey (SQMCS)
USA	Nursing Work Index Revised
USA	Competing Values Framework Measures
USA	Cultural Assessment Survey
USA	Organisational Culture Index (OCI) [Wallach] US
USA	Interactive Projective Test
USA	Assessing Learning Culture Scale
USA	Concept Mapping and Pattern Matching
USA	Critical Incident Technique (CIT)
USA	Denison Organizational Culture Scale (DOCS)
USA, although the project is international	Global Leadership and Organisational Behaviour Effectiveness (GLOBE)
USA	Group Practice Culture Questionnaire
USA	Hospital Culture Scale
USA	Hospitality Industry Culture Profile
USA	Nurse Medication Questionnaire
USA	Organisational Culture Survey
USA	Time Dimensions Scales
USA, although development took an international perspective.	Perceived Cultural Compatibility Index (PCCI)
Original version developed in the USA (NASA)	Nurse Self-Description Form (NSDF)
Unclear, although described study was conducted in the US	Cultural Consensus Analysis
Unknown	Laddering
International development	FOCUS

Box 3.9 Psychometric Instruments that have seen previous Application in Healthcare

Competing Values Framework Measures
Concept Mapping and Pattern Matching
Critical Incident Technique (CIT)
Cultural Assessment Survey
Cultural Consensus Analysis
Culture Survey
Denison Organisational Culture Scale (DOCS)
FOCUS
General Practice Learning Organisation Diagnostic Tool
Group Practice Culture Questionnaire
Hospital Culture Questionnaire
Hospital Culture Scale
Interactive Projective Test
Inventory of Polychronic Values
Nurse Medication Questionnaire
Nurses' Opinion Questionnaire (NOQ) [Ward Organisational Features Scales (WOFS)]
Nurse Self-Description Form
Nursing Unit Assessment Survey (NUCAT-2)
Nursing Work Index Revised
Organisational Culture Index (OCI) [Wallach] US
Organisational Culture Profile (O'Reilly)
Organisational Development Questionnaire (ODQ)
Organisational Culture Scales of the Spectrum / Organisational Assessment Survey (OAS) [MetriTech]
Organisational Assessment Survey (OAS) [OPM]
Organisational Culture Inventory (OCI)
Organisational Culture Profile
Perceived Organisational Culture

Box 3.10 Other instruments that have seen Previous Application in Healthcare

Critical Incident Technique (CIT)
Ethnography
Grid/Group Model
Interviews
Metaphorical Analysis
Storytelling

3.6 Key Characteristics

The identified instruments cover a spectrum of purposes. These range from the exploration of specific facets that might be associated with culture (e.g. polychronicity in the case of the Inventory of Polychronic Values) to more encompassing frameworks aimed at studying and assessing culture (e.g. the CULTURE Questionnaire within the Contextual Assessment of Organisational Culture or the Cultural Audit). While some of the tools have been designed with a specific context or professional group in mind (e.g. Thomas' Professional Accounting Sub-Culture Questionnaire) and therefore do not lend themselves to application in other settings, the focus of most instruments is either on a specific type of culture or on an organisation's overarching culture. For example, both the Assessing Learning Culture Scale and General Practice Learning Organisation Diagnostic Tool concentrate on learning culture, the Japanese Organisational Culture Scale examines the extent to which an organisation's culture relates to Japanese management philosophy and the Nurse Medication Questionnaire focuses on treatment culture; Concept Mapping and Pattern Matching, the Culture Audit and the Critical Incident Technique try to provide a broader understanding of culture within the context in which they are applied.

Along with such focal differences, instruments vary in relation to their underlying purposes. On the one hand, there are 'stand-alone instruments'. These can be used for cultural exploration as an end in itself or as part of a broader cultural renewal process. On the other hand one can identify a number of 'diagnostic instruments'. These start off with the intention of identifying and assessing existing culture(s) and rectifying them: the idea is to remodel or shape existing cultures so that they align with those characteristics associated with high-performance cultures (e.g. Denison Organisational Culture Scale). It is assumed that this will lead to improved organisational effectiveness, an assumption that has been widely debated within the existing discourse on organisational culture (see Appendix 1). In both cases, the locus of examination can either

be the individual or the entire organisation and either a dimensional or typological approach can be taken.

The dimensional approaches mirror the multitude of dimensions put forward in definitions of organisational culture (see Appendix 1 – Table A.1). While these dimensions cover myriads of categories, the focus is usually on tangible and intangible aspects assumed to correlate with organisational and individual performance: beliefs, emotions, internal and external environment, goals, identity, norms, practices, structures, values, and vision. The range of dimensions within such instruments ranges from one (e.g. Cultural Consensus Analysis, Perceived Cultural Compatibility Index) to over ten (e.g. Culture Survey – 12 dimensions, van der Post Questionnaire – 15 dimensions); in the majority of cases, though, the instruments include nine dimensions (e.g. GLOBE, Group Practice Culture Questionnaire, Hospitality Industry Culture Profile) albeit of a different nature. In order to offer some initial guidance in identifying potential ways for exploring various cultural dimensions a list of the various dimensions addressed by different instruments is provided in Appendix 2; however, it was not possible to map all of the items explored by the different instruments: not all instruments provide dimensions – some simply list extensive lists of questionnaire-items. In addition, some typological approaches are included in the list; those included utilise both dimensions and types: the former are used in assigning an organisation's culture to a specific typological group.

Although the majority of dimensional instruments explore pre-defined sets of dimensions, others take an emergent approach and proceed more openly. These include:

- Ethnography,
- Concept Mapping/Pattern Matching.
- Critical Incident Technique,
- Cultural Assessment Survey
- Cultural Consensus Analysis
- Interactive Projective Test
- Laddering
- Metaphorical Analysis
- Narratological Approach
- Repertory Grids
- Semiotics
- Storytelling
- Twenty Statements Test

Such approaches usually ask individuals or a focus group to generate a range of ideas that encompass the notion of organisational culture within their context(s). The ideas generated through such processes can then be clustered by group members along emerging prominent themes and rated for their relative importance before being used for further analysis.

Based on the understanding that culture is a broad metaphor applicable to individuals, organisations and entire societies, inspiration for researching organisational cultures has often been drawn from research on national cultures and the dimensions used in such assessment (e.g. VSM). Such transfers are fraught with danger and only marginally useful. Research by Hofstede (Hofstede 2001) has indicated that national and organisational cultures differ in two important dimensions, values and practices. Values are acquired in early youth, while practices are acquired through socialisation at the work place (see Box 3.11). As such, dimensional approaches which concentrate on values rather than practices might be of little benefit in the study of organisational culture.

While dimensional approaches might explore the nature and extent to which any of the dimensions are present in an organisation, typological approaches go one step further. Depending on an organisation's dominant characteristics they are categorised into pre-defined organisational types (see Box 3.12). Such typologies can be of a general descriptive type, where talk is about homogeneous, heterogeneous, balanced, or dissonant cultures (e.g. The Cultural Audit), or rooted in psychoanalytical concepts – usually Jungian archetypes – in which case reference is being made to a variety of types such as Hero, Animus, Trickster, or Sage (see for example the Interactive Projective Test (IPT) or Organizational and Team Culture IndicatorTM (OTCITM)).

Box 3.11 The Nature of Cultural Differences: the national occupational, and organisational levels

Hofstede (2001): 182
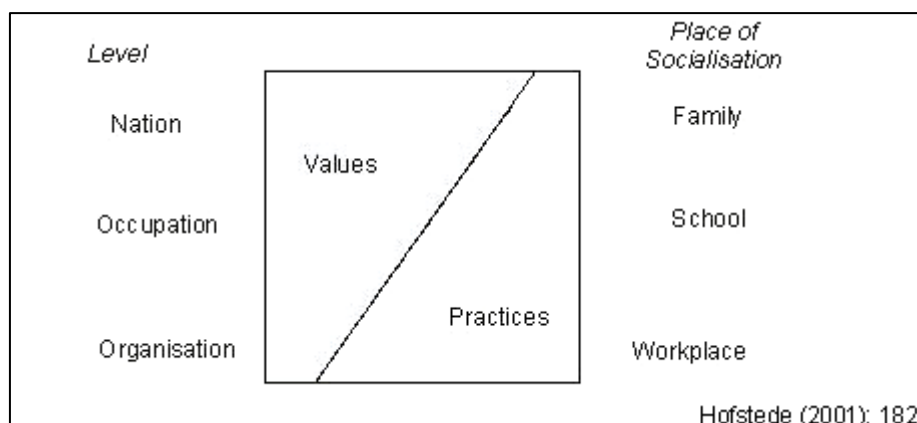
The rich and evocative nature of such terminology means however that despite being pithy and descriptive, there is a potential to stereotype, categorise and pass judgement on different types of culture: who wants to fall into the archetypal category of Trickster or Jester? As a result, such typologies can potentially lead to a neglect of the key points underlying culture from an anthropological perspective: it is a value-neutral concept. There is no such thing as a good, bad, positive, or negative culture (Michaelson 1989). Even to

judge the appropriateness of different cultures to different organisations and environments (Hawkins 1997) is fraught with difficulty: judgement tends to be a historical, perspectival, and short-term. Assignment to types may also be difficult, so that cultures might be misclassified or that subordinate but important aspects might be ignored: a culture may be deeply rooted in an organisation's development, such as that of the NHS; it may be evaluated from a number of different perspectives and by different stakeholders; and it may be tied to a short view of the future. A good culture this year might not be the optimal one for the next decade.

A variety of methodological approaches and research designs can be identified amongst the instruments. These range from structured questionnaires to comparatively unstructured and emergent ethnographic approaches. The most common approaches amongst the instruments include Likert-scales, Q-methodology, and ipsative measures. Likert-scales present participants with a number of predefined statements and participants are then asked to indicate the extent to which they agree with each statement. The number of statements covered by the identified Likert-scales range from 3 to 129, and the available grading of answers on those scales ranges from 3 to 10 points. In the case of Q-methodology, each participant is given a set of pre-determined value statements and instructed to arrange these into a given number of categories. These categories represent a continuum ranging from least to most characteristic. The assumed advantage of this approach, which is most prominently utilised in the OCP [O'Reilly], is its greater degree of discrimination compared to Likert-scales. Ipsative measures, mainly used in the Competing Values Framework, include 4-, 5-, and 6-statement versions. They ask participants to distribute a total number of points, usually 10 or 100, across a set of given statements.

Box 3.12 Typological approaches

Name	Types
Cultural Assessment Survey	• Collaborative • Individual • Unified
Cultural Audit	• Homogeneous vs heterogeneous • Enriched vs managed • Developing vs stationary • Balanced vs dissonant
CVF	• Group/ human • Relations/ clan • Developmental/ risk taking • Open systems/ adhocracy/ entrepreneurial • Hierarchical/ internal process/ bureaucratic • Rational/ market
Grid/ Group Model	• Fatalist • Hierarchy • Market/ individualist • Sectarian/ community
Hofstede's Measure of Organisational Culture	• Symbols • Heroes • Rituals • Values
Interactive Projective Test	Seven Jungian Archetypes • Animus (masculine) • Wise Old Man • Hero • Shadow • Anima (feminine) • Great Mother • Trickster
Organisational Culture Assessment Tool	• Organic • Mechanistic
Organisational Culture Index [Wallach]	• Bureaucratic • Innovative • Supportive
Organisational Culture Inventory	• Humanistic helpful • Affiliative • Approval • Conventional • Dependent • Avoidance • Oppositional • Power • Competitive • Competence/perfectionist • Achievement • Self-actualising
Organisational Development Questionnaire	• Transformational culture • Transactional culture

Organizational and Team Culture Indicator	Twelve Archetypes grouped in four motivational orientations:
	• Stability/ structure orientation
	  ○ Caregiver
	  ○ Creator
	  ○ Ruler
	• People/ belonging orientation
	  ○ Every person
	  ○ Lower
	  ○ Jester
	• Results/ mastery orientation
	  ○ Hero
	  ○ Revolutionary
	  ○ Magivian
	• Learning/ freedom orientation
	  ○ Innocent
	  ○ Explorer
	  ○ Sage

Perceived Organizational Culture	• Role • Power • Task • Support

Despite such methodological variety, the predominant approach taken by the instruments are questionnaires, usually of a self-report nature. These offer the advantage that they are less time- and resource-consuming in respect to their implementation and analysis (practical aspects relating to the administration of various instruments are summarised in Appendix 3). In addition, they allow the examination of greater parts of an organisation. This, however, is achieved at the costs of deeper insights and unanticipated findings. Due to its association with 'soft' aspects and ethnographic influences, organisational culture studies have traditionally adopted a qualitative[4] research paradigm in contrast to a quantitative[25] paradigm that favours 'hard', 'empirical' facts (see Box 3.13). Indeed some researchers have specifically rejected such logical-positivist quasi-experimental research designs and approaches (Ott 1989).

The assumed advantage of a qualitative paradigm to organisational culture research is the ability to identify structures through the patterns displayed by individual behaviour (Morey and Morey 1994). Appropriate ways to identify such patterns are considered to be participant observation, interviews or discussions, and documentary analysis (Ott 1989; Morey and Morey 1994). Such approaches (see Box 3.14) allow for the detailed and meaningful examination of underlying values, beliefs and assumptions. As a result, a rich account of the cultural dynamics and complexity within an organisation can be identified (Yauch and Steudel 2003). Being interactive – the researcher gets relative fast feedback on the appropriateness of his or her questions and approach within the given setting, and adaptive – the researcher can adjust his or her research to new insights. Additionally, the emerging data provide a picture of organisational culture grounded in organisational reality (Sackmann 2001). As such, a qualitative approach scores highly on heurism, flexibility, adaptiveness, depth, and realism (Tucker, McCoy et al. 1990).

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[4] Also referred to as phenomenological, subjectivist, or interpretivist (Hussey and Hussey 1997).

[5] Also referred to as positivistic, scientific, or traditionalist paradigm (Hussey and Hussey 1997).

Box 3.13 Assumed Methodological Differences between the Qualitative and Quantitive Approach

Qualitative	Quantitative
Inductive process	Deductive process
Mutual simultaneous shaping of factors	Cause and effect
Emerging design – categories identified during research process	Static design – categories isolated before study
Context-bound	Context-free
Patterns, theories developed for understanding	Generalisations leading to prediction, explanation, and understanding
Accurate and reliable through verification	Accurate and reliable through validity and reliability
	Adapted from Hussey and Hussey (1997): 48

Box 3.14 Prominent Qualitative Approaches to Cultural Exploration

Concept-Mapping/ Pattern Matching	The procedures were developed by Trochim (1989; 1989b; 1989c) and is a hybrid of qualitative and quantitative aspects. It involves six steps:
	1. preparation:
	  a. selecting the participants
	  b. developing the focus
	    i. focus for brainstorming
	    ii. focus for rating
	2. generation of statements (brainstorming)
	3. structuring of statements
	  a. sorting
	  b. rating
	4. representation of statements (computation of maps)
	5. interpretation of maps
	6. utilisation of maps
	  a. for planning
	  b. for evaluation
	
	The approach has been used by Burchell and Kolb (2003) and Kolb and Shepherd (1997) to explore organisational culture. The latter argue that it might be considered as a complementary method in traditional ethnographic analysis
	
	Relevant references:
	Kolb and Shepherd 1997;
	Burchell and Kolb 2003

Critical Incident Technique (CIT)	Participants are asked to share incidents relating to aspects of organisational culture **Relevant references:** Kemppainen 2000; Mallak, Lyth et al. 2003; 2003b

Ethnography	Organisational culture is explored via participant observation; the aim is to understand it from the 'native' point of view (Spradley 1979). **Relevant references:** Gregory 1983; van Ess Coeling and Wilcox 1988; Rosen 1991; Holland 1993; Savishinsky 1993; Aaltio-Marjosola 1994; Barker 1994; Henderson 1994; Heracleous 2001; Hughes, Deery et al. 2002; Camillo 2004; Goodman, Trainor et al. 2004; Haugh and McKee 2004; Rooke, Seymour et al. 2004; van der Geest and Finkler 2004; Yamaguchi 2004; Zaman 2004; Braithwaite, Westbrook et al. 2005; Cleary and Freeman 2005; van der Westhuizen, Mosoge et al. 2005

Grid/Group Model	The two-dimensional model is based on the work of Mary Douglas (1973) and rooted in anthropology. The grid-dimension addresses the pressure on the individual that occurs through the rules and norms of the environment. The group-dimension refers to the degree to which individuals find themselves within a societal cluster. This results in the following 2x2 matrix
	
	Grid
	Strong B C
	          Fatalist Hierarchy
	Weak A D
	          Market/ Sectarian/
	        Individualist Community
	         Weak Strong *Group*
	
	Each of the quadrants has further characteristics associated with it. These can be used to highlight unique differences between various settings.
	
	Relevant references:
	Altman and Baruch 1998;
	Philip and McKeown 2004;
	Goopy 2005

Interactive Projective Test (IPT)	Based on Jungian Archetypes and projective methods, the IPT is a specific way of analysing storytelling. Triggered by pictures from mythology, groups of three to seven organisational members are asked to create stories about organisational life. These are audio-tapped, transcribed and submitted to content-analysis to identify archetypal characteristics. **Relevant references:** Aurelio 1985; Aurelio 1995

Interviews/ Narratological approach/ Metaphors/ Semiotics/ Storytelling	Members of an organisation are asked to talk about the overall organisational culture or specific aspects thereof. In order to facilitate this process they can be asked to use metaphors to describe the culture or to tell relevant stories that highlight it. In case of metaphoric analysis there is frequently an overlap with or similarity to typological instruments **Relevant references:** Barley 1983; Martin, Feldman et al. 1983; Amsa 1986; Owens and Steinhoff 1989; Nossiter and Biberman 1990; Cleary and Packard 1992; Hansen and Kahnweiler 1993; Anbäcken 1994; Boyce 1996; Stevenson and Bartunek 1996; Steen, Næss et al. 1997; Harber and Ashkanasy 1998; Elliott 1999; Line 1999; Mills, Boylstein et al. 2001; Conway and McMillan 2002; Ainsworth and Cox 2003; Currie and Brown 2003; Erdem and Satir 2003; Starr-Glass 2004
Repertory Grid Technique (RGT)/ Laddering	The Repertory Grid Technique is rooted in Kelly's (1955) personal construct theory and was originally developed for application in clinical psychology. It tries to explore individual's constructs or 'meanings' which form the basis for the individual's perceptions and actions. The approach consists of four stages (Marsden and Littler 2000): • element selection – a set of elements consistent with the objectives of the study and the targeted system of constructs to be elicited is chosen • construct elicitation – personal interviews • element comparison – completion of a RGT questionnaire • data analysis – quantitative analysis of the RGT questionnaire While the focus was originally on the individual, more recently it has been used to explore collective construct systems of groups (Locatelli and West 1996). In light of its limited ability to represent hierarchies of knowledge-types (e.g. goals, class memberships, explanations) the technique was further developed and turned into Laddering. This focuses on sets of natural language questions and answers based around a limited set of probes, thereby superficially resembling structured interviews (Rugg, Eva et al. 2002) Given its flexible nature it can be used to explore various aspects of culture and offers the opportunity for both within- and between-culture comparisons. This is illustrated by Rugg et al. (2002). **Relevant references:** Rugg and McGeorge 1995; Locatelli and West 1996; Rugg, Eva et al. 2002
Twenty-Statements Test (TST)	The Twenty Statements Test is rooted in the works of Kuhn and McPartland (1954). Individuals are asked to provide 20 statements in response to a prompt on a topic. Locatelli and West (1996) found that compared with the RGT and group discussion the TST showed the most promise for exploring organisational culture when examining the following three aspects: level of cultural information accessed, amount of information accessed, ease of use. **Relevant references:** Locatelli and West 1996; Walker, Symon et al. 1996

Although qualitative approaches are more apt at providing a richer and more detailed understanding of an organisation's cultural milieu, proponents of quantitative approaches have pointed towards a series of limitations inherent in qualitative research. Due to its immersed and in-depth nature, qualitative research on organisational culture is time-consuming, both in relation to the gathering and analysis of data, and often costly (Ott 1989; Hofstede 2001; Sackmann 2001; Yauch and Steudel 2003). It also requires sensitivity to the subtleties and complexities of life which makes it more difficult to design (Mishra 2001). The rich tapestry of information provided by qualitative research can also be intimidating and frustrating. Consequently, a preference for easily measurable indicators of culture that can be put into a questionnaire can be a tempting prospect to both researchers and managers (Morey and Morey 1994; Mishra 2001). A choice between the two paradigms essentially hinges on a trade-off between depth and breadth of data. As has often been noted, the proper criterion for this choice should be the research question and not the methodological bias of the researcher. In practice the latter often influences the former such that the research question tends to presuppose in its formulation the preferred methodology to be utilised (Berg 2004; Westbrook 1994; Wilson and Natale 2001).

Qualitative research approaches have also been criticised for failing to meet logical-positivist quasi-experimental standards of research. These are designed to strengthen validity and reliability. First of all, there is an assumed lack of objectivity. On the one hand, a researcher's personal and professional experiences, knowledge, and biases can influence the observations and conclusions made within the research setting. At the same time, due to the more open-ended nature of qualitative research, participants can influence the collected data to a greater extent: important aspects might not be identified if participants consider them unimportant or conceal them on purpose (Ott 1989; Sackmann 2001; Yauch and Steudel 2003). Secondly, the usually narrow focus on a small number of cases within qualitative research has been equated to limited generalisability. It is assumed that due to the unique nature of each examined setting it is difficult to compare findings from different settings and that generalisations on the basis of such findings is problematical (Sackmann 2001; Yauch and Steudel 2003). Various authors have questioned the appropriateness of criticisms relating to the generalisability of qualitative research (e.g. Lincoln and Guba 2000), and it remains a widely debated topic within the research community.

Despite a strong tradition of qualitative approaches in organisational culture studies, a trend towards more quantitative approaches, coinciding with the popularity of organisational culture from the late 1980s onwards, can be discerned. On the one hand this reflects a longstanding aspiration among parts of the social sciences to imitate the natural sciences. It might also be attributable to the consultancy background of many of the popular authors on organisational culture

(e.g. Peters and Waterman jr 1982) and the instruments that have been developed (e.g. Denison Organisational Culture Survey; OTCI[TM]). Within the domain of big-company consultancy a quantitative diagnostic focus tends to be preferred. This choice appears to be pragmatic rather than theoretical: quantitative research can be administered and evaluated relatively quickly. The numerical data obtained facilitate comparisons between organisations or groups on the one hand and provide some indication on the extent to which participants agree or disagree, on the other (Yauch and Steudel 2003).

There are however instances in which a quantitative approach is preferable. These include circumstances in which a more in-depth method might be ruled out due to time-constraints, intrusiveness, human resources, or organisational policy (Tucker, McCoy et al. 1990). Additionally, due to the lack of research skills amongst managers, a simple survey is potentially easier to conduct than complex qualitative research. Finally, the ease with which a large sample can be covered by quantitative surveys is advantageous. This is especially true if cultural assessment forms part of a long-term change programme: it might be impracticable to conduct sufficient interviews to explore any changes within organisational culture over a period of time (Swaffin-Smith, Barnes et al. 2002). As such, a quantitative approach is assumed to maximise precision, systematisation, repeatability, comparability, convenience, large scale, unobtrusiveness and cost-effectiveness (Tucker, McCoy et al. 1990).

Nonetheless, a quantitative approach has shortcomings too, not least when undermined by poor implementation (Tucker, McCoy et al. 1990). There are also some basic shortcomings inherent in quantitative approaches used to assess organisational culture. These relate mainly to the rigid categories operationalised by such research. Given pre-determined categories within survey instruments, it is easy for items that are not contained within them to remain unnoticed: no unanticipated findings will be made (Mallak, Lyth et al. 2003). As a result, such instruments do not lend themselves to exploring the deeper levels of culture, such as values and assumptions, since they only arrive at superficial meanings of organisational culture (Easterby-Smith 1988; Yauch and Steudel 2003) and no information on respondents' reasoning behind the answers is obtained so that one cannot be sure the questions were interpreted in the intended way. Moreover, prior to any administration, a number of assumptions must be made about the cultural integration of the sample under consideration: is the organisation marked by a homogeneous culture so that the input received from the sample is a mirror of the overall organisational culture, or are there distinct subcultures so that the survey must be administered to a representative sample of each subculture (Yauch and Steudel 2003)? In the NHS it might be desirable to explore different subcultures in terms of their degree of divergence and convergence. The focus on specific cultural dimensions might also

reinforce the idea of culture as something static and given: the obtained numbers and statistics give cultural assessment a spurious sense of precision, sometimes supporting flawed longitudinal research. Due to being 'administered' to an organisation, like a diagnostic test or medication, such instruments can easily support the perception that cultural change is possible and relatively easy (Seel 2001).

As is apparent, qualitative and quantitative approaches offer different strengths and weaknesses. It might therefore be advisable to use a combination of the two paradigms. This is advocated by Yauch and Steudel (2003) who argue that one should start off with a period of qualitative assessment. The insights gained from that assessment can then be used to select the most appropriate quantitative instrument and method of administration (Yauch and Steudel 2003); yet while in some cases instruments are available in different formats (e.g. Critical Incident Technique, Organisational Culture Profile [O'Reilly]), only few (e.g. Concept Mapping and Pattern Matching) utilise such a combination of different methodologies.

Closely linked to methodology issues are aspects relating to the amount of resources required for an instrument's application. Most of the instruments identified are freely and widely availably by reference to the existing literature. However, any selection should take account of the available resources and timeframe within which the data needs to be gathered and analysed. A second category of instruments are commercial packages (see Box 3.15); as such their application and/or the analysis of the obtained data will incur various fees. In a third case, such as the idea of Concept-Mapping and Pattern-Matching Approach, the instrument itself is freely available but the software package used for the analysis of the emerging data must be purchased.

On top of any financial costs incurred by an instrument, any degree of administrator burden that might result from an instrument's application needs to be considered. In most cases, no detailed information on feasibility could be identified. Nonetheless, it can be assumed that while there might be little administrator burden in the case of questionnaires, more complex approaches such as the Cultural Consensus Analysis or Cultural Assessment Survey are likely to require considerable administrator input (for further information on practical administration issues see Appendix 4).

Box 3.15 Prominent Commercial Packages

Name	Contact
Corporate Culture Questionnaire	SHL http://www.shl.com/SHL/en-int/Products/Access_Motivation_Values/Access_Motivation_Values_List/CorporateCultureQuestionnaire.aspx
Denison Organisational Culture Survey (DOCS)	Denison Consulting http://www.denisonconsulting.com/dc/
Organisational Culture Inventory (OCI)	Human Synergistics Int. http://www.human-synergistics.com.au/content/products/diagnostics/oci.asp
Organizational and Team Culture Indicator^{TM}	Center for Application of Psychological Type (CAPT) https://www.capt.org/discover-your-archetypes/archetype-assessment-business.htm
Organizational Assessment Survey (OAS) [MetriTech]	MetriTech http://www.metritech.com/Metritech/Products/oas.htm

3.7 Psychometric Assessment

The psychometric assessment summary is shown in Appendix 3. Twenty two instruments (46%) reported adequate measures of internal consistency, 15 were rated 'unclear' (31%), and 11 (23%) reported no data to assess. Eight (17%) measures also reported on test-retest reliability, with 5 rated 'adequate' and 3 'unclear'. Ten (21%) reported 'adequate' data on issues concerning aggregation of culture scores from individuals to higher level units such as organisations.

In terms of validity, only 1 was rated as providing 'extensive' data on associations with descriptive variables, while 9 (19%) reported 'moderate' levels and 15 (31%) reported 'minimal' levels. There was little evidence of tests of validity in terms of relationships with other measures of culture, with only 5 (10%) reporting 'minimal' data. Nine measures (19%) were rated as providing 'adequate' assessments of the dimensional validity of measures, with 22 (46%) providing data but being judged as 'unclear' and 17 (35%) reporting no data. Similarly, only 4 (8%) reported 'adequate' data on sensitivity of the measure to change. Twenty six (54%) reported data on the association between the measure and outcomes. Of those, 19 reported associations with subjective outcomes in cross sectional studies, and 6 reported associations with subjective outcomes in longitudinal studies. Only 1 reported associations with objective outcomes in longitudinal studies.

Clearly, instrument development is a potentially open ended process, especially given the need to test aspects of instruments in different

contexts and with different populations. Nevertheless, in terms of psychometric testing, many of the instruments identified in the search must be considered at a preliminary stage of development. The degree to which any measure is seen as 'fit for purpose' will depend on the particular purposes for which it is to be used, and the data presented in this report can be used to identify those measures which have made greater progress in terms of validation, and those that require further assessment

3.8 Concluding remarks

Organisational culture is one of the many pieces that make up the puzzle of organisations. As such it should neither be considered as the answer to all organisational problems nor should it be applied to all organisational aspects (Michaelson 1989; Caroselli 1992). While insights from cultural assessment might be helpful if used correctly, their inappropriate use is prone to put an organisation at a disadvantage (Caroselli 1992): cultural assessment can be a starting point to solve problems but also a way to create problematic solutions (Smit 2001). Prior to embarking on cultural exploration, it is therefore useful to consider two questions: what is the purpose of assessment and to what ends will the ensuing information be applied? Potential answers to these questions can range from mere curiosity to the solving of organisational problems (Lund 1990; Ogbonna and Harris 1998; Seel 2001; Browaeys and Baets 2003) and need to be considered when reflecting on the applicability of different approaches.

Along with the intention underlying any cultural examination, personal preferences, perspectives on and understanding of 'culture', as well as the availability of resources will be key influences in deciding on which approach to pick from the pool of available instruments. As such, the information provided in this review can only act as guidance. There is no such thing as an 'ideal' instrument or approach for cultural examination: an instrument that works well in one case may be inappropriate in another (Scott, Mannion et al. 2003b). Different instruments offer different insights: they reveal some areas and aspects of an organisation's culture but obstruct others. It is up to the individual explorer of organisational culture to decide on the appropriate dimensions, methodology, and available resources for her or his project. This review provides a way of identifying candidate measures that meet certain criteria concerning administration, content, and psychometric testing, and can assist the researcher to either select the instrument that offers the largest degree of synergy or to develop instruments further so as to meet the specific requirements.

The information contained in this report and the annotated compendium can help potential users find and select the most suitable instrument(s) for the job. As practical requirements vary by application we have summarised the characteristics of candidate

instruments at different levels of interest and structured according to the differing requirements and practical needs of end users.

Appendix 1 can be used to search for the particular dimensions and attributes of culture explored in the instruments.

Appendix 2 can aid the selection of instruments by their particular psychometric properties (e.g. validity, reliability, association with outcomes and sensitivity to change).

Appendix 3 focuses on issues associated with the practical administration of tools in different contexts (e.g. number of dimensions, items and scales; acceptability to participants; ease of completion; time required; susceptibility to bias and degree of technical expertise/support required to administer/complete).

Appendix 4 provides full details of each tool, and in addition to the information above presents the conceptual model of culture underpinning the instrument, the particular format used and previous applications (with full referencing) and a note on whether the tool has been used in health care settings.

In this section we have reviewed and assessed the extant quantitative and qualitative instruments available for exploring organisational culture. In the next two sections (4 and 5), we attempt to gauge the degree to which mesh instruments link with the needs and interests of key stakeholders with regard to understanding and shaping local culture in the NHS; as well as exploring the impact of culture assessment tools in acute and primary care settings.

4 STAKEHOLDER MAPPING

Different stakeholders in the NHS have different needs and requirements in relation to understanding, assessing and changing cultures in health care organisations. The aim of this strand of the project was to map the needs and interests of key stakeholders with a legitimate interest in assessing and shaping organisational cultures in NHS organisations. A key objective was to gauge the gap (degree of fit and overlap) between extant culture assessment rating instruments and tools, and the needs, practical requirements and domains of interests of different NHS stakeholders.

4.1 Overall methodological approach

A multi-pronged methodological approach to capture both the breadth (through national quantitative surveys) and depth (using qualitative approaches) was used in collecting data for the project (Brugha and Varvasovszky, 2000; Varvasovszky and Brugha, 2000). It was then possible to collect, analyse and triangulate both quantitative and qualitative data on stakeholders' views and thoughts, as well as the practical issues relating to culture and culture assessment in the NHS. This approach, in order of implementation, included:

- a national postal survey of clinical governance managers and patient representatives;

- a focus group discussion with eight of the clinical governance managers who had been involved in the postal survey;

- semi-structured telephone interviews of clinicians, medical doctors and patient representatives;

This phase of the project involved a nation-wide postal survey of NHS organisations, a focus group discussion and semi-structured interviews of key actors in the health sector in England. These included clinical governance managers, with a formal strategic responsibility for promoting quality and safety within their organisation, patient/service use representatives, and individuals from agencies with a representative, developmental or regulatory role in the NHS.

Methods of data gathering were tailored specifically to each group and sought to obtain information on the following related areas:

- the (perceived) importance of cultural assessment to diverse groups of stakeholders;
- the key purposeful (culture) change and assessment initiatives in operation in the NHS, and their use (or otherwise) of formal culture assessment methods;
- the value domains that each group would like to see expressed in the design of health care services and assessed through culture assessment methods;
- those aspects of the relationship between culture and performance (broadly defined) in which stakeholders are most interested;
- the degree of (perceived) match between existing instruments and the practical needs and interests of different stakeholder groups;
- perceptions about the local capacity, capabilities and resources required to develop and use culture instruments;
- the perceived need within the NHS to adapt, augment or develop new assessment methods (including the development of new bespoke tools and instruments if current ones are deemed inadequate).

In exploring these areas we focused our attention on three broad stakeholder groups.

1) *Clinical governance managers* and related professionals i.e. those with a formal strategic responsibility for promoting quality and safety within their organisation.
2) Informants from *agencies* with a representative, developmental or regulatory role in the NHS.

3) *Patient, service-user and carer representatives*.

Because the stakeholder groups are so disparate the findings are presented sequentially for each of these three groups, with details of data gathering and analysis within the overall method also being presented under each stakeholder section. The concluding section draws together common themes and important divergences between these stakeholder groups. Given that clinical governance managers are central to driving culture change in NHS organisations, and are likely to be the main professional users of culture assessment instruments in the NHS, most of our focus was on exploring the practical needs and domains of interest of this group.

4.2 Stakeholders One: Clinical Governance Managers

Clinical governance is a system for ensuring NHS organisations are accountable for continuously improving the quality of their services and has been described as "by far the most high-profile vehicle for securing culture change in the new NHS" (Leatherman and Sutherland, 2003). Given their formal role in quality and safety improvement we were particularly interested in eliciting the views of clinical governance managers regarding how they were attempting to shape organisational cultures at the local level and their practical

requirements for and use of culture assessment instruments to support their professional roles.

Data collection and sources

1. National postal survey: We contacted all English NHS primary and acute trusts, a total of 325, for R&D approval between March and September 2006 and obtained approval from 85 percent of them. These (276) organisations were targeted in a nation-wide postal survey between November 2006 and February 2007. The main questionnaire was purposively designed/meant to be completed by clinical governance managers and so we addressed it to the 'clinical governance lead' in each organisation. The questionnaire for the patient representative was also sent in care of clinical governance lead with a covering letter asking them to pass it on to a patient representative. This questionnaire was different only in the sense that it did not include questions on culture assessment tools. After about three follow-ups (with non-responding) trusts including phone calls and resending questionnaire through emails, we achieved a 77 percent response rate.

We had earlier piloted the questionnaire with eight respondents, seven in clinical governance from both primary care and acute trusts, and one from the National Patient Safety Agency. Five of them responded with very useful feedback, which we used to refine and finalise the questionnaire. A high degree of consistency and similarity in the responses to a few of the questions which were closely related and for the two categories of respondents (clinical governance managers and patient representatives) give us confidence in the reliability and validity of the results.

The questionnaire contained mostly closed questions about the role and importance of culture in clinical governance and the use of tools for culture assessment. Specifically it was designed to collect information on the views and thoughts of clinical governance managers regarding

- their understanding of the concept of organisational culture;
- the usage of the term culture among clinical governance managers;

- the facilitators and barriers to purposeful culture change,

- the perceived relationship between culture and quality, as well as

- document any tools or assessment instruments clinical governance managers were using to get a handle on local cultures.

- clinical governance managers' views on the relevance and ease of culture tools used;

- and views on the extent to which extant tools meet their needs when managing change and ensuring appropriate clinical cultures for quality/safety improvement.

The questionnaire also included a couple of open-ended questions encouraging respondents to provide examples of 'helpful' and 'unhelpful' aspects of their organisation's local culture where they agreed or disagreed that there were aspects of the culture which they perceived as such.

We also launched a project/survey website, based on the postal questionnaire, with invitations to participate being advertised through NHS-related media read routinely by clinical governance managers and others responsible for quality and safety improvement. Participants were invited to comment on: the notion of culture as a means to understand health care dynamics; the nature of appropriate cultural 'dimensions'; the availability, adequacy and use of culture assessment methods; and perceptions about existing culture rating instruments. We obtained responses from 44 people, including clinicians and managers.

2. Focus group and semi-structured interviews: The focus group discussion and semi-structured interviews were meant to dig more into the issues of assessing organisational culture as it relates to safety and quality improvement and generate more qualitative information to complement the quantitative data derived from the questionnaire survey. The discussion and interviews revolved around: how respondents conceived the meaning of organisational culture; the importance and role of culture in their organisation's efforts to effect change for improved health care quality and safety; aspects of the local culture which promote or hinder such efforts; the use of a culture tool to measure local culture; specific cultural domains such as patient centredness, quality focus, team work, which respondents consider to be very important for measurement. The strategies used were as follows:

- *Focus group:* At the end of the questionnaire we had asked respondents to provide contact details if they "wished to take part in a focus group to discuss the role of organisational culture in clinical governance". Only a few of the respondents expressed the willingness and we contacted up to four from each of the geographic regions. We succeeded in bringing together eight clinical governance leads for the focus group discussion in mid-February 2007. Using a topic guide the discussion was led and moderated by the principal researcher. It was tape-recorded and notes were taken by another member of the research team.

Semi-structured interviews: Various NHS organisations were approached through telephone and emails with request for interview. Often follow ups were made and those individuals who came back either directly or through their personal assistant, or secretary were interviewed (see 4.3 for detail).

Main Findings

Our findings are drawn from all the above data sources as set out under the broad headings (above) of relevance to an understanding of how clinical governance managers perceive, assess, and seek to engage with, the cultures of their organisations.

Central to the data we gathered were the views elicited in the national postal survey, and so we first document the results from this before moving to present an integrated analysis from all our data sources.

National postal survey respondents

The majority of respondents to the postal questionnaire survey (around three quarters) had a job title that reflected their lead role in clinical governance, e.g. head (or deputy) of clinical governance (72%; Table 4.1). Other respondents undertook clearly relevant roles such as director of clinical effectiveness/quality (11 percent), medical director (6%, but exclusively recorded by Acute Trusts) or director of nursing (5%).

Table 4.1 Respondents' job title

	Acute % [n=96]	PCT % [n=116]	Total % [n=212]
Head of clinical governance	54	70	62
Deputy Dir. of clinical governance	9	11	10
Director of clinical effectiveness/quality	9	13	11
Medical director	13	0	6
Director of nursing	9	2	5
Clinical Governance Coordinator/facilitator	0	4	2
Head of risk management	3	4	4
Head of patient's safety	2	3	2

About half of the respondents had a nursing background (Table 4.2) and 12% were doctors. Around a quarter (23%) were non-clinical managers (Table 4.2).

Table 4.2 Respondents' professional background

	Acute % [n=96]	PCT % [n=116]	Total % [212]
Nurse	51	54	53
Manager (non clinician)	22	23	23
Doctor	18	8	12
AHP	5	9	7
Other	4	6	5

The usage of 'culture' among clinical governance managers

The degree to which 'culture' is part of the everyday discourse of clinical governance managers may be used to help gauge the extent to which this notion is assuming practical relevance at the local level. In the national survey, respondents were asked how frequently the term culture is used in their organisation with regard to describing quality improvement activity, and the vast majority reported that it featured prominently within local discussions (Table 4.3).

Table 4.3 The use, understanding and influencing of local culture in clinical governance

	Acute % [n=96]	PCT % [n=116]	Total % [n=212]
Use of 'culture' to describe the ways things happen in the organization			
'Yes, often'	68	43	56
'Yes, sometimes'	26	43	34
'Not really'	6	12	9
'No rarely'	0	2	1
On whether "Understanding the local culture is a central task for clinical governance"			
'Strongly agree'	53	54	53
'Tend to agree'	46	45	46
'Tend to disagree'	1	1	1
On whether "Influencing the local organizational culture is an important part of clinical governance"			
'Strongly agree'	65	61	63
'Tend to agree'	35	38	36
'Tend to disagree'	0	1	1

Managers were asked whether 'understanding the local culture is a central task for clinical governance'. Almost all the respondents (99% for both acute trusts and PCTs), agreed that this was the case (Table 4.3). Similarly respondents from almost all the trusts targeted reported that 'influencing the local organisational culture was considered an important part of clinical governance activity (100% for acute trusts and 99% for PCTs; Table 4.3).

The interview work explored in more depth the issues around the conceptualisation of clinical governance activity in cultural terms. The key phrases and words offered by respondents to explain the underpinnings of culture included: assumptions, behaviour, language and attitude. There was a strong recurrence of the idea of organisational culture as 'the way things are done around here'. Another strong theme was that although culture was generally thought of as a catch-all term to describe the assumptions and beliefs underpinning manifest behaviour within their organisation it was also recognised as being difficult a concept to define with any degree of accuracy:

Box 4.1 Defining organisational culture

> *The way things are done around here. I mean there are certain ways things get done more easily. I mean people have sort of set structures and things like that, but when you get you get down to it, the way things are done - it boils down to committee structures, methods, procedures and things like that. [FGD participant 1]*

Local culture, clinical governance and high quality care

If culture is indeed a vehicle through which improved performance and safe and high quality health care can be attained, as much policy rhetoric assumes, then clinical governance managers are key agents of change. We were therefore concerned to explore the views of clinical governance managers with regard to their assessment and management of local cultures and whether they perceived established culture(s) as a barrier to promoting quality improvement processes within their organisation.

Almost all managers agreed that 'established local cultures can provide significant obstacles to improvements in health care quality' (Table 4.4). With regard to whether there are aspects of the local organisational culture that are 'helpful' and aspects that are 'unhelpful' to the delivery of high quality care, the overwhelming majority of respondents agreed that this was the case (Table 4.4). Similarly, almost all of the respondents agreed that certain aspects of the local culture(s) could be difficult to manage directly, and yet agreed that influencing specific components of the organisation's culture was an important and necessary task.

Table 4.4 Aspects of local culture being 'obstacles', 'helpful' and 'unhelpful'

	Significant obstacles % [n=112]	Very helpful % [n=112]	Very unhelpful % [n=112]
Strongly agree	53	33	24
Tend to agree	44	58	63
Tend to disagree	3	9	13

Some examples of local cultural practices that served to attenuate or subvert attempts to grow beneficial organisational cultures were highlighted in the interviews (Box 4.1). Many of these related broadly to a lack of engagement (or even outright obstruction) by clinicians, particularly senior doctors and consultants. Other reasons cited included problems around professional demarcations and interdisciplinary team working, and the difficulties of accommodating

the different values and working practices of different organisations that had merged. At the time of the study (2006-07) there was a major reorganisation of Primary Care Trusts in England and we heard reports that the merger of PCT organisations with different organisational cultures was a major obstacle to developing improved performance in these organisations.

Box 4.2 Cultural obstacles

If your senior GP does not buy into clinical governance, and if they choose to take forward their own agenda, how can you possibly…? I mean we have had a really strong group which has representation from each practice in it, GP's, Nurses and Practice Managers, as a kind of forum, kind of getting out good practice… and you know, the senior GP never came to it, so what kind of message does that send to everybody else when one of the most influential practices in the PCT doesn't send a representative at all?" [FGD participant 6]

Well we couldn't really take it much further, because like everybody else they are all caught up in this re-organisation, and they don't know where they are going to sit. We haven't seen our organisational structure yet. We have also had 4 Chief Execs since I have been there in the last 8 years." [FGD participant 4].

In terms of measuring culture the new Chief Exec came in October, and he has concentrated on setting out his directors and setting out visions and values, but in terms of looking at cultural issues - that's not being looked at so far." [FGD participant 2]

Efforts to purposefully manage cultures in health care organisations are often associated with attempts to improve quality and safety of care. Thus we were concerned to gauge the perception of clinical governance leads regarding how long it would take for their organisation to build a culture that would support quality and safety improvement. We found that a significant minority (28%) agreed that their trust would "have a long way to go" before there is "a local organisational culture that will support clinical performance in terms of quality and safety" (Table 4.5).

Table 4. 5 "Local organizational culture has a long way to go in supporting quality performance and safety"

	Acute % [n=96]	PCT % [n=116]	Total % [n=212]
'Strongly agree'	8	9	9
'Tend to agree'	19	18	19
'Tend to disagree'	56	57	56
'Strongly disagree'	17	16	16

Assessment of local cultures and the use of culture measurement tools

The emphasis on culture change in the NHS has prompted a practical need to develop a range of tools and instruments to assess cultures at the local level to help inform clinical governance activity. Indeed, almost all clinical governance managers (99%) in this survey agreed that it should be possible to measure or assess certain aspects of the local culture in order to foster change of culture for improved performance.

Organisational culture assessment can be done for different practical purposes, formative, summative, or diagnostic. Formative assessment can be used to provide feedback on the cultural components of performance with a view to effecting local development and learning. Summative assessment can provide a measure of culture as it relates to other organisational variables – an approach that informs judgement on various attributes or dimensions of culture. Diagnostic assessment is directed at evaluating existing cultural traits and their usefulness in terms of promoting desirable organisational modus operandi and outcomes. As the results in Table 4.6 show for both acute and primary care trusts, the overwhelming majority of respondents, 85%, indicated that culture assessment should satisfy a formative purpose whereas 64% believed that it should serve summative ends, with a sizeable proportion, almost one third (29%), actively disagreeing with the latter notion. This suggests that the way tools are introduced and used may have important implications for their acceptability.

Table 4.6 Major goal of local culture assessment

	Acute % [n=96]	PCT % [n=116]	Total % [n=212]
Helping to improve local governance – formative			
'Strongly agree'	23	24	24
'Tend to agree'	63	61	62
'Tend to disagree'	12	10	10
Providing quality data to allow judgment to be made – summative			
'Strongly agree'	12	16	14
'Tend to agree'	54	49	51
'Tend to disagree'	27	30	29

We found that a third of the organisations responding (33%) were currently using at least one culture measurement instrument as part of their clinical governance activity. By far the most frequently used culture instrument was the Manchester Patient Safety Framework

(MaPSaf), recorded by 59 organisations (28% of respondents; 84 percent of those who reported using a tool; Table 4.7); this was followed by the Safety Attitude Questionnaire, and the Safety Climate Survey (Box 4.3) recorded by 8 and 7 respondents respectively. A wide variety of other tools were used, but only by a very small numbers of organisations (Table 4.7).

Table 4.7 No. of respondents reporting having used a particular culture assessment tool

	Acute Trust [n=96]	PCT	
Manchester Patient Safety Framework (MAPSAF)	32	27	59
Safety Attitude Questionnaire	6	2	8
IHI Safety Climate Survey	7	0	7
National Staff Survey	2	3	5
National Patient Safety	3	1	4
Investment in people	2	1	3
Competing Values Framework	1	2	3
Stanford Patient Safety Culture Inventory	2	1	3
General Practice Learning Organisation Diagnostic Tool	1	2	3
AHRQ hospital survey on patient safety culture	1	1	2
Nursing Unit Cultural Assessment Tool	1	0	1
Organisational Culture Profile	0	1	1

Box 4.3 The three major culture assessment instruments used in the NHS

The ***Manchester Patient Safety Framework (MaPSaF)***, developed at the University of Manchester, is a facilitative educational tool. It aims at providing insight into an organisation's safety culture and how it can be improved among teams. It uses nine dimensions of patient safety and describes what an organisation would look like at different levels of patient safety.

The ***Safety Attitude Questionnaire (SAQ)*** is the main safety climate questionnaire package developed in the US by Bryan Sexton and colleagues at the Centre of Excellence for Patient Safety Research & Practice, University of Texas. The SAQ is a refinement of the Intensive Care Unit Management Attitudes Questionnaire which was derived from the Flight Management Attitudes Questionnaire widely used in the aviation industry. The various versions of the SAQ, together, comprise 60 survey items, designed in the form of five-point Likert scales to help organisations assess their safety culture and track changes over time. The instrument is used to measure provider attitude about six patient safety-related domains: safety climate, team work climate, stress recognition, perceptions of management, working conditions and job satisfaction Individual scores are aggregated to give an indication of the strength of the organisation's extant safety culture.

The ***Safety Climate Survey (SCS)*** is a version of the SAQ. The application of the SCS, in particular has been promoted by the Institute for Healthcare Improvement (IHI) and is being piloted among a small number of hospitals in the UK National Health Service as part of the Health Foundation's Safer Patients Initiative.

Over 80% of those using MaPSaF found it relevant or very relevant to their needs, similar to about 70% aggregated across all of the other tools (the rather limited use of all other tools apart from MaPSaF preclude a more detailed analysis by tool; Table 4.8). In terms of ease of use the vast majority perceived the instrument as easy to use: 80% for MaPSaF, and 93% for the others (aggregated).

Table 4.8 Relevance and ease of use

	How relevant to healthcare?	
	MAPSAF % [n= 56]	Other tools % [n= 40]
Relevant	83	73
Fairly relevant	10	13
Hardly relevant	2	13
	How easy to use?	
	MAPSAF % [n= 56]	Other tools % [n= 40]
Easy	66	80
Fairly easy	14	13
Hardly easy	12	7
Not easy at all	3	0

About half of NHS organisations had used MaPSaF at each of team, departmental or organisation level (52 – 54%); for the other tools combined use was more likely with the whole organisation (47%) and at department level (40%), than at the team level (27%).

The interviews that supplemented the survey data supported and expanded on these findings (Box 4.4). Clinical governance managers reported that the tools they were currently using, particularly the MaPSaF, were relatively easy to use, and in some instances were being incorporated within quality and safety improvement strategies within their organisations. In line with the survey findings, there was also a generally held view that culture assessments should serve formative or diagnostic purposes rather than summative ends. In particular it was thought that the summative use of culture instruments could deter wider take up and discourage health professionals from participating in culture change processes. According to some clinical governance managers, a lot of 'tick-boxing' has already been taking place in the NHS over recent years, leading to a reduced interest on the part of front line staff in using any culture assessment tool that was perceived as requiring a tick-box approach. There were also concerns that individuals and teams might rate themselves higher or more positively than they should, and that this would invalidate the culture assessments. This was thought to be particularly problematic if culture instruments were used for summative rather than formative purposes.

Box 4.4 Working with tools

I have done a lot of work with staff and then we tried this MAPSAF thing. We haven't used it very extensively, but it has been quite interesting doing it as a team, like at service level. We [also] tried it, with a multi disciplinary team and then for contrast tried it with two [other] groups. One was a health and safety committee and the other one was this group that looks at Trust wide [issues]. The teams were very positive. Very self congratulatory really, and 'look how good we are. [FGD participant 4]

It worked quite well because we used forums within each of the directorates where they were accustomed to multi disciplinary working, but it obviously uses the traffic light approach. So it's sort of 'are you red or are green or in the middle?'. And then we developed the actions from there. [FGD participant 4]

I think they lose interest as well, don't they? Because it changes so rapidly from one year to the next and at front line they just are really bothered about delivering patient care, and when us lot turn up with yet another ticking box exercise… They actually don't really care. They just care about their department seeing their patients, and if we have to go through all of this assessment, then so be it, but you kind of get the impression that 'it's nothing to do with me.   [FGD participant 6]

I suppose you could view yourself better on each question than you really are, so you could. You could skew it. [FGD participant 4]

Not overly helpful, I have got to say. It's quite bureaucratic really. According to the user it's interesting, but its application - individuals may feel that they are beyond sitting down and looking at the application bit. [FGD participant 4]

Respondents in the national postal survey were also asked how important they thought a range of organisational culture attributes were in supporting their clinical governance and quality improvement activities. As shown in Table 4:9, over 90% of respondents thought that senior management commitment, clear governance and accountability arrangements, and safety awareness, were very important organisational attributes to support them in their role. Responses in the open part of the questionnaire supported this view and revealed that there is a latent demand for measures of these cultural attributes within organisations. In contrast only just over a quarter of respondents believed that the prioritisation of patient choice is a very important cultural attribute, despite this being a mainstay of current policy.

Table 4:9 Importance of culture attributes for high quality health care

n = 212	*Very important (%)*	*Somewhat important (%)*	*Hardly/not important (%)*
Senior management Commitment	96	4	0
Quality focus	94	6	0
Clear governance/ accountability	93	7	0
Patient centredness	93	7	0
Safety awareness	93	7	0
Team working	92	8	0
Collaborative working	84	16	0
Blame free environment	74	24	2
Support for innovation	58	39	3
Customised care	45	54	1
Standardisation of care	39	59	2
Focus on cost effectiveness	40	56	4
Public service ethos	38	53	9
Prioritisation of choice	28	64	8

In the interviews we explored in more depth clinical governance managers' views on how specific cultural attributes were related to high quality and safety within NHS organisations. The discussion below is presented under headings related to different cultural attributes identified in the interviews.

Senior management commitment

A key theme raised in the interviews with clinical governance managers (and indeed the most important in the survey) was the importance of having senior management commitment if an organisation was to develop an effective strategy for improving quality and safety (Box 4.5). This related not only to the provision of adequate resources but also leading and taking responsibility for seeing specific quality initiatives through to completion. Senior managers were also viewed as key 'boundary spanners' within the local health economy and their commitment to developing partnerships and collaborative working arrangements was viewed as

essential to developing high quality clinical pathways within the local community.

Box 4.5 Senior management commitment

> *I think it's probably got to be senior management and the Chief Exec to shape the culture rather than the Clinical Governance team. I think we're just one arm of the whole organisation… I think probably at the local level the influence is there from clinical governance, but I think that overall the culture does come from the management team directors and the Chief Executive.* [Clinical Governance Lead 4: 02-04-07]

Risk taking and support for innovation

Some clinical governance managers believed that an important cultural attribute was the ability to take risks in order to be allowed scope to develop new and innovative ways of promoting quality and safety. In particular it was thought that some of the existing rules and guidelines around clinical governance in the NHS served to stifle the piloting and testing of new approaches performance and quality improvement (Box 4.6).

Box 4.6 Risk taking

> *Well for me it would be the risk taking. The only way that you are going to develop new and innovative services is if you take a few risks. And the approach that we have tried to take is, if the policy says 'no', we ask, 'is the policy right?'. Because I think in the NHS there is an awful lot of 'you can't do that because the policy says no', and really we should be going back to the policies and re-looking at them.* [FGD participant 2]

Team work

For many clinical governance managers, the development of a culture of 'teamwork' was viewed as essential to the development of high quality health care (Box 4.7). In particular it was felt that the recent emphasis on organising care around the needs of patients required multi-disciplinary teams to work effectively together. However, it was recognised that team working often required the collaboration of staff from different professional backgrounds, and sub-cultures with different working assumptions and beliefs often created tension and problems in care settings:

Box 4.7 Team Work

> *I've absolutely done a lot of team working, and that seems to me the crux of it, about valuing other people's contributions and things… People all, I think, value each others' opinions on things, they also trust each others' judgement, so that you don't get this duplication of effort, where everybody feels that what they do and the perspective they bring is, you know, they are the only one that can bring that perspective, therefore they have all got to see this individual separately. They can't do things in a collaborative way. [FGD participant 6]*

Public service ethos

A public service ethos was viewed by some as the cornerstone of health care delivery in the NHS (Box 4.8). In particular it was thought that health care professions should primarily be motivated by serving the public rather than seeing extrinsic personal rewards. However, the traditional public service was said to be dwindling as the older generation gives way to a new one with different values, beliefs and motivations. The development of performance related pay in the NHS (e.g. the Quality and Outcomes Framework) and the growing use of private sector providers was said to be transforming traditional public service motivations in the NHS:

Box 4.8 Public service ethos

> *I think that as the newer generations come along there is less public ethos. I think that would be my perception. That public service ethos is probably around with people who have been in the organisation some years, but it is certainly on the change now. [FGD participant 3]*
>
> *We are there to serve the public, we are there to make them safe, and to make them well, and to provide excellent services. But I do think it is slipping. There are still parts of society who kind of do want to do things for the greater good, and I think there needs to be some kind of reminder about it, and about why we are here. That is why you work long hours and you work really hard, and it's because you really do want to make things better. [FGD participant 5]*

Prioritisation of choice

Although patient choice was recognised as an important element of the national reform agenda, for many clinical governance managers it was not viewed as an essential part of high quality service delivery (Box 4.9). Managers highlighted a number of practical problems with the current focus on extending patient choice, not least the problems associated with implementing and using the related information technology:

Box 4.9 Prioritisation of choice

> *Prioritisation of choice is not always practicable. It favours cities and bigger towns much more than small localities, and tends to benefit a privileged few. [It is] not an opportunity that the ordinary patient could exploit. [FGD participant 4]*

Standardisation of care

There was a general view that standardisation of care could result in higher quality care, although it was still resisted at times by clinicians (Box 4.10). It was also recognised that care should be tailored to the needs of individuals rather than a 'one size fits all' approach, and that national standards should be flexible enough to be adapted to the contingencies and constraints of local care settings.

Box 4.10 Standardisation of care

> *Certainly the care pathways agenda now is looking at standards. Pathway care. But you have still got to allow for the individuals within that system. [FGD participant 3]*
>
> *And maybe in five years time, we can have discussions and dialogue with clinicians about cost and clinical effectiveness in an adult way. Maybe standardisation of care in five years time will be acceptable. [FGD participant 3]*

Patient safety and quality awareness

An awareness and organisational commitment to addressing patient safety and quality issues was viewed as an essential element of a high performance culture (Box 4.11). While it was recognised that there had been a lot of national initiatives and new regulatory agencies set up to assess and assure quality and safety there was a general feeling that at the local level organisational cultures would have to be managed and transformed to improve the delivery of high quality and safe care to patients.

Box 4.11 Patient safety and quality

> *A lot of focus in [place name] has been on quality assurance in the past, and I have spent quite a lot of time trying to re-vamp that. Yes we need to have quality assurance processes, but we need to have some effort going into the improvement bit. [FGD participant 1]*
>
> *I think that whole patient experience/patient involvement agenda is where the NHS still is not achieving. It's a real weak area… We have just appointed now as part of our restructuring a patient experience manager, so we are trying to think about the things we need to do… [We] were all reactive, to incidents, complaints, [but] there is nothing particularly proactive and that is where I think we have got to start moving, start shifting the focus. [FGD participant 4]*

Blame free environment

A 'no blame' culture was viewed as an important part of ensuring high quality and safe care as it was thought to encourage staff to report and learn from mistakes and near misses. Nevertheless clinical governance managers pointed out that individuals should be accountable for any mistakes and they tended to favour the promotion of a 'just culture' where individuals would be held to account if they themselves were responsible rather than the clinical governance system within the organisation (Box 4.12).

Box 4.12 Blame free environment

> *The time we were implementing the incident reporting system, we went through a phase of talking about no blame and it didn't feel comfortable. The other way [also] seemed to be uncomfortable - where if anybody reported anything they were in trouble. We have to ask 'What is it that has gone wrong? Let's have a look at what you did…' It didn't feel comfortable, this no blame - sometimes there is; sometimes somebody needs to be held to account. [FGD participant 3]*

Summary and concluding remarks

Recent reforms in the NHS are based on the notion that major culture change must be secured alongside structural and procedural reform if the desired improvements in quality and clinical performance are to be achieved. Our study indicates that clinical governance managers increasingly view quality and safety improvement in cultural terms and perceive culture management and transformation as a key part of their clinical governance responsibilities. We found that most managers are amenable to the idea of shaping local cultures toward desirable outcomes. The majority believed that there are aspects of the prevailing cultures that serve as barriers to quality improvement, and a significant

number of organisations were reported as still having a considerable way to go before any meaningful cultural change could be realised.

Culture assessment instruments are relatively new tools in the quality and patient safety arena and are used increasingly to inform and assess quality and safety improvement activity in health care organisations. Despite a plethora of culture assessment tools being described in the literature (see Section 3) relatively few of these have seen much use in the NHS. On the basis of our survey, only a third of NHS organisations in England are currently using a culture assessment instrument to support their clinical governance activity, and almost all the tools and instruments used focus heavily on the assessment of safety cultures rather than on broader perspectives of quality and performance.

Nevertheless we found a high degree of satisfaction with existing tools and instruments, at least in terms of ease of use and relevance. Although extant tools such as the MaPSaF and the Safety Attitude Questionnaire cover many of the most important cultural attributes of high quality care as identified by clinical governance managers, (including senior management team commitment, teamwork and collaborative working), our survey highlighted other cultural attributes which link to the interests and aspirations of local clinical governance leads. These include the development of a blame free or 'just' environment and support for innovation that are not well served by extant instruments.

Our account of our stakeholder mapping exercise now continues with an assessment of the views of our second key stakeholder group: informants from agencies with a representative, developmental or regulatory role in the NHS.

4.3 Stakeholders Two: Representative, developmental and regulatory agencies

The NHS has many external stakeholders and agencies with a legitimate interest in understanding, shaping and assessing culture and culture change in health care organisations. In what follows we distil the key themes and issues (which are complementary to those elicited from clinical governance managers) raised by a wide range of external stakeholders.

Data sources

We conducted interviews/focus groups with key informants from the following organisations and professional bodies: (total number of people in participating in each group shown in brackets)

- Healthcare Commission (1)
- NHS Institute for Innovation and Improvement (NIII) (2)
- National Patient Safety Agency (NPSA) (3)

- National Clinical Governance Support Team (NCGST) (2)
- Monitor (Foundation Trust regulator) (1)
- Royal College of Nursing (RCN) (5)
- British Medical Association (BMA) (4)

In the following we explore and integrate the information derived across all external stakeholders, organised under five broad headings:

1) important cultural attributes and domains of interest;
2) need and use of culture assessment instruments;
3) types of culture assessment instruments;
4) the evidence base for culture instruments;
5) design characteristics of culture instruments.

Important cultural attributes and domains of interest

We identified a range of specific cultural attributes that different stakeholders were interested in shaping and/or assessing culture in the NHS and which, therefore, should be expressed within the design of culture assessment instruments. The main areas of concern to these external stakeholders strongly reinforced the values of concern to Clinical Governance managers explored above: that is, concerns around senior management commitment and support; public service values; clinical engagement and leadership; and the need for patient centred care. Moreover, these external stakeholders identified ideas underpinning organisational learning as an additional set of values with potential to support quality improvement in the NHS. Each of these domains of interest is now elaborated with an articulation of its importance drawn from these external stakeholders.

Senior management commitment and support

As with the clinical governance managers, we heard from various stakeholders that senior management commitment to quality and performance improvement was a key cultural attribute that they were interested in shaping and assessing (Box 4.13). Senior management could support quality improvement through prioritising such activity within the organisational budget as well as by championing improvement activity at all levels of the organisation. Of particular concern given the increasing and shared accomplishment of care delivery was the importance of leading and managing across care pathways.

Box 4.13 Senior management commitment

Most of the problems within all organisations start if you haven't got the right top team doing the right things. You know, everything else doesn't fall into place. I suppose that must be the first port of call. [Healthcare Commission]

> *I suppose anything that addresses the more senior clinical staff, that challenges or enquires of their attitudes, because I get the impression that they are not challenged. [NPSA]*
>
> *The processes of cultural change have to be embedded, and if they are not there and the leadership isn't there to support them, then there is no hope. So some assessment of senior leaders in organisations [is important]" [RCN]*
>
> *And particularly important for the governance domain is integrated governance: governance across networks and clinical leadership of networks. The other role is that health organisations work together to ensure principles of clinical governance. To ensure that clinical and managerial leadership accountabilities, that is clinical leadership across networks and that is a cultural shift. And that is more leadership*
> *[Healthcare Commission]*

Public service values and ethos

We heard reports from a variety of stakeholders that the traditional public service values at the heart of the NHS were gradually being eroded as NHS organisations were subject to increasing market mechanisms, including an expansion in patient choice, increased use of private providers and the incentives implicit in Payment by Results. Some stakeholders were supportive of market mechanisms and would like instruments designed to assess the extent of entrepreneurial and commercial cultures in organisations (Box 4.14). Others, particularly the union UNISON were against the 'marketisation' of the NHS as they believed that it would erode or undermine many of the traditional public service values which they saw as underpinning working practices and relationships in the NHS. Several stakeholders believed that some assessment should be undertaken regarding how traditional public service values were being changed and transformed by the shift to market processes in the NHS as well as some assessment as to how this was affecting service delivery and patient care.

Box 4.14 Public service ethos

> *The cultural positioning of the NHS is that it needs to change from one, which is public sector rights and demands of the service to a commercially orientated business process organisation and the result of kind of the mindset that you need to develop in people that work in the NHS for them to able to operate in that different culture. [NIII].*
>
> *I've see nothing written down, which attempts to analyse what will be lost if we move towards a pure private sector model, which I think is extremely unlikely, and I think, that as you say, what will be gained has been fairly well rehearsed albeit anecdotally, but a cultural analysis of what the deep values, which exist within the Boards in the public sector, and how those might be changed, but also how they might adapt, hasn't yet happened. [MONITOR]*
>
> *It is extremely important that the Public Sector ethos continues to thrive, so that although we are opposed to marketisation and fragmentation in the NHS, if it happens it's very important that within that change that the positive cultural ethos of the NHS continues to thrive, so that people don't see themselves as competing business people in a market environment. [UNISON]*

Patient-centred care

Many of the current NHS reforms are focused on placing the patient at the centre of decision making, and this concern was reflected in the interest of many of the stakeholders (Box 4.15). The new focus on patient-centred provision was having repercussions for the design of organisational processes and delivery systems, not least the need for inter-disciplinary working, between different professional groups and across service boundaries, and care pathways. The cultural problems associated with getting health professionals with different values and of traditions of working were viewed as a key challenge for the NHS. There were also concerns that the shift towards patient-centred care (and also the expansion of patient choice) would alter the power balance between health professionals and patients, and that this was a cultural shift which would be important to monitor when implementing and assessing change programmes within NHS organisations. There was also a concern that while the culture around service delivery in NHS organisations was generally doing well in terms of patient involvement it was the more educated patients or their representatives who were mainly participating.

Box 4.15 Patient centred care

I think that the driving force for a lot of this is around patient safety and patient choice -- and that the patient is being positioned at the centre of this universe, and therefore the question is: 'how does the organisation configure itself to support that?'. And then what are the implications for culture and the way we do things around here? [NPSA]

We are increasingly working in inter-disciplinary teams across competency frameworks for services, rather than in any particular discipline, and therefore one could argue that it's nursing expertise in terms of how you develop an environment and culture that is effective. [RCN]

For me it's about seeing the customer, whether it's a patient or visitor, almost as an equal partner, and not somebody void of common sense. Something to do with power balance, I think; something to do with being able to approach - on equal terms - your colleagues within the Health Service. If you are a patient or a visitor, being able to speak to the nurse and the doctor… I think we trust our bodies with the health professional -- we wouldn't trust a car in the garage in the same way. [RCN]

I think there's been a lot more involvement with patients in the way services are, are managed corporately over the last ten years possibly. I think at individual level, I think yes, it's got a lot better for example require a lot more preliminary discussion with patients about what accepting the service they have I'm not sure that, it actually happens very often. But I think patients are becoming more and more aware that they do have more choice in terms of what their treatment should be and how they are, how they are managed. It probably tends to be the more educated, better, better provided for patients who, who are in a position to be able to do that. Some of the more vulnerable groups, the less educated are not going to, are not so easily involved in that. [BMA].

Clinical engagement and leadership

The need for clinical engagement with programmes of change was cited by several of the external stakeholders as an important cultural attribute for the delivery of quality and clinical performance improvement within health care organisations (Box 4.16). However, the values, beliefs and assumptions underpinning much clinical practice was thought to attenuate clinical involvement in organisational change processes and many aspects of clinical governance activity. Attempts to develop leadership qualities within the medical profession were reported, although such attempts often appeared to be hampered by a range of issues, not least weak incentives for doctors to take on leadership roles and a lack of peer

esteem associated with such work. The National Clinical Governance Support Team and the National Institute for Innovation and Improvement had various initiatives underway to encourage and support clinical engagement in quality improvement activity with much of their attention on 'cutting through the cultural barriers' of entrenched clinical practice and inter-professional working relationships. The Healthcare Commission viewed clinical engagement as a key indicator of a well performing organisation and used various forms of soft intelligence to assess the level and quality of clinical engagement within NHS organisations.

Box 4:16 Clinical engagement

Clinical engagement is important. We have a culture, or cultures, in the sense that there is a discrete group of medics and clinicians, and there is a managerial group. One of the things that the service is trying to promote much more is collaboration between those two groups. That is, to involve clinicians in the broader decision making processes. But it isn't one way traffic, it needs to be a two way process and therefore we are putting a lot of time and attention into things like medical leadership. [NCGST]

[It is] always difficult trying to get doctors on board, and to take on leadership roles in pushing through changes and major restructuring projects. These require clinical input if they are not to flounder. [It's] not currently part of their cultural makeup and there are not the rewards for them for doing it either. [NIII]

Yeah, in a huge Trust which is where I am mostly, I think the medical director, the nursing director have a very strong role to play in influencing things, the culture in clinical areas. I also think it's important for those people to influence the thinking of the, the board itself and particularly the executives so that they become more aware of what's needed in their organisation to improve the culture and therefore improve patient outcomes .[BMA]

Organisational learning

A capacity for organisational learning was viewed by many stakeholders as an essential ingredient of a high performing organisation (Box 4.17). Attributes such as openness and trust were seen as being associated with learning organisations, although opinion differed over how best to instil a learning culture with NHS organisations. The National Institute for Innovation and Improvement and the National Clinical Governance Support Team were piloting various projects to increase learning across the NHS, with much of the activity focused on helping health professionals to 'unlearn' some of their entrenched values and beliefs which were believed to be unhelpful for quality improvement. These included challenging assumptions that hindered interdisciplinary and collaborative working across care pathways; and promoting values

that placed patient (as opposed to professional) needs at the centre of service planning, delivery and evaluation. The NPSA was trying to move from the traditional 'blame' culture in the NHS, where individuals were blamed for reporting any mistakes and near misses, to a more open culture where staff felt able to report errors and did not fear being 'scapegoated' for identified problems where these were systemic in nature. It was reported that the NHS could learn a lot from other industries in terms of management systems and technology transfer and the National Institute for Innovation and Improvement were piloting several industrial models based on lean and agile principles (Six Sigma). These were being evaluated and gradually rolled out across the NHS. Likewise the NPSA were learning from safety systems used by other high risk production, particularly the aviation industry. However, it was stressed that systems from other sectors and industries could not necessarily be transplanted wholesale into NHS organisations without first being adapted to the specific traditions and cultures of working in the NHS.

Box 4:17 Organisational learning

> *We have to learn from errors and mistakes without punishing people for alerting the organisation to problems. Providing encouragement for openness in reporting is one of the keys issues if we are to trying to promote throughout the service. [NCGST]*
>
> *A key issue to deal with is organisational 'readiness to change' and learning. We haven't emphasised much about learning, but that is one of the key things - a genuine learning culture is needed. [MONIOR].*
>
> *I think that what you have to understand is that health care staff are becoming very cynical and fed up with aviation analogies that are over simplistic. [NPSA]*
>
> *I think one area that I am particularly interested in is what a multi-disciplinary reporting culture would identify as safety issues, compared to one which is predominantly based on information provided by one professional group. My view is that the NHS, by and large, learns from incident reports provided by nurses. I think if you look at local risk management systems, you will find about 85% of incident reports are submitted by nurses, and obviously that is not representative. [NPSA]*

Need and use of culture assessment tools

External agency stakeholders each had their own practical requirements for culture assessment tools to support their particular role in the NHS, for example as professional bodies, or as regulatory agencies.

The National Patient Safety Agency was the organisation that had focused most on the development and use of culture assessment tools. Culture was viewed as an important aspect of patient safety, and the NPSA were collaborating with several national research funding streams to promote safety culture research in the NHS. They were also working closely with researchers at the US Institute for Healthcare Improvement to develop new approaches to nurturing and evaluating safety cultures in health care organisations. At the time of fieldwork (2006-7), NPSA were actively promoting the Manchester Patient Safety Framework (MaPSaF) culture assessment instrument in NHS hospital Trusts and PCTs as part of a national initiative to develop high safety cultures across the NHS.

The Healthcare Commission were not currently using any specific culture instruments in their national role to assess and improve quality in the NHS. However, they were keen to explore the use of instruments that could be used to assess performance cultures, particularly at senior management team level (Box 4.18).

Likewise, the National Clinical Governance Support Team were not (yet) using any specific culture instruments (although they were using several leadership assessment frameworks and diagnostic tools), but they too were interested in the development of assessment instruments that could be used to support their work around board level development. The NHS Institute for Innovation and Improvement were also interested in the development of culture assessment instruments to support their work in promoting effective systems in the NHS.

Finally, at the time of the study, the NHS was undergoing a major restructuring of primary care provision with many mergers of once independent PCTs. Several stakeholders were aware of the cultural problems of merging organisations with different styles of working and were looking for tools to help aid the transition to the new organisations

Box 4:18 Culture assessment needs

> *I think a lot of the actions will be focused on the top team. Some of the diagnostics used will, I think, find that they haven't really got an adequate performance management culture. You need to find that out before you can say to the top team 'hold on, have you balanced your priorities in the wrong way?. [Healthcare Commission]*
>
> *We are talking about a diverse range of organisational cultures, which is why mergers of organisations within the NHS are so difficult. Cultures within individual hospitals/organisations will be very different and the cultures within members of professional groups will [also] be very different. [NIII]*

Types of instruments

When considering the practical application of cultural assessment methods, these may be classified broadly as serving either formative, summative or diagnostic purposes. As outlined earlier, formative assessment provides organisations with feedback on the cultural elements of performance and change, and can be used to inform organisational development and learning. Summative assessment can provide a cross-sectional or longitudinal measure of culture and its relationship to other organisational variables. This approach can be used within formal performance management arrangements, particularly those associated with transactional styles of leadership. Diagnostic assessment can provide an appreciation of the existing cultural traits within an organisation and their functionality vis-à-vis promoting desirable organisational processes and outcomes. Diagnostic cultural assessments might be used to identify areas of strengths and weakness in an organisation; and assess capacity, receptiveness and readiness for (culture) change at an organisation - division - or team-level.

As with the clinical governance managers, we found a strong preference for formative rather than summative use of culture assessment tools ("Yes, developmental. You know it's got to be quite a light touch" MONITORr). The NPSA, the main promoter of safety culture assessment tools in the NHS, were also strongly of the opinion that safety culture instruments should focus on developmental rather than summative ends (Box 4.19). It was thought that this would encourage staff to participate in safety awareness discussions and reflect on their assumptions, beliefs and values and how these might impact on patient safety.

The Healthcare Commission were particularly interested in the development of diagnostic tools, particularly in terms of board level cultures, and had a particular interest in tools that could be used to predict future problems in specific organisations.

Box 4:19 Use of culture assessment tools

> *It's just not the business of the NPSA to performance manage… If they [culture tools] are going to be part of formal performance management then we are not going to get the buy-in to them, and this won't help unlock new problems out there. It's probably bad for increasing reporting rates if [tools are] used in that way. [NPSA]*
>
> *More predictive, and this is where the sort of 'leadership capability' thing fits in. It's an ongoing surveillance to look at outliers of organisations that seem to have difficulty adapting to doing the governance developmental stuff. So it's to identify organisations that would have difficulty meeting future requirements, and then do some sort of response around that. And looking at the sort of tools a detailed diagnostic…[Health Care Commission]*

Evidence base for culture instruments

The validity and 'fitness for purpose' of any culture assessment instrument depends on whether the dimensions and levels of culture it taps into are related (although not necessarily in a linear or uni-directional fashion) with the area of performance or quality of concern. We heard reports that the evidence base linking culture and specific aspects of performance in the NHS is under-developed and that this was an area that required further research and development. Some stakeholders such as the NPSA were linked to national research projects designed to strengthen and broaden the evidence base around patient safety cultures. All stakeholders believed that more research was required to generate evidence of what works in culture change programmes and how such programmes could be measured and assessed (Box 4.20).

In some areas though there was a sense that lack of evidence was not the key issue – either because sufficient evidence had already been accumulated or because the need for change was obvious.

Box 4:20 Evidence base for culture assessment tools

Well I suppose from my point of view, evaluation is part of everything we do. But at the moment the evidence base isn't there - so we are very conscious of building our evidence base. [NIII]

I don't think there is any need for any more work on barriers to reporting. They have absolutely been done to death. [NPSA]

If the evidence base isn't sufficient, then is it acceptable to maintain the status quo? Would maintaining the status quo – that is, blaming individuals – do anything to improve safety? It's a question of: what is the need for a concrete evidence base and what is common sense? [NIII]

Design characteristics of culture tools

Although the survey of clinical governance managers found that most managers viewed existing tools as salient and easy to use, the survey of wider stakeholders revealed that existing instruments are sometimes too sophisticated for wide use. There was also a concern that some existing tools were inappropriately transplanted from other sectors and industries (e.g. aviation) or other health care contexts (mainly the US health system). Many felt that more training was required to support the use of culture instruments, particularly among those staff with little familiarity of social science theory or managing change programmes (Box 4.21).

Box 4:21 Design characteristics of culture tools

> *We need a tool that is simple to use and, given the unsophistication of the users and the appliers, a tool that is simple and understandable. A lot of the culture instruments are very academic: you need to read them twice or three times. [We need] something that is framed in the language and values of the Health Service. Some of the tools I have seen are very private sector oriented, and use language and values that I don't. [Healthcare commission]*
>
> *A lot of times, to your nurse on the ward, to your clinician, it's all psycho-babble: and what does that really mean for them? So we wanted to support a tool that could really enhance understanding of what we mean. [NPSA]*

Summary and concluding remarks

The external agencies sampled in this part of the stakeholder mapping represent diverse interests and roles, yet there was a considerable degree of overlap and agreement in the views expressed. Such views also corresponded closely with those elicited from the Clinical Governance managers through the national survey and other sources. Cultural domains of interest were seen to converge upon: senior management commitment and support; public service values; clinical engagement and leadership; and the need for patient centred care; with an additional set of values pertaining to organisational learning also being seen as important for sustaining quality improvement in the NHS.

Where agencies did differ significantly was in the range of culture assessment tools that they saw as necessary to support cultural diagnosis and change. Here, agencies were keen to outline specific and focused tools that related specifically to their role and priorities. Formative and diagnostic tools (rather than summative) were seen as key, as were practical considerations about implementability in busy NHS settings. The challenges of expanding the evidence base in support of cultural assessment, change and performance were perhaps expected preoccupations for agencies that need to provide public and professional justifications of their activities.

The first two of our categories of stakeholders are professional by background and 'insiders' in their attempts to understand and influence service cultures in the NHS (Clinical Governance mangers and developmental/regulatory agencies). Our third and final group of stakeholders are lay, and in many senses 'outsiders' - patients, carers and service users. It is to understanding the interest and preoccupations around service cultures in these groups that we now turn.

4.4 Stakeholders Three: Patients, carers and service users

Hospital Trusts and PCTs have a statutory duty to involve patients and the public in the design and organisation of local services. Patient involvement can make a valuable contribution to assessing service quality, and patient perspectives can help focus management attention on those aspects of service design that are crucial to improving patients experience of health care. Indeed, recent approaches to understanding organisational culture recognises that the traditional view of an organisation's culture as a closed system, or at least having a strong centripetal tendency, does not adequately take into account the increasing influence of customers and service-users (Scott et al , 2003). If patients are involved in co-creating health care cultures, certain implications follow. One is that it is impossible to reduce the essence of organisational culture to the behaviour, values and assumptions of staff; patients must be brought into the equation. Another implication is that intervention on one side or the other, patients or practitioners, may be worth considering in changing the culture shared between them. In this part of the study we were therefore interested in obtaining a patient perspective on culture and culture change and how culture could be assessed at the local level.

Data sources

Data gathering comprised a national postal survey of patient representatives in NHS Trusts in England (102 respondents) (Appendix 7) and an on-line questionnaire advertised in a range of health publications and completed by 47 patient representative. These survey data were complemented by semi-structured interviews with 6 patient representatives recruited through local and national patient associations. Most of the patients recruited through the national survey (87%) stated that they "take the lead role in representing patients' interest in the Trust" and Table 4.10 outlines in more detail the self-declared job title of these respondents.

Table 4.10: respondents' job title in the national postal survey of Patient representatives

	Acute % [n=48]	PCT % [n=54]	Total % [n=102]
PPIF Manager/chair/officer/rep	65	70	68
Retired	6	4	5
Head of clinical Governance/effectiveness	4	13	9
Community panel member	4	6	5

Director of professional & Business development	4	2	3
Director (Deputy Dir.) of Nursing	4	0	2
Associate risk manager	4	0	2
Non-executive director	2	2	2
Other	6	4	5

Usage of the term 'culture' at the local level

As with clinical governance managers, the national postal survey of patient representatives found that the term culture was often or sometimes used to describe the way things were done at the local level (88%), with almost 90 per cent of respondents stating that 'culture' is used in their organization to describe 'the way things are done around here' (Table 4.11)

Table 4.11 Is 'culture' a term used in respondent's organization to describe the ways things happen around here?

	Acute % [n=48]	PCT % [n=54]	Total % [n=102]
'Yes, often'	68	43	53
'Yes, some times'	26	43	35
'Not really'	6	12	9
'No rarely'	0	2	1

Culture was defined by the researchers as "the shared beliefs, values attitudes and norms of behaviour in the work place, including the local routines, tradition, ceremonies, and ways of making sense of the local work environment". The overwhelming majority, 97 percent, stated that the definition was consistent with their understanding of organisational culture (Table 4:11).

Patient representatives' understanding of the meaning of organisational culture resonated with the findings of the national postal survey of Clinical Governance Managers (Box 4.22). The understanding proffered by some of those interviewed aligned closely with the view of culture as 'the way things are done around here'. It emerged also that the understanding of the local organisational culture was often aligned to issues related to patient safety, suggesting that from the perspective of some patient representatives safety issues should be at the heart of culture change initiatives. However, some patient representatives expressed concern about the

'closed' nature of local NHS culture as they feared that management tended not to 'reach out to patients' or take their perspectives into account when planning and assessing change programmes. It is clear that those who represent the interest of patients would like to see their local NHS organisations reflecting a more outward looking culture, a culture that is built around a closer interaction between the key stakeholders in the local health economy.

Box 4:22 Defining local organisational culture

I would define culture as sharing beliefs, values and .. the knowledge of what those in the organisation … what they stand for and what it intends to do, which is broader than just saying well we, we have patients come in one way, we treat them and they go out at the other. It's about creating an organisation that ensures that everybody who's involved in that organisation including the patients, understands that this is much broader than just the mechanics, that it is those things which ensure the mechanics work. [PR 2:16-07-07]

It's the culture that where safety is, sort of paramount and, and you've got to look at the ways, different ways that, you know, these, these, these levels can, can be maintained and possibly improved on. I mean we're the third safest hospital in England, you know what I mean, but I don't see any reason why we couldn't be the first safest, so there is work to be done as well. [PR 5:23-07-07]

Well I think the Health Service's organisational culture is … it's another world from the outside. It's always taken on the people within the NHS know better than what the patients do. They don't listen, they use a different language and they seem totally divorced from what's happening on the front line [PR 6:26-07-07]

My understanding is … quite simply it's the way in which the organisation interacts not only with its own people, its employees and its governance, but also with the outside world. It's a matter of the tone that it adopts in both the aspects of its work … whether it's inclusive or whether it is inward looking or whether it is outward looking [PR 1:03-07-07]

Local cultures as levers for quality improvement

The overwhelming majority of the respondents, 90 percent, agreed that some aspects of the local culture in their organization are very, or somewhat, helpful to the delivery of high quality service. Respondents in the semi-structured interviews pointed out examples of 'helpful' culture to high quality service delivery in their organisation. This centered on the importance of promoting quality as a key aspect of service delivery; and adopting a patient perspective on the redesign of services.

Table 4.12 There are aspects of the local culture that are very or somewhat helpful to the delivery of high quality service"

	Acute % [n=48]	PCT % [n=54]	Total % [n=102]
'Strongly agree'	13	30	22
'Tend to agree'	68	46	57
'Tend to disagree'	19	24	21

Many examples emerged from the semi-structured interviews to provide support for the postal survey finding that there are certain aspects of the local culture which tend to promote high quality service delivery. Some patient representatives were impressed that their local NHS organisations did not only promote a focus on high quality care as an important organisational ethos among staff, but also actually 'put this into practice' (Box 4.23).

It emerged also that many of the attributes of good cultural practice reported by patient representatives were related to embedding cooperative working relationships and partnership working between service providers and patients. Examples were proffered whereby an 'interactive' culture based around the principles of mutual understanding and trust had succeeded in delivering more appropriate strategies and care pathways for patients.

Box 4:23 Helpful aspects of the local culture

The importance that the Trust attaches through its directorate of nursing to quality of care throughout the hospital and they have an initiative called Caring at its Best that .. is a very good instance of how a principle is being applied throughout the organisation and that principle is that quality of care is crucial at the very point of delivery to the patient. and I think that's, that's probably the best example of the lot. [PR 1:03-07-07]

I sometimes go to the meetings of Primary Care Trusts where it's absolutely clear that they have got very very strong links with the key local community organisations. You know, their public meetings are very well attended and there's a, a constructive spirit in, in,the room and, and other places they go it, it, it's pretty obvious that this is a fairly remote organisation in terms of the success it's how does Primary Care Trusts reach out reach out to the wider community and maybe these close involvement networks that are, that are, are going through Parliament at the moment they may help in that in that endeavour. [PR 4:6-07-07]

In terms of changes there is I think an example where they are trying to make it muchh more sensitive to patients' needs. So that if somebody does have a question or possible complaint, there is a route through to get an answer to their question fairly quickly. And again because I .. sat in on a meeting where the hospital was giving information for that complaint and their response I had every confidence that. they were doing a very good job in terms of not only listening to but taking the questions very seriously and following them through to resolutions. [PR 2:16-07-07]

Culture as an obstacle to high quality care

A large majority of respondents (88%) in the postal survey reported that local cultures could sometimes provide significant obstacles to improving health care (Table 4.13) examples of 'unhelpful' aspects of local culture provided in response to a follow-up (an open-ended question) included a range of issues such as: lack of cooperation between professional staff; a very hierarchical view of decision making; a resistance to national policy and change.

Table 4.13 Established local cultures can some times provide significant obstacles to improvements in health care"[

	Acute % [n=48]	PCT % [n=54]	Total % [n=102]
'Strongly agree'	34	43	36
'Tend to agree'	53	54	52
'Tend to disagree'	13	3	12

The above issue was explored further in the semi-structured interviews. There was a strong belief among patient representatives interviewed that culture change within their organisation was driven largely by the demands of external agencies and government targets rather than the needs of patients or the local community. One patient representative criticised the NHS as being very much 'top down'. The point was made that NHS service providers at the local level tend to operate within their 'comfort zones' and there was a view that unless they are willing to take on 'new challenges' it would be difficult to realise a significant culture shift (Box 4.24).

There was a view that improved health care delivery required more input from local stakeholders, including patients, and that culture change should be instigated more from within than by external fiat or command. Restrained access to information by key actors outside the mainstream NHS, such as patient representatives, was also considered unhelpful to positive culture change.

Box 4:24 Aspects of culture which are subversive to health care improvement

> *There is this culture through the NHS it's run by higher up and it's to hit targets and, sometimes to hit targets is, not the best way forward and I think that's where the fault lies; they've got to be seen to be hitting the target even though it may not be the best result for the patients.[PR 6:26-07-07]*
>
> *The government has tried to dictate what the organisational culture should be through, a list of requirements on priorities. I'm not saying there's no place for them but I definitely think it's, it's exaggerated now and that the culture of many Primary Care Trusts is to do as*
> *they're told regardless of whether they think it's a good idea. [PR 4:26-07-07]*
>
> *I don't necessarily think we're getting the best services and the best quality and.the NHS doesn't encourage the culture of challenge and I think it should and I think it could if it wasn't so driven from the top. [PR 4:6-07-07]*
>
> *As a hindrance to change, it is the inability of the Trust to learn from the experience of others. Now the experience of others comes from NHS organisations, I don't think they do enough benchmarking or listening to what is happening elsewhere and the second is from outside the NHS [PR 1:03-07-07]*
>
> *The main thing about the NHS is that it's inward looking and it doesn't benchmark with other parts of the NHS and it has an assumption that it knows best. Now these are enormous barriers to people like me getting in to make a, a difference. [PR 1:03-07-07]*

Importance of different cultural attributes for high quality care

Patient representative's views on the most important cultural attributes for high quality care were remarkably similar to those of clinical governance managers. The most important culture components (as recorded by at least 90 percent of respondents) include 'patient centeredness' 'senior management commitment', 'quality focus', 'clear governance/accountability', and 'safety awareness'. As with clinical governance managers fewer respondents picked out 'prioritization of choice', public service ethos, 'focus on cost effectiveness', and 'standardisation of care' as important (Table 4.14).

Table 4.14 Importance of different culture attributes for high quality health care – Trust and PCT combined [%]

N = 207	Very important	Somewhat important	Hardly/not important
Senior management commitment	84	14	2
Clear governance/ accountability	82	17	1
Quality focus	92	8	0
Patient centredness	95	5	0
Safety awareness	83	17	0
Team working	89	13	0
Collaborative working	80	20	0
Blame free environment	46	43	11
Support for innovation	63	30	5
Customised care	72	26	2
Standardisation of care	43	51	6
Focus on cost effectiveness	30	54	16
Public service ethos	57	35	8
Prioritisation of choice	31	61	8

Patient representatives commented on why certain cultural attributes are very important to high quality health care performance and service delivery. Two key themes centred on the need to create patient centred and high safety cultures and systems in the NHS.

Patient centeredness

Not surprisingly, patient representatives believed that 'patient centeredness' was a key attribute of high quality service delivery. This was for a number of reasons, including: a belief that patient centred care would lead to better outcomes (both process and clinical); that it would create a climate where it is possible to challenge professional and managerial cultures that were not always closely aligned with the interests of patients and carers; and a view that placing patient perspectives at the centre of decision making would make the health service more accountable to the people they serve (Box 4.25).

Patient representatives reported that NHS organisations still need to make much more effort to promote a patient-centred culture. This included health care professionals being more approachable and accessible to patients, engaging patients in decision-making,

listening to patients, encouraging them to ask questions as well as being willing to provide answers to their questions, and acknowledging that 'not all patients are the same and have some different needs'.

Box 4:25 Important cultural attributes for healthcare improvement

The patient is the prime focus, that you're there to deal with the problems and issues that person has and so say the patient's are everything to me is focused around each individual patient. I mean some patients need, you know, need different t things. [PR 5:23-07-07]

A focus on the needs of the patient and you know, time to listen to what the patient is asking and also perhaps .. you know, a lot of women reach us and they say I'm not sure I should ask my doctor this, I don't want to be seem to be stupid or I, you know, this may be the wrong, you know, the wrong kind of question.. [PR 6:26-07-07]

The willingness to listen and learn organisations will only change if they are willing to listen to their users listen to what is happening elsewhere in similar organisations and learn from what they hear. [PR 1:03-07-07]

A focus on patient safety

Safety is at the top of the policy agenda in the NHS and there are many initiatives at the local level to improve the safety of NHS services. Interviews with patient representatives confirm that a focus on safety is viewed as a key cultural characteristic of high quality health care. There was a generally held view that a focus on safety issues was required at all levels of the organisational hierarchy and that patient perspectives should be taken into account when addressing safety issues within NHS organisations (Box 4.26).

Box 4:26 Patient safety focus

Well I was in a meeting two or three weeks back and somebody said that we don't have a culture of safety, yeah, and I don't know really what that means, but if it's true, it's worrying. So I would certainly include safety as one of the key dimensions. [PR 4:26-07-07]

I think clinical governance and patient safety sort of go hand in hand and there needs to be more awareness. I think one of the, the problems is again is that . the culture needs, needs to change, in fact there needs to be just some basic culture changes of, particularly on, patient safety with, with infection control and things like that, but

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that isn't really just .. there's, there's a bit of a culture that it won't happen here but it happens everywhere. [PR 6:26-07-07]

But yes I agree, leadership, for your information, is, is important because safety can't be realised without the right leadership and I think [PR 4:26-07-

Summary and concluding remarks

Policy makers are espousing the need for a major cultural shift in the NHS from a position that has traditionally placed an emphasis on the perspectives of health professionals (particularly hospital consultants) and managers in the design of health care delivery to one where care packages are planned and organised around the needs of patients and carers. Such a cultural shift would require a major reorientation of the traditional assumptions, values and beliefs that underpin individual and collective behaviour in the NHS. Our study found that many initiatives are currently taking place at the local level particularly around re-negotiating professional boundaries and demarcation-lines. It is also clear that patient representatives view health care organisations in cultural terms and support this challenge to deep seated traditional professional values and working norms. Yet our study has also shown that there appears to be a gap between the espoused culture and the experience of patients, with patients representatives reporting that for many patients the NHS was still perceived as a bureaucratic hierarchy that largely excluded them from decision-making and involvement in planning local services.

We found that patient representatives' views on the most important cultural attributes for high quality care were remarkably similar to those of clinical governance managers and external agencies including 'patient centeredness' 'senior management commitment', 'quality focus', 'clear governance/accountability', and 'safety awareness'. As with other stakeholders we found that 'prioritisation of choice' had a lower priority in terms of important cultural attributes.

We started this section with the statement that different stakeholders in the NHS have different needs and requirements in relation to understanding, assessing and changing cultures in health care organisations. While our study bears this out it is also clear that the there is much more convergence than divergence in the views and perspectives of the three stakeholder groups around the particular cultural attributes that underpin (or are damaging to) high quality care. Indeed we have identified a range of common cultural attributes in which different stakeholders are interested in shaping and/or assessing in the NHS and which therefore should be expressed within the design of culture assessment instruments. These centered around ten broad themes:

i) senior management commitment and support for quality and safety improvement leading to an organisation-wide awareness and commitment to patient safety and quality;

ii) maintenance of a core public service ethos amid pro- market reform in the NHS;

iii) the shift towards patient centered care, particularly the cultural problems associated with getting health professionals with different values and of traditions of working together effectively;

iv) the need to support and encourage clinical engagement with programmes of change and quality/safety improvement; this was linked to a desire to develop leadership capability and capacity within the medical profession;

v) a capacity for organisational learning was viewed by many stakeholders as an essential ingredient of a high performing organisation, this in turn was linked to organisational attributes such as openness and trust;

vi) risk taking and support for innovation, including the scope to develop new and innovative ways of promoting and ensuring high clinical quality and safety.

vii) 'no blame' or 'just' cultures which were viewed as an important part of ensuring high quality and safe care as it was thought to encourage staff to report and learn from mistakes and near misses;

viii) standardisation of care that could result in higher quality care, although it was also recognised that in some areas care should be tailored to the needs of individuals;

ix) a culture of teamwork associated with the need to organising care around the needs of patients and the requirement to get multi-disciplinary teams to work together effectively;

x) proper engagement of patients and patient representatives as genuine partners in service design and delivery, including full sharing of information and respectful inclusive dialogue.

While such an agenda is undoubtedly challenging, the convergence of diverse stakeholders on their central values is encouraging. Moreover, a willingness to explore empirically the extent of the enculturation of these values offers exciting opportunities for enhanced cultural shifts. Tools therefore are an essential component of such work.

Given their formal role in quality and safety improvement clinical governance managers are the main users of culture assessment tools in the NHS and our survey uncovered that a third of NHS organisations are already using such instruments. Our work suggests that there is scope for much greater use and of a wider diversity of tools better aligned to the values seen as important. There was also a commonly held view among managers and external agencies that culture assessments should serve formative (or diagnostic) purposes rather than summative ends. Given the need for wider engagement and dialogue, this would seem sensible.

In this section we have focused on the needs and practical requirements of a range of stakeholders with regard to shaping and assessing health care cultures. However, the practical application of culture measurement tools in health care settings will be influenced by a wide-range of socio-technical factors which have hitherto been unexplored. In the next section we explore through qualitative case study work the use and impact of culture assessment instruments in NHS organisations.

5 EMPIRICAL EXPLORATION OF THE APPLICATION AND USE OF CULTURE ASSESSMENT INSTRUMENTS IN TWO NHS CASE STUDIES

5.1 Introduction

Selection of appropriate tools or assessment methods that meet the needs of key stakeholders (as set out in Section 4) will not in itself ensure that such tools can be used successfully in complex health care settings in the NHS. Application of the tools (which can be viewed as a mode of technology) in real world health care settings (which can be viwed as an organisational social sub-system comprising employees and the knowledge, skills, assumptions, motivations, behavioural repertoires and needs they bring to the work environment as well as the reward systems and accountability arrangements that govern production) may pose significant opportunities and challenges for health care organisations and their staff.

Sociotechnical systems theory (STS) refers to the interrelatedness of 'social' and 'technical' aspects of an organisation and is founded on two core principals (Harteloh, 2003; Coiera, 2004). The first is that the interaction of social and technical factors influence the conditions for successful (or unsuccessful) organisational performance; the second is that the optimisation of each aspects alone (socio or technical) may be deleterious to overall system performance and the aim should be to secure joint optimisation, which usually requires a dialogue between the 'designers' and 'users' of technology. Taking a STS approach it is clear that the feasibility, acceptability, utility and impact of culture assessment instruments in particular organisational contexts may depend on a wide range of socio-technical factors, both intrinsic to the instrument and in combination with internal and external influences on the organisation and staff. Technical issues may concern for example: the degree of training and technical expertise required to use/be assessed by the instrument; the time required for making useful assessments; and the degree of expertise required to analyse and interpret the data yielded. External factors may include, for example: current policy constraints or pre-occupations; and the demands of external scrutiny and performance assessment regimes. Internal factors may include issues such as: the availability of resources; established accountability and governance frameworks; leadership and management styles; organisational sanctions and reward systems etc. In this part of the project we aimed to explore these STS factors in terms of the practical issues that arise when culture assessment tools are applied in health care

contexts as part of the technology supporting complex change management processes in the NHS.

5.2 Methods

The overall aim of this aspect of the study was to use in-depth case study methods to explore in situ the development, application and impact of culture assessment instruments in particular management and service settings. Key objectives were to gain insight into the practical application and use of some of the assessment approaches uncovered through the literature review and 'reality tested' in the stakeholder mapping exercise, to uncover the STS challenges of implementation in context-specific change settings and to assess some of the broader consequences (for good or ill) of tool use.

From the postal survey we had found out that very few of the NHS organisations had tried any culture tool. Since the case study was about the implementation of a culture assessment instrument any sites for the case study could only come from the 30 percent of the organisations, which had indicated the use of tool. We also wanted to cover different tools and since MapSaf was the tool used by more than 80 percent tool-using organisation we were constrained in this respect. We had intended to carry out three case studies. Taking these factors into consideration and the need to include both Acute Trust and PCT we contacted sixteen organisations (eight from each category) requesting for permission and seeking a key personnel in the organisation to play a facilitating role. We spent nearly two months negotiating with the different trusts and were faced with numerous constraints: a few turned down our request, others were very slow in responding and in the end two acute trust and one PCT gave approval for the case study. On the first visit to one of the trust sites we found out that, they have not used any instrument, even though their clinical governance lead had stated otherwise. As a result, due to time constraints, the case study involved two sites only, one hospital trust and one primary care organisation with each using a different culture/climate assessment instrument for the purposes of comparison.

Trust A is a Foundation trust with a staff of about 10,000 and comprises of two hospitals with a total of over 1,000 beds. The trust is one of a small number of the English NHS organisations piloting the Health Foundation funded Safer Patients Initiative (SPI) (with the primary goal of becoming a centre of excellence for patient safety see below). Data gathering included a review of relevant internal reports and external documents and 12 semi-structured interviews with staff at different levels and across different professional groups within the organisation, as well as interviews with patient and carer representatives. All tapes were transcribed and analysed using Atlas ti.

Trust B is a primary care trust with approximately 1200 employees. The trust manages 3 rehabilitation wards with over of 50 beds. The

trust is also responsible for managing a small number of clinics and health centres and works closely with GPs, opticians, pharmacists and dentists and collaborates with the local NHS foundation trusts in terms of joint planning. The trust's major functions include the delivery of a wide range of primary care services, support to independent family doctors, dentists, opticians and pharmacists, the commissioning of hospital services, and it works closely with the city council and other local organisations to reduce inequalities and improve healthcare. We reviewed various internal and external documents and undertook 12 semi-structured interviews with staff at various grades in the organisation. All tapes were transcribed and analysed using Atlas ti.

In the analysis we triangulated evidence from each source in order to build a rich picture of the STS factors associated with the use of culture tools in each organisation. The output of this was used to construct a holistic overview of the inter-linkages between the tool technology and the socio-cultural factors within the two organisations, with each case study possessing its own unique integrity for the purposes of inductive analysis and theoretical generalisation. The two case studies also formed the basis for subsequent integrative analysis and theoretical generalisation across both.

It should be noted that our analysis is based on the perceptions and experience of key individuals. Therefore the narrative that is presented on the inter-linkages between tool technology and social factors is drawn from an amalgamation of the reported subjective perceptions. In order to improve the validity of the study, where possible we cross-referenced accounts between individuals and triangulated the evidence emanating from different data sources. We attempted to reduce the potential for researcher bias by ensuring that at each stage at least two researchers analysed the data and collaborated in the identification of emerging themes. We also audited the various sources of data in order to search for negative or 'disconfirming' evidence that appeared to contradict or was inconsistent with the emerging analysis.

To focus the discussion we present the case study evidence arranged around some key STS concerns that emerged from our case studies:

- the drivers (internal and external) that have acted as precursors to the use of formal cultural assessment methods within the organisation;
- specific areas of application within the organisation, especially the linkage made between the data emerging from the assessment approaches and the subsequent change activities;
- perceived benefits and drawback (including dysfunctional consequences) of the assessment process;
- cultural insights and organisational changes associated with instrument use.

In the narratives we make extensive use of verbatim quotes to drive the discussion. We believe that giving voice to NHS staff and patient representatives in this way not only adds a more authentic and human dimension to the descriptions but also grounds the interpretation within the inter-subjective and socio-technical reality, as perceived and constructed by actors in particular organisational settings.

5.3 TRUST A Case Study Findings

The drivers

As noted above trust A is serving as a pilot site for using the Safety Climate Survey (SCS) as part of the Safer Patients Initiative (SPI). This is funded by the Health Foundation and being piloted in a number of trusts in the UK. As part of this initiative the Health Foundation selects a small number of trusts based on a range of performance criteria and awards a financial package for the purpose of using the SPI for advancing quality and safety improvement programmes within the organisation.

The SPI was devised by the Institute for Healthcare Improvement (IHI) in Boston, USA. A team of IHI experts have provided technical assistance to the Health Foundation and the selected participating organisations in the NHS (O'connor, 2005). Safety Climate Survey questionnaires use the (normally five-point) Likert scales to measure the attitudes of individuals toward patient safety in a healthcare organisations. The programme has been piloted, initially, among four acute trusts, Conway and Denbingshire NHS Trust, Down Lisburn Health and Social Services Trust, the NHS Tayside and Luton and Dunstable NHS Trust. Further investments would see the second phase of the project involving 20 more trusts, ten of which are based in England. Trust A is one of the sites selected for the second phase of the SPI project. The guiding vision for SPI is to ensure that patients do not suffer harm or pain unnecessarily, as a result of error, or planned medical intervention. To achieve this, organisations are supported in their efforts to develop 'a positive safety culture' that puts patients at the centre of everything they do, (Oconnor 2005). Thus the main external driver for using the SCS was the grant awarded by the Health Foundation to the trust to fund the Safer Patients Initiative Project. A secondary driver was the National Patient Safety Agency which was encouraging local trusts to use culture/climate assessment instruments as part of a national initiative to support innovative practices around patient safety.

We found widespread support and commitment among staff for the current national priority around patient safety in the NHS. Staff were of the view that patient safety systems are an essential element of quality improvement and that the development of cultural attributes within organisations that promoted patient safety should be an integral part of clinical governance within the organisation. This 'buy in' by staff to the broader 'national movement' around improving

patient safety created a conducive and receptive organisational environment for the use of the SCS as part of the SPI initiative.

Practical application and relevance of the SCS tool

Within the trust the Clinical Governance Unit 'championed' the use of the SCS tool and were responsible for administering the survey among staff.

The SCS was administered in February 2007 and lasted for a month. The survey used 'convenience sample' to recruit 667 members of staff and achieved a 62 percent (completion) response rate. There were plans to re-administer the survey to staff in the trust in September 2008.

The following categories of staff were involved:
- Consultants
- Senior Health Officers and Health Officers
- Specialist Registrar
- Staff Sisters
- Staff Nurses
- Auxiliary nurses
- Ward clerks
- Receptionists
- Administrators
- Pharmacists
- Physiotherapists
- Social workers

In was reported that staff were generally happy to participate in the survey and that management saw no need to offer any inducements or rewards to encourage staff to participate. The practical application of the SCS tool within the trust served both diagnostic and formative purpose and the intention was to focus on existing problems around culture and prompt reflection and discussion over possible ways of improving patient safety. Staff preferred strongly that the tool was used for formative rather than summative ends.

Benefits and drawbacks of using the SCF tool

Staff reported that SCS questionnaire was simple to understand and did not take very long to complete (averaging less than ten minutes). The SCS was viewed generally as being 'fit for purpose' in that it served to initiate wider discussions around safety within the trust and helped draw attention on those aspects of culture that were thought to be closely linked to patient safety.

This [the SCS] literally suits the job we had in hand; we needed some sense of what staff feel around safety issues and whether they were supportive of things like reporting incidents. So the tool kind of suits the job in that respect. [Clinical Quality Manager]

I think it makes you look at some of the, the ways that you're working and, be a bit more aware of the safety aspects, definitely [Staff Nurse]

For some staff the SCS tool was viewed as especially useful in that it could be used for diagnostic purposes and in particular help focus attention on behaviour and practices that were not conducive to promoting patient safety within the organisation.

I think we are trying to use this in a diagnostic way. We are trying to look at where our weaknesses are and to look out where we can do more work…

I am aware of the safety aspects certainly. But I think any time it's brought to your attention it makes you be a little bit more observant about some of, the things you're doing. [Staff Nurse]

In spite of the SCS being generally welcomed by staff as a useful adjunct to efforts to promote patient safety within the organisation, our study also highlighted a number of concerns around about the SCS.

First, there was a view that senior management in the trust were pre-occupied with ensuring the implementation of a range of other organisational initiatives, including attending to some of the more practical aspects of the SPI project. These were viewed as a higher priority for managers with the result that the SCS and the data it generated would garner less attention than they deserved.

Second, the ad hoc approach taken to implementing the SCS meant that only a handful of staff members completed the survey in each department and there was a belief by some that this would limit the generalisability of the data obtained from the exercise, and possibly reduce the 'buy in' of staff to act on the findings, particularly those who had not personally completed the questionnaire.

Some staff also reported that they did not understand the purpose of the instrument and the different dimensions of patient safety climate/culture that the instrument was trying to tap into; and there was a suggestion that they might have benefited from a training session or individual support to complete the SCS. A number of staff interviewed reported that they were disappointed that the results of the SCS had not been fed back to them.

> *If you take this down to kind of director or ward level where you want feedback with staff we're still hitting barriers like 'we only have ten members completing the survey, so it is not a true reflection of what staff think'. I think in principle this tool could be but in practice it tends to fall short of that really. [Clinical Quality Manager]*
>
> *I could have done with a little bit more help and I think a bit more discussion around the tool would have been useful. [Staff Nurse]*
>
> *I think if the results can be fed back into the system. I think if we fall short of that at times it just kind of doesn't get the priority it deserves – shouting about it and highlighting the issues. Because it is one of a raft of other things that we have to do as part of the project it's kind of taking a bit of a back seat which is not necessarily the way it is meant to be, but it is what happens and that's a bit of a barrier really. [Clinical Quality Manager]*

None of those interviewed could identify any major dysfunctional consequences for staff or the organisation associated with the use of the SCF and generally overall there was widespread support for the use of the tool by staff.

Cultural insights and organisational changes associated with instrument use

In terms of concrete outcomes regarding culture change, improved performance or high quality service delivery, the trust has yet to take any action on the basis of the SCS results. At the time of the completion of this SDO report the trust managers were still in the process of deliberating the content of an action plan which they would implement at directorate level at a later date. The lack of a dissemination strategy for feeding back the results to front-line staff and the fact that these data were not used to stimulate investigations or action at the local level reinforces the idea that the SCS was not a high level priority for the trust, which was in any case focused on implementing a range of restructuring initiatives. Nevertheless the trust's clinical governance team were aware of specific aspects of the results especially relating to staff member's perception of patient safety and it was clear that they will at least use the moderate positive score on patient safety for diagnostic and formative purposes within the trust and they reported that the survey would be repeated in the future.

> *The data was analysed by the IHI and fed back to us. From the IHI perspective in terms of their results we were meant to look at the results nationally and see what implications this has for the NHS. We had our own results fed back to us. We discussed the results at the SPI executive level. We intend to look at the results at the directorate level [Clinical Quality Manager]*

> *We have not disseminated the results yet. We tend to have weak feedback when we do it at trust-wide level, so we intend to it at the directorate level. No, we haven't sent it across the organisation yet. [Clinical Quality Manager]*

> *In terms of the results of the survey what it demonstrated was that the positive attitude was moderate. We had somewhere around the middle score. So it shows that there is a lot of room for improvement in terms of patient safety. Hopefully when we redo the survey in September 2008 we will record a significant improvement in staff's perception on safety issues. [Clinical Quality Manager]*

Thus at present the SCS appears to have had little impact within the trust. However, over the longer term there were plans to repeat the survey and use it to assess improvements around patient safety in the organisation. Although such assessments would likely be used to initiate discussions rather than to reward or sanction staff.

5.4 TRUST B Case Study Findings

The drivers

Trust B piloted use of the Manchester Patient Safety Framework (MaPSaF) culture assessment instrument (see Box 5.1) between June and September, 2006. The National Patient Safety Agency (NPSA) has promoted the use of MaPSaF across hospital trusts and PCTs in England, although use of the instrument by specific organisations has been on a voluntary rather than mandatory basis.

Box 5:1 The MaPSaF Tool

> *The Manchester Patient Safety Framework was developed at the University of Manchester, specifically for use in primary care even though its use has subsequently been extended to other health care settings (see http://www.npsa.nhs.uk/display?contentId=4798).*
>
> *MaPSaF is a facilitative educational tool aimed at providing insight into an organisation's safety culture and how this can be improved among teams. It uses nine dimensions of patient safety and describes how an organisation would manifest increasing maturity along the different levels of safety culture (Kirk, 2005). The tool was developed mainly to help organisations assess their progress relating to important organisational attributes associated with patient safety. In theory the MaPSaF may be used to serve a range of purposes including the following: raising patient safety awareness among staff, encouraging discussion among staff members about the organisation's strengths and weaknesses with respect to safety*

> *culture, showing the degree of consensus or divergence in perception between teams and members in the organisation and evaluating patient safety interventions and highlighting areas where the organisation could do more in the promotion of a safety culture.*

The NPSA regional representative presented the tool at a Strategic Health Authority meeting and recommended it to be used in the trust. MaPSaF was subsequently piloted in a 'limited way' among several committees and groups within the organisation, including, the Health and Safety Committee (13 staff) the Complaints, Incidents and Risk group (8 staff). In addition the Community Rehabilitation Service discussed it at a team meeting.

> *MaPSaF was sent to us by our regional NPSA lead and we thought we'll have a look. We thought the only way we can really sort of try and get any view on it, is, is to try it out with a couple of places and see, see how it works, see what it works like .. [Corporate Risk Manager]*
>
> *and she [NPSA representative] made us aware quite a while ago about this tool that was being developed, or had been developed in Manchester, and that they were trying to adapt it for use in PCTs and that she would get it sent out to us, so that's how we got to see it. ... myself and the Corporate Risk Manager .. he and I had a look at it when it first came. [Head of Governance]*

We found widespread support for the national strategy of promoting patient safety in the NHS and staff reported that they were generally interested in using culture assessment instruments within the organisation.

Practical application and relevance of the tool

The Clinical Governance Lead and the Corporate Risk Manager were the internal champions behind the use of the tool within the trust. The tool was trialled by one clinical group, within the organisation "the Complaints Incidence and Risk Group", which included the Corporate Risk Manager, the head of Clinical Governance, "a mixture of senior clinicians" and a representative of the "local Patient Forum". Members reviewed it individually and then convened as a group to collate their views and thoughts. It appears that the approach used by the various teams involved in the application of the tool varied. While the clinical governance team, which was the primary group using MaPSaF, allowed individual members to try the tool on their own before coming together to discuss and collate their thoughts, others approached the process by meeting as a group to try the instrument as a type of group exercise. This range of uses appeared to affect the perceptions of the various participants and the feedback from the exercise.

The trust had not developed a common strategy for the application of the tool in the organisation and this may explain in part why there was such divergent feedback from the different groups. The Head of Governance recalled significant parallels in the feedback from the Governance group and the Health and Safety Committee in members' assessment of the trust. In her view, the reason the other groups, such as the Resource Team, voiced a very different feedback was that they had used a different approach, which in her view was not appropriate. There was also the suggestion that the approach where members did not look at the instrument before convening to discuss it as a group allowed the more vociferous (and apparently more optimistic members) to dominate the discussions so that the data was perhaps unrepresentative of the wider range of perspectives held by group members.

The Corporate Risk Manager's account, that the instrument only made some sense to the members of his group once they had tried it twice, suggests that the practical relevance of MaPSaF might have been enhanced had everybody had the opportunity to look at it before meeting to discuss it.

> *And that actually worked quite well…the second time, the first time it didn't. Basically it became quite torturous because we were doing it.we probably did it the wrong way, but we learnt a lot from using it the second time. [Corporate Risk Manager]*

The success of the tool's application was also thought to be partly due to the small number of staff in the Incidence and Risk team. There was a suggestion that a less cohesive or larger group grappling with a wider range of issues and perspectives would have found it more difficult to structure a culture assessment around the MaPSaF instrument.

> *Where you've got a small, tight little team that work well together, it'll probably work very well. If you've got a team that it's got its own team problems, if you like, it would be probably difficult to use, cos you're gonna get such a spread of thought. [Corporate Risk Manager]*

Benefits and drawbacks of using the MaPSaF tool

Some of those interviewed found the tool had been useful in that it allowed users to reflect on their own behaviours and believed that it had helped to highlight areas where they could improve in terms of safety awareness and adopting better practice in terms of patient safety. The assessment exercise was also believed to have aided discussion and the setting of joint strategies for tackling safety issues across different professional sub-groups and clinical teams within the organisation.

> *I do think it's useful doing that sort of exercise, because I think then, from that, you start thinking right, well where we felt that we weren't doing very well, you do start thinking well what actually do we need to be putting in place in order to improve on that, and that might just be, you know., I suppose it puts the spotlight on those things that previously you might not have done that. [Clinical Nurse]*
>
> *The way we used it [MaPSaF] at that, the committee meeting itself very interesting to listen to the individual participants, you know, thoughts and give a kind of, an overall view that reflected their bit of the organisation, and it was very interesting to sort of sum up where they came to. But if that reflects the way in which individual groups of people would discuss it, I think like anything in life it is full of contradictions. And, contradiction does lead to discussion and disagreement, but it also points to areas where people have got to try and build bridges so that they can work together - so in that sense, it probably has a value. [Patient (PPI) Rep and Forum member of the Complaints Incidents and Risks Group]*

Notwithstanding the benefits identified above, many of those interviewed were fairly critical of the MaPSaF tool and how it had been used in the organisation.

First, several staff believed that the tool was not particularly aligned to their practical needs with regard to promoting safety and incident reporting. In particular there was a perception that the organisation was already performing well in terms of 'having the right climate' and staff would have preferred a tool which was focused more on measuring 'outcomes' or trends in incidents and 'near misses'. Indeed, the head of clinical governance was a little disappointed in the overall value of the tool and this may have affected her enthusiasm to promote the tool within the trust. She did not see much justification in trying the MaPSaF a second time given the amount of time this would require and the fact that the tool was not tailored to their specific needs as an organisation.

Second, the MaPSaF was viewed as taking up a lot of staff time and a recurrent theme was that it was not a priority in the organisation given all the other initiatives taking place in the organisation. Interestingly it also emerged that staff lower down the hierarchy would normally 'follow orders' from above, regarding the implementation of change management and assessment policy, even if they saw very little value in the exercise.

> *We do a lot of work around accidents and incidents and people are good at reporting, and we try to, you know, investigate things that seem more risky.*
> *Obviously accidents or any incidents occur that are risky, but I mean really we have quite small numbers of, incidents that would concern you, or that cause any harm to anybody, really tiny numbers. And people, they're, they're generally good at responding, if you get*

> *safety alerts, if we need to do work on that and they're very good at doing the work. So I suppose I need to be really clear about what I'm hoping to achieve and how I would know what, you know, what will I know, what will be my measure of the difference. Am I expecting to see a reduction in incidents or something?*
> *[Clinical Governance manager]*
>
> *We tried it out [MaPSaf], but I need to go back to it I need to really think about what, if I want to take it any further, what would be my reason, and cos I need, it's not just, justify it to myself, I need to justify it to the organisation cos there's obviously lots of other things that we could be doing with, with people's times. [Head of Governance]*
>
> *It probably is a priority for [names head of governance], it's a big part of her job to do that, but it wouldn't be a priority as much for me, cos I've got so much to do and, you know, it's affecting day to day staffing issues. That if I'm having to do something like that, but yes, if, you know, at the end of it the Director says "I need this by the end of the week" well then I'll even take it home to do it, you know, because I'd have to do it. It, there would be no choice in it. But I think that's where it's just difficult because I think the people have been expected to do so much, work, that it's so difficult just to keep afloat on the stuff that you're doing on a day to day basis, you know. [Clinical Nurse]*

Third here was also the suggestion that the approach where members did not look at the instrument before convening to discuss it as a group allowed the more vociferous (and apparently more optimistic members) to dominate the discussions so that the data was perhaps unrepresentative of the wider range of perspectives held by group members.

> *There's a couple of other people who came and tried it out in their team. The Resource Team was interesting 'cos they hadn't approached it quite right. .. They didn't, do it as individuals before they did it as a team; they just came together as a team, so of course then they just basically got, the most. Tthey came to a conclusion based on whoever speaks the loudest basically, you know, they, and they all talked themselves up... our Clinical Governance Group we would say maybe we were in the middle of something, I can't remember all the different categories, but maybe we'd say we're in the middle of five, then they would say " we put ourselves, like, you know, right at the top" and they were very over optimistic on their view of the world in their team .. and, you know, we had a little chat about why that might have been (laughing) afterwards. But it was basically because they hadn't looked at it as individuals. I say, they just basically looked at it and they, basically, whoever had the most optimistic view of the world, basically talked the rest of this group up into this, like they were all fantastic at everything. [Head of Governance]*

From the point of view of clinical governance it is clear that the organisation was broadly supportive of the assessment of culture in principle. However, we heard reports that what was required was that such instruments should be more 'bespoke' or at least be fit for purpose. Indeed, it was apparent that the head of clinical governance would welcome a tool, if there was one, which measured wider cultural attributes of the organisation such as leadership.

Even where members had access to the instrument in advance not everyone found time to look at it. Some staff had difficulty with understanding the provenance and scientific basis of MaPSaF and there was a general feeling that it is inherently subjective and 'too abstract' for practical application. One particular member of staff was disappointed that staff members were not allowed to modify the tool or adapt it to their particular needs. Some staff would also have preferred the tool to be more quantitative.

> *But I think quite, quite a few people seemed to find that hard, and particular forum member who was a very, very bright mind, PhD and everything. He really wanted it to be much more tangible and measurable and he was wanting to change everything, I was saying "You can't change it" (laughing) and he was saying "But that, what does that statement mean?"(laughs) Well what does it mean to you? Well, I, you know, he was very frustrated by these sort of like strange statements that, you know. [Head of governance]*
>
> *It's too subjective, two ranges of criticisms - within the boxes themselves, but then. possibly a weakness in terms of the plurality of people coming to discuss those.. [Patient (PPI) Rep and Forum member of the Complaints Incidents and Risks Group]*
>
> *Perhaps to actually reduce some of the sentences and boil them down to sort of like core, you know, core sort of aspects or issues rather than …and perhaps the answer is to think about them and weighting within those that might actually mean that when somebody's actually using this tool, they're gonna spend longer in doing, the longer, the more time doing it, but it may mean that on that weighting, and they would probably have to do it with other box, you know that would become down to more objective and a more rational sort of evaluation. [Patient (PPI) Rep and Forum member of the Complaints Incidents and Risks Group]*

The Head of Governance found the MaPSaf to have little operational relevance as compared to the NPSA's 'Seven steps to patient safety' tool, which they had tried before. The Patients representative expressed the view that the tool was too qualitative and 'heavily worded'. It was suggested by various staff that the limited use of MaPSaF within the organisation had been influenced by a combination of factors most especially the tool's subjective nature.

Some staff thought that because MaPSaF involved a group discussion comprising staff at different levels of the hierarchy that junior staff would feel intimidated to openly express any fears or anxieties around the cultural dimensions assessed by the tool. There were also concerns that staff had not been properly trained in the purpose and use of MaPSaf and that this had limited the usefulness of the exercise.

> *I think some of the problems with it [MaPSa] }is, is that it is, by its very nature very subjective and I think that's OK .. as far as it goes, but what we, we found, particularly when I run it by the Health and Safety Committee, was, was quite difficult to get a consensus, because people were coming from such different parts of the organisation, with different knowledge of the organisation as well. [Corporate Risk Manager]*
>
> *There was a range of members on the, in the actual group, and I think that different members of the committee would have rated the organisation differently. So I think that had I think we'd all come out with different scores had we done it individually. some people were kind of maybe not being, giving the honest truth as to what they thought the organisation rated. [Moving and Handling Advisor/Health and Safety Committee Member]*
>
> *If you had some sort of training where you are looking, you know, sort of being given more examples and sort of having pushing your mindset into the, the way that it needs to be completed so you're all doing it in the same way. I think you've probably got a better chance of sort of getting the categories right. I mean I think there still would be debates, and I think that's important anyway. But I think you would have people looking at it more in the same direction, rather than on an individual basis. [Clinical Nurse]*

As noted in Section Four patients are central to the co-production of health care cultures and their views are an important part of evaluating any culture change programme in the NHS. In this particular case we found that patient representatives within the organisation and staff were suspicious of each others' motives for using the tool. It emerged that some staff members were not comfortable with the idea of openly discussing 'sensitive' issues with patients representatives as they were not sure how the patient representatives would deal with issues of confidentiality, and in particular whether they might use the information gathered from the culture assessment exercise in future legal action against the trust. The Patient Representatives, on the other hand, believed that their involvement was largely 'tokenistic' and expressed the opinion that it was unlikely that their views and perspectives would be taken when implementing change on the basis of the findings.

> *With this type of thing, particularly patient safety, people sometimes have anxieties about airing problems, about being honest with*

service users that there might be issues around patient safety. They would find that a challenge. I invited the Forum members, we have two Forum members that often come to our Complaints, Incidence and Risks, and some people even within our group, find that a challenge, about how much we're, we're sharing with those Forum members. I feel like I'm treading a fine line with, cos it's me that invited them in because I'm, I work with our Forum as well, Patient Care of, Patient Care Involvement sort of lead for our, provider .. and I, well I find, I think it, it, they seem to find it reassuring, that we try to proactively deal with problems, and that's how I expect them to, but they could have taken it, that information and then that they now get hold of they could easily use that information against us if they wanted to, you know, cos we're sharing, we have x number of medication incidents or whatever. I mean they could get very anxious about that and tell all their neighbours couldn't they I suppose, and that's what people think they'll do. [Head of governance]

At the end of the evening I said to [names head of governance] I said hey this is really good, how would the Primary Care organisation sort of respond if I said look, why don't you invite,, one or two of us to come onto your committee, cos this is nitty gritty and I think it would really be good for us to be involved from your point of view and it's certainly good from, you know, your, our point of view. She said she'd come back to us, but I got the feeling that, you know, probably we would not be invited, too many confidential things going on. [Patient (PPI) Rep and Forum member of the Complaints Incidents and Risks Group]

Many staff found it difficult to understand the conceptual basis of MaPsaF and how this could aid quality improvement within the trust. It was also apparent that several clinical governance managers had found the exercise somewhat daunting and were not keen on repeat the application of the tool or extending it to other departments in the organisation

I think it [MaPSa] requires a lot of investment of effort,, even just to get some sort of consensus of what the statements meant and what they meant to our organisation, I think that was quite, quite difficult.. So to try and get it out into services, there's just so many other things , we've been thinking I suppose, or we've been distracted from it, had lots of other things to do I'm not saying I've abandoned it. I probably will go back to it, but it hasn't seemed like a priority. [Head of Clinical Governance]

I wouldn't have a problem using it again, and maybe it would be a bit easier the next time because, you know, you've already gone through it and sort of debated, you know, why, why you would be in this category rather than another one.
[Clinical Nurse]

> *I've said I think it just helps us to sort of focus on things more, and probably. I think it is about seeing that other people will view it in different ways, and it's sort of how, as a PCT, do you actually categorise yourself when you've got all those different views, you know, because if you've got a senor, senior member of staff completing it, then you will get a very different focus than if it was a junior member of staff completing. [Clinical Governance Manager].*
>
> *I think it's, it's really about you know, having a mechanism whereby you get…you know, feedback from all those different levels, and being able to have some sort of agreement of where you ac, actually are. [Clinical Nurse]*

Some clinical governance members were far from sure that the tool will be used again in the future. Even though some thought it might be useful to follow up their earlier uses of MaPSaF with secondary sessions to allow for the development of thinking and assess progress along the dimension highlighted by the tool.

> *When you've got time constraints it seems almost, it seems almost like a luxury that, to me, to try to generate that culture. I can see that it might pay dividends in the long term, but we have such a difficulty maintaining consistency because of all this organisational change that we're going through. You, you'll be invest-, it feels like you'll be investing a lot of effort in changing culture, only for people to keep moving on and all that effort it just goes, it dissipates, cos people go, do you know what I mean? I'll have another look at it [MaPSaF], cos I feel like it was a piece of work that's not finished and I don't really like that. I haven't made a decision to not use it: I've been distracted from it. (Clinical Governance Manager's).*

Cultural insights and organisational changes associated with instrument use

Staff reported that for a number of reasons the organisation had not acted on the insights provided by MaPSaF. These include the perception that the tool had not received sufficient senior management support, that staff had a very heavy workload and competing priorities and that there was not much training and support provided in the use of the tool and how to act on the data generated. Nevertheless, some staff were planning to revisit the use of tool in the future as it was thought that it might yield some important insights for addressing patient safety issues within the organisation.

> *I believe that it would have been possible to look at it [MaPSaF] if there had been some high level interest, some push from the top. As far as I know I don't think the motivation has been there from anywhere, not even the top*
> *(Staff nurse)*

> *The main difficulty at my level is that we are short staffed, nurses are very thin on the ground, so it makes it difficult for staff to find the time to look at it.*
> *[Therapist on the Health and Safety Committee]*
>
> *Not much information was provided about the tool itself, nothing at all. I mean what is it all about? How could it be of benefit? What would be expected to come out of it in the end? To me that would have actually made a huge difference.*
> *[Clinical Governance Manager]*

5.5 Drawing Conclusions

In this section we have explored the use and impact of two different culture/climate rating instruments in two different types of health care settings (Hospital and primary care). The SCS was used in the hospital trust as part of a wider initiative to improve quality and safety improvement in NHS hospital trusts. The MaPSaF instrument focuses on safety cultures and was part of a national initiative to promote safety awareness in NHS Trusts. Both instruments were used for formative and diagnostic purposes rather than summative ends and appeared to have served some use in making staff reflect on their professional behaviour and how this relates to safety concerns. We also heard about difficulties in using the assessment tools in specific organisational contexts, particularly the MaPSaF instrument.

A number of STS issues for the successful implementation of culture rating instruments in NHS organisations were raised by the two case studies. These are interpreted in light of the findings of the literature review and discussed under three broad headings:

1. intrinsic properties of assessment tools;
2. external drivers for using a tool within an organisation;
3. processes by which tools are promoted and used within an organisation.

Intrinsic properties of assessment tools

How a tool is designed may influence the take up and use of the instrument in different health care contexts.

Ease of use

Given the competing priorities for staff time in busy NHS organisations a tool that is to understand and involves a short

amount of time to complete is more likely to be used. This suggests that short, standardised 'tick box' type questionnaires such as the STS might have a better take up than more discursive and qualitative based methods such as MaPSaF. However, there is an obvious trade off in terms of the usefulness of data generated between tools that are quick and easy to complete and methods that may take longer to organise, but which nevertheless provide richer insights into the patterning of local cultures and how these link with quality and safety.

Credibility

For staff to be motivated to use and act on the data generated by an assessment instrument it must have credibility among staff. In particular it is more likely to be used if the tool focuses on specific cultural attributes that are of interest and concern in particular areas. In our case studies there was not always a close alignment between the foci of instruments and the practical needs of staff.

Adapted to local needs

When circumstances are very specific to an organisation (perhaps the organisational capability and capacity to learn from a serious medical disaster) or are very contingent on local factors, then tools may need to be adapted or even new bespoke tools developed that are more relevant to understanding the specific local factors that led to the disaster. In some circumstances it might be useful to use several cultural instruments to triangulate perspectives and to explore issues missed by a single instrument.

Indicators rather than measures

Given the subjective nature of many culture instruments and difficulties in application, culture assessment instruments should be designed, promoted and used as indicators rather than measures of organisational culture/climate. This has implications in terms of how they are used, and suggests that rewards or sanctions associated with their use should be introduced with great care and/or subject to regular review.

External factors driving the use of a tool

NHS organisations operate within a complex policy vacuum and a range of external factors may influence the uptake and use of culture assessment instruments.

Mandatory or voluntary

It is possible that an external organisation such as a health care regulator may make the use of a specific culture instrument compulsory while this may result in higher use among health care organisations, particularly if this is associated with a reward (or penalty) for non use. However, externally imposed measures may not secure 'buy in' from staff and therefore possibly generate less rich and useful data. This may be particularly the case if the tool is used for summative purposes.

Large scale culture surveys

Where tools are used as part of a larger, possibly national assessment of health care cultures and the data fed back on only an aggregate level then this may reduce the practical use of tools within local contexts.

Processes by which tools are promoted and used within an organisation.

Several factors associated with how organisations implement culture surveys

Training and support

Culture tools are likely to have more take up and use if staff are trained and supported in how to use them and act on the data generated. In particular, findings from more quantitative tools may need to be analysed and interpreted and presented in a way that is meaningful for staff without statistical skills. Similarly, more qualitative approaches may require staff with skills in conducting focus group type research.

Horses for courses

A single tool or instrument is unlikely to be able to assess all the relevant dimensions of culture of interest of different stakeholders. Therefore rather than a 'one size fits all' approach culture assessment strategy the tools used should be tailored to the specific contexts and concerns of different stakeholders. In some applications it may be preferable to develop bespoke instruments for use in particular health care contexts.

Competing priorities

Culture assessment surveys form only one part of an overall strategy for improving quality and safety within an organisation. Given the fact that they may be viewed as subjective and ephemeral compared with more tangible organisational changes, it is not therefore surprising that they may receive little support within an organisation and/or little action taken on the basis of their findings

Stage in the quality improvement/ performance cycle

Organisations/teams with very mature quality and safety systems may require more developmental type tools to wring out further improvements whereas organisations and teams with less sophisticated systems may require more diagnostic instruments to assess readiness and capability for change.

Unintended and dysfunctional consequences

As with all managerial interventions the use of culture assessment instruments in addition to generating the desired positive outcomes may also induce an array of unintended and dysfunctional consequences for staff and patients. These need to be anticipated and strategies put in place to mitigate them.

6 SUMMARY, POLICY, MANAGEMENT AND RESEARCH IMPLICATIONS

6.1 Introduction

Although the notion of organisational culture is now invoked frequently in the social science and popular management literature, it remains a contested concept, fraught with rival interpretations and eluding a consensual definition. This contestability, however, has not precluded culture change and management from becoming a familiar prescription in NHS reform. This interest in shaping the basic values, beliefs and assumptions that underpin patterns of behaviour among key NHS staff calls for better understanding about the nature of organisational culture and has prompted a practical need to understand what instruments and tools exist for assessing cultures in health care contexts and how such assessments can be integrated into beneficial programmes of change.

In view of the widespread policy, managerial and clinical interest in this area, we wanted to know what tools are used currently in the NHS to assess organisational cultures and how well these tools meet the practical requirements and needs of those interested in assessing and changing cultures within their organisation and across local health care communities. Although the study aims, methods and dissemination strategy adhere closely to the SDO project brief, the theoretical and empirical application is original and innovative.

6.2 A reminder of the ambitions of this study

Through theoretical work, literature review and empirical study we sought to:

i) identify the range of existing tools, instruments and qualitative approaches available for measuring, assessing and understanding organisational cultures in health care, as well as assess their scientific properties, practicability and the levels and dimensions of culture they tap into;

ii) review the extent to which these culture assessment tools and qualitative approaches have been tested and used in the NHS and other health care contexts;

iii) explore with key NHS stakeholders their needs and interests with regard to understanding, assessing and shaping organisational cultures, and explore how various stakeholders might use culture assessment methods to address these issues;

iv) gauge the degree of 'fit' between existing approaches to measurement and assessment, and the needs and interests of NHS stakeholders;

v) obtain information on the views and interests of users and patients regarding the value domains they would wish to see expressed in organisational (culture) change programmes and assessments;

vi) undertake in-depth case study work to assess the development, use and impact of culture assessment methods within current policies and programmes in the NHS;

vii) make recommendations for instrument use, future tool development and a new research agenda in the context of informing (culture) change programmes in the NHS. In what follows these are articulated after each of the discussion of the findings (i-iv above).

As with all research, the methods used and the interpretations of data, will be influenced by our particular backgrounds, ontological and epistemological positions. In the design and undertaking of this study we have tried to be reflexive about our analyses and limit 'researcher bias,' although we accept that we may have unknowingly focussed on some areas at the expense of others.

In the rest of this section we start by summarising the main findings of the research relating to each of these themes and identify the most important policy, managerial and research issues arising from them. We organise our discussion around the seven key objectives and principal foci of research outlined above.

6.3 Summary Of Key Findings And Implications For Policy And Management In The NHS

Research objective 1

> *Identify the range of existing tools, instruments and qualitative approaches available for measuring, assessing and understanding organisational cultures in health care, as well as assess their scientific properties, practicability and the levels and dimensions of culture they tap into.*

 We identified seventy instruments and approaches for exploring and assessing organisational culture that have emerged over the past five decades, with most instruments emerging since the mid 1980's. Of these we submitted forty-eight to detailed psychometric assessment.

The sectors most interested in managing organisational culture have been business, healthcare and education and this is reflected in the contexts from which the identified instruments have emerged, mainly within an US and/or Australian context.

The relatively few instruments that have been reported in the research literature and applied within British healthcare settings include the Competing Values Framework, Critical Incident Technique, Organisational Culture Survey, Practice Culture Questionnaire, General Practice Learning Organisation Diagnostic Tool, the Ward Organisational Feature Scales, and Perceived Organisational Culture.

A variety of methodological approaches and research designs can be identified amongst the instruments. These range from structured questionnaires to comparatively unstructured and emergent ethnographic approaches. Despite such methodological variety, the predominant approach taken by the instruments are questionnaires, usually of a self-report nature. These offer the advantage that they are less time- and resource-consuming in respect to their implementation and analysis.

Qualitative and quantitative approaches offer different strengths and weaknesses. It might therefore be advisable to use a combination of the two paradigms. In terms of psychometric assessment, twenty two instruments reported adequate measures of internal consistency, 15 were rated 'unclear', and 11 reported no data to assess. Eight measures also reported on test-retest reliability, with 5 rated 'adequate' and 3 'unclear'. Ten reported 'adequate' data on issues concerning aggregation of culture scores from individuals to higher level units such as organisations.

In terms of validity, only one was rated as providing 'extensive' data on associations with descriptive variables, while nine reported 'moderate' levels and 15 reported 'minimal' levels. There was little evidence of tests of validity in terms of relationships with other measures of culture, with only five reporting 'minimal' data.

Over a half reported data on the association between the measure and outcomes. Of those, 19 reported associations with subjective outcomes in cross sectional studies, and six reported associations with subjective outcomes in longitudinal studies. Only one reported associations with objective outcomes in longitudinal studies.

Many of the instruments identified in the search must be considered at a preliminary stage of development. The degree to which any measure is seen as 'fit for purpose' will depend on the particular purposes for which it is to be used, and the data presented in this report can be used to identify those measures which have made greater progress in terms of validation, and those that require further assessment.

Prior to embarking on cultural exploration, it is useful to consider two questions: what is the purpose of assessment and to what ends will the ensuing information be applied? Potential answers to these questions can range from mere curiosity to the solving of organisational problems and need to be considered when reflecting on the applicability of different approaches.

There is no such thing as an 'ideal' instrument or approach for cultural examination: an instrument that works well in one case may be inappropriate in another. Different instruments offer different insights: they reveal some areas and aspects of an organisation's culture but obstruct others. It is up to the individual explorer of organisational culture to decide on the appropriate dimensions, methodology, and available resources for her or his project

Implications for policy and management in the NHS

There is a wide range of extant culture assessment and rating instruments that can be used by policy makers, managers, health professionals and patient representatives in the NHS. The choice of instrument (or set of instruments) will depend on a range of factors as there is no such thing as an 'ideal' instrument or approach for cultural examination that serves the needs of all applications and stakeholders: an instrument that works well in one case may be inappropriate in another. Different instruments offer different insights: they reveal some areas and aspects of an organisation's culture but obstruct others.

To date there has been little information available to managers, health professionals and others wishing to select an instrument for use in the NHS. This report (and the associated compendium of annotated culture tools) aims to fill this gap in the market by collating all the relevant currently available information on extant tools and presented in such a way as to serve as a practical resource to aid the selection of the most 'fit for purpose' tool to be used in different contexts and which meet the particular needs of different stakeholder groups. Thus, using the information contained in this report and/or the associated annotated compendium of culture instruments, it is possible for those interested in assessing culture and culture change in the NHS to select the most appropriate tools for the job on the basis a range of characteristics, including:

  i) the dimensions and particular attributes of culture explored;

  ii) psychometric properties (e.g. validity, reliability, association with outcomes and sensitivity to change);

  iii) practical administration (e.g. number of dimensions, items and scales; acceptability to participants; ease of completion, time required, susceptibility to bias and degree of technical expertise/support required to administer/complete);

iv) Country of origin, previous applications, including whether tool has been used in health care settings

v) Format (e.g. self report questionnaire, in depth interviews, norm listing, metaphorical analogy).

We recommend that this report and the associated annotated compendium are disseminated widely and used to support the culture assessment in NHS organisations.

Research objective 2

> *Review the extent to which these culture assessments tools and qualitative approaches have been tested and used in the NHS and other health care contexts;*

As noted above a range of instruments have been used in British health care contexts and reported in the research literature. In this part of the study we were concerned to find out what instruments are currently being used in the NHS and how these are integrated into quality and safety improvement initiatives and support local programmes of change.

Clinical governance managers increasingly view quality and safety improvement in cultural terms and perceive culture management and transformation as a key part of their clinical governance responsibilities. Most managers are amenable to the idea of shaping local cultures toward desirable outcomes. Nevertheless the majority believed that there are aspects of the prevailing cultures that serve as barriers to quality improvement and a significant number of organisations were reported as still having a considerable way to go before any meaningful cultural change could be realised.

Despite a plethora of culture assessment tools being described in the literature, relatively few of these have seen much use in the NHS. On the basis of our survey about a third of NHS organisations in England are currently using a culture assessment instrument to support their clinical governance activity. Almost all the tools and instruments used focus wholly or in part on the assessment of safety cultures rather than broadly on perspectives of quality and performance.

By far the most frequently used culture instrument was the Manchester Patient Safety Framework (MaPSaf); this was followed by the Safety Attitude Questionnaire, and the Safety Climate Survey. A wide variety of other tools were used by a very small numbers of organisations.

There appeared to be a high degree of satisfaction with existing tools and instruments, in terms of ease of their use and relevance. Although extant tools such as the MaPSaF and the Safety Attitude

Questionnaire cover many of the most important cultural attributes of high quality care as identified by clinical governance managers, including senior management team commitment to quality and safety improvement, teamwork and collaborative working, our survey highlighted other cultural attributes which link to the interests and aspirations of local clinical governance leads, including the development of a blame free or 'just' environment and support for innovation that are not well served by extant instruments.

Implications for policy and management and in the NHS

Although there are a large number of extant culture instruments available only a small number of these are currently used in the NHS. This suggests that clinical governance managers and others responsible for understanding and assessing local cultures are unaware of (or unable to access) the full range of possible instruments available for supporting local change management programmes and quality/safety improvement activity.

This report and the associated annotated compendium of culture assessment instruments should therefore be disseminated widely across the NHS so that managers, health professionals and other key stakeholders interested in understanding and managing cultures can select the best tool for the job at hand. Users may benefit from the provision of tailored training programmes and web based - services to support the use of such instruments.

Awareness and use of culture instruments may increase if national agencies such the National Patient Safety Agency and the Healthcare Commission promote the use of tools and supply dedicated training services to support their use.

The government and national health agencies might also fund research and development projects designed to develop new tools that match the changing needs of NHS including establishing pilot sites to test the utility of new and extant tools in different health care contexts.

Research objectives 3 and 4

> *Explore with key NHS stakeholders their needs and interests with regard to understanding, assessing and shaping organisational cultures, and explore how various stakeholders might use culture assessment methods and*
>
> *Gauge the degree of 'fit' between existing approaches to measurement and assessment, and the needs and interests of NHS stakeholders.*

We identified a range of specific cultural attributes that different stakeholders (including national regulatory agencies and professional

bodies) were interested in shaping and/or assessing in the NHS and which therefore should be expressed within the design of culture assessment instruments. There was a high degree of convergence around the following key themes:

i) senior management commitment and support for quality and safety improvement leading to an organisation-wide awareness and commitment to patient safety and quality;

ii) maintenance of a core public service ethos amid pro- market reform in the NHS;

iii) the shift towards patient centered care, particularly the cultural problems associated with getting health professionals with different values and of traditions of working together effectively;

iv) the need to support and encourage clinical engagement with programmes of change and quality/safety improvement; this was linked to a desire to develop leadership capability and capacity within the medical profession;

v) a capacity for organisational learning was viewed by many stakeholders as an essential ingredient of a high performing organisation, this in turn was linked to organisational attributes such as openness and trust;

vi) risk taking and support for innovation, including the scope to develop new and innovative ways of promoting and ensuring high clinical quality and safety;

vii) 'no blame' or 'just ' cultures which were viewed as an important part of ensuring high quality and safe care as it was thought to encourage staff to report and learn from mistakes and near misses;

Viii) standardisation of care that could result in higher quality care, although it was   also recognised that in some areas care should be tailored to the needs of individuals;

ix) a culture of teamwork associated with the need to organising care around the needs of patients and the requirement to get multi-disciplinary teams to work together effectively;

x) proper engagement of patients and patient representatives as genuine partners in service design and delivery, including full sharing of information and respectful inclusive dialogue.

While such an agenda is undoubtedly challenging, the convergence of diverse stakeholders on their central values is encouraging. Moreover, a willingness to explore empirically the extent of the enculturation of these values offers exciting opportunities for enhanced cultural shifts. Tools therefore are an essential component of such work.

As with the clinical governance managers we found a strong preference for formative rather than summative use of culture assessment tools. Given the need for wider engagement and dialogue, this would seem sensible. The Healthcare Commission for example were particularly interested in the development of diagnostic tools, particularly in terms of board level cultures that could be used to predict future problems within NHS organisations.

We heard reports that the evidence base linking culture and specific aspects of performance in the NHS is under developed and that this was an area that required further research and development. All stakeholders believed that more research was required to generate evidence of what works in culture change programmes and how such programmes could be measured and assessed.

Although the survey of clinical governance managers found that most managers viewed existing tools as salient and easy to use, the survey of wider stakeholders revealed that existing instruments are sometimes too sophisticated for lay use. There was also concern that such instruments (and the terminology they embody) should be embedded within the wider values and traditions of working in the NHS.

There were concerns that some existing tools were transplanted from other sectors and industries or other health care systems and that these would not necessarily be 'fit for purpose' within an NHS context. There was also a view that more training was required to support the use of such instruments, particularly among those staff with little familiarity of social science theory or managing change programmes.

Implications for policy and management in the NHS

Our survey and mapping of the needs and interests of key stakeholders with a legitimate interest in assessing and shaping organisational cultures in NHS organisations has identified a wide range of cultural attributes and domains of interest that they would like to see expressed in the design of culture assessment instruments. This report and/or the annotated compendium can therefore be used to gauge the gap (degree of fit and overlap) between extant culture assessment rating instruments and tools and the practical needs of different stakeholder groups. Whereas many of the domains of interest are expressed within extant tools (e.g senior management support) others (e.g commitment to public service values; and capacity for clinical engagement) appear to be underrepresented in the design of extant tools and methods.

Further, the appropriateness or otherwise of extant culture instruments needs to be subject to regular review and assessment and culture tools should be revisited and adapted to reflect important

emerging concerns and shifting priorities in the wider health care environment.

Our survey of stakeholders also revealed that many stakeholders believed that there was an inadequate evidence base to support the development of such culture tools. This may therefore require investment in the development of new tools as new research into the theoretical basis of culture tools as well as the development of new conceptual frameworks to underpin new tool development. There would also seem an immediate demand in the NHS for the development new bespoke tools to support formative and diagnostic ends rather than summative assessment.

Research objective 5

Obtain information on the views and interests of users and patients regarding the value domains they would wish to see expressed in organisational (culture) change programmes and assessments.

There were criticisms among patient representatives in the national survey that the culture of their organisation was such that managers sometimes failed to consider patient perspectives when planning, undertaking and assessing organisational change.

There was a strong belief among patient representatives interviewed that culture change within their organisation was driven largely by the demands of external agencies and government targets rather than the needs of patients or the local community.

Patient representative's views on the most important cultural attributes for high quality care were remarkably similar to those of clinical governance managers. The most important culture components include: 'patient centeredness' 'senior management commitment', 'quality focus', 'clear governance/accountability', and 'safety awareness'. As with clinical governance managers fewer respondents considered 'prioritization of choice', public service ethos, 'focus on cost effectiveness', and 'standardisation of care' as important.

Not surprisingly, patient representatives believed that 'patient centeredness' was a key attribute of high quality organisations. This was for a number of reasons, including a belief that patient centered care would lead to better outcomes (both process and clinical); a perceived need to challenge professional and managerial cultures that were not always closely aligned with the interests of patients and carers; and the view that placing the patient perspectives at the centre of decision making would make the health service more accountable to the people they serve.

Implications for policy and management in the NHS

Patients make a valuable contribution to assessing service quality and patient perspectives can help focus management attention on those aspects of service design that are often overlooked by managers and professionals. Indeed, patients are intimately involved in creating and reproducing health care cultures and experience at first hand the disruption and impact of (culture) change programmes. It is therefore important that the values, beliefs and domains of interest of patients are reflected in the design of culture assessment instruments. Of course patients are a disparate group and patient perspectives will be influenced by a range of background factors, including age, gender, race, class, experience of using health care services, illness disease groups. This suggests that a range of culture instruments may need to be developed that are aligned with the particular needs and concerns of specific patient groups.

Research objective 6

Undertake in-depth case study work to assess the development of, use and impact of culture assessment methods within current policies and programmes in the NHS.

Selection of appropriate tools or assessment methods that meet the needs of key stakeholders will not in itself ensure that such tools can be used successfully in complex health care settings in the NHS. Application of the tools in real world settings for diagnostic, formative or summative purposes may pose significant opportunities and challenges for health care organisations and their staff.

Benefits of culture tool use in the case studies include: initiating wider discussions about quality and safety within organisations; prompt more reflexive practice around important patient quality/safety issues; and an aid to interdisciplinary discussion and the development of joint strategies for tackling quality/ safety issues across different professional sub-groups and clinical teams within health care organisations.

Limitations and drawbacks of tool use include: difficulties around understanding and using instruments; lack of senior management support; credibility and sensitivity to local needs and contingencies. Even when culture assessment is undertaken, only when feedback is provided to relevant staff in a timely and appropriate fashion will the findings be acted upon and lead to improved performance and patient care

Implications for policy and management in the NHS

The use and impact of culture assessment instruments in particular organisations contexts may depend on a range of socio-technical factors (STS), both intrinsic to the instrument and in combination with internal and external influences on the organisation and staff.

Each of these need to be addressed when designing instruments and using them in complex health care environments.

Specific issues to address in terms of the design characteristics of tools and the wider environment in which they are used include:

- The trade off between ease and speed of use and richness and depth of insights into local cultures.
- The trade off between a general purpose tool that might be used to compare findings with similar organisations and bespoke tools that are more sensitive to (possibly unique) local cultures, traditions and modes of working.
- The trade off between circumstances in which it might be useful to use several cultural instruments to triangulate perspectives and to explore issues missed by a single instrument.
- The provision of adequate training and backup to support the use of tools.
- The provision of incentives (in the broadest sense) to use and act on the data generated by culture assessment.
- Senior management commitment and support for tool use within organisations.

6.4 Challenges In Project Delivery

Focus of literature review

Given the huge literature on culture change and assessment tools (as well as for purposes of adhering closely to the research brief) we attempted to make the review of the literature manageable by focusing our attention on instruments that assess organisational culture, rather than tools that focus on specific dimensions of culture such as 'safety culture' 'learning culture' and 'risk culture' of which there are a number of existing literature reviews. (Hindle et al 2005).

Research governance and access to NHS organisations

The national surveys of clinical governance managers and patient representatives involved negotiating with over 400 local Research and Development Committees. This was a very time consuming task as many R&D committees had different documentation to complete and all required regular reports on progress. We had intended originally to research three case studies to explore the use of culture assessment tools in NHS settings. However, despite several organisations agreeing to participate in the study, and a considerable amount of time spent nurturing working relationships, all but two organisations eventually granted access. Problems around gaining access were compounded by the national reorganisation of PCTs implemented during the study period.

Project outputs/looking ahead

This report as befits worked funded by the SDO research programme focuses on real world assessment and practical ramifications of culture measurement in the NHS. Future research outputs will seek to contribute to <u>both</u> the professional and the academic literatures.

Papers in press/under review

- Measuring and assessing culture for quality and safety improvement: a national survey of tools and tool use, Quality and Safety in Health Care

- Clinical governance managers' views on managing culture for quality improvement, Clinical Governance: an International Journal

- A review of instruments for measuring organisational cultures in health care, Journal of Management Studies

Papers planned/in preparation

- A comparison of professional and patient views on culture change and assessment in the NHS, Health Expectations.

- Stakeholder perspectives on cultural reform in the NHS, Journal of Health Services Research and Policy.

- Measuring and assessing cultures in the NHS, Health Service Journal

- Use and impact of culture assessment tools in health care organisations, International Journal for Quality in Health Care

- Review of methods and approaches for measuring organisational culture, Academy of Management Journal

6.5 Research Agenda

This study provides evidence of the importance of culture management and assessment in the delivery of high performing health services. Yet because of the complexity and changing nature of cultures within modern health care systems there is still much to unravel about how to understand, shape and assess this important facet of organisational life. Therefore we suggest that there remains a challenging policy focused research agenda around the measurement and assessment of organisational cultures in health

care. Specific issues where there is a gap in current knowledge and/or which warrant further sustained investigation might be considered in the following areas:

- The use of culture measurement and assessment instruments in health care contexts is premised on the notion that there is a linkage between specific cultural attributes and health care performance. Yet there is a sparse evidence base in many areas of health care delivery to support the design and development of well founded tools and instruments. Thus the evidence to date linking culture to performance is suggestive but far from definitive. We therefore suggest that future research should focus on gathering primary data and evidence on the complex and recursive inter-linkages between culture and performance in different health care settings. The complex and dynamic nature of the phenomena under study suggest that research in this area will need to exhibit a number of features. It will need to be naturalistic, taking place in real-world settings and making careful note of the mediating role of contexts. It should be multi-method and multidisciplinary, drawing on quantitative and qualitative traditions, including detailed ethnographic and discourse analytic approaches. Finally, as the phenomena of interest are essentially dynamic (performance and change), longitudinal study will offer important insights over cross-sectional designs.

- Our survey of NHS stakeholders with a legitimate interest in understanding, shaping or assessing health care cultures has identified a degree of convergence around a number of cultural attributes which health care professionals and key agencies would like to see expressed within the design of culture assessment instruments. Some of these attributes, including senior management support and commitment and capacity for organisational learning would appear well served by existing instruments. Whereas others, including measures of public service values and support for clinical engagement in quality improvement are in need of further research, development and assessment. As the needs, interest and practical requirements of stakeholders change it is important that the appropriateness or otherwise of extant instruments are subject to regular review and assessment and further developed or refined to reflect important emerging concerns and shifting priorities in the wider health care environment.

- There appears to be a strong demand for tools that serve formative and diagnostic purposes rather than summative ends and further research is required into how tools can be developed to support reflexive practice and organisational development purposes. Given the context specific nature of much health care delivery there is also a need to provide research to support the development of bespoke tools in different health care contexts.

- Selection of appropriate tools or assessment methods that meet the needs of key stakeholders will not in itself ensure that such tools can be used successfully in NHS settings. The feasibility, acceptability, utility and impact of culture assessment instruments in particular organisational contexts may depend on a wide range of socio-technical factors, both intrinsic to the instrument and in combination with internal and external influences on the organisation and staff. Our study has highlighted a number of important socio-technical issues associated with the use of culture tools in health care contexts. Nevertheless, we believe that further research is required into understanding the low take up of culture instruments in NHS organisations and the many practical issues (including unintended and dysfunctional consequences) that arise when tools are used to support, quality and performance improvement in complex health care settings.

6.6 Concluding Remarks

Culture assessment instruments are relatively new tools in the quality and patient safety arena and are used increasingly to inform and assess quality and safety improvement activity in health care organisations. As in other health systems there is widespread interest in the NHS in managing organisational cultures in order to improve quality and safety. Despite a plethora of culture assessment tools being described in the literature, relatively few of these have seen much use in the NHS.

Our review of the literature has shown that there are a large number of tools available for assessing organisational cultures in health care and a greater awareness of these and a better matching and linking of extant tools with current needs may lead to an increased (and possibly more appropriate) use of culture tools in the NHS. This report and the associated compendium of instruments is a step along the road to achieving that end.

Nevertheless, increasing awareness of instruments may not be sufficient to meet current needs as there are clearly important gaps between the cultural attributes assessed by extant tools and the needs and interests of key stakeholders which will require investment in new tool development or at least the creative adaptation and reworking of some existing tools. Yet, this will not be sufficient to ensure that culture instruments are employed to beneficial effect in the NHS. The feasibility, acceptability, utility and impact of culture assessment tools in particular organisations contexts depends on a wide range of socio-technical factors, each of which needs to be identified and addressed if culture assessment instruments are to help deliver the desired improvements in quality and performance. The challenge is for managers, health professionals, patients, researchers and a wide variety of interested stakeholders to work

together to strengthen the evidence base that informs policy and practice in this area.

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Appendix 1 List of Cultural Dimensions Explored by Various Instruments

Dimension	Instrument
Accomplishment	• Organizational Assessment Survey
Accounting sub-culture	• Thomas' Professional Accounting Sub-Culture Questionnaire
Achievement	• Organisational Culture Instrument
Achievement culture	• Organisational Culture Instrument
Achievement orientation	• School Values Inventory
Action orientation	• Culture Survey
Adaptability	• Denison Organizational Culture Scale
Adequacy of allocation of time	• Time Dimensions Scales
Affiliation	• Organizational Assessment Survey
Aggressive-defensive culture	• Organisational Culture Instrument
Aggressiveness	• Organisational Culture Profile [OCP]
Agreement	• Denison Organizational Culture Scale
Approval	• Organisational Culture Instrument
Artefacts and symbols	• Organisational Culture Assessment Tool
Assertiveness	• GLOBE
Assumptions (underlying) and beliefs	• Organisational Culture Assessment Tool
Attention to detail	• Hospitality Industry Culture Profile • Organisational Culture Profile [OCP]
Attitudes (generally and specifically experienced)	• Women Workplace Culture Questionnaire
Authority (locus of)	• van der Post Questionnaire
Authority (need for)	• Hofstede's Measure of Organisational Culture
Autonomy	• Group Practice Culture Questionnaire • Nursing Work Index Revised • School Values Inventory
Autonomy over use of time	• Time Dimensions Scales

Availability of trustworthy person at work	• Women Workplace Culture Questionnaire
Avoidance	• Organisational Culture Instrument
Awareness of using time as a resource	• Time Dimensions Scales
Behaviour (patterns of)	• Organisational Culture Assessment Tool
Beliefs	• General Practice Learning Organisation Diagnostic Tool • Organisational Culture Assessment Tool
Bureaucratic	• Organisational Culture Index [Wallach]
Bureaucratic rationality	• School Values Inventory
Business emphasis	• Group Practice Culture Questionnaire
Capability development	• Denison Organizational Culture Scale
Career development	• Organizational Assessment Survey [OPM]
Centralisation of decision making	• Group Practice Culture Questionnaire
Centrality (work)	• Hofstede's Measure of Organisational Culture
Change	• General Practice Learning Organisation Diagnostic Tool
Change (attitudes to)	• Culture Survey
Change (creating)	• Denison Organizational Culture Scale
Character	• Competing Values Framework Measures
Childhood and adolescence/family of origin	• Women Workplace Culture Questionnaire
Climate	• Competing Values Framework Measures • Organisational Culture Survey
Cohesiveness	• Group Practice Culture Questionnaire
Collaboration	• School Quality Management Culture Survey • School Values Inventory
Collaborative culture	• Cultural Assessment Survey
Collaborative team orientation	• Organisational Culture Profile [OCP]
Collectivism	• GLOBE
Collegial nurse-physician relations	• Nursing Work Index Revised
Collegiality	• Group Practice Culture Questionnaire • School Values Inventory
Commitment	• Organizational Assessment Survey
Commitment to workforce	• Organizational Assessment Survey [OPM]

Communication	• Organisational Culture Profile • School Values Inventory • Organizational Assessment Survey [OPM]
Communication (openness)	• Japanese Organizational Culture Scale
Compatibility (cultural)	• Perceived Cultural Compatibility Index
Compensation (fairness of)	• Hospitality Industry Culture Profile
Competitiveness	• Organisational Culture Profile [OCP] • Organisational Culture Instrument
Conflict	• Organisational Culture Survey
Conflict resolution	• van der Post Questionnaire • Culture Survey
Confrontation	• Norms Diagnostic Index
Connectedness	• General Practice Learning Organisation Diagnostic Tool
Consensus	• Cultural Consensus Analysis • School Values Inventory
Consistency	• Denison Organizational Culture Scale
Constructive culture	• Organisational Culture Instrument
Continuous improvement	• School Quality Management Culture Survey
Control	• School Values Inventory • Hofstede's Measure of Organisational Culture
Control and discretion issues	• Nurses' Opinion Questionnaire
Control over the work environment	• Nursing Work Index Revised
Co-operation	• Culture Survey
Co-ordination	• Denison Organizational Culture Scale
Coping	• Women Workplace Culture Questionnaire
Core task	• See 'Task'
Core values	• See Values (core)
Cost-effectiveness orientation	• Group Practice Culture Questionnaire
Creativity	• General Practice Learning Organisation Diagnostic Tool
Cultural compatibility	• Perceived Cultural Compatibility Index
Culture management	• van der Post Questionnaire
Customer focus	• Denison Organizational Culture Scale • School Quality Management Culture Survey
Customer orientation	• Organizational Assessment Survey [OPM] • PCOC Questionnaire • van der Post Questionnaire
Customers (valuing of)	• Hospitality Industry Culture Profile

Data-based decision-making	• School Quality Management Culture Survey
Decision making (centralisation of)	• Group Practice Culture Questionnaire
Decision-making	• Corporate Culture Questionnaire
Decision-making (data-based)	• School Quality Management Culture Survey
Decisiveness	• Organisational Culture Profile [OCP]
Dependent	• Organisational Culture Instrument
Detail (attention to)	• Organisational Culture Profile [OCP]
Development (capability)	• See 'capability development'
Development (career)	• Organizational Assessment Survey [OPM]
Development (employee)	• Hospitality Industry Culture Profile
Development of the individual	• Organisational Culture Profile
Disposition towards change	• van der Post Questionnaire
Diversity	• Organizational Assessment Survey [OPM]
Educational opportunities	• Nursing Work Index Revised
Egalitarianism (gender)	• GLOBE
Empathy	• Nurse Self-Description Form
Emphasis (business)	• Group Practice Culture Questionnaire
Emphasis on growth and rewards	• Organisational Culture Profile [OCP]
Emphasis on resource control	• Group Practice Culture Questionnaire
Employee commitment	• Culture Survey
Employee development	• Hospitality Industry Culture Profile
Employee participation	• van der Post Questionnaire
Employment involvement	• Organizational Assessment Survey [OPM]
Empowerment	• Denison Organizational Culture Scale
Entrepreneurism	• Group Practice Culture Questionnaire
Environment	• Organisational Culture Profile
Environment (control over)	• Nursing Work Index Revised
Environment (physical of the ward)	• Nurses' Opinion Questionnaire

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Environment (physical)	• Culture Audit
Environment (work)	• Organizational Assessment Survey [OPM]
Espouse values	• Organisational Culture Assessment Tool
Ethic (work)	• Nurse Self-Description Form
Ethics (valuing of)	• Hospitality Industry Culture Profile
Fair compensation	• Hospitality Industry Culture Profile
Fairness and treatment of others	• Organizational Assessment Survey [OPM]
Family orientation	• Japanese Organizational Culture Scale
Feedback	• General Practice Learning Organisation Diagnostic Tool
Flow (of information)	• Organisational Culture Survey
Focus (customer)	• School Quality Management Culture Survey
Focus (long-term)	• School Quality Management Culture Survey
Focus (system)	• School Quality Management Culture Survey
Formality	• School Values Inventory
Formality (organisational)	• Group Practice Culture Questionnaire
Future orientation	• GLOBE
Future orientation of the organisation	• Time Dimensions Scales
Gender egalitarianism	• GLOBE
Glue/cohesion	• Competing Values Framework Measures
Goal clarity	• van der Post Questionnaire
Goal orientation	• School Values Inventory
Goals	• Denison Organizational Culture Scale • FOCUS
Group solidarity	• Group Practice Culture Questionnaire
Growth (emphasis on)	• Organisational Culture Profile [OCP]
Honesty (valuing of)	• Hospitality Industry Culture Profile
Human resource orientation	• Culture Survey • van der Post Questionnaire
Human resources	• Corporate Culture Questionnaire
Humane orientation	• GLOBE
Humanistic workplace	• Organisational Culture Profile
Identification with the organisation	• van der Post Questionnaire

Identity (organisational)	• Group Practice Culture Questionnaire
Improvement (continuous)	• School Quality Management Culture Survey
Individual (development of)	• Organisational Culture Profile
Individual culture	• Cultural Assessment Survey
Individual perceptions and conceptions	• CULTURE
Individualism	• Values Survey Module
Information emphasis	• Group Practice Culture Questionnaire
Information flow	• Organisational Culture Survey
In-group collectivism	• GLOBE
Innovation	• FOCUS • Hospitality Industry Culture Profile • Organizational Assessment Survey [OPM] • Organisational Culture Profile
Innovation (attitudes to and beliefs about)	• Culture Survey
Innovation and risk taking	• Organisational Culture Profile [OCP]
Innovative	• Organisational Culture Index [Wallach]
Innovativeness	• Group Practice Culture Questionnaire
Innovativeness/risk taking	• Group Practice Culture Questionnaire
Integration	• Denison Organizational Culture Scale
Integration (organisation)	• van der Post Questionnaire
Integration (performance)	• van der Post Questionnaire
Interdisciplinary relations	• Nursing Work Index Revised
Interpersonal relationship	• Questionnaire of Organisational Culture
Inter-professional relationships	• Nurses' Opinion Questionnaire
Involvement	• Denison Organizational Culture Scale • Organisational Culture Survey • School Quality Management Culture Survey
Involvement of mental health workers	• Norms Diagnostic Index
Job dissatisfaction	• Culture Audit
Job involvement	• Norms Diagnostic Index
Job oriented culture vs employee oriented culture	• Hofstede's Measure of Organisational Culture
Job performance	• Organisational Culture Profile

Job satisfaction	• Norms Diagnostic Index • Organizational Assessment Survey • Organizational Assessment Survey [OPM]
Job security	• Organizational Assessment Survey [OPM]
Knowledge (managerial)	• Japanese Organizational Culture Scale
Language	• Organisational Culture Assessment Tool
Leadership	• Competing Values Framework Measures • Organisational Culture Profile
Leadership (confidence in)	• Culture Survey
Leadership (ward)	• Nurses' Opinion Questionnaire
Leadership and quality	• Organizational Assessment Survey [OPM]
Leadership and support of nurses	• Nursing Work Index Revised
Lead-subordinate	• Norms Diagnostic Index
Learning	• General Practice Learning Organisation Diagnostic Tool
Learning (organisational)	• Denison Organizational Culture Scale
Learning culture	• Assessing Learning Culture Scale
Learning culture (of general practices)	• General Practice Learning Organisation Diagnostic Tool
Locus of authority	• van der Post Questionnaire
Long term orientation	• Values Survey Module
Long-term focus	• School Quality Management Culture Survey
Loose vs tight control	• Hofstede's Measure of Organisational Culture
Loyalty	• Japanese Organizational Culture Scale
Management style	• Competing Values Framework Measures • Culture Survey • van der Post Questionnaire
Manager knowledge	• Japanese Organizational Culture Scale
Masculinity	• Values Survey Module
Medication philosophy	• Nurse Medication Questionnaire
Meetings	• Organisational Culture Survey
Mission	• Denison Organizational Culture Scale
Morale	• Organisational Culture Survey
Need for authority	• Hofstede's Measure of Organisational Culture
Need for security	• Hofstede's Measure of Organisational Culture
Nurse manager ability	• Nursing Work Index Revised

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Nurse participation in hospital affairs	• Nursing Work Index Revised
Nursing foundations for quality of care	• Nursing Work Index Revised
Nursing unit culture	• Nurse Self-Description Form
Open communication	• Japanese Organizational Culture Scale
Openness	• Culture Survey
Opposition	• Organisational Culture Instrument
Organisation integration	• van der Post Questionnaire
Organisation structure	• Nursing Work Index Revised
Organisation support	• Women Workplace Culture Questionnaire
Organisational commitment	• Culture Audit
Organisational direction	• Culture Survey
Organisational identity	• Group Practice Culture Questionnaire
Organisational issues	• PCOC Questionnaire
Organisational support	• Nursing Work Index Revised
Organisational trust	• Group Practice Culture Questionnaire
Organization focus	• van der Post Questionnaire
Organizational formality	• Group Practice Culture Questionnaire
Orientation (achievement)	• School Values Inventory
Orientation (customer)	• PCOC Questionnaire
Orientation (goal)	• School Values Inventory
Orientation (human resource)	• van der Post Questionnaire
Orientation (of the organisation's future)	• Time Dimensions Scales
Orientation (professional)	• School Values Inventory
Orientation (reward)	• van der Post Questionnaire
Orientation towards outcomes or results	• Organisational Culture Profile [OCP]
Outcomes (orientation towards)	• Organisational Culture Profile [OCP]
Outcomes (personal)	• PCOC Questionnaire
Parochial culture vs	• Hofstede's Measure of Organisational Culture

professional culture	
Participation	• School Values Inventory
Participation (employee)	• van der Post Questionnaire
Patterns of behaviour	• Organisational Culture Assessment Tool
People in the practice	• General Practice Learning Organisation Diagnostic Tool
People orientation	• Hospitality Industry Culture Profile
Perceived burdens	• Women Workplace Culture Questionnaire
Perceived burdens on women	• Women Workplace Culture Questionnaire
Perceived routine in job	• Time Dimensions Scales
Performance	• Corporate Culture Questionnaire • Culture Audit
Performance (job)	• Organisational Culture Profile
Performance facilitation	• Norms Diagnostic Index
Performance integration	• van der Post Questionnaire
Performance measures	• Organizational Assessment Survey [OPM]
Performance orientation	• GLOBE
Personal experience	• Organizational Assessment Survey [OPM]
Personal outcomes	• PCOC Questionnaire
Personality	• Culture Audit
Pharmacist feedback	• Norms Diagnostic Index
Physical environment of the ward	• Nurses' Opinion Questionnaire
Physician individuality	• Group Practice Culture Questionnaire
Physicians (nurses' relationships with)	• Nursing Work Index Revised
Planning	• Organisational Culture Profile • School Work Culture Profile
Policies and procedures	• Norms Diagnostic Index
Polychronicity	• Inventory of Polychronic Values
Power	• Organizational Assessment Survey • Organisational Culture Instrument • Perceived Organisational Culture
Power distance	• GLOBE
Power distance	• Values Survey Module
Professional nursing	• Nurses' Opinion Questionnaire

practice	
Professional orientation	• School Values Inventory
Professionalism	• Nurse Self-Description Form • Nursing Work Index Revised
Program assessment	• School Work Culture Profile
Program development	• School Work Culture Profile
Psychological characteristics	• CULTURE02
Quality at the same cost	• School Quality Management Culture Survey
Quality emphasis	• Group Practice Culture Questionnaire
Quality of work-life	• Organizational Assessment Survey [OPM]
Rationality (bureaucratic)	• School Values Inventory
Recognition	• Organizational Assessment Survey • Organizational Assessment Survey [OPM]
Relations (collegial nurse-physician)	• Nursing Work Index Revised
Relations (interdisciplinary)	• Nursing Work Index Revised
Relationships	• Corporate Culture Questionnaire
Relationships (interpersonal)	• Questionnaire of Organisational Culture • Culture Audit
Relationships (inter-professional)	• Nurses' Opinion Questionnaire
Relationships with physicians	• Nursing Work Index Revised
Relationships with ward nursing colleagues	• Nurses' Opinion Questionnaire
Resident-centred culture	• Norms Diagnostic Index
Resources (use of)	• Organizational Assessment Survey [OPM]
Result vs process oriented culture	• Hofstede's Measure of Organisational Culture
Results (orientation towards)	• Organisational Culture Profile [OCP]
Results orientation	• Hospitality Industry Culture Profile
Reward orientation	• van der Post Questionnaire
Rewards	• Competing Values Framework Measures • Organizational Assessment Survey [OPM]
Rewards (emphasis on)	• Organisational Culture Profile [OCP]
Risk	• Group Practice Culture Questionnaire
Risk taking (and innovation)	• Organisational Culture Profile [OCP]

Role	• Perceived Organisational Culture
Rules	• FOCUS
Satisfaction culture	• Organisational Culture Instrument
Scheduling	• Time Dimensions Scales
Security (need for)	• Hofstede's Measure of Organisational Culture
Self-actualisation	• Organisational Culture Instrument
Self-governnce	• Nursing Work Index Revised
Sexual harassment	• Women Workplace Culture Questionnaire
Shared vision	• School Quality Management Culture Survey
Socialisation on entry	• Organisational Culture Profile
Societal collectivism	• GLOBE
Speed and pace of work	• Time Dimensions Scales
Staff development	• School Work Culture Profile
Staffing and resource adequacy	• Nursing Work Index Revised
Strain	• Culture Audit
Strategic direction and intent	• Denison Organizational Culture Scale
Strategic emphasis	• Competing Values Framework Measures
Strategic planning	• Organizational Assessment Survey [OPM]
Strength of culture	• Organizational Assessment Survey
Structure	• Organisational Culture Profile
Structure (organisation)	• Nursing Work Index Revised
Success (criteria for)	• Competing Values Framework Measures
Supervision	• Organizational Assessment Survey [OPM] • Organisational Culture Survey
Supervisory support	• Nursing Work Index Revised
Support	• FOCUS • Perceived Organisational Culture • Women Workplace Culture Questionnaire
Support (supervisory)	• Nursing Work Index Revised
Supportive climate	• Norms Diagnostic Index
Supportiveness	• Organisational Culture Profile [OCP] • Organisational Culture Index [Wallach]
Symbols	• Organisational Culture Assessment Tool
Synchronisation of work with others	• Time Dimensions Scales

System focus	• School Quality Management Culture Survey
Task	• Perceived Organisational Culture
Task (core task)	• CULTURE • CULTURE02
Task (understanding of)	• Questionnaire of Organisational Culture
Task structure	• van der Post Questionnaire
Teacher autonomy	• School Values Inventory
Teacher involvement	• School Quality Management Culture Survey
Team approach	• Japanese Organizational Culture Scale
Team culture	• Organisational Culture Instrument
Team orientation	• Denison Organizational Culture Scale • Hospitality Industry Culture Profile
Team orientation (collaborative)	• Organisational Culture Profile [OCP]
Team work	• Nursing Work Index Revised • Culture Survey • General Practice Learning Organisation Diagnostic Tool • Organizational Assessment Survey [OPM] • Organisational Culture Survey
Temporal boundaries	• Time Dimensions Scales
Temporal buffers	• Time Dimensions Scales
Thoughts about leaving job	• Women Workplace Culture Questionnaire
Time (adequacy of allocation)	• Time Dimensions Scales
Time (autonomy over use of)	• Time Dimensions Scales
Time (awareness of using it as a resource)	• Time Dimensions Scales
Training	• Norms Diagnostic Index • Organizational Assessment Survey [OPM]
Transactional	• Organisational Development Questionnaire
Transformational	• Organisational Development Questionnaire
Trust	• Culture Survey
Trust (organisational)	• Group Practice Culture Questionnaire
Uncertainty avoidance	• GLOBE • Values Survey Module
Understanding an organisational task	• Questionnaire of Organisational Culture
Unified culture	• Cultural Assessment Survey

Use of resources	• Organizational Assessment Survey [OPM]
Values (core)	• Denison Organizational Culture Scale
Values (espoused)	• Organisational Culture Assessment Tool
Valuing customers	• Hospitality Industry Culture Profile
Valuing ethics and honesty	• Hospitality Industry Culture Profile
Visibility of costs	• Group Practice Culture Questionnaire
Vision (shared)	• School Quality Management Culture Survey
Visions	• Denison Organizational Culture Scale
Ward leadership	• Nurses' Opinion Questionnaire
Work (demands)	• Culture Audit
Work (psychological characteristics related to)	• CULTURE
Work (supports and constraints)	• Culture Audit
Work and family/ personal life	• Organizational Assessment Survey [OPM]
Work centrality	• Hofstede's Measure of Organisational Culture
Work environment	• Organizational Assessment Survey [OPM]
Work environment (control over)	• Nursing Work Index Revised
Work ethic	• Nurse Self-Description Form
Work group culture	• Nursing Unit Assessment Survey
Workforce (values)	• CULTURE
Workforce values (ideal)	• CULTURE02
Workforce values (perceived)	• CULTURE02
Worklife (quality of)	• Organizational Assessment Survey [OPM]
Workplace (humanistic)	• Organisational Culture Profile

Appendix 2 Psychometric Assessment Summary

Measure name	Internal consistency	Test-retest reliability	Aggregation	Ass'n with descriptives	Ass'n with outcomes	Ass'n with culture/climate	Dimensional validity	Sensitivity to change
Assessing Learning Culture Scale	Adequate	No assessment	No assessment	No assessment	B	No assessment	No assessment	No assessment
Competing Values Framework (Ipsative)	Unclear	No assessment	Adequate	Moderate	B	Minimal	No assessment	Adequate
Competing Values Framework (Likert)	Adequate	No assessment	No assessment	Minimal	No assessment	No assessment	Unclear	Unclear
Corporate Culture Questionnaire	Adequate	No assessment	Adequate	No assessment	No assessment	Minimal	Unclear	No assessment
Cultural Audit	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	Unclear	No assessment
Cultural Assessment Survey	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment
Cultural Consensus Analysis	No assessment	No assessment	Adequate	No assessment	No assessment	No assessment	No assessment	No assessment
CULTURE Questionnaire in the	Unclear	No	No	Minimal	A	No assessment	Unclear	No

		assessment	assessment					assessment
Contextual Assessment of Organisational Culture								
Culture Survey	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment
Denison Organizational Culture Scale (DOCS)	Adequate	No assessment	Adequate	Minimal	A	No assessment	Adequate	No assessment
FOCUS	Unclear	No assessment	No assessment	Moderate	A	No assessment	Unclear	No assessment
General Practice Learning Organisation Diagnostic Tool	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment
GLOBE	Unclear	No assessment	Adequate	Minimal	A	Minimal	Unclear	No assessment
Group Practice Culture Questionnaire	Adequate	No assessment	No assessment	Moderate	B	No assessment	Adequate	No assessment
Hofstede's Measure of Organisational Culture	Unclear	No assessment	No assessment	Moderate	A	No assessment	Unclear	No assessment
Hospital Culture Questionnaire	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment
Hospital Culture Scale	Adequate	No assessment	No assessment	Minimal	No assessment	No assessment	Unclear	No assessment
Hospitality Industry Culture Profile	Unclear	No assessment	Adequate	No assessment	A	No assessment	Unclear	No assessment
Inventory of Polychronic Values	Adequate	Adequate	No assessment	Minimal	A	No assessment	Adequate	No assessment
Japanese Organizational Culture	Adequate	No	No	Minimal	A	No assessment	Unclear	No

		assessment	assessment					assessment
Scale (JOCS)								
Norms Diagnostic Index (NDI)	No assessment	No assessment	No assessment	No assessment	A	No assessment	Unclear	No assessment
Nurse Medication Questionnaire	Adequate	No assessment	No assessment	Minimal	B	No assessment	No assessment	No assessment
Nurse Self-Description Form (NSDF)	Adequate	No assessment	No assessment	Minimal	No assessment	No assessment	Unclear	No assessment
Nurses' Opinion Questionnaire (NOQ/WOFS)	Adequate	Adequate	No assessment	No assessment	No assessment	Minimal	Adequate	No assessment
Nursing Unit Assessment Survey (NUCAT-2)	No assessment	No assessment	No assessment	Minimal	No assessment	No assessment	Unclear	No assessment
Nursing Work Index Revised	Adequate	Unclear	Adequate	Moderate	A	No assessment	Unclear	No assessment
Organizational and Team Culture Indicator (OTCI)	Adequate	Unclear	No assessment	Moderate	No assessment	No assessment	No assessment	No assessment
Organizational Assessment Survey (OAS) [OPM]	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	Adequate
Organisational Culture Assessment Tool (OCA)	Adequate	No assessment	No assessment	No assessment	No assessment	Minimal	No assessment	No assessment
Organisational Culture Index (OCI) [Wallach]US	Adequate	No assessment	No assessment	Moderate	A	No assessment	No assessment	No assessment
Organizational Culture Inventory (OCI)	Adequate	Unclear	Adequate	Moderate	B	No assessment	Unclear	Adequate
Organizational Culture Profile (OCP)	Unclear	No	Adequate	Minimal	A	No assessment	Unclear	No

		assessment						assessment
Organisational Culture Profile (O'Reilly)	Unclear	Adequate	Unclear	Extensive	D	No assessment	Unclear	No assessment
Organizational Culture Scales - Spectrum / (OAS) [MetriTech]	Unclear	No assessment	No assessment	No assessment	A	No assessment	No assessment	No assessment
Organisational Culture Survey	Adequate	Adequate	No assessment	Minimal	A	No assessment	Adequate	No assessment
Organisational Development Questionnaire (ODQ)	No assessment	No assessment	No assessment	Minimal	No assessment	No assessment	No assessment	No assessment
Perceived Cultural Compatibility Index (PCCI)	Unclear	No assessment	No assessment	No assessment	B	No assessment	Unclear	No assessment
Perceived Organizational Culture	No assessment	No assessment	No assessment	Minimal	No assessment	No assessment	No assessment	Adequate
(PCOC) questionnaire	Adequate	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment	No assessment
Questionnaire of Organisational Culture	Adequate	No assessment	No assessment	Minimal	A	No assessment	Unclear	No assessment
School Quality Management Culture Survey (SQMCS)	Unclear	No assessment	Adequate	No assessment	No assessment	No assessment	Adequate	No assessment
School Values Inventory (SVI)	Adequate	No assessment	No assessment	No assessment	A	No assessment	Unclear	No assessment
School Work Culture Profile	Adequate	Adequate	No assessment	No assessment	A	No assessment	Adequate	No assessment
Thomas' (PASC) Questionnaire	Unclear	No assessment	No assessment	No assessment	A	No assessment	Adequate	No assessment

Time Dimensions Scales	Unclear	No assessment	No assessment	No assessment	No assessment	No assessment	Unclear	No assessment
Values Survey Module	Unclear	No assessment	No assessment	Moderate	No assessment	No assessment	No assessment	No assessment
van der Post Questionnaire	Adequate	No assessment	No assessment	No assessment	No assessment	No assessment	Adequate	No assessment
Women Workplace Culture Questionnaire (WWQ)	Unclear	No assessment	No assessment	No assessment	A	No assessment	Unclear	No assessment

Appendix 3 Practical Administration Issues of Scales

Measure name	Format	Dimensions, items and scales	Acceptability	Feasibility
Assessing Learning Culture Scale	Self-report questionnaire	10 items, 5 point scale from 'strongly agree' to 'strongly disagree' (although 1 item was deleted in Botcheva et al. 2002 as being double barrelled). Creates single dimension of learning culture.	No data reported	Not applicable
Competing Values Framework Measures	Self-report questionnaire	Dimensions vary in number between 4 and 6. Dimensions used include character, leadership, glue/cohesion, strategic emphasis, criteria of success, rewards, climate and management style. Each dimension comprises 4 statements, giving a total of between 16 and 24 statements. Ipsative measure - 100 points are distributed across the 4 statements within each dimension. Likert measure - Each statement is rated on a Likert scale (5-point and 7-point scales have been used).	Scott-Cawiezell et al. (2005) adapted an ipsative verion for 'unique issues of reading comprehension for the majority of staff within the nursing home'. Zammuto & Krakower 1991 ipsative measure: Flesch-Kincaid reading score of 10.1 for items and instructions. Most	Not applicable

			items written with about 10 words (Meterko et al. 2002).	
Concept Mapping and Pattern Matching	Hybrid methods combining qualitative group brainstorm and quantitative questionnaire (the latter is developed during group session). Concept mapping generally involves a number of steps: Brainstorming items related to the issue; structuring data by sorting and rating; aggregating data by multidimensional scaling and cluster analysis; interpreting the maps; using results	Variable - items for sorting and rating in concept mapping are generated by organization members within each specific setting using a 'focus statement'. Participants then sort items into conceptual clusters, and rate each item on, for example, a 5-point scale (no significance' to 'extremely significant').	The concept mapping technique has been reported as highly acceptable to participants in terms of enjoyment and ownership of the process and final product, although respondents have found the sorting task to be challenging. It is also time-consuming - brainstorming has been reported to require 2 hours, and the sorting and rating a further 2-3 hours per participant.	Skilled facilitator is required to explain and guide the process with group members. The data are also analysed with dedicated computer software ('Concept System', Trochim 1987).
Corporate Culture Questionnaire	Self-report questionnaire	126 items with 5 response categories ('strongly disagree' to 'strongly agree'). 21 scales each with 6 items.	Ease of understanding and completion was checked at different stages in the instrument's development. The items were judged to be	Not applicable

			comprehensible and posed to difficulty in interpretation (Flesch Grade level 8.5). The average completion time for the final version was approximately 25 minutes.	
Critical Incident Technique (CIT)	Various formats to collect information regarding a critical incident - examples have included questionnaire, interviews and observation. One approach is to ask questions of employees concerning actions against or in line with firm's culture, which are then aggregated into categories and used to develop a set of values deemed important to respondents	Variable - information is collected about the critical incident regarding its causes, actions taken during the incident and outcomes.	Variable according to method of data collection.	Variable according to method of analysis.
Cultural Audit	Self-report questionnaire.	Over 70 questions and over 200 response elements on a five point scale For each response element, respondent gives perceptions	Reported completion time was 30 minutes	Not applicable

		of their own situation, that of others in the organisation, and their ideal situation There 9 sections in the measure (work demands, interpersonal relationships, work supports and constraints, physical environment, performance, organizational commitment, job dissatisfaction, strain, and personality), within which there are a number of subscales (details not reported).		
Cultural Assessment Survey	Self-report questionnaire	20 items grouped into three categories: collaborative, individual, unified. Items have open responses, not response scales.	No data reported, although open questions require some degree of effort from respondents.	Considerable administrator input is required in the interpretation of responses, which is intended to fall to the manager or leader of the organization.
Cultural Consensus Analysis	General approach involving value statement development through ethnographic work and focus groups, and a subsequent ranking task of statements generated.	1 dimension comprising between 10-20 statements - statements not defined in advance, emergent from data. Statements ranked in terms of their importance.	Assessment of reading level can form part of statement development - Flesh-Kincaid reading level of final 16 statements used in US medical centre study was just above 5th grade.	Time required is not reported, but is likely to be significant because of the need to develop statements through

				ethnography and focus groups
CULTURE Questionnaire in the Contextual Assessment of Organisational Culture	The CULTURE questionnaire is a self-report questionnaire forming one component of the larger Contextual Assessment of Organisational Culture (CAOC) approach. CAOC consists of three phases: conceptualisation of the core task of the organisation; description of the main features of the organisational culture; qualitative assessment of culture. It involves multiple methods, including document analysis, group working, interviews of representatives of the organisation's different levels, an organisational culture questionnaire (CULTURE), observation of activities and activity development seminars.	CULTURE - 94 items on 6-point Likert-type scale (without neutral midpoint) plus one open question. There are four main sections: 1) Workforce values (32 items); 2) Psychological characteristics related to work (16 items) 3) Individual perceptions and conceptions (23 items); 4) Core task (23 items). CULTURE02 - 125 items on 6-point Likert-type scale ('completely disagree' to 'completely agree') and two open questions. Similar in structure to CULTURE, although with notable differences. The four sections were: 1) Perceived workforce values (34 items); 2) Ideal workforce values (34 items); 3) Psychological characteristics (32 items); 4) Core task (23 items). The numbers of scales within each of these sections varies according to the context (i.e. the specific organization). Factor analysis loadings are used to determine the scales for the values, psychological characteristics and conceptions sections, whereas cluster analysis used for the core task section.	Ambiguous or emotionally loaded questions were avoided in the psychological characteristics and individual perceptions sections, but no specific assessment of acceptability was reported	Not applicable

Culture Survey	Self-report questionnaire; in-depth group interviews; norm listing; metaphorical analogy	Questionnaire included 76 forced choice (i.e. tick if statement is true) items in 12 dimensions: employee commitment; attitudes to and beliefs about innovation; attitudes towards change; style for conflict resolution; management style; confidence in the leadership; openness and trust; teamwork and cooperation; action orientation; human resource orientation; consumer orientation; organizational direction.	Pilot study indicated that the questionnaire took less than 20 minutes to complete.	Not applicable for questionnaire; more administrator burden with qualitative aspects of the survey.
Denison Organizational Culture Scale (DOCS)	Self report questionnaire	60 items measured on a five point scale (strongly agree to strongly disagree). 4 trait dimensions each consisting of 3 indices of 5 items: Involvement (empowerment, team orientation, capability development), Consistency (core values, agreement, co-ordination and integration), Adaptability (creating change, customer focus, organisational learning) and Mission (strategic direction and intent, goals and objectives, vision).	No data reported	Not applicable
FOCUS	Self-report questionnaire	75 items on 6 point Likert scales in two parts of the measure: descriptive (directly observable behaviours, 40 items) and evaluative (value characteristics, 35 items). Each part has four scales: support, innovation, goals and rules.	No data reported	Not applicable
General Practice Learning Organisation	Self report questionnaire	40 items with 5-point response scale (strongly agree to strongly disagree).	No data reported	Not applicable

Diagnostic Tool				
		5 items for each characteristic listed above.		
Global Leadership and Organisational Behaviour Effectiveness (GLOBE)	Self report questionnaire	Unknown number of items 9 dimensions: Uncertainty avoidance; Power distance; Societal collectivism; In-group collectivism; Gender egalitarianism; Assertiveness; Future orientation; Performance orientation; Humane orientation. Items in these dimensions were written in four forms ('quartets' with isomorphic structure): two culture manifestations ('As is' (practices) and 'Should be' (values)) and two levels of analysis (organisational and societal culture). 7 point scales, variable scale anchors	No data reported	Not applicable
Group Practice Culture Questionnaire	Self report questionnaire	Initial version (Kralewski et al. 1996): 35 items with 5-point Likert response (not at all to a great deal/ a great extent). 9 dimensions derived from PCA: 1) Innovativeness/risk	No data reported	Not applicable

		taking; 2) Group solidarity; 3) Cost-effectiveness orientation; 4) Organizational formality; 5) Emphasis on resource control; 6) Centralization of decision making; 7) Entrepreneurism 8) Physician individuality; 9) Visibility of costs. Latest version (Kralewski et al. 2005): 39 items with 4-point Likert response. 9 dimensions: 1) Collegiality; 2) Information emphasis; 3) Quality emphasis; 4) Organizational identity; 5) Cohesiveness; 6) Business emphasis; 7) Organizational trust; 8) Innovativeness; 9) Autonomy.		
Hofstede's Measure of Organisational Culture	Self-report questionnaire	The measure has a core of 18 key items of perceived practices, each with a 5-point response format. These make up 6 dimensions: process versus result oriented; employee versus job oriented; parochial versus professional; closed versus open; loose versus tight control; and normative versus pragmatic. These have used been alone or as a subset in a larger item set. Hofstede et al. (1990) originally used a total of 131 items: 61 items measuring perceived practices in the 6 dimensions outlined above; 57 items measuring values in 3 dimensions (need for security, work centrality, and need for authority); 13 items measuring reasons for promotion	No data reported	Not applicable

		and dismissal in 2 dimensions (opposing promotion for present merits to promotion for past merits, and opposing dismissal to job-related misbehavior to dismissal for off-the-job morals).		
Hospital Culture Questionnaire	Self report questionnaire with associated qualitative schedule	15 items, each with four response options which are ranked 1-4 for dominance within the organisation	No data reported	No data reported
Hospital Culture Scale	Self report questionnaire	15 item unidimensional instrument on 5 point Likert scale ('strongly agree' to 'strongly disagree'). Subject could reply 'no information' but recoded as mid point	No data reported	Not applicable
Hospitality Industry Culture Profile	Self-report questionnaire	9 dimensions (Innovation; Results orientation; Attention to detail; Team orientation; People orientation; Valuing ethics and honesty; Valuing customers; Employee development; Fair compensation), which are analysed in two different sets of 7 dimensions for perceived and preferred culture ratings. 36 items each rated twice. Response scale 1-7 ('very uncharacteristic' to 'very characteristic' for perceived culture; 'very undesirable' to 'very desirable' for desired culture).	No data reported	Not applicable
Interactive Projective Test	Group projective technique	Seven Jungian archetypes: Animus (masculine); Wise Old Man; Hero; Shadow; Anima (feminine); Great Mother; Trickster.	Group interviews required about an hour	Group interviews and extensive content analysis coding need to be conducted by

				researchers trained in the IPT technique.
Inventory of Polychronic Values	Self report questionnaire	One bipolar dimension ranging from monochronicity to polychronicity, 10 items, seven point Likert scale ('strongly agree' to 'strongly disagree')	No data reported	Not applicable
Japanese Organizational Culture Scale (JOCS)	Self-report questionnaire	15 items with 5-point Likert scale ('disagree strongly' to 'agree strongly') over four dimensions: family orientation and loyalty (5 items) ; open communication (4 items); team approach (3 items) ; and manager knowledge (3 items).	No data reported	Not applicable
Laddering	Resembles a structured interview comprising a series of probes, the wording of which is dependent on the facet of culture under investigation (e.g. goals, class membership or explanations). Probes seeks to develop understanding of hierarchical structure of knowledge upwards (what is X a type of?), downwards (tell me some sub types of X),	Variable, examples given by Rugg et al. (2002) include goals, explanations, beliefs and norms.	No data reported	Interview based and thus associated with considerable administrator burden.

	differences and generalisation			
Norms Diagnostic Index (NDI)	Self-report questionnaire	51 statements with 5-point Likert response ('strongly agree' to 'strongly disagree' plus a 'don't know' option). 38 statements form 7 dimensions of norms: performance facilitation, job involvement, training, leader-subordinate, policies and procedures, confrontation, supportive climate. Other 13 items address 4 job satisfaction dimensions.	No data reported	Not applicable
Nurse Medication Questionnaire	Self-report questionnaire	16 items with variable response formats over three scales: Medication philosophy (12 items); Pharmacist feedback (3 items); Involvement of mental health workers (single item)	No data reported	Not applicable
Nurse Self-Description Form (NSDF)	Self report questionnaire	US version: 19 long descriptive items measured on a 7 point Likert scale labelled 'definitely less than most nurses', somewhat less…', 'about the same…', 'somewhat more than….', definitely more than…', 'to a degree rarely equalled by…'. 3 dimensions: professionalism (k=11), work ethic (k=4), empathy (k=4) (Dagenais & Melais 1982) Swedish version: 2 additional items, 3 different dimensions: intuitive-resourceful nurse (k=9), ambitious-knowledgeable nurse (k=6), reliable-considerate nurse (k=6) (Benko & Sarvimaki 1999).	Dagenais & Melais (1982) suggest that that the items are wordy, thereby diffuse in content and construct.	Not applicable
Nurses' Opinion	Self-completed	The NOQ has 14 scales over 6 dimensions: physical	Assessments of	Not applicable

Questionnaire (NOQ) [Ward Organisational Features Scales (WOFS)]	questionnaire.	environment of the ward; professional nursing practice; ward leadership; relationships with ward nursing colleagues; inter-professional relationships; control and discretion issues. There are a total of 105 items with 4-point agree/disagree Likert-type responses.	appropriateness of terminology, relevance of items and comprehensiveness formed part of the development process. The time to complete is unknown.	
Nursing Unit Assessment Survey (NUCAT-2)	Self-report questionnaire	50 items with 4-point Likert scale ('not at all' to 'extremely'), each rated according to preferred and actual typical behaviour. There are no composite scales.	No data reported	Not applicable
Nursing Work Index Revised	Self-report questionnaire.	NWI-R: 57 items with 4-point Likert response scale ('strongly agree' to 'strongly disagree'). 15 items form three main scales: autonomy (5 items), control over the work environment (7 items) and relationships with physicians (3 items). Additional scales that have been reported are: organizational support (10 items); organization structure, self-governance and educational opportunities. PES: 48 items with 4-point Likert response scale ('strongly agree' to 'strongly disagree'). Five scales: nurse participation in hospital affairs (9 items); nursing foundations for quality of care (10 items); nurse manager ability, leadership and support of nurses (5 items); staffing and resource adequacy (4 items); and collegial nurse-	No data reported	Not applicable

		physician relations (3 items). NWI-R for non-nurse staff: 24 items with 4-point Likert response scale (strongly agree to strongly disagree). 23 items formed four scales: supervisory support (8 items); team work (6 items); professionalism (6 items); interdisciplinary relations (3 items).		
Organizational and Team Culture Indicator (OTCI)	Self-report questionnaire	12 archetype dimensions that can be grouped into 4 motivational orientations: caregiver, creator, ruler (stability/structure orientation); every person, lover, jester (people/belonging orientation); hero, revolutionary, magician (results/mastery orientation); innocent, explorer, sage (learning/freedom orientation). 96 descriptive statements (8 for each archetype), each rated on a 5-point response scale ('almost never descriptive of this organization' to 'almost always descriptive of this organization')	No data reported	Professional report for aggregate assessment is only available to qualified professionals.
Organizational Assessment Survey (OAS) [OPM]	Self-report questionnaire	Total of 129 items: 100 items with 5-point Likert responses ('strongly disagree' to 'strongly agree') plus 'do not know' response, measuring 17 dimensions of culture: rewards/recognition; training/career development; innovation; customer orientation; leadership and quality; fairness and treatment of others; communications; employment involvement; use of resources; work environment/quality of worklife; work and family/personal	Flesch Kincaid of 7.0 for a sample of 11 items	Not applicable

		life; teamwork; job security/commitment to workforce; strategic planning; performance measures; diversity; supervision. 29 items measuring personal experience and job satisfaction		
Organisational Culture Assessment Tool (OCA)	Self-report questionnaire	45 items in 5 dimensions representing each cultural element (language; artifacts and symbols; patterns of behaviour; espoused values; beliefs and underlying assumptions). 8-point Likert response ('strongly agree' to 'strongly disagree').	No data reported	Not applicable
Organisational Culture Index (OCI) [Wallach]	Self-report questionnaire	24 adjective-style items with 4 response options (0 'does not describe my organization' to 3 'describes my organization most of the time'). 3 dimensions: bureaucratic (8 items); innovative (8 items); supportive (8 items).	No data reported	Not applicable
Organizational Culture Inventory (OCI)	Self-report questionnaire	120 items (also 96-, 48-, 36- and 13-item versions) with 5-point response scale ('not al all' to 'to a very great extent'). An additional 7 single items assess satisfaction and stress (role clarity, fit, satisfaction, propensity to stay, recommendation) and negatively with negative attitudes (role conflict, accommodation) 12 scales (equal numbers of items in each): humanistic-helpful; affiliative; approval; conventional; dependent;	No data reported	Not applicable

		avoidance; oppositional; power; competitive; competence/perfectionist; achievement; self-actualising. 3 second-order dimensions: constructive (or team or satisfaction) culture (including humanistic-helpful, affiliative, achievement, self-actualising scales); passive-defensive (or people/security) culture (including approval, conventional, dependent, avoidance scales); aggressive-defensive (or task/security) culture (including oppositional, power, competitive, competence/perfectionist scales).		
Organizational Culture Profile (OCP)	Self-report questionnaire	50 items with 7-point Likert scales ('strongly agree' to 'strongly disagree') over 10 dimensions: leadership; structure; innovation; job performance; planning; communication; environment; humanistic workplace; development of the individual; socialization on entry. 2 dimensional solutions with 18 or 20 items have also been identified from factor analysis.	No data reported	Not applicable
Organisational Culture Profile (O'Reilly)	Q sort, often conducted face to face to ease administration of the instrument. Later versions take the form of self-report questionnaire.	54 items sorted by participants familiar with the organisation into 9 categories of least/most desirable (for preferences) and characteristic of the organisation, with a given number of statements allowed per category (2,4,6,9,12,9,6,4,2). Value of each item is the category in which it was sorted. Dimensions include innovation and risk taking, attention to detail, orientation towards outcomes or results, aggressiveness or competitiveness, supportiveness, emphasis on growth and rewards, collaborative team orientation and decisiveness. However,	No data reported	Q sort requires an administrator, which led to the development of Likert versions

		studies often use whatever factors are derived from factor analysis conducted on that study's data. Subsequent versions of the measure have been used/developed that have fewer items, use a different category distribution, and/or use a 5-point Likert response scale.		
Organizational Culture Scales of the Spectrum / Organizational Assessment Survey (OAS) [MetriTech]	Self-report questionnaire.	The OAS instrument is reported in the manual to have a total of 200 items across 15 scales, with variable 5-point Likert-type response scales. There three main sections: Personal Incentives Scales (65 items), Job Opportunity Scales (40 items) and Organizational Culture Scales (32 items). Each of these sections has four dimensions: accomplishment, recognition, power, affiliation. There are also 3 supplementary sections: Job Satisfaction (12 items), Strength of Culture (7 items) and Commitment (9 items).	Requires a 6th-grade reading level. Takes less than one hour to complete.	Although self-completed, responses are scored by MetriTech.
Organisational Culture Survey	Self report questionnaire	31 items (with unknown response scale) measuring 6 subscales (teamwork & conflict, climate & morale, supervision, involvement, information flow and meetings). 5 dimensions over 30 items have also been reported (atmosphere, involvement, communication, supervision, meetings).	No data reported	Not applicable
Organisational Development Questionnaire (ODQ)	Self-report questionnaire	28 items with 3 response categories (true, false, can't say). 2 dimensions: transactional (14 items) and	No data reported	Not applicable

		transformational (14 items)		
Perceived Cultural Compatibility Index (PCCI)	Self report questionnaire	Single dimension of perceived cultural compatibility comprising 23 items each rated on a 5-point importance scale (not important to very important) according to 3 different frames of reference (ought to be, was before, is now).	No data reported	Not applicable
Perceived Organizational Culture	Self-report questionnaire	16 items with a 6-point scale ('very strongly agree' to 'very strongly disagree') on four dimensions: power, role, support and task	No data reported	Not applicable
Personal, Customer Orientation, Organisational and Cultural Issues (PCOC) questionnaire	Self report questionnaire	4 dimensions (culture, personal outcomes, customer orientation and organisational issues) over 13 elements (4 of which are cultural). 100 items, 98 answered on 5 point Likert scale ('strongly agree' to 'strongly disagree'), 2 open ended items	No data reported	Not applicable
Questionnaire of Organisational Culture	Self report questionnaire	2 scales: Interpersonal relationships and understanding an organisational task 16 items measured on 10 point response scale ('completely disagree' to 'completely agree')	No data reported	Not applicable
School Quality Management Culture Survey (SQMCS)	Self-report questionnaire	9 dimensions: shared vision, customer focus, long-term focus, continuous improvement, teacher involvement, collaboration, data-based decision-making, system focus, quality at the same cost.	No data reported	Not applicable

		31 items with Likert agreement scale (number of responses not known). Each item responded to twice, each representing a different cultural aspects: 'are' (representing behavioural norms) and 'should be' (representing underlying values and beliefs).		
School Values Inventory (SVI)	Self-report questionnaire	Form I: 38 value statements in five subscales (formality and control, bureaucratic rationality, achievement orientation, participation and collaboration, and collegiality) measured on 7 point Likert scales Form IV: no data available Form V: 50 items in seven subscales (formality and control, participation and collaboration, collegiality, goal orientation, communication and consensus, professional orientation and teacher autonomy) - each statement rated twice, for personal versus school espoused values.	No data reported	Not applicable
School Work Culture Profile	Self-report questionnaire	60 items answered on a five point Likert scale ('strongly agree' to 'strongly disagree') over 4 subscale (15 items per scale): planning, staff development, program development and assessment.	No data reported	Not applicable
Thomas' Professional	Self report questionnaire	1 dimension of professional accounting sub-culture. 10 items (2 items for each of the 5 culture elements) with 7-	Pilot study was conducted to assess	Not applicable

Accounting Sub-Culture (PASC) Questionnaire		point responses	relevance and understandability, after which changes to the questionnaire were made, although little detail given (Thomas 1989)	
Time Dimensions Scales	Self-report questionnaire	15 scales originally hypothesised (see above), 13 found and used in the empirical analysis: schedules and deadlines; punctuality; future orientation; work pace; allocation of time; time boundaries between work and non work; awareness of time use; work pace; autonomy of time use; synchronisation and co-ordination of work; routine versus variety; intraorganisational time boundaries; time buffer in the workday; sequencing of tasks through time. 56 items on 5 point Likert response scale (strongly agree to strongly disagree); 51 items contribute to the 13 composite scales.	Pilot work indicated time for completion ranged from 20-75 minutes	Not applicable
Values Survey Module	Self report questionnaire	VSM 94 has 20 items on 5-point scale measuring 5 dimensions (power distance, individualism, masculinity, uncertainty avoidance and long term orientation). Previous versions produced in 1981 and 1982 (47 items).	No data reported	Not applicable
van der Post Questionnaire	Self-report questionnaire	15 dimensions: conflict resolution; culture management; customer orientation; disposition towards change; employee participation, goal clarity; human resource orientation; identification with the organization; locus of	Evaluation of clarity formed part of development process, but was undertaken only with	Not applicable

		authority; management style; organization focus; organization integration; performance integration; reward orientation; task structure. 97 items with 7-point Likert scale (completely disagree to completely agree).	HR managers. Anticipated that completion time would be approximately 15 minutes (based on completion time of draft 167-item version)	
Women Workplace Culture Questionnaire (WWQ)	Self-report questionnaire.	30 items (although only 26 used in validation) with response formats ranging between 2 and 5 categories. Dimensional structure is under development. There were initially 7 dimensions: generally and specifically experienced attitudes (14 items); sexual harassment (4 items); childhood and adolescence/family of origin (3 items); support (5 items); coping (2 items); availability of trustworthy person at work (1 item); thoughts about leaving job (1 item). Validation was undertaken on five dimensions: perceived burdens on me (9 items), perceived burdens on women (6 items), sexual harassment (4 items), organizational support (4 items), influence of parents and siblings (3 items), although the latter factor was dropped midway through the validation procedure.	No data reported, although some degree of acceptability would be expected due to the origin of the items.	Not applicable

Appendix 4 Detailed Measure Reports

Assessing Learning Culture Scale

BASIC INFORMATION

Country of origin: US   **Development date:** 2001

Available versions: No additional versions

Definition or conceptual model:

A learning organisation is open to change and is supportive of learning, adaptation and continuous improvement. Evaluative inquiry is central to a learning organization and depends on the learning culture of the organization. A learning culture includes beliefs and attitudes that support the systematic and ongoing use of knowledge and information for improvement. A learning culture fosters risk taking, learning from mistakes and a climate of trust and courage.

Intended purpose:

To assess the strength of learning culture in terms of support for evaluation inquiry.

Format: Self-report questionnaire

Dimensions, items and scales:

10 items, 5 point scale from 'strongly agree' to 'strongly disagree' (although 1 item was deleted in Botcheva et al. 2002 as being double barrelled). Creates single dimension of learning culture.

Procedures for scaling and aggregation:

Averaging over items - no specific procedure for aggregation

Level of measurement: Assumed interval

Measuring and Assessing Organisational Culture in the NHS (OC1)

SCALE DEVELOPMENT

Methods used in item generation:

Not clear, although 2001 report not available. Scale was based on important aspects of learning culture outlined by Preskill and Torres (1999).

Methods used in item reduction and modification:

No data reported, although 2001 report not available.

Face validity:

No data reported

Acceptability:

No data reported

Feasibility:

Not applicable

Susceptibility to bias:

No data reported

Norms:

No data reported

Calibration:
No data reported

RELIABILITY

Internal consistency:

Alpha 0.8, corrected item-scale correlations for 9 items ranging from 0.358 to 0.838 (Botcheva et al.2002).

Reproducibility (test retest)

Not reported

Reproducibility (inter observer)

Not applicable

RELIABILITY

VALIDITY

Content validity:

No data reported

Criterion validity:

No data reported

Predictive validity:

The partial correlational analysis showed that, after the effect of the number of employees was taken into account, the level of external funding and Learning Culture Total Scores were positively correlated ($r_{xy} = .48$, df = 18, $p < .05$) (Botcheva et al. 2002).

When controlling only for number of employees, the Learning Culture total score and the consistency of data collection score were positively correlated ($r_{xy} = .42$, df = 17, $p < .05$). After removing the variance accounted for by both the number of employees and the level of external funding, the correlation was still positive and significant ($r_{xy} = .58$, df = 12, $p < .05$) (Botcheva et al. 2002).

Convergent validity:

No data reported

Discriminative validity:

No data reported

Cross cultural validity:

No data reported

Dimensional validity:

No data reported

Sensitivity to change:

No data reported

APPLICATIONS

Has the measure been used in health care settings?

No

What contexts and populations has the measure been used in?

n=25 representatives from 25 Northern California community agencies serving children and youth.

APPLICATIONS

Competing Values Framework Measures

BASIC INFORMATION

Country of origin: US   **Development date:** 1991-1996

Available versions: Likert and ipsative response version available. Versions for current culture status and normative future status.

Definition or conceptual model:

Culture is defined as taken for granted, shared assumptions of individuals in organisations that lie beneath conscious awareness. These assumptions relate to psychological archetypes based on Jung's work which organise individuals' interpretations into a limited number of categories. The model has 2 dimensions: a focus on internal maintenance (smoothing and integration) versus external relationships (competition and differentiation), and a focus on organic processes (flexibility) versus mechanistic processes (control).

Intended purpose:

To determine an organization's cultural type: group/human relations/clan; developmental/risk-taking/open systems/adhocracy/entrepreneurial; hierarchical/internal process/bureaucratic; rational/market.

Format: Self-report questionnaire

Dimensions, items and scales:

Dimensions vary in number between 4 and 6. Dimensions used include character, leadership, glue/cohesion, strategic emphasis, criteria of success, rewards, climate and management style. Each dimension comprises 4 statements, giving a total of between 16 and 24 statements.

Ipsative measure - 100 points are distributed across the 4 statements within each dimension.

Likert measure - Each statement is rated on a Likert scale (5-point and 7-point scales have been used).

Procedures for scaling and aggregation:

Points/ratings for statements relating to each of the four cultural types are averaged/summed to derive the four culture type scores. These can be aggregated to unit- or organizational-level. Questionnaires can be scored in terms of strength of culture (number of points given to the attributes) and congruence (number of high scores given to the same culture type in relation to each attribute).

Level of measurement: Assumed interval

Measuring and Assessing Organisational Culture in the NHS (OC1)

SCALE DEVELOPMENT

Methods used in item generation:

Four types of culture based on the Jungian archetypes and attributes were selected to represent the characteristics of each.

Methods used in item reduction and modification:

No data reported

Face validity:

No data reported

Acceptability:

Scott-Cawiezell et al. (2005) adapted an ipsative verion for 'unique issues of reading comprehension for the majority of staff within the nursing home'.

Zammuto and Krakower 1991 ipsative measure: Flesch-Kincaid reading score of 10.1 for items and instructions. Most items written with about 10 words (Meterko et al. 2002).

Feasibility:

Not applicable

Susceptibility to bias:

No data reported

Norms:

Measuring and Assessing Organisational Culture in the NHS (OC1)

National VHA hospital averages available for the Zammuto and Kakower 1991 ipsative version (Meterko et al. 2002).

Calibration:

No data reported

RELIABILITY

Internal consistency:

Ipsative version:

Alpha: team 0.76; open systems 0.66; rational 0.72; hierarchy 0.72 (Mallak et al. 2003).

Alpha: group 0.80; developmental 0.78; hierarchical 0.66; rational 0.78 (Goodman et al. 2001).

Alpha in US hospital nurses for 4 cultural types ranged 0.36 (rational) to 0.81 (group) (Wakefield et al. 2001)

Alpha in US VHA hospital staff for 4 cultural types were: 0.79 group; 0.75 bureaucratic; 0.60 entrepeuneurial; 0.40 rational (Meterko et al. 2004).

Alpha in US hospital staff for 4 cultural types were: 0.79 group; 0.70 hierarchical; 0.77 developmental; 0.47 rational (Shortell et al. 1995).

Likert version:

Alpha for 4 cultural types were: 0.92 clan; 0.91 adhocracy; 0.92 hierachical; 0.92 market. Corrected item total correlations ranged 0.74 to 0.84 (Jones et al. 1997).

Reproducibility (test retest)

No data reported

Reproducibility (inter observer)

Validity of aggregation to hospital level has been assessed for the ipsative measure in individual studies by comparing within- and between-group variance using ANOVA (e.g. Meterko et al. 2004)

VALIDITY

Content validity:

Multidimensional scaling using Zammuto and Krakower's 1991 ipsative measure and Quinn and Speitzer's 1991 Likert measure in US public utility firms showed support for the underlying CVF model, with scales assessing the same cultural types spatially mapping together (Quinn and Speitzer 1991).

Criterion validity:

No data reported

Predictive validity:

Ipsative measures:

Rehabilitation team functioning scores, as measured on team relations and team actions, differed significantly by the dominant cultural types (Strasser 2002).

CVF scores from hospital obstetrics units compared with indices of positive (commitment, involvement, empowerment and job satisfaction) and negative (intent to turnover) staff job attitudes. Group culture positively associated with positive attitudes (0.19 to 0.58) and negatively associated with negative attitudes (-0.49). Hierarchical culture negatively associated with positive attitudes (-0.21 to 0.51) and positively associated with negative attitudes (0.34). Rational culture was also positively associated with negative attitudes (0.27) but showed little or no association with positive attitudes (-0.15 to 0.02). Developmental culture showed little or no associations with any attitudes (-0.08 to 0.07) (Goodman et al. 2001).

At individual level of analysis, CQI implementation significantly positively associated with group and developmental cultures, and significantly negatively associated with hierarchical and rational cultures. Same results at unit level, also correlation with developmental culture was negative and non-significant. Hospital level results followed unit level although only the group correlation was significant. Reasons for non-reporting of medication administration errors were not associated with any of the culture types at the hospital level. Estimated percentage of medication administration errors reported at the hospital level was positively associated with group culture and negatively with hierarchical and rational cultures (non-significant) (Wakefield et al. 2001).

Inpatient satisfaction was significantly positively associated with teamwork (group) culture and negatively with bureaucratic culture. Further analysis indicated that the strength of culture distinguished levels of satisfaction for teamwork culture only (Meterko et al. 2004).

Group culture had the strongest association with QWL measures: it was positively related to commitment, empowerment and job satisfaction (and less so job involvement), and negatively related to intent to turnover. (Gifford et al. 2002).

Group/developmental culture (scores combined) positively related to quality improvement implementation (Shortell et al. 1995; Berlowitz et al. 2003; Lee et al. 2002) and negatively related to hospital size (i.e. bed size; Shortell et al. 1995).

Group/developmental culture (scores combined) associated with higher efficiency of utilisation, lower nurse turnover and better perceived outcomes within intensive care units (Shortell et al. 1994) and with staff satisfaction within long term VA care facilities (Berlowitz et al, under review) (reported in appendix of Meteroko et al. 2002).

Convergent validity:

Comparison of Zammuto and Krakower's 1991 ipsative measure and Quinn and Speitzer's 1991 Likert measure in US public utility firms: Multitrait-multimethod analysis and multidimensional scaling indicated overall evidence of good convergent and divergent validity of the two versions - correlations of same cultural types across versions were: 0.432 group; 0.513 developmental; 0.458 hierarchical; 0.212 rational. (Quinn and Speitzer 1991).

Ipsative measure:

Correlations with Shortell's Organisation and Management Survey subscales of organizational harmony and connectedness showed a positive association with group culture (0.57) and a negative association with hierarchical culture dominance (-0.48 and -0.46). Relationship between CVF scores and results of qualitative case studies were also evaluated (Scott-Cawiezell et al. 2005).

Discriminative validity:

Ipsative measures:

Clinical staff and administrators gave different scores on the 3/4 cultural types (personal, dynamic, formal) (Strasser et al. 2002).

Hospitals showed significantly different scores on 3 of 4 CVF cultural types (group, hierarchical, rational) (Goodman et al. 2001).

Differences found on 3/4 cultural types (developmental, hierarchical, rational) across hospitals - smaller hospitals tended to have group cultures whereas larger had hierarchical (Wakefield et al. 2001).

Differences found in group culture across 7 obstetrics units (Gifford et al. 2002).

Likert measures:

Comparison of 4 hospital units showed significant differences for 1 cultural type (clan) at 1/2 time points. 3 scores (clan, adhocracy and hierarchy) differed between caregiver groups at baseline and 1 (adhocracy) differed at follow-up after restructuring and job redesign project at a hospital (Jones et al. 1997).

Cross cultural validity:

Significant differences between countries (Japan, US, France, England, Germany) in CVF cultural types in a non-health setting (Deshpande and Farley 2004).

Dimensional validity:

Likert measure:

Principal components analysis of data from US manufacturing firms identified four components explaining 71.4% of the variance but these did not conform to the four cultural types - only the group culture items emerged in a single complete component (Stock and McDermott 2001).

Multidimensional scaling in a non-health setting showed the items to be scattered broadly in line with the competing values framework, although departures were noted with 3/16 items being located in the wrong cultural type quadrant (Lamond 2003).

Sensitivity to change:

Ipsative measure:

Culture scores over time (1997 to 2000) showed significant decreases in risk-taking culture, significant increases in hierarchical culture, non-significant decreases in group culture, and no change in rational culture. These were accompanied by decreases in 3/5 (2/5 significant) measures of quality improvement implementation and support. (Meterko et al. 2002).

Likert measure:

Culture scores showed no significant change after implementation of a restructuring and job redesign project at a hospital, although nonsignificant increases in the adhocracy scores were found. One control site demonstrated significant change in adhocracy and hierarchy culture. (Jones et al. 1997).

APPLICATIONS

Has the measure been used in health care settings?

Yes

What contexts and populations has the measure been used in?

n=685 clinical and administration staff of rehabilitation teams in 50 Veterans Hospitals in the US (ipsative; Strasser et al. 2002).

n=432 staff members of a hospital in the USA (ipsative; Mallak et al. 2003).

n=276 staff from obstetrics units of seven different hospitals in the US (ipsative; Goodman et al. 2001).

n=297 nurses in 6 hospitals in the US (ipsative; Wakefield et al. 2001)

n=276 staff of obstetrics units of 7 hospitals in US (ipsative; Gifford et al. 2002)

n=7337 staff from 61 hospitals in the US (ipsative; Shortell et al. 1995).

n=1065 (RR 60%) clinical staff of 35 VA nursing homes in US (ipsative; Berlowitz et al. 2003).

n=117 (RR 62%) from 67 large hospitals in Korea (ipsative; Lee et al. 2002).

Samples of VHA facility clinical, managerial and general staff in 1997, 1998 and 2000, with response rates from 70% (n=12406) in 1997, 62% in 1998 and 52% (n=8454) in 2000 (ipsative; Meterko et al. 2002; 2004).

260/550 (time 1) and 278/550 (time 2) caregivers at units within a hospital undergoing change in the US (Likert; Jones et al. 1997).

Non-health applications of ipsative versions include: 3406 individuals in 334 higher education institutions in the US (Cameron and Freeman 1991); 128 regional tourism organisations in the

US (Leisen et al. 2002); 360 marketing professionals in the US (Lund 2003); 24 employees and 12 board members of a farmers' cooperative in the US (Brown and Dodd 1998); 217 respondents in 71 local councils in Australia (Teo et al. 2003); 1763 staff members from 31 nursing homes in the US (Scott-Cawaiezell et al. 2005; measure adapted the measure for reading comprehension); 293 managers from 133 companies in US, Switzerland and South Africa (Sousa-Poza 2001); 50 firms from Stock Exchange in Tokyo (Deshpande et al. 1993); data from research programme of organizations in a dozen countries (including US, England, Japan, France and Germany) (Deshpande and Farley 2004); colleges and universities in US (Zammuto and Krakower 1991; Berrio 2003); public utility firms in US (Quinn and Spreitzer 1991); public sector organizations in Australia (Parker and Bradley 2000; Bradley and Parker 2001); state government department in Australia (Jones et al. 2005); government and public sector organizations in the oil and banking sectors in Libya (Twati and Gammack 2006).

Various non-healthcare applications of Likert versions including: public utility firms in US (Quinn and Spreitzer 1991); manufacturing firms in US (McDermott and Stock 1999; Stock and McDermott 2001); restaurant industry in Norway (Øgaard. et al. 2005); expert panel of total quality management practitioners (Chang and Wiebe 1996); alumni of a university business school in Australia (Lamond 2003); 141 organisations from services, manufacturing and oil and gas sectors in Qatar (Al-Khalifa and Aspinwall, 2001)

Concept Mapping and Pattern Matching

BASIC INFORMATION

Country of origin: US   **Development date:** 1986

Available versions: Not applicable

Definition or conceptual model:

None- the method takes a 'bottom-up' approach whereby the concept of culture emerges from the participants.

Intended purpose:

A concept map is a pictorial representation of a group's thinking which displays all the ideas of the group relative to the topic at hand, shows how these ideas are related to each other and, optimally, shows which ideas are more relevant, important or appropriate (Trochim 1989)

Concept mapping can be used for articulating and identifying patterns regarding culture in a given organizational setting.

Pattern-matching provides an extension to concept mapping by visually comparing patterns of concept clusters between group members, across different groups, over time, or with theoretical patterns.

Both provide visual representations of elements of organisational culture

Format: Hybrid methods combining qualitative group brainstorm and quantitative questionnaire (the latter is developed during group session).

Concept mapping generally involves a number of steps:

Brainstorming items related to the issue; structuring data by sorting and rating; aggregating data by multidimensional scaling and cluster analysis; interpreting the maps; using results

Dimensions, items and scales:

Variable - items for sorting and rating in concept mapping are generated by organization members within each specific setting using a 'focus statement'. Participants then sort items into conceptual clusters, and rate each item on, for example, a 5-point scale (no significance' to 'extremely significant').

Procedures for scaling and aggregation:

Item 'sort' and 'rated' responses are analysed using multidimensional scaling and cluster analysis to generate pictoral illustrations of item clustering (concept maps).

Pattern matching can be used to show similarities and differences among clusters of different demographic groups or subgroups of the organisation

Level of measurement: Assumed interval, although final product is descriptive

SCALE DEVELOPMENT

Methods used in item generation:

Not applicable

Methods used in item reduction and modification:

Items for sorting and rating in concept mapping are generated by organization members within each specific setting using a 'focus statement'.

Face validity:

The technique has good face validity with participants, as it is they who drive the content and structure of the final conceptual illustration.

Acceptability:

The concept mapping technique has been reported as highly acceptable to participants in terms of enjoyment and ownership of the process and final product, although respondents have found the sorting task to be challenging. It is also time-consuming - brainstorming has been reported to require 2 hours, and the sorting and rating a further 2-3 hours per participant.

Feasibility:

Skilled facilitator is required to explain and guide the process with group members. The data are also analysed with dedicated computer software ('Concept System', Trochim 1987).

Susceptibility to bias:

No data reported

Norms:

Measuring and Assessing Organisational Culture in the NHS (OC1)

Not applicable

Calibration:

No data reported

Not applicable

RELIABILITY

Internal consistency:

Trochim describes a number of reliability measures that can be used with concept mapping. Data from 38 different concept mapping studies (not in relation to organizational culture) used to assess the reliability of the input data (i.e. the sort and rated data) and the parameters of the resulting map (Trochim 1993). Assessed at the level of the respondent rather than the item. Split half reliability for the sort data was 0.83 and for the map data was 0.55. Average inter-individual correlation (analogous to inter-item correlation) on sort data was 0.82 and on rating was 0.78. Average individual-total correlation (analogous to item-total correlation) on sort data was 0.93. Average correlation between individual sort data and map data was 0.86.

Reproducibility (test retest)

No data reported

Reproducibility (inter observer)

No data reported

VALIDITY

Content validity:

The conceptualisation of culture emerges from the participants themselves during concept mapping and the validity of the concept maps generated is assessed with participants as part of the technique ('member checking')

Criterion validity:

No data reported

Predictive validity:

No data reported

Convergent validity:

Triangulation can be used with other approaches to the measurement of culture. Kolb and Shepherd (1997) report previous studies showing the superiority of concept mapping in illustrating the interrelationships within the concept of culture when compared with unidimensional assessment tools (details not given).

Discriminative validity:

No data reported

Cross cultural validity:

No data reported

Dimensional validity:

Fit values from multidimensional scaling (representing the fit of the resulting concept map to the input sort data) reported to be typically poor in concept mapping compared with

recommendations in the MDS literature - Trochim (1993) suggests that this is a function of the stability and complexity of the concepts under consideration and the precision of the measurement method.

Sensitivity to change:

No data reported

APPLICATIONS

Has the measure been used in health care settings?

Yes

What contexts and populations has the measure been used in?

Used in relation to organizational culture with n=12 staff of ATandT GIS in New Zealand (Kolb and Shepherd 1997) and n=9-11 faculty members in a tertiary education institution in New Zealand (Burchell and Kolb 2003).

Used in relation to other concepts in numerous settings, including health care, social services and mental health (See Trochim 1993).

APPLICATIONS

Corporate Culture Questionnaire

BASIC INFORMATION

Country of origin: UK. Available in 17 different languages.   **Development date:** 1993

Available versions: Short form - CCQ Lite

Definition or conceptual model:

Organisational culture is the dominant system of beliefs and practices. Key focus is on values, behavioural norms and practices that are perceived and that are dominant (as opposed to shared).

Intended purpose:

Authors describe an integrative model in which organizational culture comprises 21 dimensions of culture in four principal domains: performance (concern for quality, quantity, use of new equipment, creativity, customer orientation), human resources (concern for employees, job involvement, concern for career development, emphasis on performance related rewards, concern for equal opportunities), decision-making (degree of formalisation, employee influence on decisions, decision making effectiveness, concern for the longer term, rate of change, environmental concern) and relationships (vertical relations between groups, lateral relations between groups, interpersonal co-operation, communication effectiveness, awareness of organisational goals).

Format: Self-report questionnaire

Dimensions, items and scales:

126 items with 5 response categories ('strongly disagree' to 'strongly agree').

21 scales each with 6 items.

Procedures for scaling and aggregation:

Respondent scores are derived from summating items within each dimension. Aggregation to the level of the organisation is by mean scores. Analysis of variance of scores from 4 different organisations also indicated that respondents in one organisation consistently rated a dimension higher or lower than those from another organization.

Level of measurement: Assumed interval

SCALE DEVELOPMENT

Methods used in item generation:

Used top-down (deductive) process in which dimensions to be covered were decided at the outset from a review of the academic and management literature. 20 dimensions were identified, and later changed to 21.

An initial pool of approximately 800 items gathered from the literature and with help from experienced psychologists. These were reviewed for comprehensibility, relevance and overlap.

10 statements in 20 dimensions were selected from this pool to form the initial version. The final item set was selected from a multi-stage testing procedure, involving the administration of the items to 6 different samples of between 130 and 1718 individuals. Modifications were made to wording and the items were reduced to 6 per dimension on the basis of response distribution, item convergent/divergent correlations and alpha coefficients - this included several cross-validation samples. An additional ecological issues dimension was added at stage 5.

Methods used in item reduction and modification:

To measure (or describe) corporate culture for practical use in the management of change and the enhancement of effectiveness. Can be used at the level of the organisation or sub-organisation. Scores can be compared against norms.

Face validity:

Reported that the participants in the development and testing stages found the instrument acceptable and realistic as a measure of organisational culture.

Acceptability:

Ease of understanding and completion was checked at different stages in the instrument's development. The items were judged to be comprehensible and posed to difficulty in interpretation (Flesch Grade level 8.5). The average completion time for the final version was approximately 25 minutes.

Feasibility:

Not applicable

Susceptibility to bias:

No data reported

Norms:

Website indicates that norms are available for New Zealand. Walker et al. (1996) refer to a UK composite norm group.

Calibration:

No data reported

RELIABILITY

Internal consistency:

Alpha for near final version (i.e. final 126 items were subset of 138 with n=816) ranged 0.78-0.89 (<0.80 for 3 dimensions; 0.80-0.85 for 11 dimensions; >0.85 for 7 dimensions) (CCQ Manual.

Alpha for final version (i.e. final 126 items with n=274) ranged 0.72-0.89 (<0.80 for 8 dimensions; 0.80-0.85 for 9 dimensions; >0.85 for 4 dimensions) (CCQ Manual.

Reproducibility (test retest)

Testing of the stability of dimension scores within an organization over time was stated to be underway, but not yet reported.

Reproducibility (inter observer)

Aggregate level reliability: 8 groups of 100 individuals selected at random from 816. Standard deviation of the 8 means used as approximate of standard error of measurement for a sample of 100 individuals - showed to be reliable at this level (CCQ Manual).

VALIDITY

Content validity:

The managers in the organizations taking part in the validation found the description of culture based on the questionnaire to be relevant and didn't consider any important factors of culture to have been missed. The authors also point to the sound dimensional structural that concurs to the original conceptual model.

Criterion validity:

No data reported

Predictive validity:

Authors claim that this form of validity is less applicable for the CCQ because: it is intended to describe culture rather than predict outcome; relationships with external criteria will be contingent on other organizational and contextual factors and will be highly complex in nature; there are practical and methodology problems in conducting the necessary studies.

Convergent validity:

A separate study found some degree of agreement in the results on the CCQ and the Twenty Statements Test, although some differences were also found (Walker et al. 1996)

Discriminative validity:

Dimension scores (20) from four different organisations were all significantly different (analysis of variance) (CCQ Manual).

Cross cultural validity:

No data reported

Dimensional validity:

Principal components analysis with varimax rotation conducted with near final version (i.e. final 126 items were subset of 138 with n=816 in one organisation). 21 factors with eigenvalues>1 identified, and items loaded as expected. Loadings of less than 0.40 were found for only 8 items. Patterns of inter-correlations between dimensions were similar across two different samples (CCQ Manual).

Sensitivity to change:

No data reported

APPLICATIONS

Has the measure been used in health care settings?

6 validation samples of between 130 and 1718 individuals in different organisations.

What contexts and populations has the measure been used in?

Engineering manufacturing organization - n=112/158.

APPLICATIONS

Critical Incident Technique (CIT)

BASIC INFORMATION

Country of origin: US   **Development date:** 1954/2003

Available versions: Not applicable.

Definition or conceptual model:

None - uses a bottom-up view of culture with no pre-defined categories.

Intended purpose:

To surface an organisation's culture in terms of, for example, norms or values - intended to be used in conjunction with other methods to provide a thorough cultural description.

Format: Various formats to collect information regarding a critical incident - examples have included questionnaire, interviews and observation. One approach is to ask questions of employees concerning actions against or in line with firm's culture, which are then aggregated into categories and used to develop a set of values deemed important to respondents

Dimensions, items and scales:

Variable - information is collected about the critical incident regarding its causes, actions taken during the incident and outcomes.

Procedures for scaling and aggregation:

No scoring - data collected are analysed qualitatively to, for example, categorise the critical incidents reported. A single 'effectiveness of the incident' item has been used, with the average score taken to indicate culture strength with respect to certain values.

Level of measurement: Descriptive

SCALE DEVELOPMENT

Methods used in item generation:

The technique was initially developed by Flanagan (1954).

Methods used in item reduction and modification:

Items for a CIT questionnaire are developed specifically for the given context.

Face validity:

No data reported

Acceptability:

Variable according to method of data collection.

Feasibility:

Variable according to method of analysis.

Susceptibility to bias:

No data reported

Norms:

Not applicable

Calibration:

No data reported

RELIABILITY

Internal consistency:

No data reported

Reproducibility (test retest)

No data reported

Reproducibility (inter observer)

Reliability of the analysis of the critical incidents has been evaluated in a study conducted in a US hospital (Mallak et al. 2003).

Measuring and Assessing Organisational Culture in the NHS (OC1)

VALIDITY

Content validity:

No data reported

Criterion validity:

No data reported

Predictive validity:

Effectiveness of incident item score shown to correlate with quality-related scales (leadership support for quality, patient results and patient satisfaction).

Convergent validity:

No data reported

Discriminative validity:

No data reported

Cross cultural validity:

No data reported

Dimensional validity:

Not applicable.

Sensitivity to change:

No data reported

APPLICATIONS

Has the measure been used in health care settings?

Yes

What contexts and populations has the measure been used in?

All employees of a US hospital (Mallack et al. 2003) - critical incidents compared to hospital's stated values.

Various healthcare settings (reviewed by Kemppainen 2000).

Various non healthcare settings, including the US Air Force, retail settings and the service sector.

Cultural Audit

BASIC INFORMATION

Country of origin: UK   **Development date:** 1991

Available versions: No additional versions

Definition or conceptual model:

Culture is the overall ethos of an organisation: those characteristics, including both psychological and structural elements, which affect the perceptions and behaviour of employees. Microculture, the level at which the measure is aimed, is the aggregation of the cognitive interpretations of the workforce arising from the experience and personalities of the individuals, the events and processes the organization goes through, and the individuals' perceptions of their job and working environment.

Organisational culture can be described in terms of four general bipolar types: homogenous versus heterogenous; enriched versus managed; developing versus stationary; balanced versus dissonant. It is considered that these can be derived from information regarding a number of different dimensions

Intended purpose:

To provide a detailed measurement of a wide range of aspects of organizational culture

Format: Self-report questionnaire.

Dimensions, items and scales:

Over 70 questions and over 200 response elements on a five point scale

For each response element, respondent gives perceptions of their own situation, that of others in the organisation, and their ideal situation

---

Measuring and Assessing Organisational Culture in the NHS (OC1)

There 9 sections in the measure (work demands, interpersonal relationships, work supports and constraints, physical environment, performance, organizational commitment, job dissatisfaction, strain, and personality), within which there are a number of subscales (details not reported).

Procedures for scaling and aggregation:

Scores can be produced at the item- or scale level. For each of these elements, three different scores are described: own situation, the misfit between own situation and that of others in the group, and the misfit between own situation and their ideal. The different dimensions in the measure can also be used to summarise the organisation's culture according to the four bipolar types but the procedure for doing this is not reported in detail.

Level of measurement: Assumed interval

SCALE DEVELOPMENT

Methods used in item generation:

The content for the measure was based on various psychological theories regarding job design (Hackman and Oldham's Job Characteristics model), motivation (Locke's Goal Setting theory), occupational stress (Payne's Demands, Supports and Constraints model) and person-environment fit.

Methods used in item reduction and modification:

Not clear for item reduction. The subscales were based on factor analysis (details not reported).

Face validity:

No data reported

Acceptability:

Reported completion time was 30 minutes

Feasibility:

Not applicable

Susceptibility to bias:

No data reported

Norms:

Not applicable

Measuring and Assessing Organisational Culture in the NHS (OC1)

Calibration:

No data reported

Measuring and Assessing Organisational Culture in the NHS (OC1)

RELIABILITY

Internal consistency:

No data reported

Reproducibility (test retest)

No data reported

Reproducibility (inter observer)

Not applicable

Measuring and Assessing Organisational Culture in the NHS (OC1)

VALIDITY

Content validity:

No data reported

Criterion validity:

No data reported

Predictive validity:

No data reported (some data presented regarding the items that predict perceived performance effectiveness but no clarity as to origin)

Convergent validity:

No data reported

Discriminative validity:

Not clear (some data presented regarding comparisons between organizational departments but no clarity as to origin).

Cross cultural validity:

No data reported

Dimensional validity:

Not clear other than from scale construction.

Sensitivity to change:

No data reported

APPLICATIONS

Has the measure been used in health care settings?

Not clear

What contexts and populations has the measure been used in?

Not clear

Cultural Assessment Survey

BASIC INFORMATION

Country of origin: US   **Development date:** 2005

Available versions: No additional versions

Definition or conceptual model:

No formal definition other than organizational culture being 'a progression of social development'. The components of a successful culture are stated to include an atmosphere that encompasses the values and growth of the individual as well as the organization, collaboration between individuals and the organization being a team effort and the existence of a shared vision.

Intended purpose:

To determine how employees feel about the work environment from a personal perspective and to assess the reality of perceptions among staff members regarding collaboration in the organization. The findings are used to recommend changes that would enhance collaboration.

Format: Self-report questionnaire

Dimensions, items and scales:

20 items grouped into three categories: collaborative, individual, unified. Items have open responses, not response scales.

Procedures for scaling and aggregation:

The output from the measure is a description of the organization's culture in terms of the percentage split between collaborative, individual and unified. Item responses are collated by the manager or leader of the organizational unit: responses are classified as positive or negative and then grouped into themes depicting assumptions about the culture from the

particpants' perspective. These assumptions are then classified as collaborative, individual or unified.

Level of measurement: Not applicable

Measuring and Assessing Organisational Culture in the NHS (OC1)

SCALE DEVELOPMENT

Methods used in item generation:

No data reported

Methods used in item reduction and modification:

No data reported

Face validity:

No data reported

Acceptability:

No data reported, although open questions require some degree of effort from respondents.

Feasibility:

Considerable administrator input is required in the interpretation of responses, which is intended to fall to the manager or leader of the organization.

Susceptibility to bias:

No data reported, although likely to be vulnerable to social desirability bias due to the open answers that are required, which are collated by the manager of the organization.

Norms:

No data reported

Calibration:

No data reported

Measuring and Assessing Organisational Culture in the NHS (OC1)

RELIABILITY

Internal consistency:

No data reported

Reproducibility (test retest)

No data reported

Reproducibility (inter observer)

No data reported

RELIABILITY

Measuring and Assessing Organisational Culture in the NHS (OC1)

VALIDITY

Content validity:

No data reported

Criterion validity:

No data reported

Predictive validity:

No data reported

Convergent validity:

No data reported

Discriminative validity:

No data reported

Cross cultural validity:

No data reported

Dimensional validity:

No data reported

Sensitivity to change:

No data reported

APPLICATIONS

Has the measure been used in health care settings?

Yes

What contexts and populations has the measure been used in?

10/80 staff of a perioperative department at a medical centre in the US (Forsythe 2005)

Cultural Consensus Analysis

BASIC INFORMATION

Country of origin: Not clear, although described study was conducted in the US
   Development date: Original theory paper 1988, described study was 2004

Available versions: Not applicable

Definition or conceptual model:

Cultural knowledge is shared and systematically distributed. Group similarity may be inferred by similarity of response to a set of meaningful statements. Important differences in cultural knowledge may be elucidated by differing responses to the same set of statements. Culture operationalised as values.

Intended purpose:

To identify groups with shared values and thereby subcultures that may have conflicting values

Format: General approach involving value statement development through ethnographic work and focus groups, and a subsequent ranking task of statements generated.

Dimensions, items and scales:

1 dimension comprising between 10-20 statement - statements not defined in advance, emergent from data. Statements ranked in terms of their importance.

Procedures for scaling and aggregation:

Factor analysis on person- rather than item-data used to a group's similarity of values corrected for guessing. Aligning subjects with 'cultural partners' is conducted a posteriori through Bayes' theorem. Shared cultural model defined as ratio 3:1 between eigenvalues of first and second factor.

Group-level average ranks are derived for each statement. Comparing rank orders between different groups allows large differences to be identified which may relate to particular problems (and which can be confirmed through comparison with observation, interview and focus group data)

Level of measurement: Ordinal ranks

SCALE DEVELOPMENT

Methods used in item generation:

Ethnography (observation and interview) used to develop set of categories which are then used as focus group questions, which are then used to develop statements (10-20 is ideal) for the ranking task.

Methods used in item reduction and modification:

Statements are modified based on reading level score.

Face validity:

Ethnography (observation and interview) and focus groups used to develop questions ('ground up' approach), credibility can be checked with members

Acceptability:

Assessment of reading level can form part of statement development - Flesh-Kincaid reading level of final 16 statements used in US medical centre study was just above 5th grade.

Feasibility:

Time required is not reported, but is likely to be significant because of the need to develop statements through ethnography and focus groups

Susceptibility to bias:

No data reported

Norms:

No data reported

Calibration:

No data reported

Measuring and Assessing Organisational Culture in the NHS (OC1)

RELIABILITY

Internal consistency:

No data reported

Reproducibility (test retest)

No data reported

Reproducibility (inter observer)

Initial ethnography analysed by two researchers working independently, discrepancies resolved by discussion and revision.

RELIABILITY

Measuring and Assessing Organisational Culture in the NHS (OC1)

VALIDITY

Content validity:

No data reported

Criterion validity:

No data reported

Predictive validity:

No data reported

Convergent validity:

No data reported

Discriminative validity:

Analysis designed to distinguish groups with different values. Correlations between the same groups at 2 different sites were higher than those between different groups at the same hospital (Smith et al. 2004)

Cross cultural validity:

No data reported

Dimensional validity:

No data reported

Sensitivity to change:

No data reported

APPLICATIONS

Has the measure been used in health care settings?

Yes

What contexts and populations has the measure been used in?

VA Medical centre in the US used for main study, generaliseability assessed using second county hospital in the US (Smith et al. 2004)

Appendix 5 Clinical Governance Leads

Assessing culture in the NHS
A questionnaire for
Clinical Governance Leads

ID ☐☐☐

There is growing interest in assessing the softer side of health care organisations, including their organisational cultures. Understanding and changing these cultures may lead to improvement in quality and safety. But what aspects of organisational cultures should be assessed and how should such assessments be achieved? Given your involvement with clinical governance, we would be very grateful for your views on this topic.

⇨ Do you take the lead role for Clinical Governance in your Trust?

☐ Yes

☐ No – pleases explain (briefly) your role in clinical governance

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

⇨ What is your usual Job Title?

…………………………………………………………………………………

⇨ What is your Professional Background? *(Please tick one box)*

☐   Doctor;

☐   Nurse;

☐   AHP;

☐   (non-clinical) Managerial

☐   Other

⇨ Is (organisational) 'culture' a term that is used to help describe or explain the ways things happen in your organisation? *(Please tick one box)*

☐ Yes, the term 'culture' is often raised in local discussions

☐ Yes, there is sometimes talk locally about our culture

☐ Not really, talk of culture happens only among a few individuals

☐ No, 'culture' is rarely – if ever - something that is talked about around here

Culture is a complex and contested concept, but one explanation suggests that it is "the ways in which things are done around here". In more detail, organisational culture has been defined as –

> "…the shared beliefs, values, attitudes and norms of behaviour in the work place, including the local routines, traditions, ceremonies, and ways of making sense of the local work environment."

⇨ To what extent does this definition of organisational culture accord with your own understanding? *(Please tick one box)*

strongly agree	**tend to agree**	**tend to disagree**	**strongly disagree**
☐	☐	☐	☐

If you DISAGREE, would you please explain briefly -

………………………………………………………………………………………………….

....

....

....

There now follows a number of statements about organisational culture in health care, broadly based on the above definition. Please indicate the degree to which you either agree or disagree with each statement. ***There are no right or wrong answers – we are primarily concerned with your perceptions and perspectives.*** For each statement we would ask that you draw most heavily on your recent local experience. *(Please tick one box for each statement)*

- *"Understanding the local organisational culture is a central task for Clinical Governance"*.

  strongly agree   tend to agree tend to disagree   strongly disagree

  ☐   ☐   ☐   ☐

- *"Established local cultures can sometimes provide significant obstacles to improvements in health care quality, safety and performance"*.

  strongly agree   tend to agree tend to disagree   strongly disagree

  ☐   ☐   ☐   ☐

- *"There are aspects of the local culture that are very or somewhat helpful to the delivery of high quality care"*.

  strongly agree   tend to agree tend to disagree   strongly disagree

  ☐   ☐   ☐   ☐

If you AGREE, please list some examples -

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

- *"There are aspects of the local culture that are very or somewhat unhelpful to the delivery of high quality care"*.

strongly agree   **tend to agree tend to disagree**   **strongly disagree**

☐   ☐   ☐   ☐

If you AGREE, please list some examples -

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

- *"Influencing the local organisational culture is an important part of Clinical Governance"*.

strongly agree   **tend to agree tend to disagree**   **strongly disagree**

☐   ☐   ☐   ☐

- *"Culture(s) are difficult to manage, but specific components might be either nurtured or discouraged"*.

    strongly agree   **tend to agree tend to disagree**   **strongly disagree**

    ☐   ☐   ☐   ☐

- *"Local culture(s) is/are entrenched and are largely impervious to managed change"*.

    strongly agree   **tend to agree tend to disagree**   **strongly disagree**

    ☐   ☐   ☐   ☐

- *"It should be possible, in order to facilitate and initiate change of cultures, to assess at least some aspects of our local culture"*.

    strongly agree   **tend to agree tend to disagree**   **strongly disagree**

    ☐   ☐   ☐   ☐

- *"Assessment of local cultures should aim primarily at helping to improve local governance"*.

    strongly agree   **tend to agree tend to disagree**   **strongly disagree**

    ☐   ☐   ☐   ☐

- *"Assessment of local cultures should aim primarily at providing quality data that would allow judgement to be made"*.

    strongly agree   **tend to agree tend to disagree**   **strongly disagree**

    ☐   ☐   ☐   ☐

- *"In this Trust we have a long way to go before we have a local organisational culture that will support clinical performance in terms of quality and safety"*.

    strongly agree   **tend to agree tend to disagree**   **strongly disagree**

    ☐   ☐   ☐   ☐

⇨ Are you aware of any use of formal or informal cultural assessment tools locally?

☐   No -   Please explain briefly

………………………………………………………………………………….

…………………………………………………………………………………

………………………………………………………………………………….

…………………………………………………………………………………

☐   Yes -   Please complete the table overleaf

⇨ Are you aware of any use of formal or informal cultural assessment tools locally?

Please encircle NO or YES in the first column to indicate whether you have used each of the listed tools. For all the tools you <u>have</u> used, please work your way along the row, making a ring round a number from 1(YES) to 5 (NO) to indicate the strength of your response; and in the last column indicate at which level it was used. Please state in the last row any tools you might have used that have not been included on this list.

Name of culture assessment tool	Have you used this tool?	Did you find this tool easy to use?	Did you find it relevant to health care?	Did you find use of this tool helpful	At what level was it used?
Competing Values framework	No Yes➡	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
Practice culture questionnaire	No Yes➡	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
General practice learning organisation diagnostic tool	No Yes➡	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
Ward organisational features scale (WOFS)	No Yes➡	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
Nursing unit cultural assessment tool (NUCAT)	No Yes➡	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
Group practice culture questionnaire	No Yes➡	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
Organisational culture profile	No Yes➡	Yes No	Yes No	Yes No	1 Team 2 Department

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(OCP)		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	3 Organisation

Name of culture assessment tool	Have you used this tool?	Did you find this tool easy to use?	Did you find it relevant to health care?	Did you find use of this tool helpful	At what level was it used?
Safety attitude questionnaire	No Yes➜	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
Stanford patient safety culture inventory	No Yes➜	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
Manchester patient safety framework	No Yes➜	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
AHRQ hospital survey on patient safety culture	No Yes➜	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
Safety climate scale	No Yes➜	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
Institute for Healthcare Improvement's safety climate survey	No Yes➜	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation
Other (please name): …………………………….	No Yes➜	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation

Other (please name): …………………………………….	No Yes➡	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	Yes No 1 2 3 4 5	1 Team 2 Department 3 Organisation

⇨ If your organisation HAS used any of the above tools, please could you say a little about whether or not you were able to act on the findings and, if so, how?

……………………………………………………………………………………………

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⇨ If there were better information on existing tools, would you be more likely to use such tools in clinical governance? *(Please tick one box)*

☐   Not very likely

☐   Somewhat likely

☐   Very likely

⇨ The following aspects of culture are often included in culture assessment tools. To what extent do you see each of these as being important for the delivery of high quality safe health care? *(Please tick one box for each row)*

	very important	somewhat	little or not at all
Patient centredness	☐	☐	☐
Public service ethos	☐	☐	☐
Clear governance/ accountability	☐	☐	☐

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Support for innovation ☐ ☐ ☐

very important   somewhat   little or not at all

Blame free environment ☐ ☐ ☐

Team working ☐ ☐ ☐

Focus on cost effectiveness ☐ ☐ ☐

Collaborative working ☐ ☐ ☐

Prioritisation of choice ☐ ☐ ☐

Standardisation of care ☐ ☐ ☐

Customised care ☐ ☐ ☐

Safety awareness ☐ ☐ ☐

Quality focus ☐ ☐ ☐

Senior Management Commitment ☐ ☐ ☐

What aspects of organisational culture are missing from the above list that you would find it useful to have assessment mechanisms for?

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

………………………………………………………………………………………

What additional means of measurement and assessment of local organisational culture(s) might be useful to you in your work on clinical governance?

………………………………………………………………………………………
………………………………………………………………………………………

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………………………………………………………………………………………

Any final comments?

………………………………………………………………………………………
………………………………………………………………………………………
………………………………………………………………………………………
………………………………………………………………………………………

If you would be prepared to participate in a focus group to discuss the role of organisational culture in clinical governance, please include your name and contact details below.

Name
………………………………………………………………………………………

Job title
………………………………………………………………………………………

Organisation………………………………………………………………………

Email

……………………………………………………………………………………………

Telephone

……………………………………………………………………………………………

THAT'S ALL! Many thanks for taking the time to complete this questionnaire.

PLEASE return in the envelope provided, or send to the address below:

Dr Russell Mannion

Centre for Health and Public Services Management

The University of York

Sally Baldwin Buildings – Block A

Heslington

York

Yo10 5DD

Tel 01904-433431

Email:rm15@york.ac.uk

Appendix 6 Patient Representatives

Organisational culture in the NHS
A questionnaire for
Patient Representatives

ID ⬜⬜⬜

There is growing interest in assessing the softer side of health care organisations, including their organisational cultures. Understanding and changing these cultures may lead to improvement in quality and safety. But what aspects of organisational cultures should be assessed and how should such assessments be achieved? Given your role in representing patients within the organisation we would be very grateful for your views on this topic.

⇨ Do you take a leading role in representing the interest of patients in your Trust?

⬜ Yes

⬜ No – please explain (briefly) your role in representing patients

……………………………………………………………………………………..

……………………………………………………………………………………..

……………………………………………………………………………………..

⇨ What is your usual Job Title?

…………………………………………………………………………………….

⇨ Is (organisational) 'culture' a term that is used to help describe or explain the ways things happen in health care locally? (*Please tick one box*)

☐ Yes, the term 'culture' is often raised in local discussions

☐ Yes, there is sometimes talk locally about the organisational culture

☐ Not really, talk of culture happens only among a few individuals

☐ No, 'culture' is rarely – if ever - something that is talked about locally

Culture is a complex and contested concept, but one explanation suggests that it is "the ways in which things are done around here". In more detail, organisational culture has been defined as –

> "…the shared beliefs, values, attitudes and norms of behaviour in the work place, including the local routines, traditions, ceremonies, and ways of making sense of the local work environment."

⇨ To what extent does this definition of organisational culture accord with your own understanding? (*Please tick one box*)

strongly agree	**tend to agree**	**tend to disagree**	**strongly disagree**
☐	☐	☐	☐

If you DISAGREE would you please explain briefly -

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

……………………………………………………………………………………

There now follows a number of statements about organisational culture in health care, broadly based on the above definition. Please indicate the degree to which you either agree or disagree with each statement. ***There are no right or wrong answers – we are primarily concerned with your perceptions and perspectives.*** For each statement we would ask that you draw most heavily on your recent local experience. *(Please tick one box for each statement)*

- *"Understanding the local organisational culture is a central task for those interested in influencing health care delivery"*.

    strongly agree   **tend to agree tend to disagree**   **strongly disagree**

    ☐   ☐   ☐   ☐

- *"Established local cultures can sometimes provide significant obstacles to improvements in health care quality, safety and performance"*.

    strongly agree   **tend to agree tend to disagree**   **strongly disagree**

    ☐   ☐   ☐   ☐

- *"There are aspects of the local culture that are very or somewhat helpful to the delivery of high quality care"*.

    strongly agree   **tend to agree tend to disagree**   **strongly disagree**

    ☐   ☐   ☐   ☐

If you AGREE, please list some examples -

……………………………………………………………………………………….

……………………………………………………………………………………….

………………………………………………………………………………………

....

- *"There are aspects of the local culture that are very or somewhat unhelpful to the delivery of high quality care".*

strongly agree	tend to agree	tend to disagree	strongly disagree
☐	☐	☐	☐

If you AGREE, please list some examples -

....

....

....

....

- *"In local health services we still have a long way to go before we have a local organisational culture that will support clinical performance in terms of quality and safety".*

strongly agree	tend to agree	tend to disagree	strongly disagree
☐	☐	☐	☐

The following aspects of culture are often included in culture assessment tools. To what extent do you see each of these as being important from a patient perspective for the delivery of high quality safe health care? *(Please tick one box for each)*

	very important	somewhat	little or not at all
Patient centredness	☐	☐	☐

	very important	somewhat	little or not at all
Public service ethos	☐	☐	☐
Clear governance/ accountability	☐	☐	☐
Support for innovation	☐	☐	☐

	very important	somewhat	little or not at all
Blame free environment	☐	☐	☐
Team working	☐	☐	☐
Focus on cost effectiveness	☐	☐	☐
Collaborative working	☐	☐	☐
Prioritisation of choice	☐	☐	☐
Standardisation of care	☐	☐	☐
Customised care	☐	☐	☐
Safety awareness	☐	☐	☐
Quality focus	☐	☐	☐
Senior Management Commitment	☐	☐	☐

What aspects of culture are missing from the above list but are important from a patient perspective?

....

....

....

....

**THAT'S ALL! Many thanks for taking the time to complete this questionnaire.
PLEASE return in the envelope provided, or send to the address below:**

Dr Russell Mannion

Centre for Health and Public Services Management

The University of York

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Glossary

BMA	British Medical Association
CHAI	Commission for Healthcare Audit and Inspection (Healthcare Commission
CVF	Competing Values Framework
FGD	Focus Group Discussion
GLOBE	Global Leadership and Organisational Behaviour Effectiveness
MaPSaf	Manchester Patient Safety Framework
MONITOR	Independent Regulator of NHS Foundation Trusts
NCGST	National Clinical Governance Support Team
NHS	National Health Service
NIII	NHS Institute for Innovation and Improvement
NPSA	National Patient Safety Agency
NWI	The Nursing Work Index
NWI-R	The Nursing Work Index – Revised
OAS	Organisational Assessment Survey
OAQ	Organisational Assessment Questionnaire
OCP	Organisational Culture Profile
OPM	Office of Personnel Management
Pbr	Payment by Results
PCT	Primary Care Trust
PPI	Patient and Public Involvement
PR	Patient Representative
RCN	Royal College of Nursing
SAQ	Safety Attitude Questionnaire
SCS	Safety Climate Survey
SDO	NHS Service Delivery and Organisational Research and Development Programme
SPI	Safer Patients Initiative
STS	Sociotechnical systems theory
UNISON	The Health Care Service Union