What makes a good employer?
What makes a good employer?

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Executive Summary

Introduction
This document summarises underlying evidence and issues related to good human resource management (HRM) in the health sector with reference to: (a) indicators of performance and measurement of nursing outcomes; (b) performance issues related to individuals and teams; and (c) employee engagement, commitment and organisational citizenship behaviour (OCB). There are two key themes: What are the interventions and indicators associated with good HRM outcomes, and how can these be measured?

Reviews suggest investment in developing and maintaining effective HRM policy and practice makes a significant and measurably positive contribution to organisational performance (CIPD 2001; Caulkin 2001; Richardson and Thompson 1999; West et al. 1997). Human resource (HR) practice contributes to business performance in ways influenced by three broad perspectives: ‘Best practice’, ‘contingency’ and through ‘bundles’ (Richardson and Thomson 1999). However, there is no ‘magic bullet’. Claims of a universal best practice are premature; adopting a specified set of HR strategies will not in itself lead to organisational success, and the same ‘bundle’ of HR policies may not be universally applicable (Richardson and Thomson 1999). Exactly how and in what combination the linkages between management practices and superior function are enacted remain an enigma (Caulkin 2001), and the examination of HRM remains a ‘young field of research’ (Guest 2001).

HRM in the health sector has a unique set of circumstances and characteristics (e.g. a workforce comprising separate occupations and professions). HRM in health care is under-researched with most work being undertaken in North America (Buchan 2004). The challenge for researchers and policy analysts in the health sector is to bridge the current knowledge gap – between what we know from the general evidence base on HRM inputs and performance, and what we know from the health-specific evidence base.

Nursing performance indicators: Evidence base
Nursing performance indicators may be of interest to the ‘good employer’ for a number of reasons. These include improving the quality of care, facilitating recruitment and retention of staff, and providing information to underpin rational and defensible decision-making. Nursing performance indicators are the result of a convergence of forces, including rising demands for care, concerns about quality, and cultural changes that seek greater transparency and accountability in public services. Indicators are often selected for pragmatic reasons, but there is increasing reliance on scientific methods, such as systematic reviews of the literature combined with consensus methods. An integrated approach to the development of measures of team effectiveness and functioning has been advocated (Lovett et al. 2002). This has stimulated interest in structural, process and outcomes measures, and researchers have recently focused on the latter. The outcomes of medical care are evaluated as death, disease, disability, discomfort and dissatisfaction (Lohr 1988).

Nursing sensitive outcomes are variously defined, but emphasise variables dependent on nursing interventions. Reservations about their use have included the difficulty of evaluating the input of one profession in multi-professional teamwork; the difficulty of measuring important aspects of nursing care; and the additional stress performance indicators may place on already overworked staff. A growing body of evidence suggests small changes in characteristics of the nursing workforce are associated with large changes in patient outcomes (e.g. the mix of nursing skills, education, experience and workload have an impact on patient mortality, failure to rescue, adverse events and length of stay).

1 Human resource management (HRM) is a much defined and somewhat contested concept and its definition varies depending upon the setting. It is primarily the branch of organisational science that deals with the entire employment relationship, along with all the decisions, actions and issues involved in that relationship. In business (and more recently in health care), it may be used to gain a competitive advantage over others through the strategic deployment of a highly committed and capable workforce, using an array of cultural, structural and personnel techniques (Storey 1995).
Performance of individual workers and teams in health care

Objectives and effective methods of assessment: Evidence base

Research suggests that where health care professionals work together in teams, an improved service to clients can be delivered (Zwarenstein et al. 1997; Aiken et al. 1998; Schmitt 2001; Rafferty et al. 2001). In terms of a ‘good employer’, effective teamwork enhances staff motivation (Wood et al. 1994), job satisfaction and mental health (Borrill et al. 2000; Peiro et al. 1992), improves retention and reduces turnover (Borrill et al. 2001). There is a well-established body of literature which identifies the effectiveness of teams, both in terms of their development and functioning (e.g. stages of development and team communication, flexibility, innovation, team roles and leadership) (Borrill et al. 2001; Heinemann and Zeiss 2002b).

The convergence of both external and internal forces has resulted in the development of performance management in health care. External factors may include political pressures and health care reforms; financial pressures such as efficiency drives and budget cuts; the introduction of purchaser/provider split and service contracts; and pressure from increased expectations of clients and users. Within organisations, internal pressures and effects that have given rise to the desire to at least define, if not measure performance, include resources such as staffing, the physical environment, people management and the organisational culture (Michie and West 2003).

To evaluate performance, various dimensions of staff performance need to be taken into account, including individual and team performance, task and contextual performance, and both process and outcome measures. To measure performance in health care, HRM should monitor the antecedents of both task and contextual performance. Until now, the focus has been predominantly on task performance (Michie and West 2003). Although studies in health care consistently support the value of team-based working, much of the performance measurement in health care remains driven by the measurement of individual performance, notably the individual performance appraisal. A plethora of appraisal systems and tools are available to managers including the more recent approach to individual assessment of performance – ‘360 degree feedback’ (Armstrong and Baron 2005). Sound instruments for measuring team performance are presented as both ‘state of the art’ instruments, such as team climate inventory (Anderson and West 1998) and ‘honourable mention’ instruments, such as team collaboration index (Aram et al. 1971; Lovett et al. 2002). Measurement of team performance highlights many difficulties common to the measurement of any performance, including lack of a common language among different disciplines and adaptation to local conditions, such as the development of virtual teams.

Employee engagement: Evidence base

Employee engagement has two well-researched precursors as its foundation – employee commitment and organisational citizenship behaviour. Both have a good research base and make engagement worth closer scrutiny than some other HR initiatives. There is a growing consensus that employee commitment should be viewed as a multidimensional construct and a two-way process. Organisations see the need to create commitment because it has positive benefits for the organisation, such as increased job satisfaction (Vandenbergh and Lance 1992) and job performance (Mathieu and Zajac 1990), as well as decreased employee turnover (Cohen 1991), absenteeism (Cohen 1993; Barber et al. 1999) and intention to leave (Balfour and Wechsler 1996). Research focusing on ‘met expectations’ suggests that employees will be more committed if there is a good match between what the person reads in a job advertisement and what the job provides (Davis 1992). Unmet expectations are commonly cited as a cause of dissatisfaction (Sturges and Guest 2000). A link between early job experiences and commitment has also been demonstrated (Mignerey et al. 1995) and the importance of a good induction programme and training emphasised.
Four areas have been identified where an employee's sense of trust in the employer can be developed (O'Mally 2000). These areas are (1) growth (attending to employees' developmental needs), (2) work-life balance, (3) individual accommodation (flexibility or benevolence towards employees) and (4) health and safety. Organisational citizenship behaviour (OCB) or contextual performance (Michie and West 2003) is likely to be particularly important in health care where a high level of inter-disciplinary and inter-agency collaboration is required. The link between OCB and organisational performance is supported but not definitive (Podsakoff et al. 2000), and it may be fruitful to discover how to promote OCB. However, OCB may require greater definition and clarity and may need to be incorporated into the organisation's values and ethos if it is to be made more explicit and if employees are to be appraised on it.

Employee engagement has a limited research base and work has, to date, concentrated on its definition, devising a measure of engagement and what influences it most. Employee engagement overlaps with the concepts of employee commitment and OCB, but it is not a perfect match with either. Employee engagement is not an academic construct (most work comes from consultancies and survey houses), but some practitioner-led research has been undertaken in this field.
Introduction

A well motivated, appropriately skilled and deployed workforce is critical to the success of any health system delivery. The scarcity of qualified health personnel, including nurses, is being highlighted as one of the biggest obstacles to achieving the Millennium Development Goals (MDGs) for improving the health and well-being of the global population (Buchan and Calman 2004).

The current global shortage of registered nurses (RNs), particularly in Africa, Central and South America and Asia, creates a new imperative to attract new recruits and retain the current nursing workforce (Buchan and Calman 2004). The importance of being a 'good employer' cannot therefore be underestimated.

Effective human resource management (HRM) can be linked to both staff and care outcomes as this paper demonstrates. People management significantly influences employee health and well-being, as well as individual, group and organisational performance (Michie and West 2004).

There is a limited, but growing, evidence base on the impact of HRM on organisational performance in other sectors, but there have been relatively few attempts to assess the implications of this evidence for the health sector. In recent years, it has been increasingly recognised that getting HHR (health human resource) policy and management ‘right’ has to be at the core of any sustainable solution to health system performance (Dussault and Dubois 2003; Diallo et al. 2003). The actual methods used to manage human resources in health care may, in themselves, be a major constraint or facilitator in achieving the objectives of health sector reform (Martinez and Martineau 1998).

This paper examines some of the underlying issues and evidence related to ‘good’ HRM in the health sector. It explores these with reference to:
- indicators of performance and measurement of outcomes;
- the performance issues related to individuals and teams; and
- a review of the literature on employee engagement and social dialogue.

Our search for sources has involved the synthesis of evidence from a wide range of thematic areas across various national and international contexts. (The search strategy can be found in Annex 1). We have consulted widely with experts in the field. In order to place the evidence base on HRM in health care in context, the sections which follow consider how ‘good practice’ in HRM has been defined and what the strength of the evidence is in the various domains of performance considered. Essentially there are two themes: what are the interventions and indicators associated with good HRM outcomes, and how can these best be measured? While there appears to be a growing consensus about which factors are important in good HRM practice, commentators vary on the weight that they attach to individual or ‘bundles’ of factors, and the processes by which good outcomes can be obtained. We argue that much more attention has been focused on the ‘what’, rather than the ‘how’ or ‘why’. The next section considers research on the relationship between HRM and organisational performance.

HRM linkages to organisational performance

A recent review of studies reported that:

"More than 30 studies carried out in the UK and USA since the early 1990s leave no room to doubt that there is a correlation between people management and business performance, that the relationship is positive, and that it is cumulative: the more effective the practices, the better the result" (CIPD 2001a:4).
A similar, if more qualified, finding was reported by Richardson and Thompson (1999), who noted that some 30 empirical studies have sought to address the relationship between HR practices and business performance. These authors conclude that the published research generally reports positive statistical relationships between the greater adoption of HR practices and business performance.

The key lesson from these reviews is that investment in developing and maintaining effective HRM policy and practice can make a significant and measurable positive contribution to organisational performance (see also West et al. 1997). A more detailed examination of some of the key texts in this area gives some general support for this view, but also pinpoints some of the limitations, particularly if the results are to be considered from a health systems perspective. Much of the research relies on measures of organisational performance (e.g. profits and return on sales), which cannot readily be transferred to a public sector health system.

Richardson and Thompson (1999) noted three broad perspectives on the ways that HR practice contributes to business performance:

i) ‘Best Practice’ – a set of HR practices can be identified which, when implemented, will improve business performance.

ii) ‘Contingency’ – business performance will be improved when the best ‘fit’ between business strategy and HR practices is achieved.

iii) ‘Bundles’ – specific bundles of HR practices can be identified which will generate higher performance in organisations; the most effective composition of these ‘bundles’ will vary in different organisational contexts (see also MacDuffie 1995).

Initial interest in HR practices was triggered by work in the United States of America (USA) by Huselid (1995), and then by Pfeffer (1998), who outlined a set of seven HR policies:

- Employment security.
- Careful recruitment.
- Teamwork and decentralisation.
- High pay with an incentive element.
- Extensive provision of training.
- Narrow status differentials and barriers.
- Lots of communication (Pfeffer 1998).

These studies commonly were designed to assess an organisation’s HR practices and then statistically relate these to a financial outcome such as profitability or shareholder wealth (Michie and West 2003). The links are continuously influenced as business and strategic initiatives shape the HRM system, which impacts on the creation of the requisite staff skills, motivation and design of jobs. In turn, these generate effective staff behaviours (e.g. creativity and productivity), which lead to better strategy implementation, which then determines operating performance, profits and growth, and the market value (Michie and West 2003). Much of the evidence focuses on organisation-level studies using large data sets to examine the relationships between HR interventions and measures of organisational performance and output.
No magic bullet

In sounding a note of caution, Richardson and Thompson (1999) summarised six key points from their review of the literature:

1. The claims that there is a universal best practice HR strategy ‘are premature’.
2. Adopting a specified set of HR policies will not in itself lead to organisational success.
3. The same ‘bundle’ of HR policies may not be universally applicable.
4. Virtually all current statistical analysis of HR strategies is based on "adding up a mixture of items from a somewhat arbitrary list of HR policies and practices".
5. More evaluation attention needs to be devoted to examining the intermediary steps between the two end points of HR strategy and organisational performance.
6. "How something is done is often more important than what is done" – but existing empirical studies concentrate on the latter.

This latter point is important since it signals that no single intervention is likely to provide a sustainable solution to all the workforce challenges facing an organisation. Caulkin (2001) suggests how the linkages between management practices and superior function are enacted remain an enigma – do organisations succeed because they manage people better, or do they adopt good practice because they are good already? He further suggests that one key lesson is that ‘how’ people are managed (doing it right) is as important as the ‘what’ (doing the right thing).

So whilst the work of Pfeffer, Huselid and others has been influential in shaping the thinking in the field, Robinson and Thompson (1999), Guest (2001) and others have questioned the basis of some of the ‘universal’ claims made about the connection between HRM strategy and organisational performance. They are not convinced by the idea that there is a general prescription of HRM interventions that can be applied in any organisation, irrespective of context and priorities, with the likelihood of a similar level of response and results. Guest (2001:1104) stresses that the examination of HRM and organisational performance remains a ‘young field of research’ and sets out a range of methodological challenges that remain to be resolved, in terms of the measurement of HRM, the measurement of performance and the measurement of the relationship between the two. He concludes that “results from both cross sectional and longitudinal research remain robustly positive”.

Accumulating evidence

The overall picture of effects of HRM has been added to in the past decade, with a series of studies undertaken by the Chartered Institute of Personnel and Development (CIPD). These studies showed that, in manufacturing businesses, 18% of productivity variations and 19% in profitability could be attributed to people management practices, and that people management was a better predictor of company performance than strategy, research and development, or technology. This was the first time such a distinction had been made (Patterson et al. 1997). Analysis of the workplace employee relations survey in the United Kingdom (UK) by Guest and Conway (2000) confirmed the link between the use of more HR practices and a range of positive outcomes, including greater employee involvement, satisfaction and commitment. Effective people management by the same team suggests that HR practices translate into better performance through effective application, leading to higher commitment on the part of employees.

Recent research (CIPD 2002) has also highlighted a so-called ‘prime building block’ of HRM – the principle of ‘AMO’. There must be sufficient employees with the necessary ABILITY (skills, knowledge and experience) to do the job; there must be adequate MOTIVATION for them to apply their abilities; and there must be the OPPORTUNITY for them to engage in ‘discretionary behaviour’ – to make choices about how their job is done. The authors suggest that organisations wishing to maximise the contribution of their workforce need to have workable policies in these three broad areas.
Further work has demonstrated the complexity of translating good HR practice into better performance and clearly, there is no ‘off-the-shelf’ formula for managers to implement. There is now growing evidence that different companies, and indeed different occupations, require different sets or ‘bundles’ of HR practices in order to maximise and achieve high performance (Purcell et al. 2003; Michie and West 2003). MacDuffie (1995) was the first to identify such a ‘bundle’, and different groups of researchers have created different lists of bundles (see Becker and Gerhart 1996; Delaney and Huselid 1996; Snell and Youndt 1995; Youndt et al. 1996; Richardson and Thomson 1999). Caulkin (2001) suggests there is a greater need to examine why a particular combination of policies should work.

More recent work by John Purcell and team (2003) at the University of Bath School of Management has delved deeper into the ‘black box’ and identified the main ‘success factors’:
- A simple, unifying ‘big idea’ that encapsulates the core values and culture of the organisation.
- The HR bundle: different for different occupations.
- The ability of front line managers to embody and live the core values and translate them into practice.
- Performance: what, why and when.

Work by Michie and West (2003) confirms and supports the findings of Purcell et al. (2003) and also suggests the importance of ‘organisational climate’, where there is a shared belief among members in an appealing vision of what the organisation is trying to achieve.

Summary
In summary, the key message from the research on HRM and organisational performance is that the evidence base, although relatively ‘young’ and limited, does provide general support that good practice HRM (defined and measured by different sets of indicators in different studies) can make a positive difference to the performance of the organisation. These studies examine a range of different sectors, but have focused mainly on the private sector, including manufacturing, finance and service industries. What are the lessons and implications of this limited but growing evidence base for the health sector?

Human resource management in the health sector
Human resource management in the health sector has to function with a unique set of circumstances and characteristics. These include:
- A large and diverse workforce.
- A workforce comprising separate occupations and professions, some with sector-specific skills and others with more portable ones.
- Loyalty of those with sector-specific skills (e.g. doctors and nurses) tends to be first to their profession and patients rather than to their employer.
- Access to health professional training and employment is controlled by standards and entry requirements in many countries.
- The health sector is a major recipient of public expenditure in many countries.
- Health care delivery is a politicised process.
- Health is very labour-intensive and the proportion of the total budget spent on staff is much greater than in manufacturing and many service industries.
- Health systems have:
  - a broad range of active stakeholders;
  - a high level of direct and indirect governmental and regulatory action and involvement;
  - recurrent ‘top down’ attempts at reform (Buchan 2004).
However, despite HRM being under-researched in health care, there have been some attempts to examine ‘high performance’ HRM characteristics. These have tended to be undertaken in North America, which may reflect the greater focus on the ‘business’ practice of health in private sector health care industries in the USA and Canada (Buchan 2004). A number of such studies are dealt with in greater detail in Section Three of this paper and suggest a link between staffing levels and the performance of the organisation in terms of patient outcomes.

It is clear that, in terms of HRM, it is not only the organisational context that differentiates the health sector from many other sectors. The other main lessons from the evidence base examined in this paper are:

- the need to consider ‘contingency’ – there has to be a ‘fit’ between the HRM approach and the characteristics, context and priorities of the organisation in which it is being applied; and
- the recognition that so-called ‘bundles’ of linked and coordinated HRM interventions will be more likely to achieve sustained improvements in organisational performance than single or uncoordinated interventions.

Finally, it should be noted that defining the ‘best practice’ evidence base is one thing, but translating this into widespread application of the appropriate bundle of HRM interventions is another. Both Richardson and Thompson (1999) and Guest (2001) emphasise the issue of the relative lack of ‘take up’ of HRM good practice. Even when good HRM practice has been verified by these and other studies, the application of these lessons is not evident in day-to-day practice in many organisations. This highlights an important issue for any sector wishing to improve HRM practice: deciding how best to disseminate good practice in HRM is as important as determining how to identify and evaluate it.

**Conclusion**

Many of the measures of organisational performance in health are unique. As will be noted in the next section, ‘performance’ in the health sector can be fully assessed only with indicators that are sector-specific. These can focus on measures of clinical activity or workload (e.g. staff per occupied bed or patient acuity measures), on measures of output (e.g. number of patients treated) or, less frequently, on measures of outcome (e.g. mortality rates, rate of post-surgery complications). The challenge for researchers and policy analysts in the health sector is to bridge the current knowledge gap – between what we know from the general evidence base on HRM inputs and performance, and what we know from the health-specific evidence base focusing on sector-specific outcome measures. Buchan (2004) highlights one area where there has been significant growth in the last two years, which has added to our understanding of the linkages between staffing related indicators and outcomes.

Recent research (often large scale studies) in North America and Europe has examined the links between staffing levels, mix and outcome. Whilst these do not directly address specific HRM interventions, they add to our understanding, as suggested above, and further provide a test bed for identifying and assessing the appropriateness of outcome indicators in relation to staffing. It is to such studies and the evidence base related to the use of performance indicators in nursing that this paper now turns.
Section One: Health Resource Management and the ‘Good Employer’ – Countries in Transition and Developing Countries

This section focuses on HRM and the ‘good employer’ in the context of developing countries and countries in transition. The overall aims of HRM and the factors that contribute to an employer being ‘good’ are very similar if not the same as in industrialised countries. What is different is the local, national and global context in which these factors are operating. HRM is under-utilised and under-researched in the developing world, and this section points to the main reviews, literature and issues. It is beyond the scope of this review to cover this in more depth, and readers are directed to the references in this section and the country reports in this series of papers by the International Council of Nurses (ICN) for more specific details, for example see Issue Paper 6 Overview of the Nursing Workforce in Latin America and Issue Paper 7 The Nursing Workforce in Sub-Saharan Africa of this publication series.

Health sector reform

Health sector reform (HSR) in countries in transition and in developing countries has often concentrated on changes in financing or organisational structure, sometimes to the neglect of the key resource – the staff in the health sector. Thus, the concept of the ‘good employer’ is frequently absent from discussions. Berman (1995) defines HSR as “sustained purposeful change to improve the efficiency, equity and effectiveness of the health sector”. It could involve fundamental changes to the way that public services are financed, organised and delivered, and often operates as part of a wider programme of public sector reform. Martineau and Buchan (2000) argue that relying primarily on achieving reform through organisational restructuring can be self-limiting in this labour-intensive sector. Staff is the key input, but also the main item of expenditure in the health care budget. Costs and wages represent about three quarters of recurrent health expenditure in most countries (Adams and Buchan 2000). Yet without effective staffing and, indeed, committed staff, it is unlikely that health sector reform will be successful (Chen et al. 2004; Martineau and Buchan 2000). A report for the Department of International Development (DFID) by Martinez and Martineau (2002) suggests:

“The problems that developing countries are experiencing in attempting to reform their health systems and their public sector are, to a large extent, the result of long term neglect in the planning and management of human resources” (Martinez and Martineau 2002:22).

Indeed, such is the neglect that some countries need to be convinced of the need to have working human resource units. This is not the case in commercial organisations in those same countries. Yet some ministries of health around the world, responsible for tens of thousands of staff, have HR units staffed by only two or three people. Policies on deployment, retention and professional development are, therefore, very limited (Martinez and Martineau 2002). Martineau and Buchan (2000) argue that, whilst the relationship between health reforms and HHR is complex (labour intensive, separate professions and occupations with own locus of control etc.), this is not an excuse for neglecting HHR. Indeed HHR is crucial to the success of health reforms in all countries, whether industrialised, developing or in transition. Chen et al. (2004) suggest health workers drive health system performance, and the only route to achieving the Millennium Development Goals (MDGs) – set by the United Nations to be achieved by 2015 – is through the worker, who can only use drugs and supplies effectively and efficiently if they are motivated, skilled and supported.
Health sector reform may be part of a wider programme of reform including new systems and structures of financial management, and the introduction of market mechanisms to aid fiscal stability and decentralisation. All these impacts upon the delivery of health care, and often have important repercussions. For example, in Mexico, new systems of financial management restricted the maintenance and upgrading of equipment and imposed cuts in the wages of health workers. Working conditions and the quality of care provided by the public health sector declined as a consequence (Laurell 2001). Some countries have introduced user charges as a way of generating income for the health sector, and this has had ramifications for access to services and equity, particularly in Africa (Gilson 1995; Lucas and Nuwagaba 1999). User fees place new pressures on health workers, especially when they are part of their wages and salaries. In Nicaragua, the introduction of user fees and separate services for private, paying patients started as a national initiative, but is now incorporated into local health systems. User fees have become the main source of decentralised revenue, with 30% going towards salary supplements in hospitals (Birn et al. 2000). Payments made to health workers are considered to draw resources away from the health care system, because they are given to individuals rather than institutions, and are often unregulated. They are also thought to prevent poor people accessing services because they cannot afford the informal payments. The World Bank (2002 report) therefore suggests informal payments are a hindrance to health sector reform.

Decentralisation also often accompanies budgetary reforms, but in some countries this has led to a loss of resources for the health sector and poor working conditions for health sector workers. For example, in Uganda, nursing aide salaries, previously paid by the Ministry of Local Government, became the responsibility of local committees. In practice, this meant that staff were not paid for long periods (Jeppsson 2001). Also in Uganda, once central government stopped a block grant, primary care was not given the allocation at local level that had been expected by the Ministry of Finance (Jeppsson 2001). Decentralisation has also contributed to the breakdown of national collective bargaining. New organisations and reorganised trade unions have led to a breakdown in labour relations expertise in Central and Eastern Europe (Brito et al. 2001).

**Challenges specific to developing countries and countries in transition**

Both old and new challenges threaten the human resources responsible for health care planning and delivery in public sector-funded national health systems. Nowhere is this more evident than in the developing world and in countries in transition (Martinez and Martineau 2002). There, the old challenges include low pay and staff motivation, unequal and inequitable distribution of the health workforce, and poor staff performance and accountability. These remain key obstacles to health sector development. New challenges include the global shortage of health workers and the migration of qualified staff, with workers moving freely between countries and often attracted to the industrialised countries by improved pay and improved access to training and better working conditions (Chen et al 2004; WHO 2004; Martinez and Martineau 2002). Even countries that can train and produce large numbers of health workers are unable to retain them. Significant losses from smaller, poorer countries inevitably affect their ability to provide effective health services. Long-term migration undermines the return on the country's investment in education and training. The desire of professions to ensure they meet international professional standards simply assists migration, and some countries act as both importers and exporters, e.g. Spain and South Africa (Martinez and Martineau 2002).

Nearly all countries have skill imbalances, creating huge inefficiencies. All countries must listen to the voices of workers and improve poor work environments by scaling up good practices to strengthen management of existing resources (Chen et al. 2004). There is also a weak knowledge base on the health workforce, which hampers planning, policy development and programme operations. The knowledge base is sparse, with limited research and fragmented data (Chen et al. 2004).
The impact of the HIV/AIDS epidemic on the health workforce is devastating particularly in sub-Saharan Africa, where it has already resulted in absenteeism, attrition and a significant increase in workload (Chen et al. 2004; Martinez and Martineau 2002). The virus is also spreading rapidly with hotspots in Asia, the Americas and Eastern Europe (Chen et al. 2004). The 2004 Report by the World Health Organization (WHO) highlights the dramatic increases in deaths within the health care workforce as a result of HIV/AIDS. For example, in Malawi, 44 health worker deaths occurring in 1997-98 represented 40% of the annual output from training schools, and in Zambia 185 deaths in 1999 represented 38% of the annual output from government training schools (Aitken and Kemp 2003). Absence because of ill health has also dramatically increased (e.g., in Malawi) with health workers needing time off to care for sick relatives (WHO 2004).

These forces have hit economically struggling and politically fragile countries the hardest (Chen et al. 2004). They are often barriers to health sector development and, in particular, they are barriers to many employers in the developing world and in countries in transition becoming ‘good employers’. [See issues paper prepared for DFID: Human resources in the health sector: an international perspective (Martinez and Martineau 2002) and Human Resources for Health: Overcoming the Crisis (The Joint Learning Initiative 2004) for more details.]

**Improved health human resource management integral to health sector reform**

Although it is now widely acknowledged that improved HRM is key to providing more effective, efficient and quality health services, few developing countries have made significant progress in recent years (Martinez and Collini 1999):

- There is still an excessive focus on quantities – producing (and often over-producing) health personnel without taking account of the sector’s needs, resulting in limited resources being spread too thinly.
- Productivity is low as health workers are underpaid (or not paid at all) and often turn to alternative (at times illegal) means of making ends meet.
- HRM issues have become detached from the broader, mainstream policy. Staff plans often represent little more than wishful thinking, bearing no relation to resource availability and other key issues. Problems, such as reconciling strategic management (e.g. maintaining equity) with responding to local needs remain unresolved (Martinez and Collini 1999).

These authors have argued for a balanced effort in four areas of HHR planning and management in order to improve access to quality health services by the poor, particularly at the primary care level. These areas are:
1. Improving efficiency in the use of HHR.
2. Improving equity in the distribution of HHR.
3. Improving staff motivation and performance.
4. Improving strategic planning capacity in the Ministries of Health (Martinez and Collini 1999).

**Improving strategic planning capacity in the Ministries of Health**

Improving planning capacity in Ministries of Health in developing countries and those in transition is crucial if good performance and access to health care are to be achieved. Raising the profile of the HHR function is essential, together with the following:
1. Implementing needed changes in organisational structures and staffing levels, and monitoring effects to ensure the objectives are being achieved.
2. Establishing an adequately staffed HHR unit with effective leadership.
3. Promoting greater inter-sectoral collaboration, especially with ministries of finance and local government, where decentralised planning is involved.
4. Bringing professional bodies on board especially where reforms involve changing conditions of service, job roles and initial training.
5. Establishing new management systems (for recruitment, appraisal) and provision of skills for staff to operate them.
6. Improving data collection and HR information bases – effective planning requires up-to-date information on staff by location, type of facility, cadre, grade, etc.

Conclusion and key points

This section has highlighted the many commentators who believe that the power of workers, the human resource in health, needs to be harnessed for health equity, development and improvements in the working lives of personnel in the health sector globally. Strengthening the workforce is a shared challenge that demands solutions that have been developed together. Every country, rich or poor, should have a national workforce plan shaped to its situation (Chen et al. 2004). Rapid mobilisation of the workforce and wise investments can build a stronger human infrastructure for sustainable health systems. At stake is nothing less than the course of global health and development in the 21st century and the cost of inaction is unmistakable – failure to achieve the MDGs, epidemics spiralling out of control, and a demoralised workforce unable to help (Chen et al. 2004).

- **Developing countries and countries in transition have specific, local and national issues that make being a ‘good employer’ difficult.** These include: low pay and staff motivation, unequal and inequitable distribution of the health workforce and poor staff performance and accountability, together with the impact of the HIV/AIDS epidemic on the health workforce (Chen et al. 2004; Martinez and Martineau 2002).

- **Motivation is not always about financial incentives:** In countries in transition, other factors may motivate health care workers just as in the industrialised world (Franco et al. 2004). This may also be true of the developing world, but more research is needed in this area. It is also true that where pay is very low or salaries are not paid for some time (e.g. Uganda), then financial incentives will be greatest to enable health care workers to live and feed their families.

- **Awareness-raising of HRM is needed:** Policy makers and managers in health and related sectors need to have a broader understanding of HRM, its scope and its importance to the success of health reforms. Information sharing, through documenting success stories and study tours, would enable planners to learn from the practical experience of others (Chen et al. 2004; Martineau and Buchan 2000).

- **Capacity building to support HHR changes is required:** Commitment to HHR at the highest levels is essential to the success of health system reforms, and translation of HHR strategies into practice will require substantial development of systems and skills. The extent of capacity building required is often underestimated, e.g., Zambia and the UK (Chen et al. 2004; Martineau and Buchan 2000).

- **Workforce support is essential:** In a crowded reform agenda, docile workers and worker organisations tend to be ignored. However, there may be some threshold beyond which they will revolt. Zambian unions transformed into a powerful opposition to reforms when conditions of service were threatened. The Philippines also experienced similar, unexpected resistance to devolution from its workforce in the 1990s (Martineau and Buchan 2000).

- **Commitment to HRM in health as part of support from international partners is necessary:** International partners must become more open to addressing HHR issues if they are to reduce poverty and the disease burden. If poverty cannot be eradicated without a sound macro-economic context, then neither can health care be improved without a stronger focus on human resources (Chen et al. 2004; Martinez and Martineau 2002).
Section Two: Nursing Performance Indicators – Evidence and Applications

Nursing performance indicators are being developed with great rapidity in many health care settings (Doran 2003; Mitchell and Lang 2004; Rowell 2001). This section is concerned with their meaning and use in relation to the notion of a ‘good employer’. The discussion covers some of the recent thinking about nursing performance indicators as well as recent empirical research linking nursing inputs to patient outcomes. A number of indicators are now recognised as having an important role to play in evaluating the quality of nursing care, and we briefly review some of the theory, measurement issues and available evidence on which these are based. The penultimate section describes how one nursing organisation, the American Nurses Association (ANA), developed a set of indicators that are now being used across the USA, and outlines the intentions of a number of other nursing organisations to follow their lead. It also describes the development and use of national indicators in the UK and gives two recent examples of the development of local indicators. Finally, we turn attention to selected indicators that are used to measure characteristics of the nursing work environment. If we are to understand the extent of variation in nursing outputs, whether in terms of productivity or quality of care, it seems important to examine inputs, particularly the ways in which the organisation supports nurses in delivering optimum health outcomes for patients.

Defining nursing performance indicators

The measurement of health care quality has been greatly influenced by Donabedian’s (1980) model of structure (having the right things), process (doing the right things) and outcome (having the right things happen). Until the 1990s, quality improvement efforts focused mainly on structure and process, but the emphasis has gradually shifted towards the measurement of patient outcomes. Lohr (1988) specified the outcomes by which medical care can be evaluated as death, disease, disability, discomfort and dissatisfaction. Since then, interest in patient outcomes has flourished. There is a proliferation of terms in this area including: “…report cards, quality of care measures, profiles, sentinel events, quality screens, criteria, standards, process measures and outcome measures – often with subtle distinctions drawn between them” (Hofer et al. 1997:457).

This might suggest that the field of quality indicators has developed in different ways depending on discipline, profession or location.

Idvall et al. (1997:7) reviewed the literature on quality indicators in clinical nursing and concluded that they could be defined as "quantitative measures that can be used as a guide to monitor and evaluate the quality of important patient care and support service activities." This definition emphasises their role in quality improvement. More recently, Doran (2003:vii) defined nursing-sensitive indicators as "…outcomes for which the individual nurse can be held accountable …relevant, based on nurses’ scope and domain of practice, and for which there is empirical evidence linking nursing inputs and interventions to the outcome." This definition suggests that the way in which the nurse’s role is conceptualised is important, as well as the research that links the indicator to nursing activities and behaviours.

Developing performance indicators

The RAND method of developing quality indicators provides a useful model that has been widely imitated and adapted (Brook et al. 1986). The process is based on reviews of the scientific literature conducted by experts in the field. Lists of potential indicators are then sent out to panels of experts who rate them in terms of their
validity and the feasibility of collecting data on them. The scores are fed back to the panellists at a two-day, face-to-face meeting and, after discussion, the panellists score them again. The selection process is based on these second-round scores. In this context, group decision-making is thought to be preferable to individual because it minimises the potential for bias inherent in individual decision-making. Consensus methods that might be useful in developing performance indicators include consensus development conferences, the Delphi technique, and the nominal group technique (Jones and Hunter 1995). Many methods for indicator development now exist and most are based on some combination of a systematic review of the relevant literature to assess the quality of the evidence combined with one or more consensus methods.

West (2003) suggested that some of the criteria by which useful nursing performance indicators might be distinguished include:
- Focused on the patient’s perspective.
- Derived from theory.
- Associated with the role of the nurse.
- Within the sphere of the nurse’s responsibility.
- Linked to nursing inputs by empirical research.
- Able to be measured.

These criteria could be used to judge which indicators should be piloted in the practice setting in order to assess whether or not staff are willing and able to collect the data and whether they find them useful in delivering high-quality nursing care. The next section discusses how employers in the health care sector could use nursing performance indicators to enhance their reputation as good employers.

**Nursing performance indicators: Why might they be useful to a Good Employer?**

There are a number of reasons why a ‘good employer’ might be interested in nursing performance indicators. In any health care setting, performance indicators could play a role in:
- **Benchmarking practice**: Access to data about one’s own performance in relation to other, similar units enables nurses to compare the quality of care they deliver against similar units in important aspects of patient care. Each nursing team could monitor its own practice and take appropriate action to celebrate success or avoid failure. This could motivate staff, improve the quality of nurses’ work lives and play an important role in retaining skilled and experienced nurses within the organisation.
- **Patient safety**: Information about patient outcomes can alert the organisation to problems so that action can be taken to prevent accidents, adverse events, unacceptable practices, or deterioration in standards of care.
- **Focusing on patient care**: Detailed information about patient care can help an organisation focus on its core business. Management theory suggests that organisations can be easily deflected from their main goals, particularly when these are highly abstract and difficult to measure.
- **Providing evidence** to underpin rational and defensible decisions about, for example, safe staffing levels and training needs to ensure that available resources are used in the most appropriate way.

In addition, there are a number of reasons why the nursing profession itself should be interested in developing performance indicators:
- To increase nurses’ participation in policy-making. Quantitative as well as qualitative evidence are often required to ensure successful lobbying of policy makers.
- To contribute to nursing research and social science. If data relevant to quality are collected routinely, this will enable more and better nursing research. The presence of outcome data would make it much easier to evaluate the impact of any new nursing intervention.
To increase our understanding of the specific nursing contribution to health care, and so develop nursing theory and elements of the nursing process (assessments, care planning, interventions and evaluation).

To provide evidence about the clinical and cost effectiveness of specific nursing interventions.

Although there is a great deal of support for the development of nursing performance indicators both within the nursing profession and in the wider socio-political environment, concerns have been raised about some of the untoward effects that might be associated with the widespread implementation of nursing performance indicators. Questions include:

- Is it acceptable to focus on patient outcomes that are specifically linked to nursing inputs when multi-professional working is seen to be key to quality improvement? It may be difficult, if not impossible, to separate out the contribution of one profession and, even if it were possible to do so, it might discourage inter-professional collaboration.

- Could performance indicators place additional pressure on nurses who are already working in stressful jobs and in conditions that may not be conducive to providing the quality of care to which they aspire? Greater attention than ever is being paid to the stresses inherent in nurses’ work and their impact on career decisions. The link between performance management and nursing outcomes remains to be explored.

- Some of the most important aspects of nursing care are difficult to measure (Idvall et al. 1997). If great attention is going to be paid to some specific aspects of the nurse’s role, might this mean that some of the more subtle psychosocial interventions with patients, or communication with other members of staff, might be neglected?

Although each of these questions needs to be considered, performance indicators are now an essential component of management in the public sector with potential benefits for patients and their families, as well as nurses and other stakeholders in the health care system (Harrington et al. 2003). In summary, there are a number of factors propelling the development of nursing performance indicators. Patients want to know more about the quality of care they receive and nurses want to be able to demonstrate their contribution to health care. Good employers want monitoring systems that will promote the health of patients and the productivity and development of their staff as well as inform decision-making. At the same time, there are reservations about performance indicators in general and nursing performance indicators in particular. The next section steps back from debates about the value of indicators to examine some of the research on which they are based.

Evidence of the impact of nursing: Recent empirical studies

The impact of the number, skills and mode of deployment of health care workers on patient outcomes is the focus of an increasingly influential body of research. A number of high-quality systematic reviews now exist in this area, including those by Buchan and Dal Poz (2002), AHRQ (2004), Carr-Hill et al. (2003), Hewitt et al. (2003) and Westwood et al. (2003). Summarising the results of these reviews, West, Rafferty and Lankshear (2004:8) state: "Although the reviews are cautious about the methodological limitations of both secondary data analysis and observational studies, they nevertheless conclude that a growing body of evidence points to a discernible relationship between the ratio of RNs to patients and patient outcomes such as medication errors, patient falls, respiratory and urinary tract infections, decubitus ulcers (pressure sores) and patient complaints. Mixed findings are recorded regarding the relationship of RNs/patient ratios to mortality."

There has been a long debate as to whether mortality is an appropriate outcome measure for studies of the impact of nursing. Mitchell and Shortell (1997), for example, argue that nursing probably has a greater impact on adverse events, the occurrence of which can sometimes be linked to mortality. However, many researchers continue to use mortality, or the more sophisticated measure of failure to rescue developed by Silber et al. (1992), as the main dependent variable in research in this area.
Patient outcomes that have been shown to be related to nursing inputs include, as noted above, both patient mortality and adverse events, such as falls, medication errors and pressure ulcers. These dependent variables were selected for study because they can reasonably be expected to be related to characteristics of the nursing workforce based on theory or commonly held assumptions about the role of the nurse. For a quantitative study, it is important also that the dependent variable be measurable. The choice of dependent variables will also be influenced by pragmatic reasons, i.e., whether it would be difficult to collect data on this variable. Once evidence has been produced that certain patient outcomes are related to nursing inputs, this creates a powerful incentive for their use as performance indicators at local and national levels. The next section describes some recent contributions to the expanding body of knowledge about how characteristics of the nursing workforce affect patient outcomes.

Evidence on nursing outcomes from studies of acute care

The evidence that the number of nurses on a unit or the number of nurses per patient has an important impact on patient outcomes is accumulating, with the number of studies on this topic growing every year. West, Rafferty and Lankshear (2004) identified a number of quantitative observational studies of nursing inputs and patient outcomes published since 2002. Studies by Aiken et al. (2002a and 2003), Needleman et al. (2002), Tourangeau et al. (2002), Unruh (2003), Person et al. (2004) and McGillis Hall et al. (2003, 2004) were seen as being of high scientific quality. Their main features are described below.

Aiken et al. (2002a) used linked survey data from staff nurses and patients in general, orthopaedic and vascular surgery units at 168 Pennsylvania (USA) hospitals to investigate the relationship between nurse:patient ratios and patient mortality. They found that even after adjusting for patient and hospital characteristics, each additional patient per nurse produced a demonstrable increase in patient mortality and the likelihood of failure to rescue. Specifically, each additional patient per nurse was associated with a 7% increase in the likelihood of dying within 30 days of admission and a 7% increase in the odds of failure to rescue. In addition, each additional patient per nurse had an impact on rates of burnout and job dissatisfaction among nursing staff. Adding one patient increased the likelihood of burnout by 23% and raised the odds of job dissatisfaction by 15%. This large, multi-site study provides evidence that higher nurse:patient ratios increase patient mortality and that an increased workload has a detrimental effect on nurses’ experience of work life.

A subsequent study (Aiken et al. 2003) tested the relationship between nurses’ graduate status and patient outcomes. In their sample of Pennsylvania hospitals, the proportion of graduate nurses varied from 0 to 77%. Controlling for patient and hospital characteristics (size, teaching status and level of technology), nurse staffing, experience and whether or not the surgeon was board certified, they found that nurses’ graduate status was related to mortality and failure to rescue. A 10% increase in the proportion of nurses holding a bachelor’s degree was associated with a 5% decrease in both the likelihood of patients dying within 30 days of admission and the odds of failure to rescue. So, the size of the nursing workforce is important, but nurses’ educational level is also important, at least in terms of mortality rates.

A number of studies have examined the relationship between the proportion of nursing care provided by RNs and patient outcomes. Needleman et al. (2002) used administrative data from 799 hospitals in 11 American states to study the treatment outcomes of over five million medical and over one million surgical patients. Their analyses controlled for a range of variables that might affect patient outcomes in addition to the number of hours of care provided by RNs. Results differed between medical and surgical patients. They found that a higher number of hours of care provided by RNs to medical patients was associated with a shorter length of stay and lower rates of some adverse events (urinary tract infections, upper gastro-intestinal bleeding, pneumonia, shock or cardiac arrest, and failure to rescue). The number of hours of care provided by RNs to surgical patients was associated with lower rates of urinary tract infection and failure to rescue, defined as death from pneumonia, shock, cardiac arrest, upper gastro-intestinal bleeding, sepsis or deep venous thrombosis. No association was
found between increased numbers of RNs and death in hospital, once failure to rescue patients had been accounted for. Nor did they find a relationship between the number of other health care workers providing nursing care, such as licensed practical nurses (LPNs) or nurses’ aides and the occurrence of adverse events. So, the number of RNs and the number of hours of care provided by RNs were related to the rate of adverse events, some of which were in turn linked to mortality.

Further support for the importance of RNs was provided by Tourangeau et al. (2002). They hypothesised that mortality within 30 days of admission would be related to a range of nurse-related variables including the amount of nurse staffing, skill mix, fewer missed shifts, longer tenure of nurses in the unit, higher proportion of full-time RNs, support for nurses’ professional role and the presence of a professional nursing practice environment. The unit of analysis in this study was the hospital (75 in Ontario, Canada) and the independent variables were measured using survey data from 3,998 nurses. The total number of patients in the study was 46,941 diagnosed with a limited number of acute, high volume, high risk conditions. Each patient’s probability of death was estimated by logistic regression. The dependent variable was the ratio of observed to expected deaths at 30 days post admission. This study found that both a richer skill mix and higher average number of years of experience of nurses on the unit decreased mortality. The amount of nursing care was not found to be related to 30-day mortality. In hospitals where nurses reported missing more shifts, the mortality rates were lower but the mechanism by which these two might be linked has not yet been explored.

A study by Unruh (2003) was designed to examine how the changing number and proportion of licensed nurses were affecting adverse events in hospitals. The setting was all acute hospitals in Pennsylvania from 1991 to 1997. Data on patients and hospitals were used to aggregate the incidence of adverse events to hospital level. The adverse events that were the dependent variables in this study included: lung collapse, pressure sores, falls, pneumonia, post-treatment infections and urinary tract infections. Control variables in the model were the yearly number of patients, hospital acuity and other hospital characteristics. Descriptive statistics showed that licensed nurses’ patient load, controlling for the effect of the severity of patients’ illnesses, increased over the time period of the study (1991 to 1997). The proportion of licensed nurses to total nursing staff declined from 1994 to 1997. Statistical tests showed that hospitals that had fewer licensed nurses had higher rates of nearly all adverse events, and hospitals that had a lower proportion of licensed nurses had a greater incidence of decubitus ulcers and pneumonia.

A recent study examined the association between nurse staffing and mortality rates of 118,940 patients with acute myocardial infarction, using data from a cardiac research project linked to administrative data (Person et al. 2004). The study controlled for patients’ demographic and clinical characteristics, as well as for their treatment, and for characteristics of the hospital, such as volume, level of technology, teaching status and urban location. The independent variables in the model were nurse:patient ratios, categorised into quartiles for RNs and LPNs. They found that higher levels of staffing by RNs were associated with lower levels of mortality. However, the opposite was true of LPNs – higher levels of staffing by LPNs were associated with higher levels of patient mortality. All this suggests that a mix of staff that includes more registered nurses leads to better patient outcomes.

McGillis Hall et al. (2003) evaluated the impact of different nurse staffing models on patients’ functional status, pain control and satisfaction with nursing care in adult medical-surgical and obstetric patients in 19 teaching hospitals in Ontario, Canada. They used a variety of standard instruments including the Functional Independence Measure (FIM), the Medical Outcome Study SF-36, the Brief Pain Inventory and the Patient Judgment of Hospital Quality Questionnaire. They found that the proportion of regulated (licensed) nursing staff on the unit was associated with better FIM scores and better social function scores at hospital discharge. A mix of staff that included RNs and unregulated (unlicensed) workers was associated with better pain outcomes at discharge than a mix that involved RNs/RPNs (registered practical nurses) and unregulated workers. Patients were more satisfied
with their obstetric nursing care on units where there was a higher proportion of regulated staff. They concluded that a higher proportion of RNs/RPNs is associated with better clinical outcomes at the time of hospital discharge.

McGillis Hall et al. (2004) published a subsequent study, using the same data, that assessed the impact of different staffing models on patient outcomes, including patient falls, medication errors, wound infections and urinary tract infections. They found that the lower the proportion of professional nursing staff employed on a unit, the higher the number of medication errors and wound infections. The less experienced the nurse, the higher the number of wound infections. Nurse staffing models that included a lower proportion of professional nursing staff in the mix used more nursing hours in this study, which has implications for the cost of care.

Although scientific knowledge is always tentative, support seems to be accumulating for the conclusion that characteristics of the nursing workforce – the number of nurses, their mix of skills, education, experience and workload – have an impact on an extensive number of patient outcomes, including mortality, failure to rescue, adverse events and length of stay. Studies such as these provide the evidence base for the development of nursing performance indicators. The next section reviews some of the work on specific indicators.

**Specific indicators**
At least four groups of indicators that have been related to nursing care include (Hegyvary 1991):
- Clinical (symptom control or management).
- Functional (physical, psychosocial and self care abilities).
- Safety, adverse events and complications.
- Perceptual (e.g. satisfaction with care).

A recent, edited volume of literature reviews on specific indicators (Doran 2003) has chapters on: functional status; self-care; symptom management; pain; safety; patient satisfaction; nurse job satisfaction; and nursing minimum data sets. Each chapter analyses how the concept has been defined, and reviews the extent to which it has been shown to be ‘nursing sensitive’. The book also reviews the different methods and tools that have been used to measure these concepts in terms of their reliability, validity and sensitivity. This book is an important summary of existing knowledge – the state of the science – on nursing sensitive outcomes that is both critical and constructive and paves the way for future research and development in this area.

**National nursing performance indicators**

**USA: The American Nurses Association**
In 1994, the ANA launched a major initiative to investigate the impact of health care restructuring on the quality of care and on the working lives of nurses. The ANA is now lobbying to ensure that all hospitals collect and report on the following 10 nursing-sensitive quality indicators in order to demonstrate that nurses make a critical and cost-effective difference in providing safe, high-quality patient care. For acute care settings these are:
1. The mix of RNs, LPNs and unlicensed staff caring for patients.
2. Total nursing care hours provided per patient day.
3. Pressure ulcers.
4. Patient falls.
5. Patient satisfaction with pain management.
6. Patient satisfaction with educational information.
7. Patient satisfaction with overall care.
8. Patient satisfaction with nursing care.
10. Nurse staff satisfaction.
In 1998, the ANA established the National Database of Nursing Quality Indicators (NDNQI) at the Midwest Research Institute in Kansas City to collect information about nursing quality and patient outcomes from hospitals across the USA. A significant proportion of American hospitals now submit data on adult medical-surgical and critical care populations. Quarterly feedback reports are provided at unit level, stratified by type of unit and size of hospital, along with confidential benchmarking reports. A rigorous system has been developed to ensure that the data are confidential and that the identity of the organisation will not be disclosed through data transmission, data storage or NDNQI reports.

A new format has been introduced for the quarterly reports (Dunton 2004) with two types of tables. Current quarter and trend tables include: average for unit type; national average for units of this type; highlights of significant differences; upper and lower quartile cut points; and number of reporting units.

Trend tables include eight quarters of data and eight-quarter averages. These data are for one size of hospital only and contain information about each of six unit types (Dunton 2004). The Director of the NDNQI argued in a recent presentation that these data can be used by participating hospitals in many ways, including:

1. **Staff recruitment.** Hospitals may advertise that they have higher nursing hours per patient day or a higher percentage of RNs than the average in the database. Hospitals may advertise that their nurses have high satisfaction on pay or task or are higher than the national norm.

2. **Hospitals may publicise the quality of care they provide.** For example, they may advertise that their nursing hours are higher or patient falls are lower than the national average in the database. They may describe their position nationally (e.g. in the top 25%), but they may not publicly disclose the national statistics.

3. **The data can be used to support budgetary requests within the organisation.** For example, nurses might argue that there is a link between the fact that they have lower nursing hours and higher rates of patient falls than peer hospitals and that this supports the need for additional nurses to improve patient safety.

4. **The data facilitate research and audit.** They can be used, for example, to follow trends over time and to monitor the effects of any kind of intervention that might have an impact on patient or nurse outcomes. They can also be used to identify quality improvement opportunities, for example, when some of their performance indicators fall below the national average.

5. **The data can help unit managers set realistic targets relative to the unit’s past performance and to national averages.**

Each of these points could be of interest and importance to ‘good employers’ because of their potential impact on the quality of care and on nurses’ work lives.

The ANA has now developed indicators for use in community settings, such as schools, long-term facilities and home care. Rowell (2001) describes the process by which they were developed. A committee was appointed in 1997 to extend nursing-sensitive quality indicators beyond acute care. They reviewed the literature and consulted experts to identify indicators that were related to nursing, that were collectable and that had the potential to improve care. The indicators that emerged from this process and that will be pilot tested in the community are: pain management; consistency of communication; staff mix; client satisfaction; prevention of tobacco use; cardiovascular prevention; caregiver activity; identification of primary caregiver; activities of daily living; and psychosocial interaction. Rowell (2001) concludes that ‘information is power’ and in this context, power can be used to advocate for patients and families and for the resources needed to provide optimal care.
The ANA reports that other countries have expressed an interest in developing their own nursing performance indicators (NPIs) based on the ANA system. Patricia Rowell (personal communication), staff member at the ANA who is an expert in nursing sensitive outcomes and quality of health care, stated that she has had contact with colleagues throughout the world, including Australia, Canada, China, Hungary, Israel, Japan, Latvia, Lebanon, Lithuania, New Zealand, South Africa, Sweden, Taiwan and most of the republics of the former Soviet Union.

**United Kingdom: Audit Commission and the Healthcare Commission**

In the UK, the Audit Commission (AC) investigates value for money in public services. In 2000, they conducted a study of acute care, which used a range of indicators to assess the link between spending on staff and patient outcomes (Audit Commission 2001). Key questions included:

- How much do acute hospitals spend on ward staffing and how can differences be explained?
- Is there any evidence that resources can be used to deliver patient care more efficiently and more effectively?
- Does the level of resources relate to clinical risk – the quality of the care delivered?

The AC reported some difficulty in identifying outcomes that can properly be attributed to ward staff and they were hampered by the fact that methods of measurement and recording have not yet been systematised in the UK. Nevertheless, clinical indicators were included in the study partly to determine how many trusts could supply the data and to encourage the development of a more consistent approach to collecting clinical risk information. The choice of indicators was pragmatic, based on "...the degree to which the outcomes were the result of nursing care, and importantly the data collection burden imposed. In reality, this meant relying largely on data that was already collected by trusts" (Fittal 2004).

The five indicators selected are shown in Table 1 below.

**Table 1: Audit Commission Indication**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Definition</th>
<th>Rationale</th>
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<tbody>
<tr>
<td>Formal complaints</td>
<td>Complaints about ward staffing if available, but all complaints if not</td>
<td>Measure of patient dissatisfaction</td>
</tr>
<tr>
<td>Pressure ulcers</td>
<td>Trust incidence if available but point prevalence if not</td>
<td>Pressure ulcers are preventable and cause pain and suffering and increase length of stay</td>
</tr>
<tr>
<td>Patient accidents</td>
<td>All accidents recorded by wards</td>
<td>Some accidents are avoidable and can cause injury, slow rehabilitation and increase length of stay</td>
</tr>
<tr>
<td>Staff accidents</td>
<td>All accidents recorded by wards</td>
<td>May be related to staff numbers but may also be affected by equipment provision and effective management</td>
</tr>
<tr>
<td>Audits</td>
<td>Number carried out at ward level</td>
<td>Are a proxy measure of the learning culture and quality focus of the wards</td>
</tr>
</tbody>
</table>
For each of the five clinical risk indicators, the trust was given a score on a scale from 1 to 10 with high scores reflecting poor performance. The AC (2001) found that:

- Some trusts spend more on ward staffing than others even after allowing for ward size and specialty mix.
- Even within hospitals, there were big differences between the amounts spent on staff in different wards.
- The highest spending trusts employed more nurses rather than more experienced or higher grade nurses.

However, they failed to find a relationship between the relative amount spent on ward staffing and a composite score based on their five performance indicators. This may be due, in part, to shortcomings in the quality of the data. The AC concluded that outcome measures should be clearly defined so that ward staff can demonstrate the value of the care that they deliver. In order for trusts to compare their performance, these measures should be defined nationally.

In 2004, the Healthcare Commission, which has taken over some of the work of the AC, completed another survey of ward staffing and patient outcomes. They collected data on: pressure ulcer incidence/period prevalence; complaints about nursing care; accidents/incidents; needlestick injuries; and drug errors.

Fittal (2004) described some of the problems involved in collecting these data, including the lack of systematic assessment of patients' skin condition on admission, the lack of general agreement about the grades of pressure ulcers that should be reported, and the absence of an easy and reliable reporting system. In addition, nurses may not understand why reporting is important and may fear being blamed if they do report the fact that a patient has a pressure ulcer.

Fittal (2004) regretted that it has not been possible to collect data on the positive contributions that nurses make to the improvements to patient's health status or functional ability. More positively, data collected in 2004 will be supplemented by data from a national survey of in-patients that will give some information about patients' experiences of care in settings where staffing levels vary markedly.

This section then has sought to understand how national level data on nursing outcomes was initiated by the ANA and has achieved an important role in quality improvement in the USA. It also described some attempts to examine national standards in relation to cost-effectiveness in the UK. Meanwhile, many hospitals in the UK are working to develop indicators locally and the next section summarises some recent attempts that have been reported in the literature.

**Local developments in the UK**

A recent issue of the Journal of Nursing Management focused on the relationship between workforce issues and quality of care. In addition to the article by Fittal (2004) on the development of national nursing performance indicators (see above), two authors described their own experiences of being involved in quality improvement efforts within acute hospitals.

Harvey's (2004) case study documents how a specialist hospital (neurology and neurosurgery) established a quality improvement strategy based on clinical indicators that were developed for their specific setting. The article describes how the hospital selected one aspect of clinical care – slips, trips and falls – and took it through the different stages of the clinical effectiveness cycle and sought to include the views and experiences of patients. Writing from the perspective of clinical effectiveness manager, the author argues that quantitative indicators complement the more qualitative information derived from the Essence of Care, a clinical benchmarking system that has already been introduced in the UK National Health Service (NHS) as part of clinical governance. The article details some of the problems encountered, resistance from clinicians and managers and problems with the information technology infrastructure. This hospital now uses 25 locally developed and five national clinical indicators, but they recognise that data quality and collection systems are still a problem.
In the same journal, Watterson (2004) describes a two-year project to improve infection control in an acute hospital in the UK. Key staff, including nurses, were involved in identifying the indicators. Watterson (2004) describes how a model describing key components of infection control helped the Trust Board to identify indicators that could be used to monitor performance in this area. It has also helped staff at other levels in the organisation to think about the issues in infection control. Outcomes of the project include an expanded and re-organised infection control team with a new focus and an initial set of indicators that have begun to be reported to the Board.

These two articles represent a much larger literature that suggests an exponential increase in the development of indicators at local as well as national level. Developing indicators of clinical quality is an expensive and time-consuming activity, which may encourage international sharing. In practice this will mean many countries looking to the USA. However, the diffusion of technology across countries can be problematic. Marshall et al. (2003) asked whether health care quality indicators for primary care could be transferred between countries. Starting with a set of indicators created using the approach developed by RAND, which involves systematically combining research evidence with expert opinion (see above) in the USA, they then replicated the process in the UK. They found that there were considerable benefits to starting with the American indicator set, and the entire process of international collaboration led to learning on both sides, particularly about the way that cultural and organisational factors matter in developing indicators of quality. However, the two sets of indicators that emerged from the process on the opposite sides of the Atlantic were not the same – each contained indicators that had no exact equivalent in the other. They concluded that there is considerable scope for countries to collaborate in the development of quality indicators, but that there will always need to be a process of modification to ensure that the indicators fit the context within which they are actually going to be used.

**Indicators of the work environment**

So far, we have discussed at some length issues around the development and use of nursing performance indicators. But we also need to be concerned about how health care organisations support their staff so that they can deliver optimum health outcomes for patients. A recently published volume of literature reviews captures the extent and quality of work on indicators of quality work environments that promote nurse and patient safety (McGillis Hall 2004). Each chapter deals with the definition, theoretical grounding and approaches to measurement of an indicator; critically examines any empirical evidence; and gives recommendations for further research and development. This section briefly summarises some of the most interesting findings from that review in areas that offer promise for future research.

**Nurse staffing**

The American Institute of Medicine (IOM) Committee on the Adequacy of Nurse Staffing in Hospitals and Nursing Homes generated a great deal of interest in nurse staffing (Wunderlich, Sloan and Davis 1996). The research funding that followed led to an almost exponential increase in the number of papers published in this area in the late 1990s. These studies, on the whole, have supported the conclusion that nurse staffing affects important outcomes for patients, nurses and organisations. Many of the recent reports in this tradition are summarised above. McGillis Hall (2004) identified some of the methodological problems in this research. For example, nurse staffing is often measured at hospital rather than unit level, whereas many theorists argue that the differences among units in a hospital can often be so great that this level of aggregation is not theoretically justified. Nurse staffing variables are also often averaged over periods of time. Ideally, if we were to design a study of individual patient outcomes, we would like to be able to measure the amount of nursing care that the patient received as it varied over time. It is also important to be able to control for case mix and for the level of patient acuity on the unit.
Nurse staffing can be measured in many ways. Some of the measures that have been used include:

1. Proportion of RNs. Some examples from recent studies include:
   - RN hours = hours of direct patient care by RNs/patient days of care on the unit. Followed by RN proportion = RN hours per patient day on unit/all nursing hours per patient day on the unit.
   - RN proportion (nursing skill mix) = filled RN positions on the unit/total filled nursing staff positions on the unit.

2. All hours of nursing care provided per in-patient day and proportion of hours of nursing care provided by each category of nursing staff were used to create a nursing case mix index for each hospital, which also used information about the relative level of nursing care needed by patients in each diagnostic-related category.

3. Nursing hours per patient day (HPPD), where the nursing hours in a unit are divided by the number of patients. For example:
   - All hours = monthly hours of direct patient care by RNs, LPNs and nursing assistants/patient days of care on the unit for the month.
   - All hours = total productive hours worked by nursing personnel per patient day; RN hours = total productive hours worked by RNs per patient day; RN proportion = RN hours/all hours.

4. Ratio of RNs to patients.

5. Number of full time equivalents.

6. Percentage of full-time, part-time or casual staff.

7. Mix of nursing staff (combinations of different categories of health care workers).

8. Level of nurses' education (certificate, diploma, degree) and experience (in hospital, unit or role).

The review suggests that future research should try to capture all of these different aspects and that different measures of nurse staffing should be tested out in models of patient outcomes. Further work, including theoretical development and new methodological approaches, is required in this area, particularly if the idea of mandated staffing ratios spreads to diverse health care systems.

**Organisational climate and culture**

Definitions of organisational culture emphasise the meanings, beliefs, values, assumptions, symbols and ceremonies that are often socially constructed and shared within organisations. It is complex, evolving and rooted in history. It may not be fully understood by individuals who are part of it. Organisational climate is often seen as more superficial, more susceptible to deliberate manipulation, and less enduring than organisational culture. However, the two concepts tend to blend into each other in actual studies, making it difficult to select the appropriate measuring tools.

The review of the empirical literature in this area showed that an extensive range of instruments has been used to measure both climate and culture (McGillis Hall 2004). They do capture various domains and demonstrate acceptable reliability, but support for validity is limited. A large number of outcomes, particularly job and work satisfaction, has been assessed and the evidence suggests that it is worthwhile examining workplace culture and climate in relation to work redesign. Methodological challenges in this area include finding the appropriate level of analysis and sample size. If culture is a feature of an organisation, it should be measured at that level rather than at the level of the individual. Sample size is important because the 'shared' nature of culture suggests a degree of consensus about the cultural features, but this may vary. Sub-cultures may also exist and it is important to consider how their views can be represented.

**Span of control**

This refers to the number of people reporting to a single manager, supervisor or leader. Span of control may be influenced by the degree to which the staff are performing similar functions, geographical proximity and the degree to which direction, control and co-ordination are required by staff. It describes the number of 'layers' in the hierarchy of an organisation and has been the subject of debate among organisational theorists for many
years. This review concludes that there is evidence to suggest that span of control influences performance measures that have been found to affect patient outcomes. It also has a moderating effect between leadership and performance, with wider spans of control appearing as detrimental to the relationship between managers and staff. The review argues that there is a need to develop an instrument for measuring span of control (McGillis Hall 2004).

**Autonomy and decision-making**

The concept of autonomy is ubiquitous in the nursing literature and is widely assumed to be beneficial to nurses, patients and organisations. This review (McGillis Hall 2004) demonstrates that the concept is poorly defined and measured. Autonomy can be either a structural characteristic (part of a job description) or an attitude – a worker’s belief that they can make decisions. Autonomy can be exercised clinically and organisationally. It does not imply complete independence. Autonomy depends on some personal characteristics such as intelligence, knowledge, moral sense and self-control, as well as the desire for autonomy and an environment that supports professional nursing practice. Research on the Magnet hospitals shows that autonomy and staff involvement in decision-making are related to job satisfaction (see ICN Issue Paper 4: Nurse retention and recruitment 2005). But this review shows there is no evidence to support the conclusion that nurses and nursing units that are more autonomous have improved patient outcomes. There is, however, a wealth of descriptive work and a large number of measurement instruments available for future work on autonomy and decision-making.

**Overtime**

Overtime causes a great deal of concern to nurses working in many different systems, but there are very few studies of how overtime affects outcomes. This review (McGillis Hall 2004) recommends that employers and professional associations should support accurate measurement and monitoring of the amount of overtime worked in health care settings and that, in future, studies of patient and nurse outcomes in different work environments should include overtime as a component of the theoretical models.

**Conclusion**

This section has summarised an important series of reviews of key concepts in research on nursing workforce issues that have been published in an edited volume (McGillis Hall 2004). In addition to the areas we have highlighted – nurse staffing, organisational culture and climate, span of control, autonomy and decision-making and overtime – there are also chapters on nursing workload and productivity, professional development and absenteeism which are beyond the limits of this paper. The approach to the review was rigorous and comprehensive. A large number of studies were consulted for each chapter making this an essential work of reference for future research on nursing workforce issues. The critical approach to concept definition and measurement, as well as appropriate research designs, shows how future studies can improve on existing work. The authors identify gaps in the literature on some aspects of the work environment, particularly nurse autonomy, participation in decision-making, organisational climate and culture, the interrelationships of team members and relationships with unit managers and nurse leaders. The book contributes a great deal to our current understanding of how work environments promote good outcomes for patients and nurses by challenging some of the cherished beliefs and methodological assumptions in existing research on nursing work.
Nurse performance indicators: Summary and conclusions

Nursing performance indicators are the result of a convergence of forces, including rising demands for care, concerns about quality, and cultural changes that seek greater transparency and accountability in public services. They are based on a growing body of evidence that shows how small changes in characteristics of the nursing workforce are associated with large changes in patient outcomes. All stakeholders can benefit from using this research base to inform decisions about the organisational context of care.

The above discussion highlighted some of the key issues in defining and developing nursing performance indicators focusing on their relevance to the good employer. At the end of the section, we raised the issue of inputs into the nursing process, which are a necessary counterbalance to the focus on nursing outcomes. Our attention turns now to the performance of teams and individuals in health care, examining their objectives and methods of measurement.
Section Three: Performance of Individual Workers and Teams in Health Care – Objectives and Effective Methods of Assessment

This section addresses the issue of performance, and in particular the performance of teams and individual workers in health care settings. Initially, the case is made for examining this body of literature in terms of its relevance to the concept of a ‘good employer’. Issues of performance indicators and measurement are examined before specific indicators are discussed. In particular, environmental (external) pre-requisites and organisational (internal) pre-requisites are outlined together with staff indicators of good performance. Here, a discussion of what can be and should be measured is presented, including the measurement of individual versus team performance; task versus contextual performance; and process versus outcome measurement. Finally, approaches and instruments used to measure performance are outlined and discussed in the concluding section.

Teams in health care: Why are teams and teamwork desirable?

Teamwork in health care occurred throughout the 20th century and, more recently, effective inter-professional teamwork has been identified as an appropriate response to the complex issues in many health care settings. That complex of issues includes rising numbers of admissions, reductions in number of acute beds and pressures to reduce patient length of stay, to name but a few (Heinemann 2002). The importance of teamwork in health care has been emphasised in the UK’s National Health Service (NHS) policy documents (Department of Health 1998, 2000; National Audit Office 2000). A team has been defined as:

*a group of individuals who work together to produce products or deliver services for which they are mutually accountable. Team members share goals and are mutually held accountable for meeting them, they are interdependent in their accomplishment, and they affect the results through their interactions with one another. Because the team is held collectively accountable, the work of integrating with one another is included among the responsibilities of each member.* (Mohrman et al. 1995:20).

However some authors have also identified that effective teamwork, particularly in health care settings, has been difficult to achieve because of barriers and perceived status differentials between professional groups such as doctors and nurses, gender issues, multiple lines of management, and lack of organisational systems and structures for supporting and managing teams (Borrill et al. 2001).

*Good teamwork can make a critical contribution to effectiveness and innovation in health care delivery, and contributes to team members’ well-being* (Borrill et al. 2000:371).

An increasing body of research suggests that improved service can be delivered to clients where skills, knowledge and experience are well coordinated between different professional groups (Zwarenstein et al. 1997; Aiken et al. 1998; Schmitt 2001; Rafferty et al. 2001) and teams can integrate and link more effectively in complex organisations (Lawrence and Lorsch 1969; Galbraith 1993,1994). Effective teamwork can reduce hospitalisation and costs (Sommers et al. 2000; Jones 1992; Hughes et al. 1992; Eggert et al. 1991; Zimmer et al. 1990), improve the quality of service provision (Guzzo and Shea 1992; Weldon and Weingart 1993; Ross et al. 2000; Jansson et al. 1992; Jackson et al. 1993), enhance patient satisfaction (Hughes et al. 1992; Sommers et al. 2000) and enhance innovation (Hoffman and Maier 1961; McGrath 1984; Jackson 1996; West and Wallace 1991; West and Anderson 1996).
In terms of HHR and the ‘good employer’, effective teamwork has been identified as enhancing staff motivation (Wood et al. 1994), including increased job satisfaction and improved mental health (Borrill et al. 2000; Peiro et al. 1992), and improving retention and reducing turnover (Borrill et al. 2001). Higher levels of social support and role clarity have been experienced by those who work in clearly defined teams. Experience showed that the better a team functioned (with respect to clarity of objectives, levels of participation, commitment to quality and support for innovation), the better the mental health of team members across all domains of health care (Koerner et al. 1986; Borrill et al. 2001). Conversely, where there was a lack of clear leadership, this was associated with poorer mental health amongst team members (Borrill et al. 2000).

In the USA, a model of collaborative practice was evaluated within a 27-bed medical unit of a 1000 bed teaching hospital in Connecticut, with a similar unit used as a comparison (Koerner et al. 1986). Nurses reported experiencing greater autonomy, independence and clinical decision-making, which resulted in enhanced job satisfaction and retention. Collaborative practice enhanced nurse-physician communication and demonstrated greater staff efficiency and quality of care and nurses spent more time with patients and family. Nurses and physicians reported increased satisfaction in their professional practice (Koerner et al. 1986). This supports the work on Magnet hospitals in the USA (e.g., Aiken et al. 1998), work evaluating the introduction of shared care within teams in the USA (Kirkhart 1995) and recent work in Spain in primary health care (Goni 1999). Indeed, analysis of 131 organisational change studies to determine effectiveness demonstrated that team-related interventions reduced turnover and absenteeism more than did other interventions, showing that team-orientated practices can contribute to effective HHR practice (Macy and Izumi 1993).

Effective teamwork can also contribute to better patient outcomes. In the USA, where individual team members were most satisfied with their working relationships, there were more likely to be lower rates of hospitalisation for patients of primary health care teams (Sommers et al. 2000). Work in the UK by West et al. (2002) also suggests a strong relationship between HRM practices and patient mortality. One of the three HRM practices most strongly associated with mortality was teamwork – the higher the percentage of staff working in teams in hospitals, the lower the patient mortality. Thus effective teamwork can be positive for health care staff, for their patients and clients, and for HRM managers. Effective teamwork, however, relies on a well-functioning team; what is this, and how can it be measured?

**Team development and functioning**

Input from several health professionals with different knowledge bases, skills levels and value systems is important for achieving the effective outcomes as described above. However, a major assumption underlying the team approach is that the team itself is well-functioning (Heinemann 2002a). The terminology applied to teams in health care is also important. For example, the terms *multidisciplinary* or *multi-professional* are often used interchangeably with *interdisciplinary* or *inter-professional*. However, Schmitt (1982) draws some useful distinctions and suggests members of a *multi-disciplinary* team tend to work in parallel or in a sequential manner, often communicating but rarely collaborating, whilst all members of an *inter-professional* team participate in the team’s activities, share leadership, and rely on one another to accomplish goals. *Multidisciplinary* teams are less well developed and might be considered to be at an earlier stage of development. Borrill et al. (2001) suggest that, as a result, different teams will require more or less organisational support and restructuring, with *multidisciplinary* teams requiring limited restructuring as professionals remain in their own departments and retain functional roles (see also Mullins et al. 1999, and Schweikhart and Smith-Daniels 1996).

The most commonly used framework for understanding team functioning or performance is based on the stages of small group or team development (Heinemann 2002a; Bennis and Shepherd 1956; Bion 1961; Farrell et al. 1986;
Gibb 1964; Jones 1973; Jones and Bearley 1993; Kormanski 1985; Kormanski and Mozenter 1987; Schutz 1982; Tuckman 1965; Tuckman and Jenson 1977; Wheelan 1993; Yalom 1970). According to this framework teams move through at least four sequential stages, although movement through the stages is not always a linear progression (Kormanski 1990). Stages include:

1. testing and dependency or ‘forming’;
2. conflict or ‘storming’;
3. cohesion and consensus or ‘norming’; and
4. functional role relatedness or ‘performing’.

Specific aspects of team functioning include empowerment, flexibility, common goals, communication, innovation, diversity, team roles, leadership and decision-making (Borrill et al. 2001). Many of these aspects of the process of teamwork can be measured, and team output and/or the process of performance can also be measured. This is discussed in more detail below.

Much of the literature refers to performance indicators, but Martinez (2001) suggests the best performance management systems have been found to place greater emphasis on processes and standards than they do on selected performance indicators, although there is some debate about this. More recently the emphasis has been on outcomes as opposed to structures and outcomes (see Section Two). Indicators relate to the models, approaches or tools used in the context of performance management, and Edmonstone (1996) cites Stewart (1990) who suggests it can be useful for management to focus on enabling and disabling factors before attempting to introduce performance indicators.

**Performance indicators and measurement**

‘Not too long ago, it was generally considered impossible to measure performance in the public sector’ (Boland and Fowler 2000:1).

Management techniques from industry have in recent years penetrated deep into public organisations. This has been perceived as desirable, as an organisation that can design its products can show its performance, which may improve its effectiveness, efficiency and the legitimacy of government action. However, De Bruijn (2002), amongst others, has argued that performance measurement can reduce the complexity of activities undertaken by public organisations into one single dimension: “Achieving production targets does not tell us anything about the professionalism and/or quality of the performance; an effort to reach production targets may even harm professionalism and quality” (De Bruijn 2002:4).

This raises the question of **what should be measured in terms of performance in health care**, particularly in relation to what makes a good employer. Are patient outcomes a useful measure of this? Work on Magnet hospitals in the USA would suggest that good patient outcomes are a consequence of good staffing indicators such as autonomous working by nurses, participation in decision-making and effective skill development (Aiken et al. 2001). This is explored in more detail in Section Two. There is also evidence (cited above) that effective teamwork lowers patient mortality (West et al. 2002). However, there is some controversy in the literature about the link between HRM and patient outcomes (Black 2002). More work is needed in this regard to improve the evidence and to be certain of the link between, for example, teamwork and patient outcomes. Indeed, performance in health care settings needs to be measured in a number of ways and should reflect those factors most necessary for effective teamwork and effective staff performance. Those factors certainly should include:

- Environmental and organisational indicators, factors which are pre-requisites for effective performance (context).
- Staff indicators of good performance, both for individuals and for teams.
- Patient indicators, or outcomes.
This section addresses the first two indicators, environmental and organisational pre-requisites and staff indicators, as measures of performance and human resource outcomes. Patient indicators are often a measure of quality and a service outcome, and are a consequence of individual, team and organisational performance. Patient and health care outcomes are addressed in more detail in Section Two.

Environmental (external) and organisational (internal) factors

Internal and external factors determine the extent to which team performance and individual performance are possible and explain the context in which health care workers are employed. Michie and West (2004) developed an evidence-based framework for managing people and performance. Their organisational model has four levels, of which the first two components relate to organisational and environmental factors. The first level is context, which includes the culture and climate of an organisation and inter-group relations. The second level is people management, which includes the management of culture, communication practices, and leadership (see below). Similarly, Martinez (2001) suggests there are both organisational or internal pre-requisites for performance management in health care organisations, but also suggests environmental or external factors also play a role. These factors are not included in the Michie and West (2004) framework, but appear to have an important role to play and should not be ignored. These environmental or external pre-requisites are now examined in more detail.

Environmental (external) prerequisites

Research by Martinez and colleagues (EU research referred to in Martinez 2001) suggests that health care organisations do not always have the means or the power to develop greater performance orientation on their own. They need the support of external factors that act as triggers, which can facilitate the establishment of performance management. These external factors may include:

- **Political pressures and health care reforms** – these can be a trigger for greater emphasis on performance management (e.g. UK health service reforms from the 1980s onwards, and pressure for reform in Zambia in the early 1990s). However, health care reforms are not necessarily an effective stimulus for performance management, particularly if organisational pre-requisites, such as the need for effective leadership and management systems (see below), are not yet in place (Martinez 2001).

- **Financial pressures** – efficiency drives and budget cuts throughout the world have increased interest in performance management, but have not always led to the establishment of effective performance management. Budget cuts have often resulted in staff cuts with insufficient consideration of the need for adequate staffing and skill mixes (see Section Two) (Martinez 2001).

- **Introduction of purchaser/provider split and of service contracts** – separate funding from provision provides opportunities and exerts pressure for improving performance management. Examples are CAPVO (Spain), NHS (UK) and CARE (Guatemala) where competition with other providers forced managers to offer attractive pay and reward packages to retain staff. This led to the development of performance management to ensure value for money (Martinez 2001).

- **Decentralisation** of health care systems – this is a *sine qua non* for effective management of staff performance, but it is important that this successfully achieves well functioning management systems, including leadership, planning and flexible resource allocation at local level (Martinez 2001).

- **Client/user pressure and quality assurance** (QA) – public pressure, legislation and formal complaints procedures increase the focus on quality, benchmarking and performance management (e.g. UK National Health Service) Many developing countries are beginning to adopt QA approaches, which will facilitate the introduction of performance management (Martinez 2001).
Changes to health professionals’ education – the shift to inter-professional education in some countries, such as the UK, and the transfer of nurse education to higher education in many countries may be expected to increase quality, leadership and teamwork. In health care, inter-professional working has yet to be seen functioning effectively (Bond et al. 1985), although some inter-professional team building workshops have been well evaluated and have been reported to improve inter-professional working (Gilbert et al. 2000; Walsh et al. 1995; Ivey et al. 1988). However, the jury remains out on this topic. A large-scale evaluation of inter-professional education in the UK is expected to report in 2006, with further evaluation of inter-professional clinical working to be commissioned thereafter.

Environmental and external pre-requisites can therefore be important in setting the climate or legislative framework that facilitates evaluation of performance in health care.

Organisational (internal) pre-requisites
Michie and West (2004) suggest there are factors within organisations that are important pre-requisites for performance management of both teams and individuals. Relating this specifically to teams, Heinemann and Zeiss (2002a) suggest:

*Some health care organisations have structures that support the team approach, others do not. In a supportive structure, the team approach is understood, appreciated, and utilised throughout various levels of the organisation, and management supports teams with resources and rewards for effectiveness and productivity. Where the team approach is not well understood or supported, teams have to fight for resources; only individuals are rewarded and team members often become demoralised and ‘burned out’* (Heinemann and Zeiss 2002a:31).

Context is therefore vital in an organisation and includes resources such as staffing, the physical environment, people management and the organisational culture (Michie and West 2003). More specifically, a supportive organisational structure and context is vital to both team performance and performance management and should include:

- Good HRM with: effective manpower planning; skill mix and policies on equal opportunities; skills retention; job security; industrial relations and redundancies (Michie and West 2004).
- Good HRM systems geared towards teams, including selecting for and appraising teams (Hackman 1990; Tannenbaum et al. 1992).
- Organisational structure in which the hierarchy is flattened to be more inclusive of a wider array of employees than a traditionally top-down, discipline-specific structure (Heinemann and Zeiss 2002a).
- Mission, goals and direction of the organisation, and the teams within it, should be clearly articulated (Brallier and Tsukuda 2002), the ‘big idea’ (Purcell et al. 2003).
- Performance standards, norms values and expectations are disseminated to all employees (Brallier and Tsukuda 2002), and front line managers translate and embody the values of the organisation (Purcell et al. 2003).
- With input from employees, management and supervisors develop the regulations, policies and procedures that enable employees to prioritise and standardise their work activities across the organisation (Brallier and Tsukuda 2002).
- How people are rewarded (Hackman 1990; Tannenbaum et al. 1992) is crucial and requires:
  - an adequate level of pay or pay package (Martinez 2001);
  - clear reporting system, accountability and reward system (Brallier and Tsukuda 2002);
  - a balance of incentives to motivate staff (Martinez 2001), including provision of education and training (Brallier and Tsukuda 2002).
- Adequate resources for staff, encompassing the equipment, tools and skills to do the job (Martinez 2001; Brallier and Tsukuda 2002).
- Training for teamwork, with clear team objectives and feedback on performance (Hackman 1990; Brallier and Tsukuda 2002).
- Career development and employee assistance (Harmon et al. 2002).
The power of managers to make decisions and plan on the basis of (local) service needs (Martinez 2001).

Familiarity of managers and staff with planning tools, such as target setting and achievement monitoring (Martinez 2001).

Effective communication between and within management and staff (Martinez 2001; Brallier and Tsukuda 2002).

A culture of accountability and openness (Martinez 2001) where change, flexibility, and innovation prevails (Harmon et al. 2002).

A climate of support and encouragement, which reduces the likelihood of conflict or morale problems and permits more effective and efficient teamwork (Hall 1969; Shockley-Zalabak 1981; Zeiss and Steffen 1996).

Mutually supportive (as opposed to competitive) relations between teams (Hackman 1990; Tannenbaum et al. 1992).

Managers demonstrate trust, confidence, respect and value for employees, which facilitate commitment, cohesion, loyalty and high motivation and morale (Harmon et al. 2002).

There is a degree of overlap between these internal and external factors. However, without these pre-requisites, performance management will either not work, will work ineffectively, or will work for a limited period of time only (Martinez 2001). There is much evidence that supports the link between organisational context and performance, both within health care (Borrill et al. 2000) and in other sectors, such as industry (Denison 1990). Organisational climate has also been shown to relate to the effectiveness of group performance (Griffin and Mathieu 1997) and a climate high in autonomy and supportiveness has been found to be positively related to job performance (Pritchard and Karasek 1973). In a study of more than 500 NHS teams in the UK, Borrill et al. (2001) found that those with clear objectives, high levels of participation, task orientation, support for innovation and reflexivity are more effective in delivering patient care (see also West and Anderson 1996).

Staff indicators of good performance

There is a complex array of dimensions that may be measured to capture effective individual and team performance amongst staff, and these are explored in this section. These dimensions include both task or context performance and process or outcome measurement. However, one of the most crucial aspects is the delineation between team and individual performance, and whether it is appropriate to measure individual or team performance, or whether it is possible to do both.

Measurement of individual or team performance?

Modern performance management systems and planning review processes place greater emphasis on teamwork than they do on individual appraisal, with the latter regarded as just one aspect of performance management. However, research has highlighted that a comparatively small number of organisations have made specific arrangements to operate performance management for teams (Armstrong and Baron 1998). Studies in health care consistently support the value of team-based working. This means developing team-based organisations in which education and communication systems, people management and reward systems, and the culture are all geared towards managing teams rather than individuals (Michie and West 2004). For example, Borrill et al. (2000) suggest HRM systems need to be developed that select for teamwork, appraise teams, reward team performance and provide technical and process assistance to support teams in their work. Team performance is most effective when rewards are administered to the team as a whole and not to individuals, and when incentives for collaboration and communication rather than for individualised work are provided (Hackman 1990). Indeed, Mohrman et al. (1995) report that the more people were rewarded for individual performance, the worse the team performance was and, conversely, the more people were rewarded for team performance the better the team functioned. Borrill et al. (2001) suggest, however, that in the UK, the NHS management directly undermines teamwork in primary health care when they provide bonus systems to general practitioners as independent contractors, despite the whole team contributing to the outcome (Borrill et al. 2001).
West and Borrill (2005, in press) further suggest that a sustained commitment to monitoring team effectiveness and providing feedback to teams on their performance is essential and will enable teams to improve their own performance. More specifically, this involves making sure processes are in place for the identification of performance indicators at organisation and team levels, the development of a set of appropriate measurement tools, co-ordination of the assessment of individual teams, monitoring feedback processes and making proposals on team design at the organisational level: "Measuring the performance of teams needs to take account of both the team composition facts and teamwork processes, and also assess the influence that composition have on processes, and the extent to which both of these impact on performance" (West and Borrill 2005, in press).

Given the evidence for the effectiveness of good teamwork in both staff and patient outcomes, its development would seem imperative for organisations. It would also, therefore, appear to be most useful to measure the performance of teams as opposed to individuals. The tools for the measurement of effective teamwork are outlined in Section Four. First, however, the dimensions of task or contextual performance and process or outcome measurement are explored.

**Task or contextual performance measurement?**

Michie and West (2003) suggest recent research and theories distinguish between ‘task performance’, which includes behaviours focused on core technical activities, and ‘contextual performance’, which includes discretionary activities outside core job performance. These are the largely invisible aspects of work behaviours that contribute to the performance of the organisation and create the glue that binds the organisational community together (Borman and Motowidlo 1993; Van Scotter and Motowidlo 1996). These discretionary activities include participating in voluntary committees, promoting the department or organisation, and working effectively and supportively in teams. Michie and West (2003) suggest contextual performance is likely to be particularly important in health care institutions, which are service organisations focusing on patient care and where a high degree of cross disciplinary, cross department and inter-agency collaboration is required. Contextual performance is more likely, therefore, to be measured through teams and teamwork and task performance more likely to be measured at individual level, although possible at team level also.

Both task and contextual performance relate to overall organisational climate, and there is clear evidence that the climate of organisations predicts their subsequent performance and affects the performance of the individuals, teams and departments within them (Michie and West 2003). For example, progressive HRM practices can enhance contextual performance in the form of citizenship behaviour (Tsui et al. 1992). Attitudes closely linked to this, such as job satisfaction, partially mediate the relationship between progressive HRM and organisational productivity and profitability (Vandenbende et al. 1999). This is explored in more depth below.

Michie and West (2003) contend that no research has yet comprehensively tested the relative contribution of knowledge, skills, attitudes and motivation to the two dimensions of task and contextual performance in individual performance in organisations. However, studies have put forward some general propositions. They suggest, for instance, interventions that focus on knowledge and skills such as recruitment, selection, training and feedback will lead to improvements in task performance, while those that target motivation, such as goal setting and job enrichment, will affect contextual performance via staff attitudes. This implies that, to measure performance in health care, HRM should monitor the antecedents of both task and contextual performance. Until now, the focus has been predominantly on task performance (Michie and West 2003).
Process or outcome measurement?

There is a tendency in the performance measurement literature to focus on outcomes of performance, i.e., actual accomplishments and outcomes for teams, individuals or, more likely, for the organisation (Buchan 2004). There is much to be learnt about the process of transformation and progress towards these goals that health care professionals engage in every day. Ultimately however, much more is to be learnt about what makes a good employer by taking into account both process and outcome measures.

Process measurement: Process refers to a series of progressive and increasingly integrative activities used by health care staff, and teams in particular, to accomplish their tasks and achieve their goals (Heinemann and Zeiss 2002a). Heinemann and Zeiss (2002a) suggest that team process has two dimensions: (i) interdependence and (ii) growth and development. They state that interdependence is the key to inter-professional and interdisciplinary teamwork and includes making effective use of resources, members’ skills and abilities, communicating, effective problem solving, power and leadership sharing, and collaborating together to accomplish tasks and share the workload. Interdependence is established in well functioning teams and increases productivity, with the team likely to have positive outcomes and a positive impact on the organisation (Heinemann and Zeiss 2002a; Nichols et al. 2002). Education and training can aid growth and development and, in new teams, the leader is crucial in creating the conditions that support it. Open and democratic leadership facilitates growth and improvement over time, and, as employees become better team members, teams mature and improve their functioning (Heinemann and Zeiss 2002a). An investigation into mental health team leadership (Corrigan et al. 1998) suggested that leadership is important to team processes and the well-being of team members. Team members wanted leaders who assumed responsibility and made difficult decisions and, where leaders were reluctant to do this, team members were more likely to report emotional exhaustion and feelings of depersonalisation (indicators of burnout). Team members also wanted transformational leaders who were able to provide higher order goals and vision that helped them understand the rationale for their work (Corrigan et al. 1998). Mullins et al. (1999) suggest the absence of quality leadership may predict ineffective team efforts and they strongly suggest team leaders require specific training.

A key dimension of interdependence in team process and interdisciplinary teamwork is collaboration. This has been variously defined; but for doctors, nurses and allied health professionals, sharing responsibility for the patient is usually taken to mean sharing of information, coordination of work and joint decision-making on aspects of patient care (Doran 2004). Personal expectations motivate collaborative experiences and, in one study, nurses’ expectations about the physician’s intention to collaborate influenced their own intentions to resolve conflict in a collaborative manner (Keenan et al. 1998). Group level factors such as communication play an important role in collaboration; effective communication allows team members to negotiate constructively with one another (Henneman et al. 1995). Environments that recognise and reward participation have been identified as an antecedent to team collaboration, and environments that offer support systems, freedom of expression and interdependence also foster collaboration (Henneman et al. 1995). Structural factors that militate against team collaboration include the use of agency staff, lack of formal and informal team meetings, and doctors being dispersed throughout the hospital (Meerabeau and Page 1999).

Team communication, a crucial aspect of collaboration and teamwork, has been investigated in health care. Barriers to effective communication are power or status relationships, differing frames of reference, and the use of unfamiliar terms and jargon amongst professionals (Shortell 1991). Fox (2000) found miscommunication occurred more frequently among individuals with little experience of teamwork and culture. A study undertaken to understand communication issues in patient-centred care teams found poor communicators were identified as team members who give orders as opposed to requests, engage in one-way communication, consider themselves superior to others in the team, or lack technical competence (Dreachslin et al. 1999).
The measures of process could include: the implementation of the ‘big idea’, the values and goals of the organisation (Purcell 2003); the effectiveness of front line managers in translating the organisation’s values into practice and supporting front line staff (Purcell 2003); innovation (Anderson and West 1998); collaboration and decision-making (Baggs 1994); meeting effectiveness (Bailey and Helsel-DeWert 1983); leadership (Poulton and West 1999); stages of team development (Jones and Bearley 1993); communication (Dickinson and McIntyre 1997); or management of conflict (Skjørshammer 2001). In summary, then, process measures are used to measure those aspects of staff performance that contribute to the progressive and integrative activities used by health care staff and teams to achieve their goals of effective patient care. Thus, the quality of health care and of the working environment for staff depends on how members of the team communicate, coordinate, collaborate and negotiate differences (Doran 2004).

**Outcomes or productivity measurement**: Outcomes and productivity include the strategies that teams use to be productive, as well as their actual accomplishments or outcomes. In the past, team performance was based almost entirely on improvements to elements of process (e.g. quality communication, consensus decision-making and ability to manage conflict). Now, however, teams must demonstrate accomplishment of task-orientated goals, levels of productivity, quality outcomes and impact on the organisation itself. Positive outcomes with regard to patients’ health status are major accomplishments of clinical teams (e.g. treatments and care that result in cure, maintenance or a slowed decline in health status), and teams that are successful should be rewarded and receive support and resources from management (Heinemann and Zeiss 2002a). Employee behaviour could also be said to be an outcome measure particularly of HR input and effectiveness. Michie and West (2004) suggest that absenteeism and turnover, task and contextual performance, errors and near misses can also be measured as a means of evaluating the management of people and performance. These authors also identify other measures that may be termed outcomes of the process of being an employee of a health care institution – that is, some of the psychological consequences for employees, such as health and stress, satisfaction and commitment, knowledge, skills and motivation. These can also be used as ‘proxy’ measures of team functioning and good HRM practices.

There is some evidence in the literature that the quality of teamwork affects nurses’ work lives. For example, in a study of 42 intensive care units (ICU) in the USA, more effective interaction amongst caregivers in the ICU teams was significantly associated with lower staff turnover (Shortell et al. 1994). Another study of 446 nurses in the USA found a strong inverse relationship between collaboration and perceptions of organisational stress (Alt-White et al. 1983). There is also evidence of effective team collaboration producing higher quality patient and system outcomes (Doran 2004).

Clearly, both process and outcomes or productivity should be measured. There is evidence to support the notion that effective teams produce better outcomes both for staff and for patients (as outlined above), and that effective HRM practices produce better staff process and outcome measures which, in turn, produce better patient outcome measures. Overall then, the dimensions of staff performance that need to be taken into account when evaluating performance include:

- individual and team performance;
- task and contextual performance; and
- both process and outcome measures.

Instruments and tools used to measure these various aspects of performance are now examined.
Approaches and instruments used to measure performance

This concluding section examines the approaches and instruments used to measure both individual and team performance and discusses their appropriateness and usage.

Ways of measuring individual performance

Despite evidence that teamwork is a better predictor of patient and staff outcomes than individual work, much of the performance measurement in health care remains driven by the measurement of individual performance, notably the individual performance appraisal. However, there is some evidence of strong associations between the level and sophistication of individual performance appraisal and patient mortality (West et al. 2002), so that where such appraisals are undertaken frequently and well, there are benefits to both patients and staff.

Appraisal feedback has been shown to increase worker productivity (Guzzo and Bondy 1983; Guzzo et al. 1985; Kopelman 1986; Landy et al. 1982; Patterson et al. 1997) with goal setting the most potent element of appraisal (Fletcher and Williams 1985; Murphy and Cleveland 1995).

Performance appraisal usually involves managers making a ‘top-down’ assessment and rating staff in an annual performance appraisal meeting. This has been identified as a more limited approach to the management of human capital in an organisation than performance management (Armstrong and Baron 2005). Various critiques of performance appraisal exist in the literature, yet it remains one of the most often used approaches to the measurement of individual performance in organisations (see for example Barlow 1989; Bowels and Coates 1993; Grint 1993; Englemann and Roesch 1996). For example, the CIPD 2004 survey (n=506) found 65% of organisations used an individual annual appraisal; 27% a twice yearly appraisal; 30% used self appraisal; 8% peer appraisal and only 6% team appraisal. Much of the critique of the approach concerns poorly designed and poorly executed performance appraisal. Indeed, Purcell suggests, "to do appraisals badly is much worse than having no appraisal system at all" (Purcell 2004:14). Armstrong and Baron (2005) further suggest that much of the critique in the literature has concentrated upon performance appraisal in the 1980s and suggest that performance management processes have since improved. Just under half of respondents (49%) to the recent CIPD survey used ratings, and, thus, performance appraisal in the crude judgmental sense was not practised in the majority of organisations.

There are a plethora of appraisal systems and tools available to managers interested in measuring performance and it is beyond the scope of this review to include them. Useful references may include Coens and Jenkins (2000) and Smither (1998). A more recent approach to individual assessment of performance is ‘360 degree feedback’. This is also known as the ‘multi-source assessment’ (Armstrong and Baron 2005). Its essential characteristic is that individuals are assessed under various headings by a number of different people, including their boss, colleagues, clients and subordinates. In the 1997 CIPD survey, 11% of organisations used 360-degree feedback. This had risen slightly to 14% in 2004, and further research showed that it was mainly being used for development processes and was normally voluntary. Data are usually obtained by questionnaire and feedback is generally anonymous. One of the critical factors in the process is for the givers of feedback to be skilled in the feedback process. (See Chivers and Darling 1999; Ward 1997; London and Beatty 1993 for more details.)

A variety of measures can be undertaken to assess both the quality and uptake of appraisals in any given institution or health care setting, and may include:

- Percentage of staff in each occupational group receiving appraisal meetings at least annually.
- Percentage of staff in each occupational group conducting appraisals receiving training in how to conduct them.
- Evaluations of appraisals by ‘appraisees’.
- Evaluation of appraisals by appraisers.
Sophistication of monitoring procedures to ensure that appraisals take place as they should for each occupational group.

- Whether appraisals cover task and contextual performance (see above).
- Whether appraisals include personal development plans.
- Whether appraisals include a limited number of agreed objectives for staff performance.
- Whether sophisticated approaches to appraisals are being developed for some staff groups to include team-level appraisals (where teams exist) and 360-degree appraisals (Michie and West 2003).

The CIPD survey (see Guest and Conway 2002) in the UK is a useful tool for establishing what organisations are undertaking in terms of individual performance management, and the NHS national staff survey is another useful measurement tool for performance management and use of appraisals in the NHS (CHI 2003). (See also Armstrong and Baron 2005 for more information on performance measurement and management, including an example of a competency framework.)

**Instruments for measuring team performance**

Issues surrounding the measurement of team performance are outlined by Zeiss (2002) who suggests that, whilst there is a plethora of instruments, there are numerous obstacles that reduce the usefulness of many of them. These include:

- Many instruments are proprietary and available only at considerable cost through consulting companies.
- The development of instruments has not been consistently reported in any standardised way.
- Many non-proprietary instruments have not been published and finding the original source of a revised instrument can be difficult or impossible.
- Psychometric testing on an original instrument may no longer be useful to a revised version.
- Many instruments were developed for use in business and industry with limited application to health care settings.
- Information that does exist about the development of instruments is scattered across numerous fields and disciplines, in both published and unpublished literature, and, it is too time consuming to obtain information about them.

Heinemann and Zeiss (2002b) undertook a review of 66 instruments for measuring aspects of team performance in health care. Sixty-five were multi-dimensional and one was uni-dimensional using the dimensions of structure, context, process and productivity identified in the model of team performance (Heinemann and Zeiss 2002a). Some instruments were developed specifically for health care teams whilst others have been used in these settings or adapted for use there. Heinemann and Zeiss (2002b) critiqued the 66 instruments and reviewed relevant data on their reliability, validity and utility, and also identified gaps in the current literature and in the instruments themselves (Zeiss 2002).

A number of factors have been identified as important in considering the potential value of team performance instruments and their use in health care. These include:

- The nature of the assessment process itself.
- Levels of data collection.
- Psychometric testing (see Zeiss 2002).

Heinemann and Zeiss (2002b) have identified 15 instruments as ‘best measures’, nine of which they consider ‘state-of-the art’ and six ‘honourable mention’ (Lovett et al. 2002). ‘State of the art’ does not mean they are flawless. Some may not always be the best choice for a specific situation, and readers need to balance numerous factors when choosing an instrument, such as time available, target audience and ultimate use of the information. However, in designating instruments as ‘state-of-the art’, they considered both methodological and conceptual
soundness, identifying instruments with a clearly articulated conceptual model or theory and those with adequate depth and breadth of concept coverage. Furthermore, these instruments needed to demonstrate:

- Clear and unambiguous items and response options.
- Readability appropriate for the target group.
- Clear, practical scoring and interpretation procedures.
- Evidence of reliability and validity.
- Instruments that had been developed using more than one method of data collection (Lovett et al. 2002).

The following instruments are considered sound instruments for first consideration by researchers searching for a measure of team performance. (See Table 2 for ‘state-of-the art’ instruments and Table 3 for ‘honourable mention’ instruments below. See also Doran 2004 for more evaluation of instruments to measure team performance.)

### Table 2: ‘State of the art’ instruments for measuring team performance

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Original developer and adapter</th>
<th>Rationale for selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Climate Inventory</td>
<td>Anderson and West (1994 and 1998)</td>
<td>Measures facets of team climate that predict innovation; good preliminary reliability and good validity data.</td>
</tr>
<tr>
<td>Collaboration and Satisfaction about Care Decisions</td>
<td>Baggs (1994); adapted by Schmitt, Heinemann and Farrell (see Tsukuda 2002)</td>
<td>Strong theoretical framework; good measurement of collaboration; unique in its measurement of collaboration related to a specific decision-making situation; good reliability and strong validity data; short concise research instrument appropriate for busy professionals.</td>
</tr>
<tr>
<td>Rating Individual Participation in Teams</td>
<td>Bailey and Helsel-DeWert (1983)</td>
<td>Good measurement of meeting effectiveness; unique in its collection of data from team members and observers; dual purpose – assess, monitor and help improve team meeting effectiveness, and research; strong reliability and validity.</td>
</tr>
<tr>
<td>Team Development Survey (TDS)</td>
<td>Campbell and Hallam (1997)</td>
<td>Broad measurement of team performance, data collected via self-administered and observer forms; good reliability and validity data; can be used legitimately to monitor performance over time.</td>
</tr>
<tr>
<td>Team Effectiveness Profile (TEP)</td>
<td>Glaser and Glaser (1995)</td>
<td>Multi-purpose – assess and help improve functioning, identify stage of development, research; good preliminary reliability and validity data; normative data established.</td>
</tr>
<tr>
<td>Attitudes Toward Health Care Teams</td>
<td>Heinemann, Schmitt and Farrell (1999)</td>
<td>Good conceptual framework; dual purpose – research and evaluate educational intervention; strong reliability and validity data.</td>
</tr>
<tr>
<td>Team Integration Measure</td>
<td>Lichtenstein, Alexander, Jinnett and Ullman (1997)</td>
<td>Strong theoretical framework; short concise research instrument appropriate for busy professionals; good preliminary reliability and validity data.</td>
</tr>
<tr>
<td>ICU Nurse/Physician Instrument</td>
<td>Shortell and Rousseau et al. (1991); Adapted by Schmitt, Heinemann and Farrell (Waite and Nichols 2002)</td>
<td>Strong reliability and validity data; adaptation is short; concise research instrument appropriate for busy professionals.</td>
</tr>
<tr>
<td>Group Development Questionnaire (GDQ)</td>
<td>Wheelan and Hochberger (1993)</td>
<td>Strong, validated theoretical framework; multi-purpose – assess, monitor and help improve functioning/ identify stage of development/ research; training required for use; strong reliability and validity data; normative data established.</td>
</tr>
</tbody>
</table>

Source: Lovett et al. (2002).
Table 3: Honourable mention instruments for measuring team performance

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Original developer and adapter</th>
<th>Rationale for selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Collaboration Index</td>
<td>Aram, Morgan and Esbeck (1971)</td>
<td>Good theoretical framework; good reliability and preliminary validity data.</td>
</tr>
<tr>
<td>Group Development Assessment (GDA)</td>
<td>Jones and Bearley (1993)</td>
<td>Strong theoretical framework; identifies stage of development along two dimensions (task behaviours and process behaviours); scoring sheets and clearly written action planning guides accompany the instrument.</td>
</tr>
<tr>
<td>Team Development Rating Scale</td>
<td>Kormanski and Mozenter (1987)</td>
<td>Strong theoretical framework; dual purpose-research and assess / help improve functioning; identifies stage of development and the task and relationship outcomes associated with each stage; preliminary reliability and validity data; short concise research instrument appropriate for busy professionals.</td>
</tr>
<tr>
<td>Analyzing Team Effectiveness</td>
<td>McGregor, Bennis, and McGregor (1967)</td>
<td>Strong theoretical framework; major influence on the development of other assessment instruments; good coverage of team performance for a short instrument.</td>
</tr>
<tr>
<td>Team assessment worksheets</td>
<td>McClane (1992)</td>
<td>Broad yet concise measurement instrument; includes unique facets of team performance in the areas of external and internal context, team process, and the outputs of the team (e.g. team accomplishments including patient outcomes); serves as an excellent example of how to customize facets of the team performance model for specific type of health care team.</td>
</tr>
</tbody>
</table>

Source: Lovett et al. (2002).

Gaps in the measurement of the concept of team performance

Lovett et al. (2002) advocate the use of an integrative approach and the use of their own model of team performance (Heinemann and Zeiss 2002a) in future educational, research and practice efforts. They welcome further development and refinement of the model. This may be a laudable aim, but it is unlikely that other academics (e.g. Anderson and West 1998), who have developed their own model more specific to a UK setting, will follow this advice.

Doran (2004) identifies some of assessment issues arising from the current research base. These include:

- How ‘team’ is defined, and from whose perspective:
  - A review of the literature suggests that the widespread assumption, that team members have a common understanding of the term ‘team’, is not confirmed (Cott 1998);
  - Doran (2004) suggests the need to distinguish between the nursing team and the multidisciplinary team.

- How multiple and sometimes contradictory perspectives of teamwork are reconciled:
  - There is mounting evidence that members of the same team do not share a common view of teamwork (Doran 2004). Indeed there is an absence of consensus among doctors, nurses and other health professionals with regard to issues of teamwork, particularly in relation to communication and coordination of care (Lingard et al. 2002; Weiss and Davis 1985).

- At what level of analysis should teamwork be assessed?
  - Researchers often rely on individuals to gain an understanding of the team, particularly in questionnaires, despite the team being the unit of analysis, and Doran (2004) suggests more use of qualitative methods, such as observation, to study team interaction patterns.
Lovett et al. (2002) also identify some of the difficulties that need to be overcome:

- Many theories applicable to team performance use discipline-specific language and jargon which make common language a goal yet to be accomplished; specifically, more work is needed to integrate the organisational and management literature within a team performance framework.

- Work integrating knowledge about human motivation and performance into practical models of team performance would be fruitful. For example, Bandura (2000) has expanded his work on self-efficacy to consider a new concept of ‘collective-efficacy’ and considers how a shared sense of efficacy fosters a group’s motivational commitment, which may be applied to interdisciplinary team performance.

- As the health care system continues to change, models will require modification to reflect the impact of such changes on team performance (e.g. the development of virtual teams, geographically dispersed).

Lovett et al. (2002) also suggest the development of new instruments is to be encouraged yet there are many challenges including: the need to develop more comprehensive instruments that measure more aspects of team performance (e.g. process, context and outcomes or productivity); the need to develop more focused instruments to measure elements of performance that are changing and emerging as health care changes; and the need to develop instruments that collect data about a team’s performance from respondents and/or observers outside the team, as well as from team members themselves.

They further suggest that there is a need to continually improve the reliability and validity of existing instruments, and to develop norms for some of the current team performance instruments. Currently, scores of particular teams are compared against a theoretically defined ‘ideal’ performance, which may be an unrealistic benchmark. Teams may be better served by knowing how they are performing compared to other teams in a similar setting or other teams at a comparable stage of development, although this would be both demanding and difficult as locating large numbers of team members in any local setting is challenging. This may require collaborative efforts among team researchers combining data sets.

Michie and West (2003) advocate that, overall, there should be more emphasis on monitoring the antecedents of both task and contextual performance. Until now, the focus has predominantly been on task performance, i.e., knowledge and skills as opposed to targeting goal setting, culture and job enrichment. Further understanding the relationships between professional groups, departments and agencies in the context of a health organisation is vital to performance, since cooperation and trust, rather than competition and distrust between various groups, are fundamental to the provision of effective patient care. This is an area of performance that has been almost entirely neglected in the measurement of NHS and other health care organisations’ performance. Michie and West (2003) suggest it is difficult to overstate its importance to effective organisational functioning.

Team and individual performance: Summary and conclusions

This section has examined the issue of performance, specifically, the performance of teams and individual workers in health care settings. Research suggests that, where health care professionals work together in teams, an improved service to clients can be delivered (Zwarenstein et al. 1997; Aiken et al. 1998; Schmitt 2001; Rafferty et al. 2001). In terms of the ‘good employer’, effective teamwork enhances staff motivation, reduces turnover and staff stress (Shortell et al. 1994; Alt-White et al. 1983; Wood et al. 1994), and enhances job satisfaction and mental health (Borrill et al. 2000; Peiro et al. 1992). It can also improve retention (Borrill et al. 2001).
As outlined in the previous section on nursing performance indicators, the convergence of both external and internal forces has resulted in the development of performance management in health care. External factors may include political pressures and health care reforms; financial pressures such as efficiency drives and budget cuts; the introduction of purchaser/provider split and service contracts; and pressure from increased expectations of clients and users. Within organisations, internal pressures and effects that have given rise to the desire to define and measure performance, include resources such as staffing, the physical environment, people management and the organisational culture (Michie and West 2003). A supportive organisational structure and context are seen as vital to both team performance and performance management, and should include good HRM elements such as effective manpower planning, skill mix and policies on equal opportunities, skills retention, job security, industrial relations and redundancies (Michie and West 2004).

Moving beyond the organisational level, there is a complex array of dimensions that may be measured to capture effective individual and team performance amongst staff. Dimensions of task or context performance and process or outcome measurement, as well as team or individual performance, have been discussed. Although studies in health care consistently support the value of team-based working, most performance is measured at individual level. It has also been suggested that to measure performance in health care, HRM should monitor the antecedents of both task and contextual performance; until now the focus has been predominantly on task performance (Michie and West 2003). Indeed, to evaluate performance, various dimensions of staff performance need to be taken into account, including individual and team performance, task and contextual performance, and both process and outcome measures. Instruments and tools used to measure aspects of performance of both individuals and teams have been presented and critiqued. Individual and team performance identification and measurement are relatively new in health care, and the whole construct of what makes a good health care employer is relatively under-developed. However, concepts that have gained strength in the business world may be applied to health care. These include the concepts of commitment, organisational citizenship behaviour (OCB) and employee engagement. These concepts are now examined in more depth in the following section.
Section Four: Employee Engagement

This section of the report examines a concept that is gaining considerable popular currency in the business world, where it appears to have an intuitive appeal to senior managers and HR practitioners. The focus on engagement has been led by consultancies and survey houses rather than researchers, although the academic world is starting to take notice. Engagement has, as its foundation, two well-researched precursors – employee commitment and organisational citizenship behaviour (OCB). This research base means that engagement bears closer scrutiny than some other HR initiatives, often dismissed as ‘fads’ by academics. This section will examine commitment and OCB, before describing current research into engagement.

Employee commitment

The performance benefits resulting from increased employee commitment have been widely demonstrated in the literature. These include:

Increased:
- job satisfaction (Vandenberg and Lance 1992);
- job performance (Mathieu and Zajac 1990);
- total return to shareholders (Walker Information Inc. 2000); and
- sales (Barber et al. 1999).

Decreased:
- employee turnover (Cohen 1991);
- intention to leave (Balfour and Wechsler 1996);
- intention to search for alternative employers (Cohen 1993); and
- absenteeism (Cohen 1993; Barber et al. 1999).

In the last 15 years, a growing consensus has emerged that commitment should be viewed as a multidimensional construct. Allen and Meyer (1990) developed an early model that has received considerable attention. The three-component model they advocated was based on their observation that existing definitions of commitment at that time reflected at least three distinct themes:
- an affective emotional attachment towards an organisation (affective commitment);
- the recognition of costs associated with leaving an organisation (continuance commitment); and
- a moral obligation to remain with an organisation (normative commitment).

One important point is that not all forms of employee commitment are positively associated with superior performance (Meyer 1997). For example, an employee who has low affective and normative commitment, but who has high continuance commitment, is unlikely to yield performance benefits. The main reason such an employee remains with an organisation is for the negative reason that the costs associated with leaving are too great.

In more recent years, this typology has been further explored and refined to consider the extent to which the social environment created by the organisation makes employees feel incorporated, and gives them a sense of identity. O’Malley (2000) contends that a review of the commitment literature produces five general factors which relate to the development of employee commitment.
- **Affiliative commitment**: An organisation's interests and values are compatible with those of employees, and employees feel accepted by the social environment of the organisation.
- **Associative commitment**: Organisational membership increases employees' self-esteem and status. Employees feel privileged to be associated with the organisation.
- **Moral commitment**: Employees perceive the organisation to be on their side and the organisation evokes a sense of mutual obligation in which both the organisation and employees feel a sense of responsibility to each other. This type of commitment is also frequently referred to in the literature as normative commitment.
- **Affective commitment**: Employees derive satisfaction from their work and their colleagues, and their work environment is supportive of that satisfaction. Some researchers (e.g. Allen and Meyer 1990) suggest that this is the most important form of commitment, as it has the most potential benefits for organisations. Employees who have high affective commitment are those who will go beyond the call of duty for the good of the organisation.
- **Structural commitment**: Employees believe they are involved in a fair economic exchange in which they benefit from the relationship in material ways. There are enticements to enter and remain in the organisation and there are barriers to leave. This type of commitment is also frequently referred to in the literature as continuance commitment.

A range of demographic variables has been found to be related to employee commitment (Mathieu and Zajac 1990). For a variety of reasons, age can be a positive predictor of employee commitment. As Mathieu and Zajac (1990) suggest, the older employees become, the fewer the alternative employment options available to them. As a result, older employees may view their current employment more favourably. In addition, Dunham et al. (1994) suggest older employees may be more committed because they have a stronger investment and greater history with their organisation. With regard to gender, a number of studies (e.g., Mathieu and Zajac 1990) have reported women as being more committed than men. This is typically explained by women having to overcome more barriers than men to get to their position in the organisation. Marital status has also been shown to relate to commitment, with married employees usually showing more commitment (Mathieu and Zajac 1990). It is suggested that the reason for this is because married employees will typically have greater financial and family responsibilities, which increase their need to remain with the organisation. Note, however, that this refers to structural commitment (or continuance commitment) in that the cost associated with leaving the organisation increases commitment to the organisation. As mentioned previously, structural commitment does not necessarily relate to increased performance.

O’Malley (2000) argues that organisations need to pay more attention to addressing employees’ social need to affiliate and belong. He indicates that employees want to be in environments that make them feel comfortable. Organisations have goals and values, and people recruited by the organisation should share these. The argument here is that, in order to ensure commitment, the organisation must have the right sort of employees in the first instance. Employees’ feelings of belonging start to develop before they join the organisation. As Parks and Floyd (1996) point out, there are several things organisations can do to make employees feel welcomed and valued as the recruitment and selection process develops: share details about the organisation; provide employees with help and support throughout the recruitment and selection process; and convey the interests and values that the organisation shares with employees.

Organisations need to be attractive to the right sort of people; thus, the initial contact between the organisation and the prospective candidate is very important. As Troy (1998) points out, increasingly, organisations are attempting to communicate with prospective employees in a coherent manner by developing an **employer brand**. The brand should condense the basic nature of the organisation, what its values are, and what it would be like to work there. The principal purpose of the brand is to efficiently bring employers and employees together in order to establish a relationship. Thus, a good brand should convey both the unique benefits of the
organisational environment and the type of person who is likely to do well in that setting. The organisation must then ensure that it delivers these promises to its employees or its efforts will have been wasted. Recent research undertaken on behalf of the CIPD by Professor John Purcell and team at the University of Bath School of Management (Purcell et al. 2003) identified a simple unifying ‘big idea’ that encapsulates the core values and culture of the organisation as one of the three main ‘success factors’ in an organisation.

A line of research focusing on ‘met expectations’ suggests that employees will be more committed if there is a good match between what the person is looking for in a job, and what the job provides (Dawis 1992). A related notion is that commitment will be greater when employees’ experiences on the job match their pre-entry expectations. A meta-analysis by Wanous et al. (1992) reported an average correlation of 0.39 between met expectations and commitment. As Sturges and Guest (2000) note, unmet expectations are commonly cited as a cause of dissatisfaction. Such expectations usually relate to the type of work employees are given to do and the opportunities for training and development they receive. With this in mind, realistic job previews (giving candidates real experience of what the job is like) can be very useful. For example, Premack and Wanous (1985) found a high positive correlation between realistic job previews and commitment. Guest and Conway (2002) have used the concept of the psychological contract to focus on ‘met expectations’ through analysis of how obligations and promises match up between organisations and employees. These authors suggest that the increasing pressures of work make it likely that the psychological contract, particularly in the promises and commitments made by employers to employees, would be violated. The CIPD survey of 2002, undertaken in the UK by Guest and Conway (2002), notes that there has been some decline in job satisfaction since 1990, and that this is most notable in the public sector. In the health service in particular, workers were identified as being under stress with heavy workloads and working hours likely to harm health (Guest and Conway 2002).

Several studies have demonstrated a link between early job experiences and commitment (e.g. Mignerey et al. 1995). The induction programme should be the final step of the recruitment and selection process. A good induction programme will make new employees more familiar with and more at ease within the organisation. Employees enter the organisation with an assumption of compatibility and should be welcomed. This will make new recruits more likely to be receptive to feedback and other interventions that encourage social integration. Training is also an important part of the induction process. Although commitment is not necessarily the intended, or at least most obvious, objective of training, it can nevertheless be influenced in the process. Gaertner and Nollen (1989) found that commitment was related to employees’ perceptions of organisational efforts to provide them with training, but not to their actual training experiences.

Several studies have found that employees who have good relationships with their immediate managers have greater commitment (Green et al. 1996; Nystrom 1990; Settoon et al. 1996). A recent study by the CIPD (2001) concluded that a good relationship between managers and employees is one of the most important factors affecting motivation at work. The key role of line managers in creating commitment in an organisation was demonstrated by Barber et al. (1999). The most well developed organisational programme can break down at the point of transmission with poor management. Purcell et al. (2003) confirmed this in their recent work for the CIPD, suggesting that another key criterion for success in an organisation is the ability of front line managers to embody and live the core values and translate them into practice.

Although emotional attachment to colleagues in the workplace is an important element of commitment, it is not enough on its own. This important aspect, however, must not be neglected, but maintained through frequent, pleasurable contact with peers (Baumeister and Leary 1995). Unless there is occasion for frequent and rewarding interaction, stronger feelings of belonging that can bind employees to the organisation are unlikely to emerge. Organisations that want to build high levels of commitment should look for ways to build this through group activities both in and out of work. To build commitment, being a member of a particular organisation must not only satisfy employees’ social need to affiliate and belong, but must also create a sense of collective identity that
differentiates the group from other organisations. There are two ways to achieve this (Hogg et al. 1995):

1. establish a social boundary that indicates that an identifiable collection of people or unit exists; and
2. the group must assume some evaluative meaning, i.e., the group has to offer something that the employer wants or needs.

There are many situational features that contribute to a sense of group membership. The more exposure that employees have to these features, the more likely they will be to feel like a part of the group and to incorporate that membership into their concept of who they are.

It is also argued that employees evaluate their experiences at work in terms of whether they are fair and reflect a concern on the part of the organisation for the well-being of the employees (Meyer 1997). Research findings (e.g. McFarlin and Sweeney 1992) suggest that employees’ commitment to the organisation might be shaped, in part, by their perception of how fairly they are treated by the organisation. It is suggested in the literature that by treating employees fairly, organisations communicate their commitment to employees. This suggests that organisations wanting to foster greater commitment from their employees must first provide evidence of their commitment to employees.

Organisational justice also has links with the concept of trust. According to Kramer (1999), trust in an organisation can promote the acceptance of organisational initiatives. When there is trust, employees are willing to suspend judgment and defer to the authority of others. In addition, trust permits organisational flexibility because a payback need be neither immediate nor of equivalent value. O’Malley (2000) identifies four areas in which employees’ sense of trust in the employer can be increased.

- **Growth:** As most employees want to be more proficient in their job, a good way to instil trust is to attend to employees’ development needs.
- **Work-life balance:** Most employees would like organisations to allow greater personal time when needed.
- **Individual accommodation:** Trust is established through acts of organisational flexibility or benevolence toward employees.
- **Health and safety:** Organisations that are committed to protecting employees’ health and safety are more likely to be trusted.

Policies and practices concerning promotion can also affect commitment. For example, Schwarzwald et al. (1992) found that commitment was higher among employees who had been promoted, and was also related to employees’ perceptions that the organisation had a preference of recruiting from their internal labour market. Such a policy might be perceived as a feature of the organisation’s commitment to the employee, as discussed earlier. Among those who are considered for promotion, the outcome of the decision is likely to have an effect on commitment. But, for some, the perception of fairness in the decision-making process might be even more important. This suggests that organisations should communicate clearly how their decisions were made and why those who did not succeed were not suitable.

A key issue emphasised by research, especially in recent years, is the extent to which employees perceive they are able to achieve the right balance between home and work. Most organisations recognise this, and are making more concerted efforts to introduce a host of programmes intended to ease employees’ burdens. These include initiatives such as: flexible work arrangements; child care; time-off policies; elderly care; health care; information and counselling; and convenience services, to name but a few. A major study by The Families and Work Institute (1998) found that such employer support was related to increased employee commitment. In the NHS in the UK,
the Department of Health introduced a series of performance standards for NHS employers entitled ‘Improving Working Lives’ (IWL) (Department of Health 2000). These standards relate to practices such as flexible working hours, annual hours, career breaks, childcare support schemes and recognising carer’s needs. Trusts in the UK have been required to demonstrate achievement of the standard by 2003, with IWL ‘practice plus’ requiring continued improvement in the working lives of NHS staff.

How happy an employee is in a job has profound effects on behaviour and commitment. From meta-analyses (e.g., Laffaldano and Muchinsky 1985), it is clear that employees who enjoy their jobs will work harder and stay longer with their employers than employees who do not. In relation to commitment, job satisfaction and work-life satisfaction are very important. Job satisfaction is an enormous area; however, to be concise, a satisfying job typically has three properties:

- It has intrinsically enjoyable features: Mathieu and Zajac (1990) found that the strongest correlation with commitment was obtained for job characteristics, particularly job scope (enrichment).
- It provides an opportunity for growth and development.
- It makes employees feel effective in their roles (that they can positively influence organisational outcomes).

A positive relationship between job satisfaction and commitment, using a variety of satisfaction and commitment measures, has been consistently reported in the literature (Balfour and Wechsler 1990, 1991; Cook and Wall 1980; Green et al. 1996).

As mentioned previously, employees may remain with an organisation because there are constraints against leaving and incentives for staying. It is important for organisations to structure the economics of the relationship in a way that will not obstruct commitment. One of the reasons to stay in a relationship is because it makes sense economically. Pay makes continuation of the employment relationship worthwhile because there is mutual dependence. Organisations that add on benefits are establishing the foundation for richer forms of commitment by producing a need for the relationship (creating dependence).

Empirical tests of the administration of benefits have implications for employee commitment. For example, Grover and Crooker (1995) used data collected in a national survey of over 1,500 American workers to examine the relationship between availability of family-responsive benefits and affective organisational commitment. They found a positive correlation between the availability of such benefits and commitment, even for those who would not benefit directly. They argue that organisations that offer such benefits are perceived by employees as showing greater caring and concern, and as being fair in their dealings with employees. Similarly, Cohen and Gattiker (1994) examined the link between organisational commitment and rewards, operationalised as actual income and pay satisfaction. They found that commitment was more strongly related to pay satisfaction than to actual income. As Rusbult and Buunk (1993) contend, people stay in relationships to the extent that they are uniquely dependent on them relative to the alternatives. The more attractive the alternatives and the lower the termination costs, the less people are reliant on the existing relationship for the source of their satisfaction.

In summary, it is increasingly apparent that organisations take positive steps to create commitment because they appreciate that it is a vital component of business success. They recognise that it can take various forms and are able to concentrate on the ones that are relevant to themselves. Commitment is a two way process which the organisation itself has to initiate. This can be achieved by creating a clear employer brand and group identity, so that the right people are recruited. The organisation then needs to ensure that the values of its brand image are delivered by treating employees fairly and maintaining trust. This is often achieved and translated through front line managers (Purcell 2003). Job satisfaction is an important component of commitment, but should not be
perceived as equivalent to it. Commitment has more positive outcomes for the organisation in terms of employee performance. Job satisfaction can be promoted by making work as enjoyable as possible, providing growth and development opportunities and making provisions for staff to assist them in balancing their work and personal lives. Once established, commitment has to be maintained by ensuring staff have clear roles and responsibilities and understanding of what is required of them in their jobs. Good communication and openness throughout the organisation is vital, especially in times of change. The role of line managers should be recognised and positively supported, as it is a vital component in the creation and maintenance of employee commitment.

**Organisational citizenship behaviour**

Organisational citizenship behaviour (OCB) has a research tradition spanning some 20 years, although much of the interest in the concept has arisen only more recently. OCB comprises a large group of behaviours, ranging from helping colleagues to conveying a positive impression to others in the organisation. Some support has been given to the notion that these behaviours can lead to increased organisational effectiveness, but research in this area is still in its infancy. The vast majority of the research effort has been directed at establishing what causes employees to demonstrate OCB and, from this, the practitioner can take ideas to help create an environment whereby performance may be enhanced through OCB.

What is now emerging is that performance gains can be harnessed by consideration of the softer behaviours as well as the harder in-role behaviours, but whereas in-role behaviours may be scrutinised by managers, OCBs are voluntary in nature and harder to discern. An understanding of these issues might lead to competitive advantage.

There is no simple definition of OCB as the research literature has produced a proliferation of descriptions and types. A good starting point is to consider why interest in the subject started and how OCB was originally conceived. The first ideas of the subject were expressed in an essay by Organ (1977, as cited in Organ and Paine 1999), where he defended the practitioner idea that satisfaction causes performance. Organ reasoned that although this view had not received empirical support by academics, it was retained by practitioners, maybe because they had a broader view of performance. The traditional view of performance had been measurable against job descriptions in terms of hard outcomes, but what had not been considered were the softer issues, such as an employee turning up on time and following organisational rules. OCB was later defined as: "individual behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and that in the aggregate promotes the effective running of the organisation" (Organ 1988).

The first point to note about this definition is that the behaviour is discretionary or extra-role, so that employees have choice over whether they perform such behaviour. As these types of behaviour are not usually part of the reward system, absence of such behaviours is therefore not punishable by the organisation, but performance of them should lead to more effective running of the organisation. Before the literature on resultant organisational performance is assessed, it is necessary to present a typology of behaviours that fit into the category of OCB.

As previously outlined, many different forms of OCBs have been identified and defined. In fact, Podsakoff et al. (2000) detail 30 forms in their recent review of the subject. In their paper, they classified these behaviours into seven themes:

- **Helping behaviour**: This involves voluntarily helping others, such as assisting those who have fallen behind in their work, and identifying and stopping work-related problems in the first place.
- **Sportsmanship**: Behaviours that come under the banner of sportsmanship include being able to carry on with a positive attitude in the face of adversity, being willing to set aside personal interests for the good of the group and being unfazed by the rejection of suggestions.
Organisational loyalty: This consists of behaviours that involve promoting the organisation to the outside world, and staying committed to it even when doing so could involve a personal sacrifice.

Organisational compliance: Employees are said to be organisationally compliant when they follow organisational rules even when not being monitored. This is considered an OCB even though the rules are considered ‘in-role’, as many employees simply do not follow all of the rules all of the time.

Individual initiative: This set of behaviours demonstrates performance over and above what is expected. Behaviours include working with extreme enthusiasm, taking on extra roles and showing an interest in improving the way things are done in order to increase performance.

Civic virtue: This is demonstrated by behaviours which show a macro-level interest in the organisation as a whole, such as a loyal citizen would display towards their country. Examples of such behaviours include volunteering, taking an interest in organisational committees and being vigilant for threats to the organisation.

Self development: These behaviours include voluntarily improving one's own knowledge, skills and abilities in such a way as to be helpful to the organisation. This form of OCB requires a longer-term focus than the others and implies a commitment to the organisation extending well into the future.

The final part of Organ's (1988) definition of OCB is that it promotes effective running of the organisation. Surprisingly little work has been produced to test this proposition empirically; the bulk of the studies examine the link between job satisfaction and OCB. Although Organ's statement makes intuitive sense, without empirical analysis there seems little point gearing human resource policies to promote an outcome that might not be beneficial. In fact, Podsakoff et al. (2000) report that of the 160 papers on the topic, only five had tested the organisational effectiveness link.

The first to test this proposition (Karambayya 1999, as cited in Podsakoff et al. 2000) found that employees in high performing work units were more likely to exhibit OCB than those in low-performing units. However, this study relied on subjective reporting of unit performance, made by different individuals in the 12 participating organisations, so doubts are raised about the reliability of results produced. Unfortunately, this paper could not be retrieved, as it was unpublished, but of the authors who cite it none made any reference to the type of OCB being measured.

More recent research has found that, although some forms of OCB result in organisational effectiveness, others seem to hinder it (Podsakoff and MacKenzie 1994). This study was undertaken in a large insurance organisation, which had a high turnover of staff. They found that sportsmanship and civic virtue correlated positively with departmental success, but helping behaviours did not. They put forward several reasons why this may be the case. First, whilst the recipient of the helping behaviour might benefit and therefore increase performance, this might limit the helpful person's output due to the time spent helping. One would assume that this would eventually increase performance overall, as the new recruit learnt the job, but the authors reason that, due to high turnover, the resultant gains might never be realised. Another reason why helping behaviours did not, in this instance, produce performance gains is that the assistance provided was, in fact, not necessarily helpful to the recipient. So the results of this study, whilst providing some evidence in support of OCB increasing organisational effectiveness, do raise the issue that the context in which OCB occurs needs to be taken into consideration. This suggests that OCB might not be suitable in all circumstances.

More substantial support for the OCB/performance link comes from a study based in a paper mill, where both quantity and quality of performance were measured (Podsakoff et al. 1997). Encouragingly, the results showed that both sportsmanship and helping behaviour had a significant impact on quantity, while helping behaviour impacted on performance quality. They explain this performance gain in terms of workers helping each other out, by expertise-sharing and trying to prevent problems in the future. There are comparisons between this stream of work and that of job design. In particular, a study by Wall et al. (1992) showed that when machine
operators were given more autonomy to rectify faults, downtime of the machines decreased and so, as a result, performance increased. Relating this back to the Podsakoff et al. (1997) study, it could be said that helping behaviour only assisted in this instance because workers were given autonomy, so that they could use their knowledge to prevent future problems. This again highlights the importance of the context in which OCB occurs and the interaction with other policies and practices already in place.

More evidence comes from Walz and Niehoff (1994, as cited in Podsakoff et al. 2000), who found that employees in high-performing fast-food restaurants demonstrated more OCB than those in low-performing restaurants. In terms of specific behaviours, helping behaviour was associated with greater operating efficiency, customer satisfaction and income generated per member of staff, and was negatively linked to waste. Also, civic virtue and sportsmanship were negatively related to complaints from customers.

Finally, more research conducted in the insurance sales sector revealed that employees who display higher levels of OCB are perceived by customers to provide better service quality (Bell and Menguc 2002). The authors reason that this is due both to customer-oriented OCB, and OCB that increases internal organisational effectiveness.

As outlined above in Section Four, the work of Michie and West (2003, 2004) suggests OCB, or what they define as ‘contextual performance’, may be particularly important in health care institutions, where a high level of inter-agency and inter-disciplinary collaboration is required. ‘Contextual performance’, as defined by these authors, includes discretionary activities outside core job performance. These are the largely invisible aspects of work behaviours that contribute to the performance of the organisation and create the glue that binds the organisational community together and, as such, equates well with OCB (Michie and West 2003).

In the review by Podsakoff et al. (2000) of the link between OCB and organisational performance, the authors conclude that the studies so far have supported the idea, although the link is greater for some kinds of OCB (such as helping behaviour) than others (such as sportsmanship and civic virtue). The findings do suggest that improvements in performance may be realised when employees demonstrate OCB, so it would be a fruitful line of inquiry to discover how to promote such behaviours in the first place.

Besides organisational-level outcomes, efforts have been put into seeing what the consequences are for individuals who demonstrate OCB. A study (MacKenzie et al. 1991) examined the evaluations or appraisals managers make of their employees, and found that OCB (in the form of altruism and civic virtue) counted as much, in the formation of those evaluations, as objective performance levels. This finding raises the concern that employees are being appraised, not only against their job descriptions, but also against unwritten criteria, which could be deemed unfair. OCB, by its definition, is extra-role and voluntary – so employees who are performing all their job tasks maximally, but are unaware that they are also being assessed on OCB, could become de-motivated by a poor appraisal outcome. This problem could be overcome by incorporating OCB into the organisation’s values and ethos, which would signal that these are desired behaviours.

Another outcome of interest is the relationship between demonstrating OCB and turnover. Chen et al. (1998) found that employees who exhibited lower levels of OCB were more likely to leave the organisation. There was a longitudinal element to this study, which showed that not only was there a negative correlation between OCB and intentions to quit, but also in actual turnover. This finding adds a further dimension to the use of the study of OCB, as it not only has implications in terms of performance, but also impacts on retention.

Given that the research suggests that a workforce that is demonstrating OCB results in increased organisational effectiveness, what causes OCB in the first place, and what human resource policies can be implemented to promote it? Attitudinal predictors such as job satisfaction, organisational commitment, leader supportiveness and fairness
correlate with OCB at similar levels (0.23-0.31), which suggests that there might be an overall ‘morale’ factor which accounts for OCB (Organ and Ryan 1995). Recent research examined the fairness predictor further (Williams et al. 2002) and revealed that the most important aspect of fairness was that of fair treatment by supervisors. As this perception increased in the individual, so did the likelihood of demonstrating OCB. Interestingly, perceptions of fair rewards and fair formal procedures were not predictors of OCB intentions.

Linked to the issue of fairness is the stream of work examining the psychological contract and OCB. Psychological contracts refer to the (usually unwritten) beliefs individuals have regarding promises made between themselves and their employer (Rousseau 1995). When this psychological contract is broken by the employer, this may have knock-on effects on an employee's job satisfaction, organisational commitment and OCB. Turnley et al. (2003) found that although psychological contract breach is related to in-role performance and to OCB directed towards both the organisation and the individual, the strongest link is to OCB directed towards the organisation. That is, when an employee perceives the psychological contract to have been broken by their employer, they are most likely to withdraw OCB that is organisationally centred. Breaking these results down further, it was found that breach concerning the employment relationship was more significant than that of pay. There was also evidence to suggest that when reasons as to why a contract has been breached are adequately communicated by the organisation, the resultant dip in performance (both in- and extra-role) will be lessened. This supports previous research (Robinson 1996), which also found that the dip in performance is less likely to occur in organisations where levels of trust were at a high level before the breach.

Again linked to the idea of fairness is the concept of ‘abusive supervision’, which includes behaviour that is bullying, tyrannical, and undermining (Zellars et al. 2002). Not surprisingly, it has been found, in a military environment in America, that those who have abusive supervision demonstrate less OCB than others. The authors also found that this effect was greater for those who themselves defined OCB as extra-role, as they perceived that they did not have to demonstrate such behaviours. However rare abusive supervision is, it is important for organisations to take the issue seriously, not only out of moral obligation but also because it could impact on the ‘bottom line’.

Organ and Ryan’s (1995) meta-analysis also reviewed the theory that dispositional variables are predictors of OCB. They reasoned that an individual's dispositions, such as agreeableness, affectivity and conscientiousness, predispose them to certain states whereby they are more likely to receive treatment that is satisfying, fair and rewarding. So it is argued that a person’s dispositions can influence the OCB they demonstrate, by having an effect on their general morale. The results for this line of enquiry are somewhat disappointing. Significant correlations have been found between dispositions and various forms of OCB. However, when Organ and Ryan (1995), in their review of such studies, excluded those relying on self-reporting of OCB (amid concerns that this produced artificially high levels), most of the correlations became non-significant. The exception was the correlation between conscientiousness and generalised compliance.

When demographic variables are considered, the meta-analysis conducted by Podsakoff et al. (2000) includes four studies, which examine the link between job tenure and OCB, and five which examine gender. Both these demographics fail to produce significant correlations with demonstration of OCB. Surprisingly, they found that gender was not related to OCB, considering that sound theoretical arguments had been put forward that certain types of OCB were more female-typed (altruism) or male-typed (civic virtue). Later research (Kidder 2002) examined this idea further and found that those in a predominantly female-gender occupation (nursing) were more likely to demonstrate female-typed altruism than those in male-gendered occupations (engineering), who were more likely to demonstrate male-typed civic virtue behaviours. They also found a similar pattern for those occupations with a more feminine than masculine identity. This does present an issue for organisations, as demonstration of certain types of OCB might be related by gender and so, by extension, performance ratings might also been influenced by gender.
Three types of task characteristic – feedback, routinisation, and intrinsically satisfying tasks – have been linked to OCB in a variety of studies. In their meta-analysis, Podsakoff et al. (2000) found that they were all significantly correlated with altruism, courtesy, conscientiousness, sportsmanship, and civic virtue. The relationships were in the positive direction, apart from task routinisation, which was linked to demonstration of fewer types of OCB. Another type of task, that of being involved in decision-making, was investigated and was found to have a positive effect on demonstration of OCB (Van Ypren et al. 1999). These authors found that the more employees take part in decision-making, the more OCB they demonstrate (altruism, conscientiousness, sportsmanship, courtesy and civic virtue). The results also suggest that it was not partaking in the decision-making itself, but the resulting perceived management support, that led to the demonstration of OCB. Podsakoff et al. (2000) found that the only organisational level predictor with any consistency in relation to OCB was group cohesiveness, which correlates positively with OCB.

Various leadership styles have been identified and examined to see the effect they have on subordinates' levels of OCB. Reviewing these leadership-style predictors, Podsakoff et al. (2000) indicated that transformational leadership (leadership which involves a charismatic element, inspirational motivation, intellectual stimulation, and individualised consideration) correlated significantly with altruism, courtesy, conscientiousness, and sportsmanship. Two types of transactional leadership (which consists of contingent or non-contingent reward or punishment) correlated with OCB. Contingent reward had a positive relationship, while non-contingent punishment had a negative one. Supportive leadership and leader role clarification (aspects of the Path-Goal theory of leadership) were found to correlate with altruism, courtesy, conscientiousness and sportsmanship, the former correlating with civic virtue as well.

**Employee engagement research**

Although engagement is not an academic construct (most references relate to survey houses and consultancies), some reasonably robust practitioner-led research has been carried out, notably by the Institute for Employment Studies (IES) and the Royal Bank of Scotland in association with Hewitt Associates. Work has focused on defining engagement, devising a measure of engagement, and finding out what influences it most. This section describes the research so far.

Hewitt Associates have suggested engagement is the measure of an employee's emotional and intellectual commitment to their organisation and its success, and believe it to be an outcome measure, as it describes how employees behave as a result of their interactions with the organisation. In addition, engagement is seen as going beyond job satisfaction, referring to an employee's personal state of involvement, contribution and ownership.

One study (Harter et al. 2002) found that both employee satisfaction and engagement are related to objectively measurable business outcomes. Their research involved 36 organisations, from a variety of public and private sector areas, and sought to examine the relationship among employee satisfaction, engagement and business unit outcomes. These included customer satisfaction, productivity, profit, employee turnover and workplace accidents. Harter et al. defined engagement as referring to an individual's involvement and satisfaction with, as well as enthusiasm for, their work. This was based on Kahn's view (1990) that engagement occurs when individuals are emotionally connected to others, and are cognitively vigilant in their work.

Initial findings in this study indicated that employee engagement appears to have a positive impact on customer satisfaction, customer loyalty ratings and financial outcomes, while a negative relationship is found with employee turnover.
The Institute of Employment Studies' (IES) discussions with 46 organisations in the private and public sectors led to a clear and consistent picture of the ways in which an engaged employee behaves (see Figure 1). It was also apparent that engagement is a two-way concept – organisations have to work to engage employees, and may have to put in a lot to achieve their goal of a committed, enthusiastic, engaged workforce. Although engagement contains many of the elements of both commitment and OCB, it is not a perfect match with either. In particular, neither commitment nor OCB reflect sufficiently two aspects of engagement – its two-way nature, and the extent to which engaged employees are expected to have an element of business awareness. The IES offers the following definition:

‘Engagement is a positive attitude held by the employee towards the organisation and its values. An engaged employee is aware of business context, and works with colleagues to improve performance within the job for the benefit of the organisation. The organisation must work to nurture, maintain and grow engagement, which requires a two-way relationship between employer and employee.’ (Robinson et al. 2004:9)

Measuring a concept such as engagement is challenging, as it involves attempting to assess complex feelings and emotions. The attitude survey is a useful tool for collecting, measuring and analysing employee opinions, although it cannot do full justice to the subtlety and nuances of shades of opinion. Having arrived at an understanding of organisations’ views of the nature of engagement, and developed a definition, IES embarked on the process of developing and testing a series of attitudinal statements on the theme of engagement.

Twelve statements were developed and tested in an NHS environment:

- I speak highly of this Trust to my friends.
- I would be happy for my friends and family to be treated here.
- This Trust is known as a good employer.
- This Trust has a good reputation generally.
- I am proud to tell others I am part of this Trust.
- This Trust really inspires the very best in me in the way of job performance.
- I find that my values and the Trust’s are very similar.
- I always do more than is actually required.
- I try to help others in this Trust whenever I can.
- I try to keep abreast of current developments in my area.
- I volunteer to do things outside my job that contribute to the Trust’s objectives.
- I frequently make suggestions to improve the work of my team/department/service.

The questionnaire, containing the 12 engagement statements, was administered to 14 organisations within the NHS. These organisations were NHS Trusts of different types – acute, teaching, and primary care. The smallest organisation contributed 46 completed questionnaires to the database; the largest 2,685. Altogether, the database in which the testing took place contains 10,024 cases.

The questionnaire used for testing IES’ engagement statements collected a large amount of information about respondents – biographical, job-related, attitudes and experiences – that have been used to assess the extent to which engagement levels vary by employee group and are influenced by the nature of the jobs employees do and their experiences at work.

Figure 1 relates the characteristics of an engaged employee to the engagement statements, and suggests that it is reasonably straightforward to map these statements onto general perceptions of what engagement is, and how an engaged employee behaves. The statements also go some way towards articulating the two-way nature of engagement, and the input that the organisation must make. Underpinning several of the statements is a high level of personal motivation, which has been assumed, by participants in IES’ discussion with companies, to
be a pre-requisite to engagement. This motivation has an altruistic feel to it; however, it is directed towards overall organisational improvement rather than to further the individual’s own ends. The 12 engagement statements were found to scale together, statistically, with a high level of reliability (achieving an alpha score of 0.86).

The NHS database was analysed, using the engagement indicator, to see if engagement levels had any relationship with biographical characteristics, job characteristics or experiences at work. In the following description of results, differences in engagement scores that were found to be significant statistically are reported. Scores are expressed as a number on a five-point scale from 1 (completely disengaged) to 5 (very highly engaged), where 3 is the midpoint.

Biographical characteristics
- The difference in engagement scores between men and women is not significant statistically.
- Minority ethnic employees have higher engagement levels than their white colleagues (3.48 compared to 3.34). In addition, ethnic group makes a difference, with Black, Chinese and Asian employees having higher scores than those in Mixed and White groups. This finding would seem to support other research showing the business benefits of embracing diversity in the workplace.
- There are significant differences in scores when engagement levels are analysed by age group. In general, engagement levels go down slightly as employees get older – until they reach the oldest group, 60 and over, where the highest engagement levels of all are displayed. Further analysis indicates that employees in their 40s and 50s have the highest levels of workplace stress and are likely to find it difficult to balance work and home life, which suggests that attention to family friendly policies could increase the engagement levels of people in these age groups. The high engagement levels expressed by highly experienced employees who are approaching the end of their working lives suggests an untapped source of potential in many organisations.
- The need for a family-friendly approach and greater emphasis on work-life balance is further underlined by the fact that employees with caring responsibilities for children have significantly lower engagement levels (3.33) than those who have no caring responsibilities (3.38).
- Those with a disability/medical condition have lower engagement levels than those who do not have such a condition (3.31 compared to 3.37). This suggests that employers should look at the aspirations of employees with a disability – these employees perhaps feel that their potential is being overlooked and they have a lot more to offer.

Job characteristics
Job group makes a big difference to engagement levels, as Figure 2 shows. In general, managers and professionals have higher levels of engagement than their colleagues in supporting roles. However, the relatively low scores of doctors and midwives, and the relatively high scores of health care assistants, suggest that the relationship between job role and engagement is more complex than this broad statement would suggest.

Working pattern and working hours make a difference to engagement level. Full-timers are significantly more engaged than part-timers (3.40 compared to 3.27), while employees who work days (3.39) are more engaged than their colleagues on shifts (3.28) or a rota (3.32). This suggests that employers need to work harder with people who are not necessarily at work during ‘standard’ working times to ensure that they receive communications, are managed effectively and have opportunities to grow and develop in their jobs.

Figure 3 demonstrates that engagement levels go down as length of service increases – an indication to employers that they need to ensure that longer-serving employees continue to be exposed to new and interesting challenges.
Figure 1: Characteristics of an engaged employee, matched with engagement statements

- 'I am proud to tell others I am part of this organisation'
- 'I find that my values and the organisation's are very similar'
- 'I volunteer to do things outside my job that contribute to the organisation's objectives'
- 'I volunteer to do things outside my job that contribute to the organisation's objectives'
- 'I always do more than is actually required'
- 'I try to keep abreast of current developments in my area'
- 'This organisation really inspires the very best in me in the way of job performance'
- 'I speak highly of this organisation to my friends'
- 'This organisation has a good reputation generally'
- 'I would be happy for my friends and family to use the organisation's products and services'
- 'I try to help others in this organisation wherever I can'
- 'I frequently make suggestions to improve the work of my team/department/service'
- 'I try to keep abreast of current developments in my area'
- 'This organisation really inspires the very best in me in the way of job performance'
- 'I speak highly of this organisation to my friends'
- 'This organisation has a good reputation generally'
- 'I would be happy for my friends and family to use the organisation's products and services'
- 'I try to help others in this organisation wherever I can'
- 'I frequently make suggestions to improve the work of my team/department/service'

AN ENGAGED EMPLOYEE

- looks for, and is given, opportunities to improve organisational performance
- is positive about the job and the organisation
- believes in the organisation
- works actively to make things better
- treats others with respect, and helps colleagues to perform more effectively.
- 'I try to keep abreast of current developments in my area'
- 'This organisation really inspires the very best in me in the way of job performance'
- 'I speak highly of this organisation to my friends'
- 'This organisation has a good reputation generally'
- 'I would be happy for my friends and family to use the organisation's products and services'
- 'I try to help others in this organisation wherever I can'
- 'I frequently make suggestions to improve the work of my team/department/service'

Source: Robinson et al. (2004).

Figure 2: Engagement levels by job group

Source: Robinson et al. (2004).
Experiences at work
- Having an accident or injury at work has a significant impact on engagement levels. Employees who have not had an accident or injury have relatively high engagement levels (3.38). Having one accident or injury is related to a reduction in this engagement score to 3.33, while having between two and five sees the score lowering further, to 3.19. This finding indicates the importance of accident prevention and the need for good health and safety policies, practices and education.
- Exposure to harassment (verbal, racial or sexual) and/or violence in the workplace has a big impact on engagement. Those who have experienced harassment or violence have an average engagement score of 3.22, compared to 3.40 for those who have not. The source of the harassment is important. The impact of harassment or violence from managers or colleagues is greater than if the source is patients or their relatives; the latter is often seen as an expected, if unpleasant, part of the job.
- Having a performance development plan (PDP), and receiving a formal appraisal, are both related to significantly higher levels of engagement (those with a PDP, for example, score 3.50, compared to 3.24 for those without). These aspects of working life signal to employees that their training needs and their development and career aspirations are being taken seriously by the organisation; they also indicate that the individual’s line manager cares sufficiently about his/her direct reports to sit down with them and discuss their future.

Engagement relationships

Correlations
The engagement indicator has clear links to attitudes towards other aspects of working life, as can be seen from Figure 1. This relates engagement to a variety of other attitudes and experiences expressed by respondents to the NHS survey, which was used to test the engagement variable.

All the correlations are highly significant. All except one are positive, which means that an increase is associated with a higher engagement level – so, for example, higher levels of satisfaction with communication are associated with higher engagement scores. The exception is length of service, which is negatively correlated – that is, engagement levels go down as length of service increases.

The key driver
It is apparent that the strongest driver is a sense of feeling valued and involved. This makes intuitive sense, given that the components of the ‘feeling valued and involved’ indicator relate to several aspects already identified as relevant to engagement. The extent to which feeling valued and involved is the key driver is shown by using a statistical regression model. On its own, feeling valued and involved accounts for over 34% of the variation in
engagement scores, indicating that it is a very powerful predictor of engagement. The following six variables account for over 47% of the variation, which is unusually high for a regression model: (1) feeling valued and involved, (2) co-operation, (3) job satisfaction, (4) equal opportunities and fair treatment, (5) ethnicity (white/minority ethnic) and (6) communication.

Table 4: Highly significant engagement relationships

<table>
<thead>
<tr>
<th>Attitude/experience</th>
<th>Correlation Coefficient</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling valued and involved</td>
<td>0.588</td>
<td>9,941</td>
</tr>
<tr>
<td>Co-operation</td>
<td>0.515</td>
<td>9,868</td>
</tr>
<tr>
<td>Communication</td>
<td>0.481</td>
<td>9,933</td>
</tr>
<tr>
<td>Training, development and career</td>
<td>0.485</td>
<td>9,943</td>
</tr>
<tr>
<td>Equal opportunities and fair treatment</td>
<td>0.479</td>
<td>9,911</td>
</tr>
<tr>
<td>How the Trust compares as a place to work with two years ago*</td>
<td>0.452</td>
<td>7,267</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>0.410</td>
<td>9,944</td>
</tr>
<tr>
<td>Immediate management</td>
<td>0.401</td>
<td>9,941</td>
</tr>
<tr>
<td>Pay and benefits</td>
<td>0.398</td>
<td>9,904</td>
</tr>
<tr>
<td>Performance and appraisal</td>
<td>0.381</td>
<td>9,923</td>
</tr>
<tr>
<td>Colleagues</td>
<td>0.280</td>
<td>9,934</td>
</tr>
<tr>
<td>Current career intentions</td>
<td>0.257</td>
<td>9,700</td>
</tr>
<tr>
<td>Stress and work pressure</td>
<td>0.155</td>
<td>9,930</td>
</tr>
<tr>
<td>Number of days spent on formal training and development in the last 12 months</td>
<td>0.069</td>
<td>9,459</td>
</tr>
<tr>
<td>Length of service</td>
<td>-0.062</td>
<td>9,744</td>
</tr>
</tbody>
</table>

* Not including employees with less than two years' service

Source: Robinson et al. (2004).

What fosters a sense of value?

Table 5 gives the components of feeling valued and involved, again showing only those associations that are highly significant. The key role of the line manager can be seen clearly – not only as a direct link, but also indirectly in that the line manager is instrumental in such aspects as delivering performance appraisals, smoothing the path to training, communicating and demonstrating equality of opportunity. Again, almost all the correlations are positive. The two negative correlations are age and length of service, with the apparent meaning that the sense of feeling valued and involved diminishes as both age and length of service increase.
Table 5: Highly significant associations with feeling valued and involved

<table>
<thead>
<tr>
<th>Attitude/experience</th>
<th>Correlation Coefficient</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training, development and career</td>
<td>0.689</td>
<td>9,940</td>
</tr>
<tr>
<td>Immediate management</td>
<td>0.636</td>
<td>9,940</td>
</tr>
<tr>
<td>Performance and appraisal</td>
<td>0.616</td>
<td>9,938</td>
</tr>
<tr>
<td>Communication</td>
<td>0.614</td>
<td>9,950</td>
</tr>
<tr>
<td>Equal opportunities and fair treatment</td>
<td>0.592</td>
<td>9,915</td>
</tr>
<tr>
<td>Pay and benefits</td>
<td>0.532</td>
<td>9,919</td>
</tr>
<tr>
<td>How the Trust compares as a place to work with two years ago*</td>
<td>0.478</td>
<td>7,274</td>
</tr>
<tr>
<td>Co-operation</td>
<td>0.473</td>
<td>9,866</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>0.409</td>
<td>9,937</td>
</tr>
<tr>
<td>Colleagues</td>
<td>0.355</td>
<td>9,934</td>
</tr>
<tr>
<td>Current career intentions</td>
<td>0.302</td>
<td>9,703</td>
</tr>
<tr>
<td>Stress and work pressure</td>
<td>0.273</td>
<td>9,929</td>
</tr>
<tr>
<td>Length of service</td>
<td>−0.090</td>
<td>9,755</td>
</tr>
<tr>
<td>Age</td>
<td>−0.076</td>
<td>9,644</td>
</tr>
<tr>
<td>Number of days spent on formal training and development in the last 12 months</td>
<td>0.066</td>
<td>9,459</td>
</tr>
</tbody>
</table>

* Not including employees with less than two years' service
Source: Robinson et al. (2004).

Figure 4: The drivers of employee engagement – a diagnostic tool

Source: Robinson et al. (2004).
A diagnostic tool for engagement

Figure 4 gives a diagrammatic representation of engagement drivers. It is important to understand that this represents the overall picture for the respondents comprising the NHS database used for IES’ research. When sub-groups are examined (for example, when the data are analysed by staff group, age group, or ethnicity, or individual Trust), the importance of the various factors changes. There is a clear link between employees’ experiences and general perceptions of working life and their sense of being valued and involved – and therefore to their engagement levels. Engagement is believed to be one step beyond commitment, which has been shown to have an impact on business outcomes; it is also linked to increased intention to stay with the organisation. It therefore makes sense for organisations to monitor the engagement levels of employees, and to take action to increase these.

IES’ research indicates that the following areas are of fundamental importance to engagement.

- **Good quality line management** – managers who:
  - Care about their employees;
  - Keep them informed;
  - Treat them fairly;
  - Encourage them to perform well;
  - Take an interest in their career aspirations;
  - Smooth the path to training and development opportunities.

- **Two-way, open communication** – which allows the employee to voice ideas and suggest better ways of doing things, while at the same time keeping employees informed about the things that are relevant to them (including the relationship between the jobs they have and the wider business).

- **Effective co-operation within the organisation** – between different departments and functions, and also between management and trade unions.

- **A focus on developing employees** – so that individuals feel that the organisation takes a long-term view of their value, and delivers both the training they need now and fair access to development opportunities.

- **A commitment to employee well-being** – demonstrated by taking health and safety seriously, working to minimise accidents, injuries, violence and harassment, and taking effective action should a problem occur.

- **Clear, accessible HR policies and practices** to which line and senior managers are committed – particularly with regard to appraisals, equal opportunities and family friendliness.

- **Fairness in relation to pay and benefits** – in terms of comparisons within and outside the organisation.

- **A harmonious working environment** – which encourages employees to respect and help each other.

The issues and challenges

It works both ways: the two-way nature of engagement has been stressed many times in this section. New recruits often arrive with high engagement levels and a sense of optimism about their future. Organisations cannot expect these levels of engagement to maintain themselves, but instead need to work to nurture the all-important sense of feeling valued and involved. One thing that engagement has in common with the psychological contract is the ease and rapidity with which it can be shattered; a badly thought out, ill-timed or merely clumsy action by the organisation can destroy years of patiently accumulated goodwill. For this reason, organisations should not embark on an attempt to raise engagement levels unless they are prepared to invest a lot into it – time, effort and money. The importance of the line manager in the engagement model, for example, suggests that a major investment in line management development might be needed, while taking health and safety seriously could involve considerable expenditure on new equipment and training.
One size does not (quite) fit all
While the IES model works well as a general approach, employees are not all the same. Organisations using employee attitude surveys to measure engagement levels will be able to compare the scores of different groups, and are likely to encounter similar findings to those uncovered in the NHS – that levels vary when employee groups are compared using personal and job-related criteria, and in relation to employees’ experiences at work. This indicates the need for further analysis, if the data will support it, to explore whether the drivers of engagement are the same for all groups.

In the NHS, feeling valued and involved is the key driver for engagement by employees in every job group except for one – pharmacists – for whom job satisfaction is the most important factor. There is no clear indication why this should be the case, unless it is something to do with the relative independence of this professional group. Another interesting observation is that the importance of equal opportunities and fair treatment varies considerably and, in general, this variation is linked to the percentage of minority ethnic employees within the job group. For health care assistants and nursing auxiliaries (a group with a high percentage of minority ethnic employees), it is the fourth most important contributor to engagement, whereas for community nurses and therapists (with low percentages), it is eleventh and seventh highest respectively.

Professional groups: engagement to what?
The NHS data set revealed an interesting finding with regard to professional groups. Although, in general, employees in these groups have somewhat higher engagement levels than their colleagues in supporting roles, this is by no means the case for all professionals; for example, doctors and midwives have lower than average engagement levels, even though their job satisfaction ratings are above average. It appears that professionals often feel a higher level of commitment and loyalty to their work – and, in the NHS, to their patients – than to their organisation. This means that they may not be very interested in the organisation’s aims and values, instead preferring to go wherever they feel they can best practise their craft and receive, in return, the appreciation of their peers and their clients. To some extent, this may not matter to organisations, especially if these individuals perform very effectively while they are employed. However, the fact that the loss of highly skilled people can be a severe blow to organisational performance indicates that it would be worthwhile to try to understand what drives engagement for these key professionals.

The length of service question
The decline in engagement levels as length of service increases represents a big challenge to organisations. Clearly, the knowledge and experience of long-serving employees are of enormous value to the organisation – but the potential impact these individuals could make is perhaps being blunted by their relatively low engagement levels. All sorts of reasons for lower engagement suggest themselves, such as career frustration (being passed over for promotion), boredom (job has become routine), cynicism (seen it all before) and perhaps disappointment (with themselves or their organisation). Although the effort involved in increasing the engagement levels of long-servers may be considerable, in all but the most hardened of cases, it is probably worthwhile – given the correspondingly greater rewards. Further research by IES is under way to test the engagement indicator and diagnostic tool in different employment sectors.
Summary and conclusions

Employee engagement has two well-researched precursors as its foundation – employee commitment and organisational citizenship behaviour, both of which have a good research base, which makes engagement worth closer scrutiny than perhaps some other HR initiatives.

There is a growing consensus that employee commitment should be viewed as a multidimensional construct and a two-way process. Organisations see the need to create commitment because it has positive benefits for the organisation, such as increased job satisfaction (Vandenberg and Lance 1992) and job performance (Mathieu and Zajac 1990), decreased employee turnover (Cohen 1991), absenteeism (Cohen 1993; Barber et al. 1999) and intention to leave (Balfour and Wechsler 1996). A clear employer brand and group identity can ensure the right people are recruited and employees need to feel they are fairly treated and trust is maintained. Job satisfaction and commitment are similar concepts but are not one and the same; and if employee commitment is successfully engaged, it has greater returns for the organisation in terms of performance than job satisfaction. The importance of good communication and openness and the role of line managers are vital components in the creation and maintenance of employee commitment.

Organisational citizenship behaviour has a research base of over 20 years and in essence promotes effective running of the organisation through discretionary behaviours such as altruism, civic virtue, conscientiousness and courtesy. As well, high levels of OCB reduce turnover and increase retention. However, some OCB, such as helping behaviours, do not always facilitate success in the organisation and may reduce performance gains, such as output (Podsakoff and Mackenzie 1994).

Employee engagement has a limited research base and work has to date concentrated on its definition, devising a measure of engagement and what influences it most. It overlaps with the concepts of employee commitment and OCB, but it is not a perfect match with either. Work by the IES has advanced knowledge in this area by identifying how engaged employees behave, their biographical and job characteristics, and how experiences at work, such as an accident or injury, impact on engagement levels. The strongest driver identified by this work is a sense of feeling valued and involved, and factors that foster a sense of value have also been identified. These include key aspects of what makes a ‘good employer’ such as training and development, performance appraisal, equal opportunities and fair treatment, family friendliness, pay and benefits, communication and, as identified elsewhere in this paper, the key role of immediate management is obvious. Indeed, good quality, line management is vital, which means managers who care about their employees, keep them informed, treat them fairly, encourage them, and take an interest in their performance and careers. More work in this important area is needed and further work is currently underway.
Section Five: Overall Summary

This document has summarised the evidence-base and issues related to good human resource management (HRM) in the health sector with reference to: indicators of performance and measurement of nursing outcomes; performance issues related to individuals and teams; and employee engagement, commitment and organisational citizenship behaviour (OCB). Two key themes have been considered: the interventions and indicators associated with good HRM outcomes; and how can these be measured.

The evidence reviewed suggests investment in developing and maintaining effective HRM policies and practice makes a significant and measurable positive contribution to organisational performance (CIPD 2001; Caulkin 2001; Richardson and Thompson 1999; West et al. 1997). HR practice contributes to business performance in ways influenced by three broad perspectives: ‘best practice’, ‘contingency’ and through ‘bundles’ (Richardson and Thomson 1999). Furthermore, there is no ‘magic bullet’ - claims of a universal best practice are premature, adopting a specified set of HR strategies will not in itself lead to organisational success, and the same ‘bundle’ of HR policies may not be universally applicable (Richardson and Thomson 1999). Indeed, how and in what combination the linkages between management practices and superior function are enacted, remain an enigma (Caulkin 2001). The examination of HRM remains a ‘young field of research’ (Guest 2001).

Good ‘HRM’ practice in the health sector

Human resource management in the health sector has a unique set of circumstances and characteristics, e.g., a workforce comprising separate occupations and professions. The bulk of HRM in health care is under-researched and most such work has been undertaken in North America (Buchan 2004). Both old and new challenges threaten the human resources responsible for health care planning and delivery in public sector-funded national health systems, and nowhere more so than in the developing world and in countries in transition (Martinez and Martineau 2002). Old challenges such as low pay and staff motivation, unequal and inequitable distribution of the health workforce and poor staff performance and accountability remain key obstacles to health sector development.

New challenges include the migration of qualified staff moving freely between countries, often attracted to the industrialised countries by improved pay and improved access to training and better working conditions (Martinez and Martineau 2002; WHO report 2004). The devastating impact of the HIV/AIDS epidemic on the health workforce is likely to be significant, particularly in Africa, where it has already resulted in growing absenteeism, attrition and a significant increase in workload (Martinez and Martineau 2002). The challenge for researchers and policy analysts in the health sector is to bridge the current knowledge gap – between what we know from the general evidence base on HRM inputs and performance, and what we know from the health-specific evidence base.

Nurse performance indicators: Evidence base

Nursing performance indicators may be of interest to the ‘good employer’ for a number of reasons. These include improving the quality of care, facilitating recruitment and retention of staff, and providing information to underpin rational and defensible decision-making. Nursing sensitive outcomes are variously defined, but emphasise variables dependent on nursing interventions. Reservations about their use have included the difficulty of evaluating the input of one profession in multi-professional teamwork; the difficulty of measuring important aspects of nursing care; and the additional stress performance indicators may place on already overworked staff. A growing body of evidence suggests small changes in characteristics of the nursing workforce are associated with large changes in patient outcomes (e.g. the mix of nursing skills, education, experience and workload have an impact on patient mortality, failure to rescue, adverse events and length of stay).
Performance of individual workers and teams in health care

Objectives and effective methods of assessment: Evidence base
Research suggests that, when health care professionals work together in teams, an improved service to clients can be delivered (Zwarenstein et al. 1997; Aiken et al. 1998; Schmitt 2001; Rafferty et al. 2001). In terms of a ‘good employer,’ effective teamwork strengthens staff motivation (Wood et al. 1994), increases job satisfaction, enhances mental health (Borrill et al. 2000; Peiro et al. 1992), improves retention and reduces turnover (Borrill et al. 2001). There is a well-established body of literature, which identifies the effectiveness of teams, both in terms of their development and functioning (e.g., stages of development and team communication, flexibility, innovation, team roles and leadership) (Borrill et al. 2001; Heinemann and Zeiss 2002b).

To measure performance in health care, HRM should monitor the antecedents of both task and contextual performance. Until now the focus has been predominantly on task performance (Michie and West 2003). Although studies in health care consistently support the value of team-based working, much of the performance measurement in health care remains driven by the measurement of individual performance, notably the individual performance appraisal. A plethora of appraisal systems and tools are now available to managers, including the more recent approach to individual assessment of performance – ‘360 degree feedback’ (Armstrong and Baron 2005). Sound instruments for measuring team performance are presented as both ‘state of the art’ instruments, (e.g. team climate inventory) (Anderson and West 1998) and ‘honourable mention’ instruments (e.g. team collaboration index) (Aram et al. 1971; Lovett et al. 2002). The measurement of the concept of team performance highlights many difficulties common to the measurement of any performance, including lack of a common language among different disciplines and adaptation to local conditions (e.g. the development of virtual teams).

Employee engagement: Evidence base
Employee engagement has a limited research base, and work to date has concentrated on its definition, devising a measure of engagement, and finding what influences it most. Employee engagement has overlap with the concepts of employee commitment and OCB, but it is not a perfect match with either. There is a growing consensus that employee commitment should be viewed as a multidimensional construct and a two-way process. Organisations see the need to create commitment because it has positive benefits for the organisation, such as increased job satisfaction (Vandenberg and Lance 1992), job performance (Mathieu and Zajac 1990), decreased employee turnover (Cohen 1991), absenteeism (Cohen 1993; Barber et al. 1999) and intention to leave (Balfour and Wechsler 1996). Research focusing on ‘met expectations’ suggests that employees will be more committed if there is a good match between what the person is looking for in a job and what the job provides (Dawis 1992); and unmet expectations are commonly cited as a cause of dissatisfaction (Sturges and Guest 2000). A link between early job experiences and commitment has also been demonstrated (Migenerey et al. 1995), and the importance of a good induction programme and training is emphasised. Four areas where an employee's sense of trust in the employer can be developed have been identified (O'Mally 2000). The link between OCB and organisational performance is supported, but not definitive (Podsakoff et al. 2000) and it may be fruitful to discover how to promote OCB. However, OCB may require greater definition and clarity and may need to be incorporated into the organisation's values and ethos if it is to be made more explicit and if employees are to be appraised on it.
Section Six: Policy Implications

- The importance of being a ‘good employer’ should not be underestimated, particularly in light of the global shortage of nurses. Indeed, the scarcity of qualified health personnel, including nurses, is one of the biggest obstacles to achieving the Millennium Development Goals for improving the health and well-being of the global population (Buchan and Calman 2004).

- Effective HRM can be linked to both staff and care outcomes and influences employee health and well-being, as well as individual, group and organisational performance (Michie and West 2004).

- A clear employer brand and group identity can ensure the right people are recruited.

- Employees need to feel they are fairly treated and trust is maintained.

- Getting HR policy ‘right’ in order to create a well motivated, appropriately skilled and deployed workforce needs to be at the core of any sustainable solution to health system performance (Dussault et al. 2003, Diallo et al. 2003).

- A number of methodological challenges remain, and no single intervention is likely to provide a sustainable solution to all the workforce challenges facing an organisation, so it may be important to ask how something is done as well as what is done. Most empirical studies focus on the latter and attention needs to be devoted to examining the intermediary steps between HR strategy and organisational performance.

- National level data on nursing outcomes were initiated by the ANA (1994), and this has achieved an important role in quality improvement in the USA. Many other countries are interested in using their system as a template.

- There has been some attempt to examine national standards in the UK (Audit Commission 2001; Healthcare Commission 2004) but the lack of national guidelines for assessment of pressure areas, for example, may have compromised the data collected. There are also local initiatives in the UK to collect nurse outcome data (Harvey 2004; Watterson 2004).

- Marshall et al. (2003) suggest there is considerable scope for countries to collaborate internationally in the development of quality indicators, but modification may be required to ensure the best fit locally.

- A supportive, organisational structure and context are seen as vital to both team performance and performance management and should include good HRM, such as effective manpower planning, skill mix, policies on equal opportunities, skills retention, job security, industrial relations and redundancies (Michie and West 2004).

- The development of new instruments to measure team performance and effectiveness is to be encouraged and should include:
  - instruments that measure more aspects of team performance;
  - more focused instruments that measure elements of performance that are emerging as health care changes; and
  - instruments that collect data about a team’s performance from respondents or observers outside the team (Lovett et al. 2002).

- Further work needs to focus on the relationships between health care professionals – measures of effective inter-professional working. This is an area that has been neglected in the measurement of health care organisations’ performance, yet it is difficult to overstate its importance to effective health care organisational functioning (Michie and West 2003).
Individual and team performance identification and measurement are relatively new in health care; knowledge about what makes a good health care employer is relatively under-developed, but concepts that have gained strength in the business world may be applied to health care with caution.

Job satisfaction and commitment are similar concepts, but are not one and the same and, if employee commitment is successfully engaged, it has greater returns for the organisation in terms of performance than job satisfaction.

The importance of good communication and openness and the role of line managers are vital components in the creation and maintenance of employee commitment.

Organisational citizenship behaviour (OCB) in essence promotes effective running of the organisation through discretionary behaviours such as altruism, civic virtue, sportsmanship, conscientiousness and courtesy, and high levels of OCB reduce turnover and increase retention.

Some elements of OCB, such as helping behaviours, do not always facilitate success in the organisation and may reduce performance gains, such as output (Podsakoff and Mackenzie 1994).

Employees in the insurance sector who display higher levels of OCB are perceived by customers to provide a better service quality (Bell and Menguc 2002).

Work by the Institute of Employment Studies (IES) has advanced knowledge in this area by identifying how engaged employees behave, their biographical and job characteristics, and how experiences at work, such as an accident or injury, impact on engagements levels.

The strongest driver identified by the IES is a sense of feeling valued and involved, and factors that foster a sense of value have also been identified. These include key aspects of what makes a ‘good employer’ such as training and development, performance appraisal, equal opportunities and fair treatment, family friendliness, pay and benefits, communication and the key role of immediate line management.

Good quality, line management is vital to employee engagement, i.e., managers who care about their employees, keep them informed, treat them fairly and encourage and take an interest in their performance and careers.

The issues and challenges include the two-way nature of engagement. “One size does not (quite) fit all” and the engagement of professional groups is a particular challenge. Professionals often have a higher level of commitment and loyalty to their work, the national health system and their patients than they do to their organisation, and it may be worthwhile to better understand what drives engagement for these key professionals (e.g., doctors and midwives).

More work in this important area is needed and further work is currently underway.
Annex 1: Search Strategy

Relevant research studies were identified from a search of PubMed, Web of Science, Cinahl, BMJ, ERIC, PSYCHINFO, MEDLINE and Dissertation Abstracts using the following combinations of search terms:

**Indicators**

**Outcomes**
- outcome assessment, treatment outcomes, clinical outcomes, patient outcomes, mortality, morbidity, adverse events, quality of care, length of stay, complications, errors, readmissions, admissions.

**Workforce**
- labour force, health care workforce, manpower, workforce policy, training, education, nurses, staffing levels, staffing ratios, skill mix, substitution, specialisation, training, education, grades, staff development.

**Organisational Performance**

**Teams**
- team assessment, team performance, inter-professional learning, inter-professional education.

**Involvement**
- organisational citizenship behaviour, employee commitment, employee engagement.

In addition, the websites of the following organisations were searched:
- AHRQ (American Health Research and Quality)
- ANA (American Nurses Association)
- Audit Commission
- CHI (Commission for Health Improvement)
- CHSRF (Canadian Health Services Research Foundation)
- CIPD (Chartered Institute of Personnel and Development)
- Cochrane Collaboration Library
- DFID (Department for International Development)
- DH (Department of Health)
- Google
- Healthcare Commission
- IES (Institute of Employment Studies)
- Institute of Medicine (IOM)
- The World Bank
- WHO (World Health Organization)
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<td>COFEN Federal Council of Nursing, Brazil</td>
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<td>CREM Mercosur Regional Council of Nursing</td>
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<td>CRHCS Commonwealth Regional Health</td>
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<td>IMR</td>
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