



# A matter of life and death

Back in January this year, the UK government announced that league tables of the performance of hospital consultants are to be released, so that patients can judge which hospitals are the safest for treatment. Our research suggests that at least as informative to patients looking for the best chance of a cure would be league tables based on the performance of HR Directors.



By Professor Michael West

In a study of hospitals in England, we found strong associations between HR practices and patient mortality. The extent and sophistication of appraisal systems in hospitals was particularly closely related to lower mortality rates, but there were links too with the sophistication of training, and also with the percentages of staff working in teams.

Why should we find such associations? Existing research into 'progressive' HRM practices suggests that these practices enhance organizational productivity and profitability by improving the knowledge, skill, motivation, and performance of employees. Much research has demonstrated that specific HRM practices, such as selection and training, are associated with improved job performance. Furthermore, studies have also shown that progressive HRM practices can enhance citizenship behaviour: people take on tasks or make efforts above and beyond what is formally required in the job; they are cooperative and helpful with colleagues; and practice good teamworking.

There has however been little research conducted in hospital settings and we don't know whether HRM practices are related to performance in the same ways there.

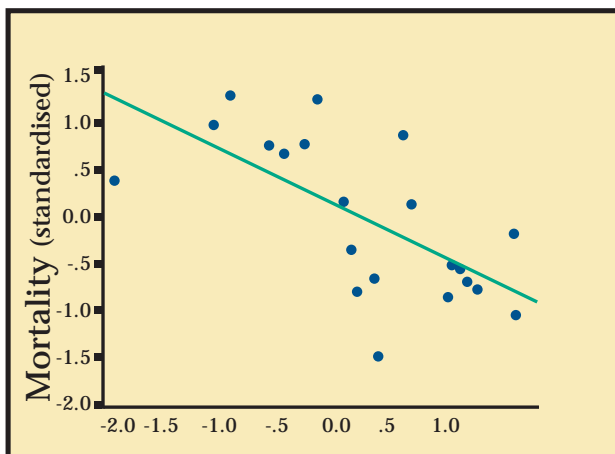
Our aim was to show not just whether there is a link between HR practices, quality of care and effectiveness, but specifically which practices affect these outcomes. Chief executives and HR directors from 61 hospitals participated in the research. The survey gathered information on four areas: hospital characteristics; hospital HRM strategy; employee involvement strategy and practices; and human resource management practices and procedures. Questions on HRM practices and procedures were asked separately for each of the main occupational groups – doctors, nurses and midwives, PAMs, ancillary staff, professional and technical staff, administration and clerical staff and managers. The HR departments had between two and 60 staff (average of 21) and seven of these, on average, had professional qualifications.

Those we surveyed and interviewed were also asked about the size of the hospital training budget, the extent to which each occupational group (doctors, nurses, ancillary staff, etc.) had access to a tailored and formal written statement about training policy and entitlements (48 out of 61 said this was available to all staff groups; seven said it was available to none; and 13 to just some); the percentage of staff in each occupational group receiving three or more days of formal off-the-job training in the previous year (doctors were highest on 92% and ancillary staff lowest on 26%); frequency of training needs assessment for each of the main occupational

groups (annually for 90%). The HR Directors also provided information about the percentage of staff in the hospital working in teams. Twelve hospitals claimed that all their staff worked in teams, 23 said between 80 and 99% and 24 trusts failed to provide any information. However, training in team working was less common, with most hospitals reporting less than a third of their staff having been trained in teamworking.

They were also asked to indicate the percentages of staff in each occupational group who had received an appraisal in the previous 12 months; the frequency of these appraisals; the percentages of staff conducting appraisals in each occupational group who were trained in conducting appraisals; what methods were used to evaluate the appraisal system and process (e.g., appraisers and appraisees completing evaluation form, monitoring by the HR department). There was considerable variation with some staff in some hospitals having no appraisals (usually ancillary staff, doctors and administrative staff) while other hospitals reported appraising all staff. There was most variation in the percentages of staff receiving training in conducting appraisals, with many hospitals failing to provide such training. Overall, appraisal was carried out annually in 85% of cases. HR departments checked that appraisals were carried out in 43 of the 71 hospitals from which we gathered data (some of these hospitals were not used in the analysis because of incomplete data).

Measuring mortality was more difficult than might be imagined because of variations between regions in health and socioeconomic status. We were able to gather data on deaths following emergency surgery, deaths following non-emergency surgery, deaths



Sophistication of HR practices (standardised)

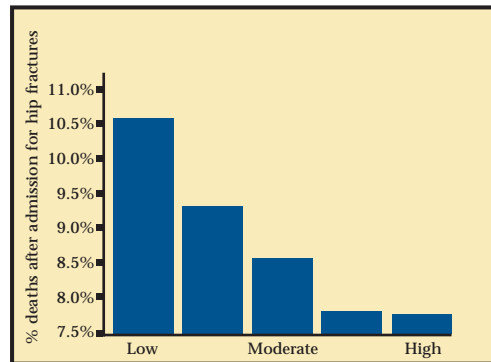
following admission for hip fractures, deaths following admission for heart attacks, re-admission rates and a mortality index.

We took great care that there could be no bias in interpretation of data by using different researchers to collect HR data, from those collecting the mortality data and those analysing the results since we did not want the analysis to be influenced by knowledge of the hospitals. Even so, there is the danger that the results could be due to other factors such as the geographical or regional variations in mortality. Hospitals in poor areas might have high mortality rates and might attract less able HR practitioners, the high flyers preferring to go to the top teaching hospitals. We therefore subtracted any effects due to the size and wealth of the hospital measured by hospital income and local health needs since both are likely to co-vary with mortality. To obtain a measure of local health needs, we used the UK Government's published 'High Level Indicators', which measure the ratio of the actual number of deaths to expected number of deaths in a local authority area.

When we performed the final analyses they showed a strong relationship between HRM practices overall and patient mortality. This was exciting but clearly needed deeper investigation. The relationship between HR practices and mortality established, we set out to determine which individual HR practices, if any, had strong relationships with patient mortality.

We found that even after taking account of the differences between hospitals in the numbers of doctors per 100 patients:

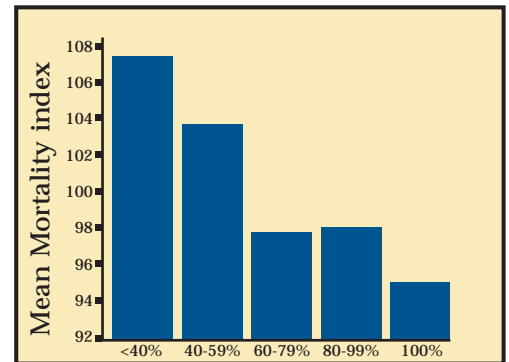
- Appraisal has the strongest relationship with patient mortality.
- The extent of team working in hospitals is also strongly related to patient mortality
- Sophistication of training policies is linked to lower patient mortality.



Sophistication of appraisal system

We have however encountered considerable scepticism from doctors who seek demonstrations of how HRM practices improve individual surgeons' performance in ways that lead to reduced mortality. Our answer is simple, though strange to the ears of those who deal with individuals rather than organizations. If you have in place HR practices that focus effort and skill; if you develop people's skills; and if you encourage cooperation, collaboration, innovation and synergy in teams; and you do this for most if not all employees in the organization, the whole system functions more effectively and performs better as a result. The effects show across the board, even in measures of performance as fundamental as patient deaths in hospitals. If the receptionists, porters, ancillary staff, secretaries, nurses, managers and, yes, the doctors are working effectively in a system, the system as a whole will function effectively.

One other striking result of our findings is that where the HR Director is a member of the Board of the Hospital the associations between HR practices and patient mortality are even stronger. Only slightly over half of those who replied to our survey said the person responsible for HR was a voting member of the Board. Hospitals without board-level HR specialists should take note: this mirrors research in private sector organizations that shows that having political influence at the strategic apex of organizations is important to the potency of the HR function.



% staff working in teams

We need to extend the research described here by including more hospitals. Without further research we also cannot know whether the relationships described here are causal and, if so, what is the direction. For example, it could be that managers in hospitals that achieve low levels of patient mortality relax their focus on patient outcomes and can give more attention to the management of employees. It may also be that hospitals which manage patient care well also happen to manage other aspects of organizational functioning well, including the management of employees, but there is no causal relationship between the two.

So, as yet, we can't say for certain that emphasis on improving certain aspects of HR in hospitals will improve health care. However, the idea that good HR practices predict subsequent organizational performance positively has been demonstrated in a wide variety of studies in private and public sector organizations.

The resource implications for hospitals are considerable. The magnitude of returns for investments in effective HR practice even over a relatively short period can be substantial. For example, Huselid demonstrated that a significant change (one standard deviation change) in each HRM practice associated with good organizational performance (e.g., appraisal) could produce an increase in sales of £18,000 per employee.

Following this logic, if we take the strongest association, that between deaths following

admissions for hip fractures and appraisal, the data show that for hospitals of equal size and local population health needs, an improvement (of one standard deviation) in the extensiveness/sophistication of the appraisal system would be associated with a drop in deaths after hip fractures equivalent to 1090 fewer deaths per 100,000 admissions – that is more than 1% of all admissions. In other words it could save 12.3% of hospital deaths. Even with a weaker relationship, that between team working and deaths following emergency surgery, 25% more staff working in teams could produce, on average, 275 fewer deaths per 100,000; or 7.1% of the total.

While this does not invalidate the need for employing more – and better – doctors, the focus on medical staff alone may be missing a crucial point. A hospital is a work community and it is the effective management of all the staff within that community that really makes the difference to health. Any intervention that held out the possibility of reducing patient mortality in hospitals by the level suggested by our findings should command immediate and widespread attention amongst policy makers and practitioners. It is therefore encouraging that senior figures in the HR function and generally in the NHS are energetically seeking to disseminate these findings. This research should help in shifting attention in the NHS to the enlightened management and development of staff in order that patient care is dramatically improved. It's a life or death issue.