February 2013. Longley on organisational culture.

This document is derived from one I made up last year soon after the publication of Professor Longley's report "The Best Configuration Of Hospital Services For Wales: A Review Of The Evidence". It is the section on organisational culture.

This is a topic neglected by the Hywel Dda Health Board, who do not appear to appreciate that attention to it is likely to have a large beneficial effect on outcomes including mortality and infection. I believe they should be challenged on it.

I have placed quotes in italics and comments in indented paragraphs.

Organisational and System issues impact on Quality

(Summary page 14) “General Trauma and emergency Care ... Compliance with clinical standards and pathways more important than scale (smaller hospitals often show better compliance).”

(Summary page 16) “The discussion so far has focussed on the possible relationship between volume and quality/safety of care, because this has proved to be one of the most contentious elements in any health service configuration across the UK. But there are many other determinants of quality and safety in hospital services which are at least as strongly evidence-based.”

(Summary page 17) “Within the hospitals themselves, we know for example that the following are important: • Levels, qualification, training and utilisation of staff – a lot of work has been done on nurse staffing, for example • Resources available for key elements of the system • Adherence to guidelines and evidence-based care pathways • Application of research evidence”

(Summary page 26) “Through this review of the evidence, two themes recur. First, the evidence is seldom so unequivocal that the answer is immediately clear. It therefore requires interpretation and application to particular circumstances, and needs to be set in the context of the complex inter-dependencies which are typical of modern healthcare ... Second, health policy is usually about working out acceptable compromises between competing objectives – quality and safety, accessibility, cost.”

(Quality and Safety page 5) “In summary, the published literature and research suggests that organisational culture has the most significant impact on safety and outcomes • The case that service change is needed to sustain or improve quality and safety varies from service to service and in some cases will be tied in with consideration about staffing and funding. • There is good evidence to support centralisation of some services like stroke and trauma and highly specialist surgery [referring here to the evidence for the minority of trauma cases that require centralised major trauma centre care, and operations such as oesophagectomy, gastrectomy, and aortic aneurysm that are already centralised], but for many other conditions there is no clear causal link between volume and outcome and where there is a

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1 The four documents comprising the report can be found at these links:
http://www.wales.nhs.uk/sitesplus/863/opendoc/190933 (Summary), ...5 (Quality and Safety), ...6 (Access), ...7 (Workforce)
2 http://www.zen142533.zen.co.uk/SWATcontd/longleyreport_documents/alookatlongley.pdf
link, the threshold for quality improvement can be quite low [referring to yet another very large study 3]."

(Quality and Safety page 9) "Rural Health Plans for Wales ... recognizes the need to take account of, and balance, four competing factors when planning services ... concluding that an emphasis on accessibility of services can adversely affect their quality, while totemistic adherence to critical mass was not justified".

(Quality and Safety page 40–41) Professor Longley reviews evidence on size of hospitals and concludes that "There is minimal evidence that larger hospitals are more cost effective than smaller hospitals; ... While increasing hospital size can cut costs for some specific procedures, such economies are exhausted at a relatively small size ... There is little evidence that patient outcomes improve with hospital size ... The literature on hospital economies of scale suggests that they are fully realised in facilities of 100 to 200 beds".

Comment. Withybush Hospital at last count had about 240 inpatient beds. There appears to be no justification for centralising just to increase the size of the hospital.

"Organisational culture. There is overwhelming evidence that the organisational culture has the most significant impact on safety and outcomes 4.

Comment. To me, the above series of statements, concluding with the definitive one above, are the most significant ones in Professor Longley’s report, and he gives the impression that he thinks so too. Unfortunately the references given are not expanded upon, or even in some cases, the sources detailed. But unearthing the sources proves to be more fruitful than any mentioned in previous sections, and certainly in my view substantiate the use of the term “overwhelming”.

Any health economists reading this will no doubt be aware of the evidence but it is new to me. Here are some details.

Jarman et al 4 found a highly significant link between higher ratio of hospital doctors to beds and decreased mortality; they also found at the 0.05 level of significance that, both high bed occupancy and high proportion of unqualified nurses were linked to increased mortality.

West et al. 5 found that greater use of high performance hospital resource management policies reduces mortality. These policies “emphasize a set of complementary 'high involvement' policies and practices (i.e. an emphasis on training, performance management, participation, decentralized decision-making, involvement, teams, and employment security)".

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4 Jarman B et al., “Explaining differences in English hospital death rates using routinely collected data”, British Medical Journal 1999 318,1515-1520. Subsequently the mortality index developed in this paper was widely adopted and is now known as the “Standardised Mortality Ratio” (SMR) or “Jarman Index”.
The Aston Business School produced numerous documents many of which were based on NHS Staff Surveys between 2006–2010, with mortalities obtained mostly from CHKS and Dr Foster. In summary these are some of the factors linked to hospital mortality:

- Employee Engagement with well-structured appraisal (involving motivation, involvement and advocacy) reduces mortality by about 2.4%.
- The percentage of staff working in well-structured teams, with clear objectives, that meet regularly to review their performance and how it could be improved, and whose members work closely and effectively together ... 5% more staff working in well-structured teams leads to 3.6% lower mortality.
- Good training, learning and development opportunities for staff
- Support from immediate managers
- Staff having opportunities to influence and contribute to improvements at work
- A positive organisational climate (in terms of good communication, staff involvement, and innovation)
- Acute trusts with higher levels of HR policies ... are more likely to see patient mortality ratios decrease over time
- Specific factors identified that are linked to mortality in some studies (but not in all) are: percentage of staff receiving job-relevant training learning or development in last 12 months; support from immediate managers; percentage of staff able to contribute towards improvements at work; a feeling that valued by colleagues
- Staff Advocacy (one of the Engagement variables) was identified as a factor consistently associated with decreased mortality. That is, the employee would recommend treatment in their trust to a friend or relative.

Besides mortality, reduced infection rates are found in trusts where a large percentage of staff feel they can contribute towards improvements at work ... such that where 10% more staff feel this way, there would be 0.057 fewer cases of MRSA per 10,000 bed days. Infection rates are also lower where there is greater staff training, staff report errors, near misses and incidents, and incident reporting procedures are deemed to be fairer and more effective.

Numerous other quality indices were assessed such as patient satisfaction. Space and time do not permit an attempt to cover these, but to me these numerous and extensive studies confirm what we all know from common sense – that grass roots organisational structure is crucially related to outcomes. Improving these does not require centralisation or expenditure, but good management and leadership. Ultimately it is the people on the ground who can make a difference. One might argue that this doesn’t deal with recruitment problems. I would respond that people are attracted to well-run organisations.

Peter Milewski, February 2013