Extrapolating from statistical data

Healthcare for London: Consulting the Capital

Comment by Janet Shapiro

The consultation document - Healthcare for London: Consulting the Capital [1] contains two graphical presentations of data to support arguments for diverting healthcare provision from smaller local hospitals into larger specialist units. The strategy could put local hospitals at risk if implemented.

The first graph appears in section 5 *'why London's healthcare needs to change'*. It is argued that more specialised care is needed.

> *'And we need to concentrate specialist equipment and expert staff in centres where each speciality treats so many patients that the best quality of care is assured.'*

SPECIALISATION CAN LEAD TO LOWER COST AND BETTER OUTCOMES: CANCER EXAMPLE
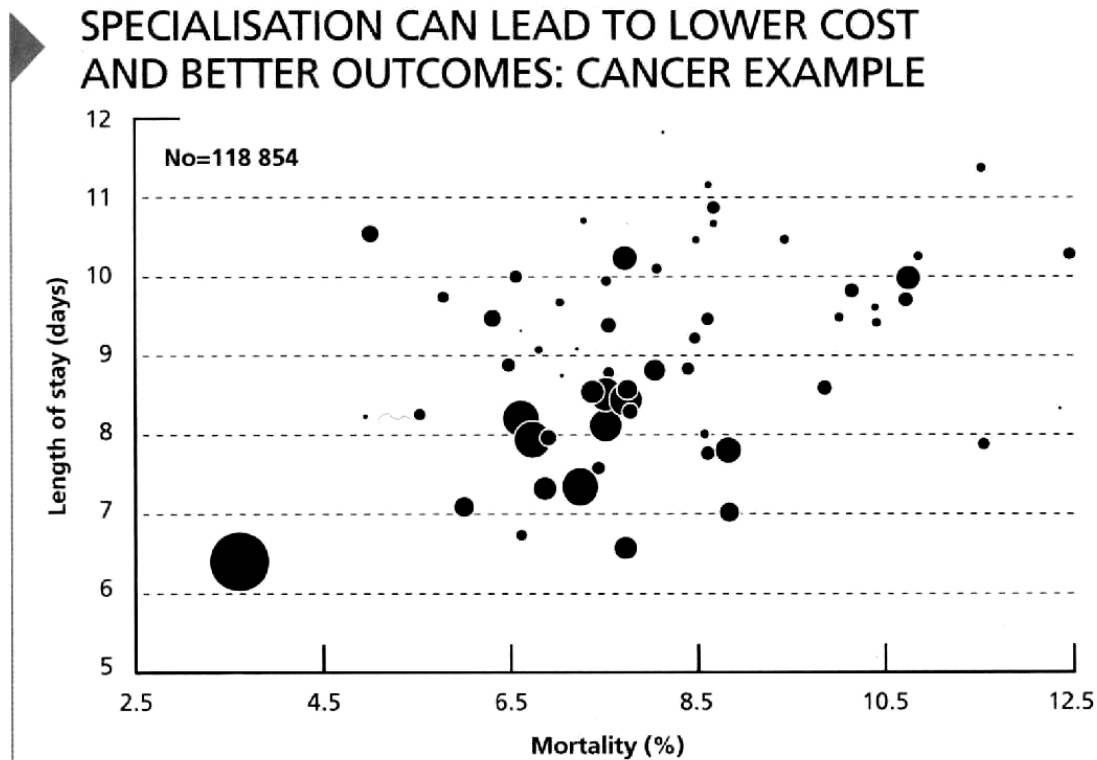
The text below the graph says:

'The circles on the graph are hospitals in New York. The nearer the circle is to the bottom left hand corner, the better. The graph shows that, in general, hospitals that treat the most patients have the lowest rate of death (mortality) and the shortest length of stay for patients – which is good for patients, and saves money.'
Risk-adjusted mortality from cancer against length of stay for institutions in New York state. Adapted from 2005 BMJ Publishing Group Ltd.

Readers are invited to make their own interpretations. As the heading implies, there are quite a few large circles near the bottom left hand corner of the graph; this may indicate some association between the three variables.

There are many questions about the relevance of this chart to the UK healthcare debate:

- Does the size of dot represent size of hospital or number of patients treated? Do repeat treatments of the same patient counts as two treatments or one?
- What do we know about the extremely large dot where length of stay and percentage mortality are both lowest? Is this an atypical case?
- Are we sufficiently informed about the conditions under which the data in New York was collected?
- Is there sufficient parity between the criteria for patient admission and discharge in the UK and USA to justify applying the conclusion to London?
- Are such interpretations sufficiently robust to advise policy for restructuring London hospitals?

The second graph is from section 6 *'how we could provide care: the journey through life'*. The graph relates to Planned Care, and the benefits of specialist centres are reiterated.

'Evidence shows that hospitals providing complex care to lots of people have the best outcomes for patients. Even if money were no object and it were possible to equip and staff specialist centres in every hospital, it would be better to transport patients to teams that regularly perform the procedures.'

One cannot deny that specialist units have the best outcomes for patients suffering from particular conditions, but the conclusion that follows is questionable.

'For the best care, more hospitals need to specialise in particular aspects of healthcare. The days of a general hospital trying to provide all services to all patients, to a high enough standard, are over.'

The graph plots hospital standardised mortality rates (HSMR) over the years for different types of London hospital and for hospitals outside London. Does this graph support the above conclusion?

▶ COMPARING DEATH RATES OF LARGE INNER LONDON HOSPITALS WITH OTHER LONDON AND ENGLAND HOSPITALS. A LOWER SCORE MEANS THAT MORE PEOPLE SURVIVE.

| ● Inner London teaching | ▲ Other London non-teaching | ▲ England outside London |
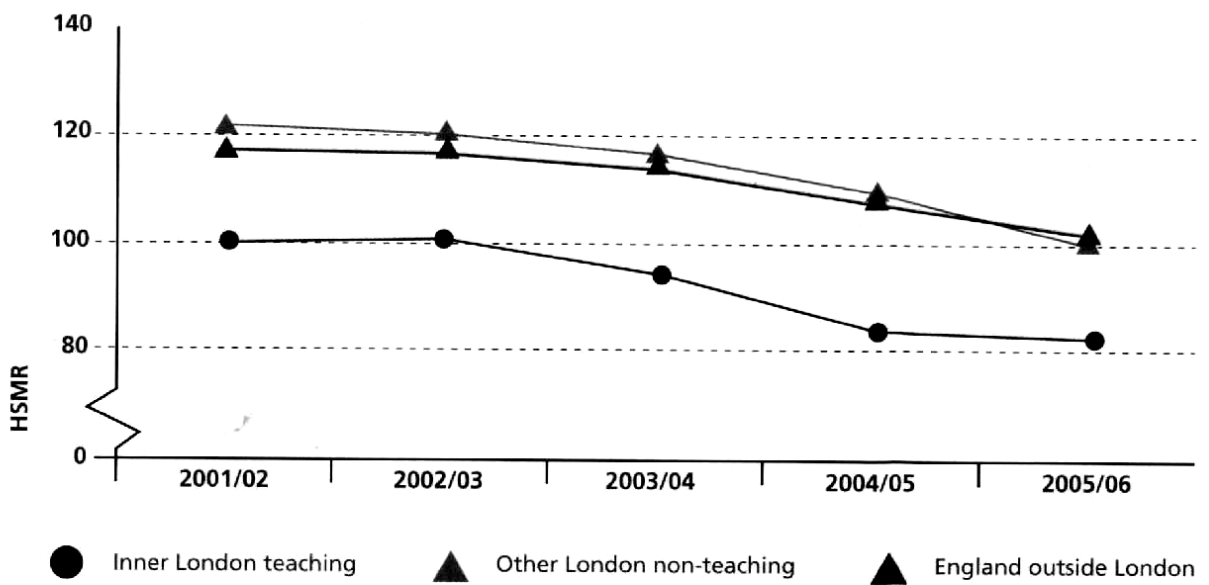
Top line   Middle line   bottom line

Included in this group are St Mary's, St George's, King's, Guy's and Thomas's, The Royal Free, UCL, Barts and the London, Chelsea and Westminster and Hammersmith Hospitals. (HSMR all England year 2005/06=100)

HSMRs (hospital standardised mortality ratios): London hospitals vs non-London hospitals. Source: Hospital reported HSMR scores

All London hospitals have improved their performance over this period. The Inner London teaching hospitals have the lowest HSMR, and their performance improved the most sharply in 2004/5.

However, the graph does not on its own support the doubts expressed about the future role for the general hospital. For example:

- The superior performance is associated with being a teaching hospital, not necessarily with size. How do non-teaching hospitals of similar size compare?
- Are patients likely to die transferred from an inner London teaching hospital to one nearer home?
- Is the case-load of inner London hospitals biased towards patients for whom there is a good chance of recovery?

The graphs are presented as evidence in support of strategic plans, in documents addressed to the general public. But it is plainly risky to draw conclusions without more knowledge of the comparisons being made.

Practical implications

What Professor Darzi's report 'A Framework for Action' does indicate is the absence of an integrated planning process for healthcare in London. One would expect there to be an ongoing collaboration of all organisations providing services in London and nearby suburbs, yet this is not the case.

Asking the public to underwrite hypothetical strategic policies is no substitute for accountability in health planning as people are certainly capable of making meaningful contributions when represented within the ongoing planning process. In any case, overall strategies cannot predict the complexities of interactions between different parts of the NHS as they engage with the real day-to-day problems.

The consultation process used is bogus, in that the public were generally unaware of the meetings, faced survey questions biased

in favour of the Darzi reforms, and were 'helped' to respond by staff running the consultation. Moreover, the changes are taking place before the consultation period ends. In conclusion, approaching Londoners with this expensive and misleading process is irresponsible in the absence of serious collaborative planning. The consultation is no more than a public relations exercise.

References

NHS London: *Healthcare for London: Consulting the Capital.* Consultation document issued by 'Consulting the Capital', freephone 0808 238 5430, hfl@london.nhs.uk (closes March 08)

Darzi, A. (2007) *A Framework for Action,* Healthcare for London, NHS London: www.healthcareforlondon.nhs.uk

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