Correspondence

The need for medical beds

Sirs,

I read with interest the paper by Weinberg\(^1\) on modelling the impact of demographic change on the need for acute medical beds to the year 2000. He concluded that the impact of demographic change is likely to be small and that other factors such as length of stay and number of admissions had far more impact on the model.

However, the variations in length of stay shown to be significant in his model were far less than the differences in length of stay seen between the different providers for patients in our population in North Derbyshire. For the year 1994–1995 the average length of stay for all medical specialties combined and including both elective and emergency admissions ranged from 5.5 days to 10.7 days, compared with a national district general hospital peer group average of 7.8 days. Further analysis showed that the proportion of day case work and casemix were responsible for between 50 and 70 per cent of the variance but that around 30 per cent was left unexplained.

It is likely that organizational practice, such as the timing of ward rounds, discharge procedures, availability of senior medical staff at weekends, and the temptation to delay discharges until immediately before a ‘take’ day, all account for a substantial proportion of the remainder of this variance. Development of improved data systems, medical admissions units and observation wards will aid the investigation and resolution of these discrepancies. The resource implications to any district health authority of a 1–2 day increase or decrease in average length of stay are considerable. The opportunity to influence more effective and efficient use of resources in this area through managerial and organizational change is enormous.

Reference


North Derbyshire Health

Carol D. Singleton
Consultant in Public Health

Reply

Sirs,

I am not clear where (or if) Dr Singleton disagrees with the conclusion I drew from a Monte Carlo simulation of the need for acute medical beds.

Dr Singleton suggests that the variations in length of stay shown to be significant in the model I reported in the Journal were far less than the variations seen between different providers of care to the population she serves. This would suggest that the variations she has identified are likely also to be significant and therefore I agree with her conclusion, which is the same as that made in my paper, that the organization of delivery of care has far more impact upon the need for beds than demographic change.

It seems that two different methods – comparison of variability between providers, and modelling of the future need for beds using demographic projections and overall changes in length of stay and admission numbers – reach the same conclusion. It would be possible to model the more detailed elements of variation that Dr Singleton describes and identify where it would be most beneficial to manage change; this might vary from one unit to another, and over time as management evolved.

The benefit to be gained from exercises such as the one undertaken by Dr Singleton, and that published in the Journal, is that they can focus the efforts of public health on the issues which are most likely to achieve that ‘effective and efficient use of resources’ we all seek.

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