

# Career focus

## Planning the medical workforce

Keith Ryde, operations manager of South Thames Deanery, argues that better software can help plan the medical workforce

The problems of planning the medical workforce are chronic and recurring. The national overview of supply and demand for doctors in both primary and secondary care has consistently been found to be inaccurate. This has led to many problems, such as wild swings in the planning of opportunities for specialist registrars. Some specialties have seen substantial increases in training placements demanded one year followed by equally large decreases the next year.

Against this background, one has to consider whether the ideal of effective workforce planning is a realistic proposition. There is a clear need for national coordination in data collection, yet there seems to be a reluctance to provide it. Planned consultant expansion, as recent experience in obstetrics and gynaecology has shown, cannot be achieved in the absence of policy and funding to support it. Planning merely on the basis of a "wish list" is ineffective.

### A complex challenge

Planning the make up of tomorrow's medical workforce is a complex business. The challenge is to decide the optimum mix of skills that should be in place and then monitor continuously to ensure that this mix remains sustainable in a constantly changing health-care environment. This can be achieved only through effective management of information, with a computer database being used to provide the necessary "snapshot" overviews for planning purposes. Yet the criteria for a suitable system are exacting because of the complexity of the many different variables involved.

These variables encompass both the numbers of doctors in training (the supply) and the numbers of qualified doctors in service (the demand). It is important to remember that trainees provide a great deal of the service no matter how often they move around for educational purposes. Other key factors for considera-

### Barriers to medical workforce planning

- More is known about output from the training system than about demand
- Data on qualified doctors are unvalidated
- Data do not take account of vacancies
- Data are typically 18-20 months old before they are published
- Some trusts fail to make requested returns

tion include the number of known and projected consultant vacancies and how many posts are filled by locums; changes in patient admissions; changes in medical procedures and drug treatments; and, of course, changes in policy affecting the NHS as a whole.

The complexity of the issue is well illustrated by the imminent closure of the accident and emergency department at Guy's Hospital, which will precipitate a shift of patients to other hospitals. This will affect many departments as well as accident and emergency. Attempts to agree a shift of training grade doctors to match this shift of patients have so far failed to reach a conclusion that takes all the different factors into account. The forecast changes to patient demand are, indeed, only forecasts and are widely disputed by those involved. In addition, the neighbouring accident and emergency departments are organised differently: two of the principal trusts involved have a rota of paediatric senior house officers working in accident and emergency, the third does not. This complicated what initially seemed to be a simple count of how many accident and emergency senior house officers each department

had. Similarly, some trainees contribute to the acute take-in rota while others do not. It has proved insufficient to simply calculate the numbers of trainees in each specialty at each trust.

### Data collection inadequate

At present, workforce planning is severely hampered by the fact that more is known about output from the training system than about demand for trained doctors. The availability of information about specialist registrars is relatively good, thanks to data collection every six months on a national basis and an annual validated census. The movement of preregistration house officers is similarly well monitored, with deans acting for the universities in this regard. However, senior house officers are not so well monitored. All deans have data on the senior house officer placements that they fund, but only some collect data on individual senior house officers.

Deans need to monitor how many doctors are currently in training because they are accountable for them and have a duty to regulate educational quality. However, accurate information on the number of qualified doctors employed by the health

service is much less precise. Data on both qualified and trainee doctors are currently gathered through an annual census, but these data are largely unvalidated and do not take account of vacancies—a serious omission, particularly for non-training grades. In addition, the information is typically 18-20 months old before it is published, so the figures are well out of date before anyone receives them. Furthermore, several trusts (about 50 at the last census) fail to make a return at all, and there is anecdotal evidence that the figures provided by some trusts are flawed. As a result, it is impossible to take an accurate snapshot of the situation at any given time and respond to it appropriately.

Data on patient flows, another important ingredient to the equation, are available but are widely dispersed and difficult to obtain. I have yet to find any centralised source of admissions data per trust at a regional level.

### Consultant numbers

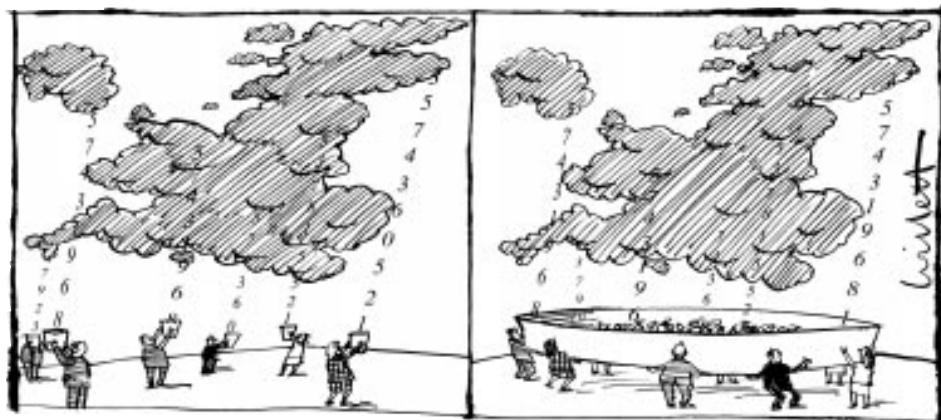
The problem is compounded by the fact that there has been little success in obtaining workforce plans from trusts, health authorities, and NHS regions that might show any structured expansion of consultant numbers. Central attempts to increase consultant numbers in specialist areas (notably obstetrics and gynaecology) have failed because of the absence of cohesive plans for facilitating implementation. As a result, doctors are going through the training system but there are insufficient consultant vacancies for which they can apply.

The current need for general medical and general surgical consultants, particularly in district general hospitals, suggests that a more modular approach to the structuring of doctors' careers should be taken, training them to be generalists first and specialists later. However, specialist registrar training seems to be taking us in the opposite direction, towards increased and earlier specialisation.

How far ahead can employers

### Proposed solutions

- Nationally coordinated approach to data collection
- Centralised database facility to track vacancies, posts, and individuals
- Input by a wide range of contributors
- Accurate and good quality data
- National well defined datasets
- Regular validation of data
- Facts and figures already collected should be collated nationally



actually see? Changes to the output of trained doctors take at least four to five years to feed through, so perhaps we should concentrate mainly on the measurement of statistical trends, backed up by knowledge of factors that are likely to affect them.

### The way forward

We need a nationally coordinated approach to data collection, encompassing input by a wide range of contributors from trusts, postgraduate deaneries, and health authorities to educational consortia, regional offices of the NHS Executive, royal colleges, and many more. The quality of data produced by these parties vary enormously, with much being of questionable value or accuracy, mainly as a result of poorly defined datasets. Reluctance to impose data definitions at national level has resulted in a wide range of interpretations.

Yet the problem is not insurmountable. Substantial progress could be made if common data, already collected by most employers and other organisations such as deaneries and royal colleges, were to be collated nationally. Simplicity is the key here. It is also important to remember that the accuracy of data increases greatly when a database is used as a tool for day to day work rather than merely being a repository for data used solely for reporting to external agencies.

An example of a nationally coordinated approach to data collection is the use of deans' databases to control the placement of medical trainees. However, although such databases have been in use for some six years, work is only now taking place to define a common core dataset and numbering system that will allow the cross referencing of

information between them.

Learning from local circumstances, South Thames Deanery has worked in conjunction with Hicom Technology (Cranleigh, Surrey) to develop a workforce planning database, which is designed to manage trainee posts, staff, and training with a high degree of efficiency while automatically facilitating the accurate and timely delivery of NHS returns. This system, called INTREPID, is a "distributed" database in which responsibility for the input of data is shared between the deanery and trusts. In it, data are captured by the system and managed either at the deanery or the trust and then distributed securely between deaneries and trust offices by electronic means. The system is designed to interface with other databases, such as trust pay and staff systems, thus eliminating the need for re-input and reducing the possibility of errors. Ongoing development will enhance the system's value to trusts as well as to the deanery.

### Potential for expansion

The system has clear potential for expansion beyond its current role in managing trainee doctors. It would be relatively simple to develop it for use in planning the entire medical workforce, both trainees and trained. Whereas trainee doctors tend to move every six to 12 months, the details of career grade doctors remain relatively constant. It would hardly be an onerous task for trusts to key in information on each career grade doctor and then maintain it as appropriate. It might then be possible to look at a region or district, or one or more trusts, to establish exactly how many doctors are working in any given area at a given time—a facility that, if centrally coordinat-

ed, could be used nationally.

Other information can be provided if more comprehensive data are available. For example, the South Thames Deanery has recently published a document entitled DATADOC.<sup>1</sup> It draws on several data sources to show diagrammatically the number of senior house officers, specialist registrars, and consultants in most specialties in the region, as well as the average number of applicants per specialist registrar vacancy. There is little further analysis—readers can draw their own conclusions, but a cursory glance shows the specialties in which there are the greatest opportunities to progress. A similar analysis has recently been published by the West Midlands Deanery.<sup>2</sup> Such analyses would be much easier to produce if all of the relevant data were held in one place and were known to be reliable.

There are many barriers to the effective delivery of workforce planning and career advice in the NHS, but development of more centralised databases at deanery or regional level together with collation of the data collected at a national level seem to be the obvious next steps. The technology needed already exists, but national direction and coordination are an absolute requirement. Were the deaneries given such a task, they would have to seek increased resources to carry out the task. Now that would never do.

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1 DATADOC: Data relevant to career opportunities in South Thames. London: South Thames Department of Postgraduate Medical and Dental Education, 1999.

2 Careers information pack. (To Douglas: Place where book is published?); PMDE West Midlands, 1999.

## Briefing

● It's not just the NHS that faces charges of institutional racism. Doctors in Australia are taking legal action against New South Wales' Director of Health, alleging that the system of admission of foreign graduates discriminates on grounds of race. All overseas doctors who wish to practise permanently in Australia have to pass the notoriously tough Australian Medical Council exam, which is designed to ration access by non-Australian doctors. It is claimed that 70% of a sample of Australian graduates failed the AMC exam when it was administered to them for calibration purposes in 1997, an uncanny echo of the GMC's discomfort when its Professional and Linguistic Board exam was administered to British graduates—and only two passed. (<http://classified.bmj.com/careerfocus/7199cf.htm>)

● The requirement to pass the Australian examination has been waived in the case of some doctors practising in underserved areas. The Australian Doctors Trained Overseas Association (<http://www.adtoa.org.au>), whose President is Dr Asaad Raghazi, claims that the policy of exempting graduates from certain "chosen countries" (which includes the UK) is racist. "One of our members—a distinguished doctor from India—worked for more than a decade in teaching hospitals but was deregistered because he did not pass. This week, a South African doctor goes back to work, though he also failed." According to the ADTOA, more than 1100 migrant and refugee doctors have been denied access to practice, while advertisements for temporary visa holders from mainly white countries continue. Among other tactics, the ADTOA has in the past used hunger strikes to publicise its case. (<http://www.bmj.com/cgi/content/full/318/7188/894/b>)

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