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Issues of Manpower Planning and Management in the NHS

Ivor Batchelor
Alan Williams

ng papers of the Royal Commission on the NHS

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King's Fund Centre
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CONTENTS

EDITORS' INTRODUCTION

This is the seventeenth in a series of project papers based on the working papers of the Royal Commission on the National Health Service. The Royal Commission's discussion and recommendations on manpower in the NHS are to be found in Part Three of their report.[1] The papers reproduced here were written as background material for the Royal Commission by two of its members and the full-time secretariat.

The first paper, by Alan Williams, is a consideration of some of the manpower problems facing the Royal Commission within a general theoretical context. The second, by the secretariat, describes existing arrangements for manpower planning and management in the NHS and discusses three important issues with implications for medical manpower planning and management; career structure for doctors; overseas doctors and women doctors. The third paper, by Ivor Batchelor, deals with another important issue in medical manpower, specialisation in medicine.

These papers complemented a wide variety of material made available to the Royal Commission on these topics through evidence submissions, commissioned research[2], discussion with health service workers and other papers prepared by the secretariat and members of the Commission. The views expressed do not necessarily reflect those of the King's Fund or the Royal Commission.

We are grateful to King Edward's Hospital Fund for London for giving us a grant to enable this series to be produced and to the Polytechnic of North London where this project has been based.

Christine Farrell
Rosemary Davies

1 GREAT BRITAIN, PARLIAMENT. *Report of the Royal Commission on the NHS* (Chairman Sir Alec Merrison) London, HMSO 1979 Cmnd 7615

2 A study of medical manpower forecasting was commissioned by the Royal Commission and published before its own report, see: MAYNARD, A and WALKER, AJ *Doctor Manpower 1975-2000: Alternative forecasts and their implications. Royal Commission on the NHS Research Paper Number 4,* London, HMSO January 1979

SOME GENERAL REFLECTIONS ON THE THEORY AND PRACTICE OF MANPOWER PLANNING

Alan Williams

This background paper sets in perspective the material presented to the Royal Commission on the NHS on medical manpower planning. I have restricted myself in the main body of the paper to rehearsing the particular conclusions emerging from a review of the OECD work in the early nineteen-sixties, and to general comment on other work of this ilk, leaving the reader to judge the particular relevance of these observations to the Royal Commission's task. In a concluding section I do, however, identify certain important implications for our task, and how we might approach it.

SOME GENERAL CONSIDERATIONS

What is meant by 'manpower planning'?

The phrase 'manpower planning' is usually used to describe the process in which an estimate is made of the number of people with some specified skill that is required at some date, this then being compared with the number available, the difference between them yielding a numerical shortage or surplus, which has then to be eliminated by some means or other. It is, therefore, essentially a labour market disequilibrium analysis, in which (implicit) assumed rates of remuneration play a critical (but often unstated and unexamined) role.

Why do we need it?

In considering the alleged need for manpower planning we must distinguish the interests of three parties: the demanders of labour, the suppliers of labour, and others.

The demanders of labour are interested in ensuring that, whenever wanted there are readily available people with the relevant skills at prices that demanders are willing and able to pay. Demanders have no great interest in eliminating surpluses, but a strong interest in avoiding shortages, providing the costs of ensuring adequate availability do not fall on them. If the transaction costs of hiring and firing people are not high, and the market for the required labour is large, quite small variations in relative remuneration levels will usually cope with the recruitment problems of any particular employer, for example, the market for general clerical staff. Things get more difficult when one employer dominates the demand side of the market, because his capacity to attract people from other employers by relative wage differentials is limited, so he may have to rely on attracting new people into the workforce, and in any case a policy of increased remuneration could be very costly where he has to pay all employees (new and existing) at the same rates. It is still not in his interests to eliminate surpluses however. This casts doubt on whether such employers are, in principle, the best people to be entrusted with manpower planning.

The suppliers of labour should really be divided into two subgroups, those who are already in the market with the required skills, and those who are thinking of acquiring the necessary skills and entering it. The former group (the 'old hands') clearly have an interest in ensuring the largest possible rate of return on their past investment, and hence have every interest in maintaining shortages and avoiding surpluses, so they will obviously attempt to limit the supply of eligible recruits, to increase the costs to employers of firing anybody, and to make it as costly as possible to hire newcomers. This clear interest in using 'manpower planning' primarily as a mechanism for ensuring a rewarding career structure for incumbents makes them suspect too as the proper parties with which to entrust the task. The second sub-group, the newcomers, are in a rather different situation, since improvement in the career prospects for the target group is in their interests only to the extent that they are likely to be able to get into the act, or, indirectly, to the extent that such improvements being in their train improved prospects in closely related jobs in which they are also interested.

The 'others' category covers three kinds of interest group: employers in general; employees in general; and the community at large. **Employers in general** may well suffer (from shortages of skills which they want) if employers in one sector manage to 'capture' part of the labour force as a reserve army of (specialist) unemployed, since these unemployed specialists could, at some earlier stage in their career, presumably have become other sorts of labour at rather less cost than the costs which would now be faced in retraining etc. **Employers in general** are clearly going to suffer if (as with the prospective 'newcomers' mentioned earlier) the pursuit of richer pickings for the few impoverishes the employment opportunities of the many. The **community at large** suffers if the support of the unemployed, the costs of retraining, and the disruption and unnecessarily high cost mode of production generated by avoidable labour shortages, fall (as they surely will) on the public at large.

My approach to the problem of 'manpower planning' would therefore be to say that we should be guided not by the desire to eliminate all shortages/surpluses, or by the desire to ensure a satisfactory career structure, but by the desire to **minimise the real resource costs over time** of running, say, the NHS, with the proviso that one should simultaneously review compensation arrangements for those at risk, to ensure that if anyone does face risks significantly greater than the average, this is taken into account in his personal remuneration, then or earlier.

Can it be done?

One of the most ambitious exercises in manpower planning was undertaken by OECD in the early nineteen-sixties as part of a big economic development programme called the Mediterranean Regional Project (MRP). In a subsequent evaluation of its technical achievements, Hollister[1] observed:

'People who have criticised the use of manpower projections in educational planning have put forward two general types of technical arguments. The first is ..... that the educational system will grow roughly, as the economy and the labour force grow, which is sufficient ..... The second ..... is that the methods of manpower projection are so weak that manpower

requirements cannot be estimated with any degree of certainty ..... and ..... no planning should be based on those doubtful procedures.'

Among the more important sources of error in forecasting which he distinguished were:

" A The substitution problem

..... Requirements estimated on the assumption that input coefficients are fixed can be erroneously high in ignoring the possibility of substituting capital for labour or one type of labour for another .....

B Productivity problem

..... no way has yet been found to predict technological change with any degree of accuracy ..... The question is: to what degree do uncertainties about productivity change (technological change) affect estimates of man-power requirements?

C Aggregation problem

Some people argue that the relationship between output and educational inputs is so complex that it can be reliably estimated only at the level of the individual firms ..... The question is: to what degree must the economic structure and the labour force be disaggregated in making estimates .....?

D Occupation-education problems

..... We know very little about the relationship between particular occupations and the education they require ..... The question is ..... : what difference does our ignorance ..... make ..... [to] ..... the usefulness of ..... [our] ..... estimates?"

Each of these difficulties were then tested against the data to see how important they were empirically. The conclusions were:

"The substitution problem

..... there was a wide variation in almost all the occupational coefficients (the number of workers in a particular occupation in a sector, per unit of sectoral output) [and] ..... the considering of substitution possibilities could make a significant difference in the final estimates of educational requirements.

Productivity and aggregation problems

Analysis of sources of change in occupational structure ..... showed that ..... the productivity problem is serious ..... [but] ..... the disaggregation of GDP ..... [to sectoral level] ..... did not yield much information which would improve the estimation of the occupational structure .... on this evidence, a small error in the estimate of either the growth rate or productivity changes would entirely wipe out the effectiveness of extremely careful and accurate estimates of the shifts in the occupational distribution within a sector, or of relative growth of the various sectors .....

Several additional considerations follow from this analysis and should be noted. It is important that further basic research on ..... the relationship between technical change and the occupational mix of the labour force, be carried out, ... objectives of labour flexibility might, for example, receive more stress in the planning of educational structure. Certainly manpower estimates should be presented in such a way as to reflect those underlying uncertainties. ..... Finally, analysis of sources of change can be carried out in the process of formulating manpower estimates. This will allow them to recognise those factors which play a major role.....

The occupation-education problem

..... the evidence currently available is conflicting ..... and ..... the relationship of education to occupation should be handled with great care."

It might be argued that these difficulties are not very relevant to us because the MRP project: (a) took place 10 or 15 years ago, and we now know a lot more about manpower planning (on which point I must say that I see no reason for such optimism); (b) was concerned with Italy,

Spain, Greece, Turkey and similar ill-developed and ill-run countries, lacking our wealth of information and expertise (there is a small element of truth in this, but, any such gain is offset by the fact that we are attempting a level of 'fine tuning' that probably leaves the gap between aspirations and capabilities as large for us as it was for them) (c) was concerned with broad educational planning for a whole economy, and we are concerned only with certain occupational groups within one sector (yet I can see no crumbs of comfort here for us, since the problems referred to seem equally relevant to our more restricted territory) (d) the medical (and to some extent the nursing) worlds are different because the educational facilities on which they draw are so specialised (a point which seems to me to exacerbate rather than alleviate the problem!).

What are the alternatives?

The only possible alternatives to manpower planning of the 'physical requirements' variety would seem to be to let the labour market take care of things as best it can, or to resort to some other form of 'planning' or market manipulation, eg via financial incentives and disincentives, rather than by explicit 'quantity' adjustments.

The main argument for the former is that mistakes are likely to be smaller in aggregate if lots of people are making different (uncoordinated) errors of forecasting than if one central agency is attempting to impose its particular forecast upon all the key actors in the market. Proponents of this view would argue that the government's role should be restricted to improving the information available to all parties, if necessary by undertaking research and investigations and promulgating conditional predictions (ie statements of the kind: assuming a, b and c, then the result will be X) and even possibly by assessing the relative likelihoods of different outcomes, but certainly not going beyond that. The weakness of this position in our particular case is that various agents of government (and other quasi-governmental agencies) are themselves important actors in the market, and it is questionable whether they would be permitted, even if able, to form an independent view of the government's 'forecasts'. (For instance, while it would be possible for a medical

school to refuse to expand when the government was seeking expansion, how would it find the resources to grow when the government was seeking contraction?) On the other hand, vocational advice to particular individuals contemplating entry to an occupation, including profiles of current lifetime earnings expectations, and recent trends therein, do seem more feasible and valuable recommendations emerging from this view of the situation. As a general standpoint, it seems most appropriate where there is the greatest degree of flexibility, and proposals to reduce specialisation, defer choice, and increase adaptability can all be seen as strategies to reduce dependence on assembling, analysing, disseminating, and acting upon highly uncertain ideas about the future, and thus to make the decentralised 'market' model more workable.

The argument for relying on market manipulation via financial inducements or penalties (rather than on quantitative adjustments) transforms, but does not eliminate, the daunting information requirements noted earlier. Instead of concentrating on differences between quantities demanded and quantities supplied at some (implicitly) assumed level of remuneration, we have instead to investigate the likely differences in the value (at the margin) between what 'demanders' think additional personnel are likely to be worth and what 'suppliers' are going to be willing to accept as compensation for giving up their best alternative employment opportunity, all these estimates having to be made at some assumed level of employment. 'Demanders' therefore need to know a lot about the future demand for their product, and the contribution that the particular occupation will be able to make to it (ie the future technology, and the relative productivity of the factor compared with close substitutes). Conversely, the suppliers will be guided by lifetime earnings expectations (with due allowance for the risk of redundency or periodic unemployment), the likely educational requirements of the job itself, other educational and work opportunities in the economy generally, access to funds to finance education and training etc. In other words, much the same catalogue of data as in the **manpower requirements** approach, though focussed rather differently.

One very experienced investigator in this field, has consequently concluded that what is really at issue here is not two alternative techniques for arriving at forecasts of the future situation in the labour market, but 'a totally different view of how economic systems work' [2]

He goes on to characterise two extreme positions in the following terms:

Fixed Versus Variable Coefficients

THE MANPOWER FORECASTING VIEW OF THE WORLD	THE RATE OF RETURN VIEW OF THE WORLD
1 Students acquire more education for consumption reasons.	1 Students acquire more education for investment reasons.
2 Students choose major subjects in ignorance of, or with no regard to, career prospects.	2 Students are well informed and attentive to career prospects.
3 All education is specialised and specialisation starts early.	3 All education is general and there is no specialisation at any age.
4 All input-coefficients in schools are fixed: complete indivisibility and specificity of teachers, plant and equipment.	4 All input-coefficients in schools are variable: complete divisibility and non-specificity of teachers, plant and equipment.
5 The demand curves for different skills shift discretely.	5 The demand curves for different skills shift smoothly.
6 Near-zero elasticities of substitution between skilled men.	6 Almost infinite elasticities of substitution between skilled men.
7 Near-zero elasticities of demand for different skills.	7 Almost infinite elasticities of demand for different skills.

'Needless to say, the real world lies somewhere in between ..... Since it is oriented to the future, educational planning partakes of all the difficulties inherent in sequential decision making under uncertainty ..... In the circumstances, it seems desirable to build into the educational system the kind of flexibility that allows it to adjust automatically to surpluses and

shortages ..... Take a case in point ..... British students specialise at an earlier age than almost anywhere else ..... Thus the lead time required to produce skilled manpower in Britain is at least twice as long as in the United States, in consequence of which there is a much stronger probability in Britain of periodic shortages and surpluses ..... '

Since there seems 'little point in continuing to waste resources on long-term single valued forecasts' when these resources 'could be much more profitably invested in improving our knowledge of the utilisation of the current stock of qualified manpower and disseminating this knowledge to students and employers .....' The remedy "is to begin modestly with short-term forecasts which are then extrapolated with a corresponding margin of error ..... As a check on such forecasts, we ought to make continuous year-by-year projections of the future supply of educated people ..... As we combine forecasts of demand for manpower with projections of the supply ..... we start thinking quite naturally of earnings [in relation to variations in the costs of education] as possible indicators of impending shortages and surpluses".

DOCTORS AND NURSES

General Implications

Although most of the foregoing work was not done with doctors and nurses specifically in mind, it seems to have more than background relevance to our thinking. The stress on the degree of substitutability with capital and with other skills is clearly important, as is the rigidity and long-lead time in the educational process, and the high degree of individual specialisation.

Both of these last two features seems more accentuated for doctors than for nurses. The existence of a near-monopsony employer applies equally to both, but, on the supply side, the big difference appears to be that the predominance of females in nursing has meant that their behaviour is much more volatile (in terms of withdrawal from and re-entry into the labour market) than that of doctors, and may be as strongly influenced by

husbands' occupations, earnings, locations etc, as by opportunities in nursing itself. It therefore seems likely that the stock of qualified nurses in the community at any time greatly exceeds the number of nurses currently employed whereas this will be true of doctors only to a much smaller extent. This accentuates the year-to-year importance of general labour market conditions, and diminishes the year-to-year importance of new entrants.

A lot has been made of the near-monopsony employer as a feature distinguishing the market for the services of doctors and nurses from that for, say, lawyers, accountants, engineers, scientists, etc. The more I think about this the more puzzled I am concerning its assumed relevance to the essence of our problem (which I take to be that of imperfect foresight on the demand side and limited adaptability on the supply side). The argument is, presumably, that if the NHS suffers a **general** cutback, the employment prospects of all doctors/nurses suffer simultaneously, whereas if there were many alternative employers (and especially if there were many alternative **private** employers) this is unlikely to be the case, because if firm X is cutting back, firm Y will be expanding. I feel somewhat sceptical about this. Although **structurally** it may be the case that while some industries like shipbuilding, decline, others, like plastics and electronics, expand, it is the **industry-specific** nature of people's skills that make them vulnerable in this case. Thus a highly specialised marine engineer may have a hard time, whilst an accountant will just transfer to some other industry. But a lot of the employment difficulties are cyclical, and affect all sectors, public and private, simultaneously. (Why otherwise do we have one and a half million unemployed now compared with less than half a million a few years ago?) Although some sectors are more volatile than others and some occupations are consequently more vulnerable, my impression is that on the whole the professions ..... except possibly architects in private practice ..... are well protected. I therefore think we ought to test the proposition that the NHS employment has been more variable than that in other sectors and, in particular, than that in the private sector. I suspect that there is nothing in it.

It may be that the argument is, however, a different one, namely that a greater welfare obligation towards employees is placed on a public agency, and especially a caring agency such as the NHS, than is placed on a private firm, so that we are really applying a double standard. If so, this is not a **technical** argument, but a moral argument, and leads us into a different territory, namely, into questions such as: if we had £Xm available which could **either** be used to improve the job security and the career prospects of doctors/nurses or to improve the care of patients, for we must not assume they are the same thing, which should we do?

A final, and to me more acceptable, argument is that it is in the interests of NHS patients for someone to be thinking ahead about manpower requirements in this field. But that would still be true even if health services were run by thousands of different firms, and still has nothing to do with 'monopsony', but with the general social importance of the health care sector.

The immediate task

If we were to start from the more rigid bits of number-crunching with which we have been regaled, perhaps we should begin to pick them apart by testing their sensitivity to various key assumptions concerning rates of inflow and outflow, the extent to which doctor: population or doctor: case ratios vary already within the system, the extent to which inter-occupational substitution seems possible, likely alternative trends in productivity growth, etc. I suspect that we shall find that we get a wide range of different surpluses and shortages depending on the assumptions we make. We could then add to the general confusion by introducing the notion of 'vintage' in the labour stock, and then look at career structures by age/seniority, thus seeing where the tensions may arise, and what alternative adjustments would be necessary if the aspirations of the parties were to be met within each of the foregoing scenarios.

Having exhausted the possibilities of the pure number-crunching game, we ought then to look broadly at the implications of all this for earnings, costs and the various financial mechanisms by which the system is controlled.

It seems pointless to advocate an expansion, say, of the consultant grade in order to provide better career opportunities for their juniors, unless something is also said about the shifts in relative pay between the two, and the overall size of the medical wage bill, which will still presumably have to be accommodated within some overall NHS budget. It may be that greater security can be purchased only by accepting a lower real income otherwise the attempt may be self-defeating because of the strong incentive it generates to reduce labour use. This in turn raises questions about recruitment and earnings expectations among new and potential entrants (and re-entrants).

The intellectual and informational demands of such an exercise are rather daunting, and it does therefore seem to be in the interests of all the parties or, at least, the more risk averse ones, not to rely on the government, or anybody else, 'getting it right this time'. Instead, we ought perhaps to throw our weight behind a policy of greater adaptability and more flexible deployment, for although this makes accurate manpower forecasting more difficult, it fortunately makes it less necessary!

REFERENCES

1 HOLLISTER. R "Summary of the Technical Evaluation of the Mediterranean Regional Project Experience" in OECD Directorate for Scientific Affairs (Human Resources Development) *Manpower Forecasting in Educational Planning*. OECD Publication No 212 41 February 1967 pp 137-148.

2 BLAUG, M *The Economics of Education,* Penguin Modern Economic Texts, 1970 especially pp 214-218.

THE BACKGROUND TO MANPOWER PLANNING AND MANAGEMENT IN THE NHS

the Secretariat of the Royal Commission on the NHS

DEFINITIONS

Manpower planning was defined by the Royal College of Midwives in evidence to the Royal Commission as:-

> '..... ensuring that the right number of staff, of the right type, are in the right place at the right time and that they have the right experience and qualifications to ensure that proper patient care can be given and positive health promoted .....'

This definition implies that there would be at least three ingredients in a comprehensive manpower policy for the NHS.

Firstly, decisions on numbers of staff needed, between particular staff groups (nurses against technicians, physiotherapists against doctors, etc) and within particular groups or professions; secondly, arrangements for their distribution; and thirdly, control of their training.

There are a large number of bodies concerned with training, and this paper concentrates on the first two aspects of manpower policy.

PRESENT ARRANGEMENTS

With the exception of doctors and dentists there is no overall control of numbers of staff in the NHS, nor has any attempt been made to balance types of staff aginst each other. Thus, the DHSS consultative document *Priorities for Health and Personal Social Services in England*[1], recognises the implications these have for staff, and notes that '..... it is not expected that there will be any general problems of manpower shortage or redundancy ..... it will also be necessary for some staff to be redeployed,

with their agreement, so that the new priorities can be achieved'. Doctors and dentists always excepted, the nearest DHSS, at least, have got to a staffing policy is to set recommended staff ratios for the care of geriatric and mentally ill or disabled patients, but no formal machinery exists for delivering and distributing numbers needed.

The main reasons for the absence either of staffing objectives, or a formal mechanism for dealing with matters of this kind are probably:-

(a) the health departments themselves exercise a general supervisory role over manpower as over the rest of the NHS;

(b) until recently the NHS has been expanding and this was reflected in the growth of staff numbers.

(c) the possibilities of redistributing staff are limited, for example, staff in post could not be moved quickly without direction of labour;

(d) doctors and dentists apart, the largest groups of staff in the NHS (nurses and midwives 300 000 plus and ancillaries 163 000 plus) are recruited and trained locally and decisions are made at regional level or below on whether more are needed and can be afforded; and

(e) the increasing specialisation of medicine has tended to be reflected in the role of supporting staff. As a result staff groups have become less rather than more interchangable.

In the past the arguments against, and the difficulties in, producing a useful national manpower policy and establishing a central body to effect it have probably outweighed any likely advantage. However at a time when most regions are only able to keep their service going at existing levels and the possibilities for expanding numbers of staff are strictly limited, there is likely to be much more pressure for a more rational distribution of manpower. There is also increasing pressure on existing staff complements: posts are not being filled for long periods and establishments are being reduced. How far this kind of consideration may have influenced those giving evidence to the Royal Commission and how far they may simply

have felt that the present situation is untidy, is none too clear, but a number of evidence submissions urged the need for an overall policy and the mechanism for implementing it. As the West Midlands RHA put it:

> 'as the service to the client is heavily dependent not only on the size of the workforce, but also on the qualities, skills, and deployment of those within it, manpower planning must be an important element within an integrated planning framework .....'

Local and Central Manpower Planning Functions

The Commission has stated that 'large organisations are most efficient when problems are solved and decisions taken at the lowest effective point' (The Task of the Commission, para 8). This delegation of decision taking must be tempered by central control and coordination when decisions taken by one part of the organisation have significant repercussions in other parts. In manpower planning this is most likely to happen in decisions about training and research. When trained personnel are highly geographically mobile, leaving decisions on numbers to be trained to the periphery is unlikely to result in the right number being trained in total. When training is costly, significant inefficiency may result. There is no need, for example, for all regions or areas to undertake fundamental research into day care surgery and its implications for nurse staffing levels or on the feasibility of nurse/doctor substitution in particular tasks.

Manpower planning decisions are a fundamental task of the management of the health service and cannot be devolved to an independent body. The foregoing would appear to suggest the following distribution between the centre and the periphery: a central manpower planning would cover:

1 Decisions influencing the future supply of manpower which is expensive to train and geographically mobile within the UK. The most obvious examples are dentists and doctors. The case for central coordination of nurse training is less strong: nurses cost less to train and appear to be less mobile. Since future supply will be affected both by decisions about numbers in training, and decisions about pay and conditions, these decisions must be coordinated.

2 Research with national implications; either because it related to the use of a type of manpower whose supply was centrally controlled, or because it had local implications common to several parts of the organisation. Central control and coordination of this type of research need not imply that the research is actually undertaken at the centre. The research would be aimed at indicating the most economical method of providing care of a given quality. This would involve development of a data base, investigation of substitution possibilities, the technology of health care, the relative costs of different types of health care inputs, and factors influencing their future supply in order to inform decision taking at the centre and to provide a common framework for local problem solving.

3 Guidance to local management on policies and procedures to implement them.

In addition to the day to day management of the service's manpower resources the local level would be responsible for:

1 Decisions on training of types of manpower where training costs are small or there are insignificant inflows or outflows from the ares;

2 Research on specifically local problems, probably by applying models and techniques developed centrally to local conditions and data.

Organisation of Central Manpower Planning

A number of criticisms of the methods and results of central manpower planning have been made. It has been alleged that central manpower planning is based on poor data, too little research into relative costs, substitution possibilities and supply responses, subject to *ad hoc* revision at long intervals and paying too little attention to the influence of pay and conditions on supply because of a concern with physical control on numbers in training. Some of these inadequacies, it has been suggested, may be due to the organisation of manpower planning and could be remedied by the creation of an independant central manpower planning

advisory body and/or a health services research unit which could stimulate research into manpower planning problems. Manpower planning decisions are a fundamental part of the functions of the management of the service and cannot be devolved to an independent body.

The independent central manpower advisory body could be composed of professionals, administrators from the NHS and the health departments, outside academics and other with relevant experience. It could monitor policy at regular and frequent intervals, advise on numbers to be trained and commission research. It would have the advantage that it would be seen to be impartial by the professions and this might make for easier acceptance of sensible but potentially contentious policies. It would act as a stimulus to the Department and if its deliberations, recommendations and evidence were made public, it could generate public debate. Such a body could also take a United Kingdom view in areas, such as medical manpower planning, where this was important.

The counter arguments are that not all similar advisory bodies have been conspicuously successful in the past; it would merely add yet another strand to the already tangled skein of committees in this area; it would be difficult to prevent professional members being representatives of their professional bodies, either explicitly or implicitly, and this would tend to turn the advisory body into another bargaining forum; to the extent that the body was influential it would usurp some of the more important functions of the health departments and reduce public accountability for decisions taken; it is not the only, nor necessarily the best, means of remedying some of the deficiences in current manpower planning procedures and policies as the suggestion of a health services research unit indicates.

The second suggestion for the reform of the organisation of manpower planning is the establishment of an independent health services research unit (HSRU) which would be funded from a variety of sources, for example, the health departments, the Social Science Research Council, the Nuffield Foundation and which would inter alia stimulate, commission or undertake research for central manpower planning.

The advantages of manpower planning research being done by an outside body are that this is more likely to result in informed public debate about, and hence improvement in, the assumptions, models and data underlying manpower planning policy.

A Central Manpower Planning Committee?

Those who see the need for a central manpower planning body of some kind probably have in mind that the present situation is untidy; some regions are much better staffed than others; it costs a lot to employ and train staff so it is important to make the best use possible of them; it may be better to have an outside body to do the work than for the health departments to try and do it on their own; and national plans in, for example, priorities for the NHS, require staffing plans.

The case against a body of this kind is that it is doubtful whether any of the broad objectives which seem desirable (rationalising the staffing structure, redistributing valuable staff and eliminating superfluous staff) could actually be achieved by a body of this kind; and it may in principle be better to leave it to health authorities to decide what they can do in the light of their own priorities and resources.

The fact that there are difficulties in achieving the kind of broad objectives referred to above does not mean that one should not try to achieve them, but it may be that the establishment of a central body is not the best route.

MEDICAL MANPOWER PLANNING

More work has been done on manpower planning for medical and dental staff than for other groups probably because great importance is attached to the distribution of doctors; they are very expensive to train; planning has to be well in advance because their training takes so long; and universities have to provide undergraduate places.

The total number of doctors and dentists needed have been the subject of a number of studies — Goodenough 1944, Willink 1957 and Todd 1968 for doctors and McNair 1956 for dentists. Following the Todd Report on medical education the Central Manpower Committee (CMC) was set up to advise the DHSS and the Welsh Office on planning targets for hospital medical and dental staffing in the different grades and specialties and to monitor progress in achieving targets and longer term objectives. Similar bodies advise the Scottish Home and Health Department (SHHD) and DHSS (Northern Ireland).

The composition and terms of reference of the CMC are:

(a) to advise DHSS and Welsh Office on planning targets for hospital staffing (medical and dental) in the different grades and specialties both nationally and regionally

(b) to identify particular problems (eg shortage specialties) and to advise on special action

(c) to monitor progress in achieving targets and review progress towards the longer term objectives within which it had been working and to report its conclusions.

If the CMC is to serve as a model for other kinds of staff, it is worth considering how well it has worked. There are different views on this:

The West Midlands Regional Health Authority commented in its evidence to the Royal Commission ' ..... in recent years the National and Regional Medical Manpower Committees have been able to consider carefully the future medical manpower requirements and to plan accordingly .....'

and the Regional Medical Officers commented ..... 'we question the existence of a comprehensive, consistent and sustained complex of objectives which can properly be described as a medical manpower policy'.

The CMC has obviously not solved all the problems since it is generally admitted that the career structure is in urgent need of reform; and the distribution of doctors and dentists in the country and between specialties is unsatisfactory.

However, the question is whether things would have been better or worse without the CMC's activities.

The Organisation of NHS Medical Manpower Planning

This section considers the organisation of NHS medical manpower planning. First the general problem of medical manpower planning or management is reviewed. Then the type of planning and modelling implied by the review is examined and finally some alternative manpower managements and organisational structures are discussed. (The term 'doctor' in the remainder of the paper should be taken to include dentists.)

Medical Manpower Management

Medical manpower management ought to be concerned with the efficiency and effectiveness of the use of the stock of doctors, and the changes in that stock. The term manpower **planning** is perhaps unfortunate in that it suggests a concentration on one particular aspect of management, namely the physical control of the total numbers of doctors ie. the total stock of medical manpower. As we will suggest below, other policies can influence the stock of doctors and size of the stock ought not to be considered in isolation from the deployment of that stock.

The aim of efficient manpower management is to provide given levels of care at least cost to the community or, equivalently, to provide as much care as possible for a given budget. This is not the place to consider in detail how the NHS budget is decided and how large it ought to be. We can note, however, that while the generally accepted principle of equal access to care for individuals at equal risk provides a clear indication of how medical manpower resources are to be geographically distributed, it is of no help in solving the problem of how a given stock of doctors ought to be distributed across specialties.

The number of doctors 'needed' by the NHS (the usual way in which manpower planning questions are posed) depends on the total NHS budget, the way in which equal access is interpreted and the efficiency of manpower management.

For specified levels of care, efficient management requires the investigation of the relationships between the various inputs; doctors, nurses, ancillary staff, equipment, and the output of care. One needs to know, for example, whether and to what extent nurses can be substituted for doctors in some procedures and machines substituted for people in diagnosis. It requires the costing of alternative combinations of inputs. This implies modelling the supply conditions of these inputs, including the various control mechanisms available to the manpower manager such as medical school intakes, pay, career prospects. And it requires implementation of the least cost strategy. The organisation of medical manpower management must be closely coordinated with the management of other inputs, particularly nurses.

Medical manpower management is subject to a great deal of uncertainty. Many of the relationships, both technical, between inputs and the output of 'good health' and behavioural, between the supply of different types of medical manpower and pay and conditions are known only imperfectly. Also future values of such variables as population levels, which effect the amount of care needed, and foreign medical salaries and entry barriers, which affect migration rates, are uncertain. Uncertainty is particularly important for medical manpower management because production of UK trained doctors cannot be increased quickly and there are significant costs of an oversupply of doctors.

These problems imply that research to reduce uncertainty will reduce costs and its finding should be used continuously rather than intermittently, to vary policy. The apparent rate of technical progress in medicine and the experience with population forecasting and economic models, suggest that medical manpower decision making will continue to take place under a fair degree of uncertainty. Manpower policy should be flexible, so that better use can be made of the existing stock of manpower

if forecasts on which that stock was planned are in fact inaccurate. To put the matter formally: manpower management should be concerned to minimise the expected cost of providing care, rather than the cost of care on the assumption that particular, single valued, forecasts will be correct.

Criticisms of NHS Medical Manpower Management

The discussion so far suggests a number of related criticisms of past and current NHS medical manpower management.

Firstly, it is based on too little research into both the manpower implication of medical technology and the determinants of the supply of medical manpower. New information, for example on population forecasts and medical school intake, is taken account of only intermittently when a fresh look is taken at manpower planning by a specially appointed *ad hoc* body. Secondly, the manpower models used do not permit consideration of costed alternatives. Thirdly, there is too great an emphasis on physical planning, particularly on the control of medical student numbers. Fourthly, remuneration levels and career structures are fixed without regard to their effect on supply.

A Model for Medical Manpower Management

Ensuring efficiency in the use of, and in the planning of changes in, the stock of doctors will require a model which will show both the effects of different policies on the supply and distribution in medical manpower and the costs associated with those different policies. Sensible choice requires alternatives to be costed. The model should therefore be sufficiently detailed to show:

(a) the determination of the current stock of UK medical manpower by past and current policies;

(b) the distribution of stock by location, grade and speciality;

(c) the distribution of stock by age, sex and nationality, since these are likely to effect the participation and retirement rates and the inter-area and specialty mobility of doctors. These factors will help to determine the supply of doctors of various sorts to the NHS. and

(d) pay, including distinction awards and type of contracts, which will enable different policies and hence different structures to be costed.

This type of model is primarily arithmetical and can show the implications of different assumptions about behavioural variables such as (participation rates and retirement rates and policy variables, pay, promotion rates, numbers and relative size, and size of grades). It must be complemented by models of the decisions of individuals which affect the supply of medical manpower to the NHS: their decisions on whether to train as doctors, to emigrate once trained, to immigrate and, especially for women doctors, elderly doctors or doctors with opportunity for private practice, how many hours to work for the NHS.

The increased cost to the NHS of such modelling should be seen against the possible benefits of improved decisions: the costs of training doctors for example are such that even small improvements resulting from better modelling would offset the costs of the modelling.

The Organisation of Manpower Managements

The Royal Commission may not be concerned with the minutiae of organisation, such as the number of committees and their membership, but with broad principles. There are three main strands to manpower management: modelling (including information gathering) planning and control. The important thing about modelling is not who does it but how it is done. Modelling could be done by an independent body or within the DHSS, but the data base, assumptions, forecasts and policy simulations should be made public. Modelling should be on a permanent rather than on an *ad hoc* basis. Planning future changes in the stock of doctors and influencing the distribution of current stock must be very closely coordinated. First, one cannot make sensible decisions about total numbers of doctors in ignorance of the use to which these doctors

will be put. Second, some of the control variables available to manpower managers will cause changes in both the total numbers of doctors and in their distribution. For example, changing remuneration will affect the immigration and emmigration rates and also participation rates, especially for female doctors. This suggests that perhaps the same body ought to be concerned with both planning and control and should be involved in fixing all the main policy variables which will affect the management of medical manpower. Manpower management is so central to the running of the national health service that it cannot be vested in a body which has no other NHS management functions.

CAREER STRUCTURE FOR DOCTORS

This section is concerned with the career structure of doctors in England and Wales*, the special problems of overseas doctors; and the difficulties of married women doctors, all of them issues relevant to the problems of medical manpower in the NHS.

Present Structure

Most junior doctors will take their first post (pre-registration house officer) at about 24. They will spend about five years in the house officer, senior house officer and registrar grades, and another three or four years in the senior registrar grade. Numbers of senior registrars are controlled and appointment virtually guarantees consultant posts for those who want them, although the time spent in this grade, as in the others, varies somewhat with the specialty. The median age of first consultant appointment is about 37. Those who do not become consultants may go into general practice. In Great Britain in 1977 there were 12 392 (whole-time equivalent) consultants in post, and about 26 810 general practitioners. In addition, there are about 600 posts in community medicine at consultant level, and about 3 000 in the community health services, mainly in the child health service and most of them part-time.

* The problems are less acute in Scotland and much less acute in Northern Ireland; they seem hardly to arise for dentists in any part of the UK.

The NHS is not the only employer of doctors, and there are also posts in the armed forces, industry, universities and private practice.

The Problem

There are a number of linked problems which bear on the career structure, but the one which attracts most attention is that there are too many junior doctors for the number of career posts, especially hospital consultant, available.

Allowing for career posts outside hospital, DHSS suggests that for the specialty to be in balance (ie. neither expanding nor contracting the ratios should be:-

for 8 consultants : 1—2 senior registrars and 2.4—3.4 senior house officers/registrars.

On this basis the numbers of consultants and GPs in post in England and Wales in 1975 would support: 1 400 — 2 800 senior registrars and 3 300 — 4 700 SHOs/registrars.

In fact there were in post in 1975: 2 317 senior registrars and 12 830 SHOs/registrars.

The position is less serious than it seems for UK graduates because in England and Wales about 50 per cent of junior doctors are from overseas and many only rise to SHO or registrar before returning home. This means that UK juniors have *at present* a good chance of reaching a career grade. It also means that overseas doctors will, in most cases, be disappointed in any hopes they may have of getting a consultant post. They may also receive an unsatisfactory training because they are driven into taking posts in the unpopular specialties and geographical areas where consultants are in relatively short supply. They tend to be treated as pairs of hands — helping to provide a service but not receiving formal training in exchange. The assumption is that as the output of UK graduates rises, so the numbers of doctors in the training grades from

overseas will fall. In effect, overseas doctors will be forced out by the dearth of jobs in the UK.

If the existing population of overseas doctors was simply replaced by UK medical graduates, it is obvious that the career prospects of UK trained juniors would deteriorate unless the number of career posts is greatly increased, or there is a sizeable reduction in the output of medical graduates, or both. Increasing the number of career posts carries implications for the level at which work is done. If there were simply an increase in the proportion of consultants to juniors, consultants would find themselves undertaking work at present done by juniors. On the other hand, reducing the output of medical graduates which tends to be favoured by the BMA Hospital Junior Staffs Committee, may lead to insufficient doctors to maintain the service at existing levels.

Nothing has been said so far about the numbers of doctors needed. Clearly the question of whether too many are or are not being produced from UK medical schools depends on what assumptions you make about the numbers of doctors who will be employed in the NHS in the future. This in turn depends on such factors as the birthrate, the performance of the economy, the attractions of private practice, the effects of immigration and emigration and the proportion of women in the profession and how they divide their time between working and raising families.

Present Strategy

Following the publication of the *Report of the Royal Commission on Medical Education* in 1968, and the report of the DHSS/SHHD working party under Sir George Godber on *The Responsibilities of the Consultant Grade* in 1969, the health departments for England, Scotland and Wales negotiated with the profession a strategy for the medical career structure. Their solution was simple: numbers of consultant posts were to increase by four per cent per annum and of training grade posts by two and a half per cent per annum, giving an overall annual growth in hospitals of three per cent. It was calculated that starting from the position in 1968 these increases would produce a state of equilibrium between training and career posts by 1978.

Unfortunately, expectations have not been realised: career posts have increased at under four per cent per annum since 1968, junior posts have increased at nearly five per cent per annum instead of the planned two and a half per cent; the output of UK medical graduates has not reached predicted levels; the state of the economy has meant that increases in career posts look much less feasible than they did in 1969; and there are serious shortages of consultants in some specialties including psychiatry, anaesthetics and geriatrics.

A further complication for the future is the effect of the TRAB test. The present pass rate is only about 35 per cent and this may lead to a much more rapid fall in the numbers of overseas doctors in the UK than can be made up by increased output from UK schools over the same period. On that scenario there might be a significant decrease in the numbers of doctors in the hospital service over the next five years or so.

Possible Solutions

Much of the evidence to the Royal Commission on the NHS supports the view that the career structure should be brought into balance. On that basis, the choice is between increasing career posts or decreasing output of medical graduates, or both. The Royal College of Physicians of Edinburgh took the robust line in its evidence to the Royal Commission that 'there may be some virtue in the pressure of competition', but a solution which did nothing to correct the present imbalance is unlikely to be acceptable.

Reducing output — the risk here is that service needs would not be met, but there are arguments in favour of this solution. More doctors do not necessarily mean better health; the USA, Canada and Italy for example have proportionately more doctors than England and Wales, but in general get no better mortality results (in the case of USA, significantly worse), while Finland has fewer doctors and better mortality figures. It costs £30 000 to £40 000 to train a doctor; overproduction of even 10 per cent (350) per annum would therefore cost £10 000 000 or so, per annum.

The difficulty of forecasting need is neatly summed up by the Royal College of Surgeons (England) which stated in its evidence to the Royal Commission 'Previous attempts to forecast the staffing needs of the NHS have not met with conspicuous success, and the most important lesson to be learned from the past is that the future is unpredictable'.

The regional medical officers comment in their evidence that they:-

'are unable to express a firm view on the size of the workforce likely to be required during the remainder of this century' but add that they 'think it unlikely that there would be an "overproduction" of United Kingdom medical graduates during the period indicated'. The message here is that a solution to the structure problem which relies on reducing numbers of medical graduates is, at best, risky.

Increasing career posts — this is the traditional strategy, but is not without its own difficulties. A simple increase in numbers of consultants and, assuming no expansion in the number of hospital doctors overall, would mean something like 50 per cent more consultants at a cost of perhaps £25 000 000 per annum. A sizeable increase in numbers of consultants would mean a shift of work to them from junior doctors (unless of course the consultant increase was part of a general expansion) which would have implications for status and pay. It is difficult to see how another 5 000 consultants could be appointed in much under ten years given the likely economic situation.

The introduction of the hospital practitioner grade may go some way to meeting hospital service needs, but it is difficult to predict at this stage what effect it would have. The question of a sub-consultant or specialist grade of some kind has therefore been discussed. There are various possibilities:-

(a) Sub-consultant grade: as the work (on the hypothesis above) will shift from juniors to seniors in a balanced structure there seems some logic in interposing a grade between senior registrar and consultant to undertake it. Such a grade might have a range of clinical responsibility falling between the present consultant and

the present senior registrar. There might be 'fast-stream' and 'slow-stream' juniors, the latter either stopping at the new grade on the way to becoming consultant or staying permanently in it. It might have the additional advantage of providing a resting place for many overseas graduates. However, previous experiments on these lines (medical assistant and senior hospital medical officer) have not been too successful, and a new grade would probably be strongly resisted by the juniors.

(b) Specialist grade: a variation on this which would be more acceptable to the juniors but which would certainly be more expensive, might be to create a grade of super consultant. Some kind of trade-off against the present distinction award system might be possible. Under this suggestion some consultant posts would, in effect, be downgraded somewhat but others would be upgraded. There might be difficulties in defining responsibilities adequately.

(c) Registrar level career grade: since many overseas doctors stick at registrar, certain posts might be designated at this level or for doctors who do not proceed to senior registrar. These would probabaly only be temporary until the career structure could be brought into balance.

Whatever the solution adopted there would need to be a satisfactory mechanism for keeping the position under review and making adjustments which may become necessary to increase, decrease or redistribute medical manpower.

OVERSEAS DOCTORS

There are probably between 18 000 and 20 000 registered doctors in the UK who were born outside the UK and Eire. About half of them were born in India or Pakistan, a quarter in other commonwealth countries (including Australia and New Zealand), and the rest elsewhere in the world. Most of them are employed in NHS hospitals.

The actual numbers of overseas born doctors and the proportion they represent of the total number of doctors has risen steadily over the last ten years or so. Thus, in England the proportion of overseas doctors in hospitals increased from 32.5 per cent (7 906) of all hospital medical staff in 1971, to 35.2 per cent (10 167) in 1975. There has also been an increase in numbers in general practice. The equivalent figures there are 15.2 per cent (2 948) in 1971 and to 18.3 per cent (3 736) in 1975.

The proportion of overseas doctors in hospitals varies greatly between specialties and regions. Table I shows the position for selected specialties in England and Wales, and Table II the variation between regions.

Table 1 Percentage of Posts in Hospital Specialties filled by Overseas-born Doctors

Percentages of numbers England and Wales at 30 September 1976

	Consultants	Senior Registrars	Registrars	SHOs
All Specialties	14.8	27.2	56.7	57.6
General Medicine	8.4	12.1	36.8	35.7
General Surgery	8.4	15.5	51.9	71.1
Paediatrics	14.7	11.5	41.9	34.4
Anesthetics	14.6	23.5	62.4	62.0
Radiology	16.8	35.3	39.9	NA
Mental Illness	20.5	34.8	62.9	58.9
Geriatrics	37.3	60.9	83.8	78.2

Source: Compiled from Health Departments' Statistics

Table 2 Percentage of Overseas Born Hospital Medical Staff by Region and Grade: UK 1978[1]

	All Grades	Consultant	Senior Registrar	Registrar	Senior House	House Officer
ENGLAND	34.6	16.0	26.5	56.8	52.8	13.5
Northern	39.0	17.5	31.2	63.2	61.1	12.3
Yorkshire	38.9	15.8	29.1	66.4	60.7	11.7
Trent	35.6	15.4	27.0	57.9	52.1	8.9
East Anglia	28.9	9.8	22.9	51.1	48.0	17.5
N W Thames	34.3	19.0	29.7	54.1	48.2	14.0
N E Thames	39.5	21.5	33.5	61.3	60.5	17.6
S E Thames	35.0	17.3	21.2	54.5	56.5	15.7
S W Thames	34.4	15.4	25.6	59.1	51.7	11.0
Wessex	25.6	13.9	26.3	44.4	39.0	10.3
Oxford	28.3	12.2	15.6	50.1	43.0	9.1
South Western	20.5	8.6	15.6	41.9	30.2	5.7
West Midlands	40.0	17.5	32.7	64.8	60.9	14.9
Mersey	34.5	11.4	33.1	55.1	53.7	16.3
North Western	39.3	18.4	21.5	63.8	58.4	16.7
London Boards of Governors	25.0	16.0	25.5	37.8	24.3	–
WALES	34.2	12.6	24.4	60.1	54.3	8.3
SCOTLAND[1]	19.3	7.8	13.3	43.5	25.7	5.0
NORTHERN IRELAND	21.0	7.3	20.5	34.8	34.0	13.7

Source: compiled from health departments' statistics

Note: [1] Whole time equivalents except for Scotland where percentage refers to numbers Scotland figures are for 1977.

As is well known, the 'unpopular' specialties such as geriatrics, anaesthetics and mental illness have much higher proportions of overseas doctors than the 'popular' ones, such as general medicine, general surgery or paediatrics. The tables suggest that the northern regions and industrial areas tend to have a lower proportion of home grown doctors than do the southern regions.

Future Trends

As numbers of medical graduates from UK universities increase as a result of the expansion of medical schools following the Todd Commission recommendation, the upward trend in numbers of overseas doctors in the UK is expected to be halted or reversed. In particular, it is expected that there will be a fall in numbers in the hospital training grades. How quickly this will happen – if at all – depends on the assumptions made. Some of the variables here are: the rate of expansion (if any) in the total number of doctors working in the NHS; the extent to which UK medical schools are able to meet their objectives; the effect of controls introduced by the GMC (TRAB tests etc); the extend to which overseas doctors are successful in competing for posts with UK graduates; and the rate of emigration of British trained doctors.

Registration Arrangements

General Medical Council (GMC). Full registration entitles a doctor to engage in any form of medical practice, including general practice. It may be granted to an overseas doctor if his qualification is recognised by the GMC and is obtained in a country which grants reciprocal privileges to doctors from the UK, provided that he has had practical experience equivalent to the pre-registration year for British trained doctors. If a doctor lacks the practical experience he may be granted provisional registration and may work only as a resident house officer. A doctor who comes from a non-reciprocating country may be granted temporary registration if the GMC recognises his qualification for that purpose. That entitles him to work in a specified hospital and post approved by the GMC. It must be renewed on change of appointment and is only granted

in respect of work in hospitals or similar institutions. It may not be extended if the consultant concerned reports adversely on the doctor. A temporarily registered doctor may obtain full registration by passing the diploma examination of the Royal Colleges when he has had twelve months experience.

Following the report of the Merrison Committee[2] the GMC set up in 1975 a Temporary Registration Assessment Board (TRAB). The Board tests a candidate's knowledge of English and his professional knowledge. Unless he reaches a satisfactory standard he will not be granted temporary registration and cannot work as a doctor in the NHS. Overseas qualified doctors who had been granted temporary registration before May 1975 are exempt from the test. The GMC also withdrew recognition from a number of medical schools whose qualifications had been recognised for full registration (the number so recognised fell from 90 in 1971 to 26 in November 1976). The effect of the TRAB tests was that in the twenty months following their introduction the number of overseas qualified doctors granted temporary registration for the first time was less than half the number granted temporary registration during the preceding twenty months.

The Merrison Committee proposed that legislation should be introduced to deal with a number of aspects of the present registration arrangements, but this has not so far occurred, and the pressure on the parliamentary timetable may mean that it is some time until it does occur. The situation is complicated by the EEC provisions for free movement of doctors among member states.

Problems

No one seems to doubt that overseas doctors have made, and are making a valuable contribution to the NHS. The large numbers who arrived in the 1960s enabled the number of doctors in hospitals to increase very much faster than would otherwise have been possible. The BMA stated in their evidence to the Royal Commission 'the importance of their contribution to the NHS cannot be over-emphasised'. On the other hand, they have

brought some problems: their standards of professional knowledge and skill, and their knowledge of English, often falls below that generally acceptable in this country; it is unsafe to rely too much on overseas doctors because the supply may dry up, for example, Pakistan has introduced stricter emigration controls; and their concentration in the unpopular specialties and places has concealed the weaknesses of the hospital career structure and the mal-distribution of doctors.

More difficult are the problems of overseas doctors themselves. At present no one knows what are the expectations of foreign doctors entering this country. This is obviously important because if they come with the hope of reaching a career grade and perhaps settling in this country the solution to their problems may be different than if they simply hope to spend a few years here for experience before returning home. The Overseas Doctors Association (ODA) take the view in their evidence to the Royal Commission that '..... most of the overseas doctors do come here for a limited period, mainly to obtain higher degrees and experience.....' There is no reason to think that this view is not correct. The main complaints that the ODA draw attention to in their evidence are:-

'the simple and definite pattern is: the overseas doctors are mostly in the unpopular specialties and mostly in the unattractive and industrial areas where the National Health Service needs are mostly acute'

'..... their distribution does not reflect the needs of the countries from which they have come.....'

'there is a strong feeling amongst the overseas doctors that they are discriminated against .....'

'these overseas doctors are criticised for lack of proficiency in the English language but language training was not provided for during their initial training period'

'the present system of registration by the GMC is most unsuitable for the overseas doctors'

'there has been no systematic survey of overseas doctors' hopes and prospects.' (the PSI study will go someway towards taking care of this)*

The views of the ODA are summarised in their evidence as follows:

"Most of these doctors come with high hopes of gaining expert knowledge in the field of medicine to obtain degrees and diplomas in the respective specialties. But, in cold reality, they end up in the most unpopular branches of medicine in the peripheral hospitals where the service demands are high, teaching facilities are very little or inadequate. Most of these doctors are obliged to work in casualty, orthopaedic, geriatric, psychiatric departments in district hospitals totally outside the influence of the teaching hospitals. These overseas doctors do not get the opportunity of training in the teaching hospitals and in the popular branches of medical discipline. Hence it is not surprising that their performance is not as good as it should be in the professional examinations".

Solutions

It is arguable that post-graduate training in the UK is not the best preparation for looking after people in primitive conditions in India. However, this is really a matter for the foreign governments concerned, and the responsibility of this country is to see that overseas doctors who come here for training, and who make a considerable contribution to the welfare of this country, should be fairly treated. As has already been pointed out, numbers of overseas doctors may fall as the output of UK trained graduates increases, but a substantial number will remain. Some of the main needs seem to be that: better information should be given to overseas doctors about the prospects of training in the UK and the standards of English and professional knowledge required; those who come here in future, or who are already here, should be given the opportunity of improving their command of English; there should be a more flexible system of registration; and more needs to be known about overseas doctors' aspirations and career prospects.

* A survey of overseas doctors was carried out for DHSS by David Smith at the Policy Studies Institute during 1976—79. It was published as -: Smith David J. *Overseas Doctors in the National Health Service;* London, Heineman Educational 1980.

These points are already being tackled to some extent: arrangements for providing an advisory service for overseas doctors have been discussed between the Council for Postgraduate Medical Education and the DHSS, some facilities for English language training have been provided, a system of 'limited registration' was one of the recommendations of the Merrison Committee, and the PSI research project referred to above has been launched. It may be, however, that much more effort should be put into these measures. A great deal more difficult is the question of what special arrangements, if any, should be made to adapt the existing hospital career structure to the needs of overseas doctors. One of the difficulties at present is that medical appointments are, in the main, run on the basis of open competition, and it would obviously be a considerable departure from this principle if posts were, in effect, to be set aside for overseas doctors. However, this is the proposal of several bodies including the Royal College of Surgeons (RCS) (England) who say in their evidence to the Royal Commission 'the interests both of our own training plans and of overseas doctors who wish to have a period of training in this country would be best served by the designation of a number of programmes specifically tailored to their needs and supernumerary to our own requirements'. The RCS goes on to remark that the Race Relations Act, designed to protect overseas doctors from discrimination, 'has effectively disqualified them from enjoying such opportunities because appointments must be open to applicants of all nationalities .....' The Royal College of Physicians of Edinburgh also support the idea that 'posts should be designated clearly ... and ... reserved for doctors committed to returning to their own medical schools overseas in due course'. The Regional Medical Officers suggested in evidence to the Royal Commission that a 'post-graduate student' post which would give the incumbent reasonable opportunity to acquire a United Kingdom higher qualification appropriate to his chosen specialty, also valuable additional experience before returning to his own country should be introduced. They also suggested a 'post-graduate fellowship' of two years for overseas graduates possessing a higher qualification.

WOMEN DOCTORS

In general, the position of women doctors has improved greatly in recent years. The numbers of women hospital doctors virtually doubled between 1963 and 1977 (from 2 474 to 5 497), numbers of women consultants more than doubled (from 412 to 1 093), and numbers of general practitioners increased by 50 per cent between 1965 and 1975 (from 2 067 to 3 491). Women entering medical schools in 1976 formed nearly 36 per cent of the total entry as compared with under 25 per cent in 1967/68 and this upwards trend is encouraged by the Committee of Vice-chancellors and Principals. Nonetheless, women doctors still suffer the same difficulties in combining a satisfactory career commensurate with their abilities with raising a family as other women in the professions. Thus, although the tax disincentive for a married woman to earn has been removed by the arrangements for separate taxation of husband and wife, the cost of providing domestic assistance in looking after children to enable a married woman to go out to work remains considerable.

Evidence to the Royal Commission suggested that there are two main problems for married women doctors who wish to combine their careers with raising a family: the difficulty of undertaking full-time training (which may be very full-time indeed in the surgical specialties) and their relative immobility.

Part-time Training

The solution often proposed to the problem of training the married woman doctor with children is to provide part-time posts. Thus, the Middlesex Hospital Medical School says in its evidence to the Royal Commission that '... consideration should be given to the provision of part-time posts which are specially adapted to the needs of married women with children. These posts should cover the whole spectrum of medical work in the NHS. The financial implication should be dealt with by separate earmarked grants not in direct competition with other needs.' The Equal Opportunities Commission made much the same suggestion.

There seem to be two main difficulties in providing part-time training. The main one is probably at present the unwillingness of accrediting bodies in the profession (mainly the Royal Colleges) to accept part-time training up to consultant level. Accredition for these purposes is obtained when the doctor has completed his senior registrar training (or equivalent in the university grades). The Royal Colleges of Surgeons of England and Scotland require full-time training normally, though they are prepared to look at individual candidates for part-time training. All the other accrediting bodies are prepared to accept part-time training but require a minimum of half time commitment at senior registrar level. The total training must in all cases add up to the period a trainee would spend were he working full-time. However desirable in principle, there are obvious practical difficulties for doctors who propose to do all or most of their training on a part-time basis: thus, if the average time spent in the training grades is eight years for a full-timer a part-timer working half time (which may be more than some can manage) will have to spend sixteen years to reach the same level.

The other difficulty is from a service point of view. While some specialties, for example, pathology, lend themselves to office hours and part-time work, others obviously do not. In places where the NHS is under pressure three or four part-timers may be much less useful than one whole-timer who is able to undertake night duty and provide continuity of care.

Part-time Career Posts

The other difficulty that married women doctors with children may face is finding a worthwhile job to do when they have completed their training. This is likely to be more of a problem in the hospital service than in general practice. A woman in this position who is unable to compete for career posts outside her own locality will obviously be dependent on whatever happens to be on offer locally. She may well not be able to find a consultant post, for example, in her particular specialty; and her problems will probably be greater if she is only able to work part-time.

It is not too clear what the answer is to this particular problem. There would be strenuous objections from the profession to arrangements for giving married women preference in competition for consultant posts which would mean a departure in principle from the present competitive arrangements for appointing consultants. Probably the most important consideration is a sympathetic attitude on the part of employers.

Health Departments' Policies

Part-time Employment

Health Departments have for a long time recognised the need to make maximum use of all doctors, and it has long been their policy to encourage the employment of doctors who are able to work only part-time because of domestic commitments.

In England and Wales there are two main schemes designed to help these doctors. The first, detailed in DHSS Circular HM (69)6, encourages health authorities to provide training posts on a part-time basis for women doctors re-entering hospital service. The second scheme, the (Women) Doctors Retainer Scheme, was introduced in 1972 and is intended to enable doctors whose domestic commitments are too great to undertake substantial NHS work to keep in touch with medicine until they are able to take up more extensive practice. In addition to these schemes, doctors can also work part-time as senior house officers or clinical assistants in the hospital service, as clinical medical officers in the community health services, or as principals or assistants in general practice.

In Wales the retraining scheme is funded centrally and there is an establishment of 13 posts, whole time equivalent (WTE). In 1978 15 doctors were taking part as follows:

SHO	Registrar	Senior Registrar	WTE
7	4	4	8.5

There is therefore capacity for a further 4.5 WTE appointments. Two recent sample surveys – one by the Welsh Office and the other by the Women Doctors Federation – suggest that there are very few women doctors in Wales who are not committed to work in one way or another. The retraining scheme is reviewed annually to see if the numbers of posts are adequate and the Welsh Office keeps closely in touch with the Women Doctors Federation in Wales on this. It has produced three consultants in much needed specialties (one in radiology and two in anaesthetics). The number of doctors in the retainer scheme in England is between 200 and 250, and in Wales six.

DHSS have also been discussing with the profession ways of improving the arrangements of doctors with domestic commitments and they hope that agreement will soon be reached. The main points covered in the discussions have been: new arrangements for advertising consultant posts to enable applications from part-timers to be considered; a new system for part-time senior registrar posts designed to ensure that in each specialty the chance of a part-timer obtaining a post would be neither better nor worse than those of a full-timer. The arrangements would also ensure an element of competition in gaining a part-time senior registrar post and relaxation of central control over part-time registrar appointments.

In Scotland advice has already been issued in 1976 on opportunities for doctors with domestic commitments in SHHD NHS Circular No. 1976 (Gen)96. The circular explains the importance of improving opportunities for doctors who can work only part-time and describes the way in which health boards should encourage such doctors to re-enter or remain in active medical practice. SHHD have advised that on consultant posts advertisements should be worded to ensure that part-time doctors are encouraged either by sharing a full-time post or by contracting for seven sessions. On senior registrar posts SHHD have drawn attention to the Departmental system of creating supernumerary part-time posts for female doctors. On registrar posts, the Department have stated their willingness to create part-time posts for female doctors without the general restrictions on the creation of new junior posts.

As regards implementation in Scotland, all Scottish health boards have appointed a specific individual responsible for continuing career counselling and other support, for reviewing progress and providing essential initiatives in respect of such doctors. The suggestion that health boards should consider the possibility of filling full-time consultant posts on a shared basis have been taken up in isolated instances and SHHD hope that the number of such appointments will increase. Since 1975, 13 supernumerary senior registrar posts have been created for female doctors – four full-time and nine part-time. There are in addition over a hundred doctors in the retainer scheme.

In Northern Ireland, at the time DHSS issued their circular HM(69)6 on the re-employment and re-training of doctors, the matter of employment opportunities for doctors with domestic commitments was considered and it was decided that the issue of an equivalent local circular was not necessary because of the lack of demand for the type of post advocated by HM(69)6 and also because there was already a number of training grade posts available which were suitable for doctors working on a part-time basis. The latter posts originated in 1966 when six supernumerary posts at SHO and Registrar level were created mainly for trainee general practitioners who were unable to obtain suitable hospital posts. The number of supernumerary posts was increased in 1972 to 18 and their function extended to include provision for doctors training part-time and married women doctors returning to hospital practice. The funds for these posts are held centrally by the Department. At no time have all these posts been filled and the number of doctors, particularly married women, seeking such appointments has been disappointing. Although there are no specifically designated part-time training-grade posts, there are occasions on which ordinary training posts are occupied or shared by doctors working on a part-time basis and are in addition to the super-numerary posts already referred to above. As in the case of training posts there are no designated part-time career posts. However, a small number of doctors, predominantly women, hold part-time appointments in the consultant, SMHO and medical assistant grades. The numbers of women doctors so employed in these grades are six, four and four respectively. In addition, 64 women doctors work on a part-time basis

in community medicine while 51 others do part-time GP hospital sessional work. The Doctors' Retainer Scheme has evoked a most disappointing response with only seven participants in 1975, six in 1976 and five in 1977.

The Northern Ireland Medical Manpower Advisory Committee have recently appointed a sub-committee to look into problems of employing doctors with domestic commitments.

Creche facilities

In England and Wales guidance was issued to authorities in 1966, on the circumstances in which the provision of day nurseries and play groups was justified and the standard of accommodation and care to be maintained. Principally the provision was intended as an aid to recruitment. In England there are over 100 day nurseries and play groups provided by hospitals for their staffs' children and in Wales five hospitals make such a provision. Health authorities are required to make a charge for this provision and many charge the minimum rate which has involved heavy subsidies. Consideration is currently being given to issuing fresh guidance to health authorities urging them to raise charges and work towards the elimination of subsidies. In the context of other demands on health service resources both DHSS and the Welsh Office do not feel subsidies can be justified except in some cases where there are difficulties in recruiting or retaining staff.

The situation is similar in Scotland where some hospitals provide creches to assist in the recruitment of staff. These are generally subsidised to a high degree, and a circular is at present under consideration which will ask health boards to review, in consultation with representatives of the members of staff concerned, both the need for such facilities and the extent to which the degree of subsidy can be reduced or eliminated. Because they are so expensive to run both in terms of manpower and use of facilities SHHD's view is that creches should be provided only where there are serious difficulties in recruiting and retaining staff.

In Northern Ireland the use of creches is of much shorter standing. Powers to provide creches were contained in broad terms in the Health and Personal Social Services (Northern Ireland) Order 1972, but regulations have never been made under the 1971 Act or the Order. In 1975 DHSS (Northern Ireland) issued a circular to health and social services boards advising on the minimum amount chargeable for creche services, but this mimimum would only be charged in certain circumstances, and was not to be regarded as the norm. The charges are currently under review.

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SPECIALISATION IN MEDICINE

Ivor Batchelor

THE GROWTH OF SPECIALISATION*

Medicine has been an outstandingly successful profession because it has linked to its development the resources of science and technology. Its contribution to the welfare of society has depended greatly on a scientific base which is being constantly extended and refined by research. The advance of medicine has been characterised by increasing specialisation of knowledge and specialisation in the functions of medical and para-medical staffs. It may be useful to attempt to review some aspects of the present situation and to draw up a balance sheet. Increasing specialisation is not an unqualified boon. It has been accompanied by growing fragmentation of the medical and associated professions which many people view with concern. It demands ever increasing resources of men and money. It is a self-evolving system which cannot be stopped and which only recently has felt sharply the application of financial brakes.

There can be no doubt that specialisation in medicine has generally been beneficial, because only in this way can research optimally be fostered and its findings applied. But it is surprising to notice how little investigation has been done into the actual benefits of specialisation – into how much better the results of a specialist or specialised unit are than those of less specialised individuals or services. But sufficient is known and proven clearly to support broadly the case for specialisation. This can be demonstrated most easily perhaps in surgery, where results are clear cut. Two examples will be sufficient. Total replacement of the hip is one of the commonest surgical operations in the NHS. It is estimated

* Parts of this section of the paper were used by the author in a Sandoz Foundation Lecture at the University of Edinburgh, May 1980

that while in at least 10 per cent of cases overall the result is unsatisfactory, the failure rate in major centres is only between two and five per cent, and that five per cent of failures at least are therefore probably due to technical errors arising from insufficient specialist expertise[1]. In the case of surgery for hyperplasia of the prostate, another common operation, the fatality rate in operations by general surgeons is 3.9 per cent and in those by specialist urologists 2.3 per cent.[2]

Many areas of specialist activity have never been adequately researched and their value demonstrated. For example, no randomised trail of the efficacy of coronary care units as opposed to ordinary wards has been described.[3] The efficacy of day hospitals for psychiatric and geriatric patients, of special security units, of alcoholism units has not been clearly demonstrated. The present policy of a major shift from hospital to community care is very imperfectly supported by research. There has been, in fact, a major deficiency in operational research in nearly all the clinical areas of the NHS.

One would expect specialisms to develop the better to exploit advances in science and technology, but they have not had any such simple and rational growth and ordering. Rather they have 'grow'd like Topsy'. Some have been closely linked with major developments in technology (eg radiology) or with new techniques of investigation (eg clinical epidemiology/community medicine); others have focussed on systems of the body; psychiatry has developed separately from neurology; there are specialties by age group (eg paediatrics, geriatrics); specialties have developed which depend on the locus of the work (eg general practice, forensic psychiatry), others on grounds of social need (eg tuberculosis) or stigma (eg venereal disease), yet others because of professional neglect which it has been sought to remedy by administrative action (eg geriatrics, rehabilitation). Technical advances strongly influence the splitting into sub-specialties of the craft specialty of surgery. There has been no strategy strongly controlling or even influencing this widespread differentiation of functions. Perhaps there should not be.

With greatly increasing differentiation and complexity problems of coordination become acute, too often 'the whole is lost in one of its many aspects' and a balanced development is not achieved. It has been a major advance that the health departments in their recent Priorities Documents[4] have begun to challenge with a wider viewpoint the congruence of specialised professional groups. Individual professional groups cannot be expected to take a wholly objective view of their own contribution to the total pattern of health care, nor to dissociate the need for the development of specialised services from the opportunities which such a development would present for a more secure or improved professional career structure.

The formation of a new specialty has usually certain consequences. Standards of care are enhanced and research promoted. At the same time the specialised group becomes more exclusive, standards of training and entry to it are raised, it becomes unwilling to perform non-specialised activities, demands are made for more staff, better facilities, more sophisticated equipment, and not infrequently, it begins to encounter serious difficulties in its own recruitment. It tends to discourage development of a 'special interest' category of staff as being an unwarranted dilution of specialised expertise.

A further and invariable consequence of creating a specialty is that those who had previously looked after these patients may no longer see it as their responsibility to do so. It is now somebody else's business. Create a specialty of geriatrics, and most ill old people are then perceived to be the responsibility of geriatricians; the general physician complains that his beds are blocked with the wrong kinds of patients; though these are the kind of sick people who now most require care in general hospitals, they are to be got out of general hospitals in favour of the kinds of patient which the physician saw years ago and who no longer require hospitalisation. Since a specialty on its own often cannot cope with all those patients who might be considered to fall within its remit, friction between the generalist and specialist groups caring for them is inevitable.

It should further be noted (as was drawn to our attention in evidence) that often 'the advance of technology necessarily brings with it an element of automatic priority to small groups of patients who have rare or complex conditions'.

SPECIALISATION AND GENERAL PRACTICE

Specialisation is generally believed not to have gone so far in Britain as in many other countries, because of the central role of the general practitioner as a generalist in primary care; and it is also widely believed that this has been a good thing. General practice itself has recently been institutionalised as a specialty with its own training requirements.

It may however be doubted if general practice should continue to attempt (as to some extent it still does) to maintain the 19th century pattern of the family doctor, who himself possessed all or most of the necessary skills for primary care and who was additionally a counsellor and often a friend of the family. The traditional British family doctor seems quite well suited to the needs of middle class, suburban and rural practice: he is miscast in the centre of our large cities. There the family doctor frequently does not know the family, does not know the home and cannot give continuity of care — partly because of the mobility of the population which he serves, and partly because he shuts up shop at 5 pm and relies heavily on deputising services.

The primary care team is increasingly replacing the single-handed doctor, and it makes sense to specialise functions within a team. The development of these primary care teams, of group practices, of health centres and of the hospital practitioner grade, will all tend to facilitate the emergence of specialisation in general practice; and it seems desirable that they should. Most illnesses are treated in the community by general practitioners and no one doctor can now keep abreast of recent advances and the best practice in this very wide span of conditions — in hypertension for example as well as epilepsy, in diabetes as well as depression, in peptic ulceration and phobic anxiety. There seems therefore to be a strong case for the widespread emergence of general practitioners with a special

interest – in geriatrics or psychiatry, in rheumatic diseases or in paediatrics, for example. Yet there seems to be some resistence to this amongst general practitioners, as something liable to impair the generalist qualities of the family doctor. It seems that the initial response of general practitioners to the Court Report[5] has been to reject its concept of general paediatric practitioners. The name proposed for them may have suggested that they were to be more paediatricians than general practitioners, and one can agree that such a balance in the individual's interests would probabaly be wrong. But that there should be in the primary care team a physician with special responsibilities for the children in his practice and in the community of which it is a part, seems to be a constructive proposal likely, if implemented, to raise standards of primary care.

TOO LITTLE SPECIALISATION

I have put forward the view that there is too little specialisation in general practice. There may also more occasionally be a reluctance to embark upon specialisation in hospital practice, though such specialisation would improve the quality of patient care. General physicians, general surgeons, psychiatrists with a generalist orientation, for example, sometimes oppose the development of special interests and services. They do so for a number of reasons. Such developments, promoted usually by more junior doctors, challenge their authority, go beyond their knowledge and competence, and tend to attract away from their care 'interesting' patients. It is a very understandable conservatism which prompts their opposition. Much tact may be required administratively to subdue this kind of local opposition to specialisation: it may be necessary even to wait until an individual retires from the service. Central directives are ineffectual in such situations.

SHORTAGE SPECIALTIES

The reasons why some specialties are more popular than others, and why some are chronically unpopular, are numerous. There is no one explanation which applies to all except perhaps their grading in the general esteem of the profession. The medical profession (like other professions)

is conservative in such matters and changes in the hierarchy of its esteem are slow. Those subjects which have professional examinations in the undergraduate curriculum are esteemed more highly by students than those which have not; and the subjects of the graduating examination, medicine, surgery and obstetrics, are at the top of the students' hierarchy. It is remarkable that obstetrics is still in this position: it is an anachronism; the majority of graduating doctors will never again deliver a baby and the hospitalisation of obstetrics implies that it should mainly be a subject for postgraduate, specialist training. It is widely believed that specialties which contribute significantly to teaching in the undergraduate curriculum have fewer staffing difficulties than those which do not contribute.

Some specialties are more limited and less intellectually challenging than others. Some have a degree of social stigma attached to them, venereology for example and to some extent still psychiatry. In several of the shortage specialties working conditions are more than averagely poor and supporting staff of course few in number. In some the work is unattractive aesthetically. Working hours may be long and there may be no awards available from private practice. Some specialties have been make-shift solutions for medico-social problems – geriatrics and rehabilitation. In some specialties training programmes are poorly developed.

Some medical specialties and areas of work seem now to demand a degree of social commitment and idealism which may be hard to find in a materialistic culture and it may be relevant to note that the motivation of those who seek to become medical students does not get close scrutiny by the medical schools which admit them for training.

Unpopular specialties tend to become manned by overseas graduates. When their number reaches a certain percentage of the total staff, it becomes increasingly difficult to recruit British born graduates. The same phenomenon is seen in domestic housing.

A fuller exploration and analysis of the situation in each of the shortage specialties is no doubt required; and the research on specialty choice

which is being carried out by the University of Sussex should be a valuable additon to our knowledge. There are no easy solutions to the problems which these specialties present. The action most likely to be effective in improving recruitment, at least in the short run, is a marked pay differential in their favour. Such a solution runs the risk of course of recruiting those whose interest is more in the pay than in the specialty.

TWO PROBLEMATIC SPECIALTIES

Two specialties in particular have been the subject of recent criticism — geriatrics and mental handicap.

There is theoretically a place for geriatrics, as there is for paediatrics, as a specialty which deals with the peculiar needs of a large age group; and one can more readily support the case for such a specialty if it concerns itself comprehensively with the needs of that age group. Paediatrics have been slow to do this: child guidance and child psychiatry developed apart from paediatrics, and child psychiatry still sees itself as more closely allied to psychiatry than to paediatrics; while it is only in the last very few years that paediatrics has shown a real commitment to the needs of mentally handicapped children. However, paediatrics is now very well established as a specialty, in the NHS and in the medical schools, its clinical activities are substantially supported by medical research and by recent advances in developmental biology, it has in its ranks many very able people and ambitious, comprehensive and on the whole convincing plans for its future have been drawn up in the Court Report [5].

It is otherwise with geriatrics. Geriatrics was developed as a specialty, not because of any recent advances in the relevant basic or clinical sciences, but because it was an increasingly important area of clinical medicine which was being neglected. The new specialist posts created were occupied by physicians, not usually men of first rate ability, who brought with them little specialist expertise. They entered the specialty as physicians, and they have continued to see their role in limited terms.

Psychogeriatrics, or the mental aspect of geriatrics, which should be part of any comprehensive view of the symptoms, illnesses, treatment and needs of this age group, has been separated out as something different from geriatrics; and geriatricians have generally taken the view that this aspect of geriatrics should belong to psychiatry. In other words, they see the main problems of their specialty as belonging to another specialty. Not only is a widening concept of their role hard to find amongst geriatricians, many are beginning to call their specialty geriatric medicine and to express a need to return to the main stream of clinical medicine. Progress in the more limited areas of their attention has been disappointing. They have certainly, by their clinical concern and by mobilising attention and resources both from within the NHS and from the public, in many areas raised the standards of care of the elderly: but their contribution to clinical and even operational research has been slight, and the field is not one which is notable for innovation and successful experimentation. A science of gerontology, if it exists, is in its infancy.

There are other considerations of great importance. Ill and disabled old people now constitute the main problem and the main burden of clinical medicine and psychiatry, and increasingly also they fill the beds of surgical wards. How then can the care of this very large age group any longer be considered a specialist field of medical practice and be delegated to a small minority of the profession? Furthermore, neither in quantity nor in quality is recruitment into the specialty satisfactory. Many posts, even at consultant level, are unfilled. In England and Wales 86 per cent of the registrars in geriatrics were born outside the United Kingdom. The RMOs in England in their evidence to the Royal Commission stated that 'there is a grave and imminent danger that this field of medical practice could become "an overseas specialty".

I believe that it is only in the NHS in Britain that a clearly defined specialty of geriatrics has emerged.

Whereas geriatrics developed as a specialty as a result of neglect by the main streams of medical practice, mental handicap developed as a medical

specialty because of neglect by the community and by professions outside medicine. No one else was prepared to undertake the responsibility for those rejected people. But doctors do not treat mental handicap directly, except in those rare cases of severe handicap which are due to ascertainable and treatable physical causes, eg phenylketonuria or cretinism. They deal with what may be (but is not necessarily) associated with it, namely physical defects or handicaps and mental illness or instability. It is a minority of cases of mental handicap which need frequent medical attention, still fewer who need specialist attention and for those who do need specialist attention it is the resources of many specialties which are required – not of one. It was an accident of history that the care of the mentally handicapped is in this country so considerably hospital based and so largely in the hands of psychiatrists and psychiatric nurses. Mental handicap is not properly a specialty either of medicine or of nursing. If it is to be a specialty at all, it should be a specialty in education, with a major contribution from educational and clinical psychology. In respect of care, outside the families of the handicapped, the main responsibility seems to lie with departments of social work; and the needs of the mentally handicapped appear to be closely allied with the needs of those who are handicapped or disabled in other respects.

THE ADMINISTRATIVE CONTROL OF SPECIALISATION*

The emergence of a new area of specialisation is fostered usually by the medical profession itself, and at some stage it is recognised by one of the Joint Higher Training Committees (JHTCs) in the main specialties. The JHTCs are professional bodies, led by the Royal Colleges and Faculties: though the health departments have observers on them and support their activities to a considerable extent financially they are independent of the health departments, of the councils for Postgraduate Medical Education and (under present legislation) of the General Medical Council. It is right that the medical profession itself should be mainly responsible for the emergence of specialties, since this is a matter crucial for its intellectual advance, its training and its professional standards. But the present position

* See footnote page 55

is in several respects unsatisfactory. It is usually a particular specialty within medicine which decides upon its own further specialisation, in the form of sub-specialties. The influence of pressure groups with parochial and selfish interests may be unduly powerful. The case for such further specialisation and the evidence for its need and likely efficacy are not argued in any wider forum. We lack a national institute of medicine in this country; and the councils for postgraduate medical education, which could act to some extent at least as a critical forum, do not do so. The plans of the JHTCs are submitted to the councils for postgraduate medical education for information not for clinical appraisal and possible amendment. The implications for the NHS, in terms of finance and other resources, are not explored by the JHTCs; and the central health departments do not seem to me to have an adequate mechanism of response to such developments.

It may be useful to quote a recent instance of the legitimising by the DHSS of a new medical specialty – psychotherapy. The Joint Higher Training Committee in Psychiatry and the Royal College of Psychiatrists both supported the case for acknowledging and institutionalising such a specialty. A small pressure group of psychoanalysts and other psychotherapists were vocal and influential within psychiatric circles, mainly in London; and there was some public demand (not much researched) for such a facility within the NHS. The case was not supported by firm knowledge of the efficacy of psychotherapy. The only kind of psychotherapy to be even fairly well researched and its value tested, is behaviour therapy, and this is a form of treatment thought to be appropriate for only about five per cent of neurotic patients. Being labour intensive to an exceptional degree, psychotherapy is also a very expensive form of treatment. There are few facilities in this country for training in psychotherapy (most of these in the south east of England), and few trainers. It is strongly established in only one of the academic departments of psychiatry in Britain. Its development at this time can be promoted only at the expense of other developments in psychiatric care eg in the psychiatry of old age.

Psychotherapy is a professional activity of psychiatrists and clinical psychologists within the NHS: there are also a few lay therapists and in a very small way it is developing as a specialisation in psychiatric nursing. More usually, when a specialty is introduced into existing services, growth in the numbers of medical staff is accompanied, and is often exceeded, by growth in the numbers of supporting staff.

SPECIALISTS AND GENERALISTS WITH SPECIAL EXPERIENCE

Few appointments are now made to posts designated as that of general physician. Most consultants in medicine now practice exclusively in a specialty of medicine or are general physicians who have had special training and experience in a specialty. Similar trends are evident in other specialties.

It is a matter of some importance not only whether or not a new specialty is recognised, but how the balance is struck in employment policies between these two categories of staff. Yet I do not think that there is any identifiable point in the organisational structure of the NHS where such issues are routinely discussed.

The more specialised an individual becomes the greater the problem of his redeployment and retraining if the contribution of his specialty becomes of decreasing value (as happened, for example, in tuberculosis).

The staff category of generalists with special experience is more flexible. The individual contributes to medical work with a wider group of patients, while focussing his attention upon and developing his detailed knowledge of a smaller group. He could, if he wished, probably develop successively more than one special interest in the course of his professional life. Retraining and redeployment are likely to be less of a problem. There is less fragmentation of the profession, boundaries between disciplines are less clearly (and perhaps less arbitrarily) defined, and communication and the spread of knowledge may be facilitated.

THE DIFFUSION OF SPECIALIST KNOWLEDGE

Growth in specialisation has not been accompanied by an adequate diffusion throughout the profession of knowledge about recent specialist advances in diagnosis and treatment. It is of course the task of the profession itself, in its educational activities, to strive persistently to overcome this deficiency. Standards of medical care could be raised markedly if what is already known from research were to be fully applied, and if all services were to be brought up to the level of knowledge and efficiency of the best. The health departments have also clear responsibilities in this matter. A less marked division, structurally and administratively, between the hospital and family doctor services would improve communication of knowledge between the two main branches of the profession. It is thought that the health departments have been notably slow in promoting the development of clinical pharmacology as a specialty which could have wide effects in raising standards of clinical care; and that the guidance which the departments give about drugs and their uses through the Prescribers' Journal, while valuable, is in quantity and impact far below what is required. It is dwarfed by the output of the drug companies, which is very far from being impartial and is aimed at the sale of branded products.

SPECIALISATION AND THE UNIVERSITY MEDICAL SCHOOLS

Research and the development of medical specialties are concentrated in the areas of the university medical schools and their attached hospitals, and get their main impetus there. Specialisation, research and medical education (particularly postgraduate medical education) are very closely interconnected. Specialties developed in such a setting may be highly sophisticated, 'hyper-specialties', and draw their patients from a wide national or international population. Plans for the national re-allocation of resources (RAWP, SIFT etc.) have been vigorously criticised on the grounds that they do not take sufficient account of such complex situations, and fears are expressed for the future of 'centres of excellence' and of the London medical schools.

We may note here that if an area of medical practice is backward, the health departments might be better advised to fund chairs or senior lectureships to promote clinical and operational research and development in selected university departments, than to create nationally a new specialty. Such more limited action might have prepared the way better for progress in geriatrics and rehabilitation; and it might profitably be used now to encourage development in such lack-lustre subjects as dermatology and orto-rhinolaryngology.

SPECIALISATION AND UNDERGRADUATE EDUCATION

Increasing specialisation has been one of the main factors operating against the development of a well-balanced undergraduate medical curriculum. The undergraduate curriculum has been chronically overloaded with specialist information (too often a dense, dreary drizzle of facts). In the teaching of the basic sciences there has been much that is inappropriate to the level of understanding which should be aimed for, while in the clinical years there has been much which belongs more properly to vocational and specialist postgraduate training. Constant progress in the established sciences makes it also particularly difficult to introduce new sciences, since the latter can only be developed at the cost of time (and in the longer run, of resources) allocated to the former. This has in recent years inhibited the development of teaching and research in the behavioural sciences in the medical schools; and so to an increasing mis-match between the education of the medical student and the medical needs of the community which he will serve after graduation.

SPECIALISATION AND POSTGRADUATE EDUCATION

Increasing specialisation has also produced effects in postgraduate medical education which have led to undesirable biases. It was hoped that the development of postgraduate education and vocational training would reduce considerably the load of the undergraduate curriculum. It has not done so to any significant extent; but it has, as one would expect, developed its own impetus. Postgraduate medical education in this country in recent years has become more adequate and effective, and at the same

time much more complex and rigid. Standards have been raised, and standards and expectations go on rising. The Royal Commission on Medical Education's (1968)[6] concept of 'general professional training', with its emphasis on the common ground between specialties, has not prospered. Specialists have encouraged specialisation in trainees soon after their full registration. Switch-over from one path of specialist education to another, for those uncertain about their career choice or wishing to change it, has not been facilitated. Requirements for particular items of vocational experience, applied to everyone training in a specialty, have tended to squeeze out the need for research and for training in research; and have introduced what is seen by many as a novel and highly undesirable element of rigidity. General practice will also be subject to a three year vocational training programme for all, and while in itself certainly an admirable advance this will tend to increase further the general rigidity.

The concept of continuing education for all doctors, throughout their professional careers, has been widely accepted by the medical profession and by the NHS as employer; and it is to a considerable extent being implemented, both for hospital staffs and for those in general practice. But the existence of this continuing education and its probable development has had no impact at all either on the intensity or on the duration of specialist training. It is a situation which is educationally illogical and which should be reviewed.

Such a review and re-appraisal of postgraduate medical education is all the more necessary since there are widespread complaints that it is becoming an intolerable burden on the teachers.

The UGC does not fund the universities for postgraduate medical education (though individual universities can fund education which is tied to the requirements of a specific university postgraduate diploma); while the NHS though it has done much to facilitate and support postgraduate education and the activities of the Royal Colleges and Faculties, is not thought to have done enough in making provision for enhanced staffing levels in teaching departments or in the content of the contracts of consultant staffs.

SPECIALISATION IN STAFF CATERGORIES OTHER THAN DOCTORS

I wish, very briefly only, to indicate points of view and not to develop them here.

There appears to be considerable scope for further specialisation in the developing (extended) role of the clinical nurse. This was envisaged in the *Report of the Committee on Nursing* (Briggs Report)[7] and in its recommendation for nursing education. Such specialisation, if it is to prosper, will have to be closely linked to developments in medical science and technology. It cannot be carried very far in the current context of emphasis upon nursing 'care' which is bound to be relatively undifferentiated and to be more of an art and a group of skills than a science.

The professions supplementary to medicine are over-specialised and the present degree of their specialisation has been influenced more by the ambitions of small professional groups than by the proven needs of patient care. There has been very little research into the procedures used by these professional groups: the efficacy of their techniques is almost wholly uncertain.

It is the laboratory disciplines which are most immediately influenced by advances in science and technology. The degree of their specialisation in the NHS does not appear to be excessive. There may in fact be some doubt as to whether they are specialised enough and sufficiently influenced by advances in the basic sciences relevant to their applied fields. The present degree of their specialisation gives rise to difficulties in the staffing of peripheral laboratories.

SUMMARY AND SOME RECOMMENDATIONS

Persistent and probably increasing specialisation in medical practice is inevitable.

There should be more critical discussion, in administrative circles and in professional bodies, of some of the issues of specialisation. Much more operational research is required.

There should be more specialisation in general practice.

There is no one or easy solution to the problems of shortage specialties. Financial incentives could be used as a short-term expedient to improve recruitment.

National specialties which are created by administrative initative to deal with areas of relative neglect may not prove to be viable.

New specialties may apparently be recognised formally by the health departments before their usefulness has been demonstrated by research and without sufficient study being made of their demands upon resources. There is no source of relatively independent broad professional advice to which the NHS can turn.

It may be advisable often to give preference to the recruitment of generalists with special training than of exclusive specialists.

The key role in specialisation of the university medical schools is briefly noted.

The advance of specialisation presents great and continuing problems in both undergraduate and postgraduate medical education. The curriculum of medical education changes too slowly in response, and is less flexible than it should be.

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PROFESSOR IVOR BATCHELOR

Professor Batchelor is currently Professor of Psychiatry, University of Dundee; member of the Chief Scientists's Committee, Scotland and of the Independent Scientific Committee on Smoking and Health. He was previously member of the Medical Research Council, and of various committees of enquiry into aspects of health services. He was a member of the Royal Commission on the NHS, 1976 – 1979.

ALAN WILLIAMS

Alan Williams is currently Professor of Economics at the University of York where he is mainly working on the appraisal of public expenditure in various fields. His interest in health care has been reflected in his membership of the DHSS Chief Scientist's Research Committee, the Royal Commission on the NHS and the SSRC Panel on Health and Health Services. He has published several papers in recent years on the application of economic analysis to medical care systems.

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