

The peculiarities of health manpower in the United States have recently been explored by Fuchs and his colleagues.¹ They showed that health manpower had quite a different pattern of earnings from that found elsewhere in the economy. The spread of earnings was very wide: health was notable for its heights of high pay and for its depths of low pay. Health services seemed to lack the middle range of supervisory and technician jobs. The implication that a better service to patients could be provided if this range existed, was not developed, but was there.

The American system gives little opportunity to change the overall balance of manpower in health services. But such change is much more possible in the British context. Obviously changes have to be made over rather long periods of time, in view of the length of training periods. The purpose of this paper is to define some of these longer-term choices as they now face the NHS. Three are suggested:

- How should the NHS take decisions on types and quantities training?
- Should the NHS make a more conscious effort to break down professional barriers and to plan for teams rather than for professions?
- What is the right place for NHS staff in the national rankings of pay?

The traditional theory of labour economics does not give much help with these long-term choices. Much of the theory of labour demand is based on the behaviour of competitive firms. The product market, the labour market and the state of technology give the firm clear signals about the amounts and types of labour to be hired. Perhaps the most important factor is the state of demand for the product. But the relative prices of labour and capital and of various types of labour and the state of technology also affect the firms decisions. The firm also has to make choices about training. How much training will it give its workers? Will it buy in experienced workers or do its own training? The firm is guided in these decisions by the state of product and labour markets.

Such forces do not act strongly on the NHS demand for labour. Output is rarely measurable and not clearly defined. Capital and labour are not priced to the individual hospital or community service. There is little evidence, although a great many different impressions about the state of technology. Nor does the NHS get strong guidance from external pressures about the type and quantity of training to be undertaken. Much of its training is specific: thus the choice between hiring in and training does not arise.

Certain special features of the NHS add further confusion. In practice the power and responsibilities of the employer in the NHS are divided. Some of them - the longer-term policy for supply - are exercised by the DHSS which also rations certain kinds of staff. Others are exercised by the individual hospital or health centre. At any level the "employer" has only a limited amount of control over training standards and methods. These are mainly set by outside bodies - for example the G.N.C. for the nursing professions. At best this leads to a confusion of counsels. Most important of all are the effects of having numbers of professions. Some of the possible effects are as follows:

- The emphasis is on the separate training of each professional group rather than on teamwork. Each group works in a separate compartment. Difficulties are usually attributed to a shortage of the group in question. The possibility that there might be a wrong balance in the team is rarely explored.
- There is some tendency to increase the recruitments standard and the content of training often in isolation from clear evidence on the work to be done.
- The professional structure of training tends to give a great deal of weight to a long initial period of training rather than to on-the-job training.
- There has been some tendency for sub-professions to "hive off". Thus physiotherapists, radiographers and operating department assistants have hived off from nursing. This produces numbers of tiny professions which are not really large enough to support a training system on a national basis.

With all these forces at work, the pressures to relate staffing with any precision to the work to be done are rather weak. The aim of a national manpower policy becomes that of making sure that the public interest and the patients interest get attention.

A Training Expenditures in the NHS

The NHS is characterized at the moment by a high rate of growth of staff numbers in hospitals and by a low level of spending on training. The evidence on manpower is set out in Table 1. Numbers of hospital medical staff have virtually doubled - while the numbers of GP's have remained roughly the same. There has been a similar rise in numbers of hospital nursing staff. This partly reflects the reduction in hours of work: but in the case of nursing staff there has been a substantial increase in available hours. There has been a rather rapid increase in other kinds of staff not least those of staff in Regional Hospital Boards. Generally the picture is of a doubling of the hospital labour force while numbers in the family doctor service and in dentistry have not changed.

We have no satisfactory measure of workload at present. Numbers of beds have fallen but patient turnover has risen. Clearly medicine is much more complex than it used to be. But the usual assumption that all changes over the past twenty years have increased the work is certainly not true. Changes have certainly influenced the content of work: whether they have increased the total workload is less certain.

This can be illustrated in the case of nursing, on general wards.² During the past fifteen years a great deal of drudgery has been eliminated. Nurses in the past might have to spend up to two hours a day sterilizing equipment in the wards. Now disposable equipment - and more recently CSSD - have changed this. Some treatment methods have become less time consuming. For example penicillin is now more often given orally than intra-muscularly. In surgical wards skin-preparation is no longer done regularly. Nurses now have to do less work with laundry and catering. Over this period the amount

of work requiring discretion has increased. More patients are being treated and they are staying shorter times. Treatments and investigations are becoming more complex. More is being done for patients who would formerly have died - an obvious example is that of cardiac arrest. Both in medical and in surgical wards patients are being got up faster. This reduces the amount of basic nursing but increases responsibility. Interpreting the aches, pains and anxieties of a patient who is being sat out of bed 24 hours after a major operation needs a different degree of knowledge from giving basic care to a bedfast patient. The main direction of change has been to reduce drudgery and to increase the discretionary element in the nurses job.⁴

There has been the same direction for change outside general nursing in the care of the mentally ill, the mentally handicapped and the elderly. Nurses are expected to involve themselves actively in rehabilitation.

Information on spending for training in the NHS is very hard to get. This^{is} partly because of accounting difficulties, with those expenditures which are directly for training. But it is also because some training is given on the job. For example ward sisters give some training to student and pupil nurses. It is however possible for a reasonable estimate to be made for nurse training. The estimate suggests that we were spending £9.3 m in 1971-2 for the training of nurses in England and Wales and the cost per student nurse completion was £134. These and comparative figures for other forms of training are set out in Table 2.³

No information is available for spending on the training of remedial and technical staff. But impressions would suggest that it was rather low. Two points stand out about nurse training. The first is that spending per head is much lower than spending on higher education. Secondly that it is much lower than spending on medical education. Generally within the NHS, we are getting two standards in training. The highly trained doctor is working with a team which has^{had} rather a slight chance to improve their skills.

In some types of nursing - particularly geriatric nursing - there is hardly any direct expenditure on training at all. But does this mean that nurse training is necessarily disadvantaged? It could be argued that nurse training is rather effective. Certainly nurse training has some strong contrasts to university education. Know-how is acquired through actually doing the job. This is probably a better way of learning nursing than the "chalk and talk" method found for less vocational subjects in higher education. But the increase in the failure rate suggests that in spite of this possible advantage all is far from well.

Assuming a similar position to nursing in other parts of the service, the overall pattern is of a rapid growth in numbers and a very low level of spending on training. This raises the possibility that a problem of quality may have been misinterpreted as a problem of quantity. A more appropriately trained and skilfully deployed labour force might be a better proposition for the NHS, than the present situation in which it is so much easier to raise numbers than to raise standards in training. The aim of national policy over the coming years should be to raise the amount of training, while at the same time ensuring that growth in numbers is concentrated on the areas of real shortage. The emphasis should be towards on the job training. A much greater effort is needed to relate training to the work that actually has to be done. The need here is not for lip service to training, but for a substantial effort in terms of expenditure and staff.

B Professional Barriers in the NHS

Evidence suggests that gains in productivity in hospitals have been rather small over the past two decades.⁴ Inputs in real terms have risen about as fast as outputs. Generally a lower rate of productivity growth would be expected in service activities such as schools and hospitals. But there is no inherent reason why it should be as low as it has been.

The main aim of policy over the next few years is to increase resources in the community services. Unless the overall rate of growth of resources rises substantially - which seems unlikely - this increase implies that real spending must rise very slowly in the hospital services. Any gains in productivity in the hospitals would be timely.

At present each professional group concerned with a ward is working rather in isolation from others. The decisions made by doctors have effects on nursing staff, on laboratory and X-ray staff and on remedial staff. But these are not explored. Nor is their much concern with the rate at which patients are admitted and treated - unless there is a pressure of emergencies. Recent experiments have shown what can be done to increase the rate of treatment of hernias.⁴ But many more experiments are needed in ordinary general hospitals. The aim must be to enlist the interest of consultants and staff in a few hospitals in carrying out some experiments in raising productivity. Out of such work should come more evidence on the right balance for the team.

C The place of the NHS in the national pay Rankings

For many years there have been sporadic protests about the pay of particular groups of staff in the NHS. These have had little effect in the absence of precise definitions of shortage and of precise suggestions for remedies. For a number of reasons the NHS has been able to attract recruits with a standard of pay and conditions which is far from high.

The search for non-monetary satisfactions - for a "worthwhile" job - is probably a more important feature of the labour market in Britain than in Europe or the United States. Nursing and other NHS occupations also benefit from recruiting in the women's labour market in which choice is still fairly narrow. Most women workers work in a limited range of manual, secretarial and clerical jobs. In particular nursing has been able to recruit strongly because there is not the range of jobs at an intermediate level open to girls which are open to boys. Non-monetary methods of adjustment^{ment} have also contributed

to muffle the effect of staffing difficulties. The most common response to shortage have been the lowering of recruitment standards, increases in the scope of search for recruits and changes in terms of employment. Thus in the case of nursing academic standards for entry in the psychiatric field have generally been much lower than in the general field. Another reaction there and elsewhere has been increased search by employers sometimes to the corners of the Third World. Thus by 1969 in one Metropolitan Board Region the proportion of students and pupils born overseas, had risen to 72.3 per cent and it was above 40 per cent in all four Metropolitan Board Regions. In geriatrics, chronic and long stay hospitals shortages have been dealt with through raising the proportion of part-timers.

All this has meant that the national authorities have been able to follow a fairly passive policy on pay and conditions in the service. But if full employment is maintained over the next few years, the service may face much greater difficulties in recruiting and retaining staff than it has done in the past. The measures of adjustment already taken have had some adverse effects on the quality of recruitment. The logic of the suggestions already made for expanding training rather than numbers and for attempting experiments in improving productivity is that the NHS should also aim to improve quality and retention by lifting the pay and conditions of nursing, remedial and technical staff relative to the rest of the community.

Conclusions

This paper argues that the expansion in numbers that has taken place in hospital service manpower is disquieting. It may be partly due to the increase in workload. But it is also the result of mistaken diagnosis. Problems of quality have been misconstrued as ones of quantity. In the long term the NHS should aim to provide a better trained, more highly paid labour force and to limit the growth in numbers. It has always acted as if labour was not scarce. But full employment means that employers are short of labour. The NHS should also act more consciously to reduce the effects of professions

on policy. The national authorities have until now been over-concerned with day to day manpower policies or have been on the defensive. We have never had - except for the medical profession - a longer term manpower policy. This paper is a preliminary attempt to define some parts of such a policy.

Finally we need much more concern with the workings of internal labour market in the NHS. This can again be illustrated from nursing. There has been much discussion about recruitment difficulties in the external labour market. But it is still not fully recognised that the rapid turnover of nurses between jobs in the NHS is probably a more serious problem than external recruitment. It means that few nurses are on any one type of work for long enough to do an effective job.⁶ Planned career progression and more emphasis on internal promotion could help to transform the nomadic character of the present nursing force.

- 1 V.R. Fuchs, E. Rand & B. Garrett.
The Distribution of Earnings in Health and other Industries in.
V.R. Fuchs ed.
Essays in the Economics of Health and Medical Care.
N.B.E.R. New York 1972.
- 2 The discussion here is based on a case study of nurses at
work in the wards of a general hospital.
N. Bosanquet and R. Clifton.
Nursing Times May 24th and May 31st, 1973.
- 3 N. Bosanquet and R. Clifton
Fresh Start in Pay
Nursing Times May 17th 1973.
- 4 See for example A. Barr.
Value for Money in Hospitals
The Lancet February 17th, 1968.
- 5 A.D.B. Chart et al.
Another approach to the Waiting List
The Lancet 11th November, 1972.
- 6 The subject is explored in N. Bosanquet and R. Clifton
Nursing Times loc cit. May 24th and May 31st, 1973.

TABLE 1

M A N P O W E R S U M M A R Y (England & Wales)
(Selected Groups) (W.T.E's)

<u>HOSPITAL SERVICE</u>	1949	1971
Hospital Medical Staff	11,735	23,806
Hospital Nursing Staff	137,636(No)	288,065(No)
Hospital Midwifery Staff	9,043(No)	16,862(No)
Hospital Professional & Technical Staff	13,940	36,817
Hospital Admin. & Clerical Staff	23,797	47,690
Regional Hospital Boards Headquarters Staff	1,320(No)	7,243
 <u>EXECUTIVE COUNCIL SERVICES</u>		
General Medical Practitioners	22,091(No)(1959)	21,910 (No)
General Dental Practitioners	9,495(No)	10,962 (No)

(Source: Digest of Health Statistics 1972, Table 3.2)

TABLE 2 Comparative training costs: nursing and other forms of training

	Total Expenditure £m	Number of Trainees	Cost per Trainee £	Cost per Completion £
NURSE TRAINING (England & Wales) (1971-2)	9.3	69,794 (1971)	134	360 (student) 256 (pupil)
NURSE TRAINING (Scotland) (1971)	1.1	9,427 (1971)	121	329 (student) 228 (pupil)
TEACHER TRAINING (England & Wales) (1970-1)	82.0	106,326 (1970)	772	2,027
MEDICAL EDUCATION	-	-	-	5,079-8,770 (1965-6)
UNIVERSITY EDUCATION (UGC Expenditures) (1968-9)	237.8	239,210 (1968-9)	994	2,979
ENGINEERING INDUSTRY (Training Board)	-	-	83 (1970-1)	-
GAS INDUSTRY Training Board	-	-	77 (1968-9)	-

For explanations and sources see N. Bosanquet and R. Clifton
Nursing Times May 10th, 1973