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Nursing Manpower: Recent Trends and Policy Options

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DISCUSSION PAPER 9

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August 1985

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Acknowledgements

They would like to acknowledge the financial support of the Economic and Social Research Council.

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ABSTRACT

The total number of nursing and midwifery staff rose by 17 per cent from 1976 to 1982. The aim of this paper is to provide a detailed analysis of what this substantial investment actually meant in terms of grades, types of hospital and region. Total numbers in the general hospitals rose by 24 per cent compared to 97 per cent in the geriatric hospitals, 12 per cent in mental illness hospitals and 28 per cent in mental handicap hospitals. There were very significant changes in the balance of grades. Within the general hospitals total hours available from registered nurses rose by 11.4 per cent. This averaged out from a fall of 2.8 per cent in Sisters hours and a rise of 34.6 per cent in Staff Nurse hours. Hours from Enrolled nurses rose significantly and those from student and pupil nurses fell whilst hours from nursing auxiliaries rose by 70.6 per cent. The balance of decision implies that registered nurses were becoming, on average, less experienced. The paper also examines changes in RAWP-losing and RAWP-gaining regions. RAWP-losing regions in general economized on untrained staff in order to recruit more qualified staff.

In general the extra nurses went as much into long-stay care and into the community as into general hospitals and the more technological areas. Local managers' decisions seemed to reflect a different approach from that adopted by some of the leaders of the profession. Local managers have continued to recruit enrolled nurses and nursing auxiliaries, even in the general hospitals.

This paper concludes with a discussion of policy options at a time when nursing faces an unprecedented reality of nil growth in manpower. In broad terms there are only 2 million hours a week of registered nurse time available for the whole of general nursing. The manpower context is one in

which there will be little increase in nursing time: the probability of particular shortages in general nursing; a need for more flexibility than in the past as most of the investment in priority care is now in the wrong place, and one in which there are strong disincentives to training.

The authors suggest that there should be more attention to methods of increasing the skill level of the existing work-force through in-service training: there could be more personal career and retraining plans in areas such as psychiatric care which are subject to rapid change. There should also be a new approach to rationing out available resources at the local level. Districts need to examine how the existing resource is being used and weigh up competing claims in terms of their effect on services. The authors estimate that shortages of particular types of nursing manpower are likely to be an increasingly serious constraint on changes in patterns of care.

1. Introduction

The manpower planning process in the NHS has an important role to play in ensuring that the right number and types of health care manpower are available when and where they are needed (1976, US D.H.E.W.). Furthermore, this method of planning should take into consideration the substitution possibilities of manpower to ensure that an efficient combination of inputs are used in the production of health care.

Since 1983 the manpower planning process in the NHS has been affected by the implementation of manpower targets (DHSS, HC(84)2). How has this, along with other Government objectives, affected the utilisation and productivity of the nursing stock? In particular, this paper is interested in noting any trends in nursing towards particular areas of health care (e.g. community nursing) and any evaluation (or lack of it) in assessing the rationale behind these movements.

The Annual Report 1984 (1984, DHSS) outlines the explicit objectives advocated by the Government for the NHS for the future. These objectives have consequences for the demands made upon all types of health care professionals, although we shall be concentrating on the implications for the nursing profession in particular.

The main aims for the NHS (most of which have been in existence since the early 70s) are outlined below:

1. To meet the greater demands for services which will be related to the growing number of elderly people.
2. To take full advantage of medical technology.
3. To combat social problems of alcohol and drug misuse.

4. To continue to improve community support for people who do not require continuing hospital care by strengthening primary care and community health and social services.

(1985, HMSO Treasury, Cmnd.9428. II)

These objectives have to be met under the restriction of an annual one per cent growth in expenditure over at least the next two financial years, according to the recent publication of the Government's expenditure plans for 1985/86 to 1987/88.

Nurse manpower is a large input into the health care process. In 1983-84 the pay bill for nurses and midwives was estimated by the DHSS to be just over £3.000 million - or half the NHS pay bill for staff other than doctors and dentists. This input is combined with other inputs (i.e. other health care professionals' skills and time, capital and equipment), to produce patient care in the form of in-patient treatment, out-patient treatment, GP consultations etc. In order to (seriously) confront questions of the nature "is the additional production of nurses that we have experienced up until 1982 worth the additional cost?" we need to know more about the relationship between nursing inputs, other inputs and their impact on patient health status.

The way in which nurse manpower is combined with these other inputs is determined by existing standards and practices, but little evaluation has been presented in the literature to establish these as 'best' practices.

The next section of this paper outlines the demand and supply side factors which determine the numbers, grade and distribution of nurses in the service. This is followed by section three which analyses the DHSS data for 1976 to 1982 looking at changes in the composition of the nursing

stock to elicit trends for future predictions. Section four draws together the earlier analysis and compares Government goals with outcomes and section 5 concludes with the obvious need for evaluation of nursing options.

2 Supply and Demand Factors in Nursing Manpower

The net outcomes in terms of the available nursing resource depend upon two factors: national policy which sets a budget constraint, and a manpower target for nursing and local decision-takers who affect the local situation. What resources do local decision-takers regard as important? How do they react to the pressures put down on them from the Centre? The broad manpower targets are affected by local demand for nursing services. They are also affected by supply at the national level. The money may be available but it may not be possible to recruit to certain grades and types of work. The local supply situation interacts with local demand pressures to bring about the outcome in terms of nursing resource.

Why forecast and plan nursing manpower? Forecasting is a mechanism by which existing supply and demand factors are extrapolated into the future. This implies no active intervention - planning on the other hand uses the forecasting technique to facilitate market adjustment in order to reduce the inequalities between supply and demand at a general level or at a specific level. Time lags inherent in changing the nursing stock per se or its composition are long and therefore planning helps to reduce these time lags.

In estimating the demand for nursing services both nationally and locally the doctor/patient ratio should be considered (this implies some knowledge of the number and type of nurse required per doctor/patient

ratio) as should shortages of nursing services in particular areas, e.g. the Geriatric Service, geographical inequalities -should nursing ratios be brought up to the highest region's ratios, the lowest or the average? Demographic needs are a further important consideration in estimating demand.

On the supply side the important elements include the level of remuneration, the working conditions, (e.g. hours per week, full-time or part-time), the qualifications needed for recruitment, the length of the training programme, drop out rates, failure rates, changes in participation rates due to demographic and social change, the local labour market conditions and national policy on recruitment

All these factors interact in a complex way to determine the staffing levels in hospital wards, clinics and in other patient services.

3 Changes in Nurse Staffing Between 1976 and 1982

In the year after the setting of manpower targets, total numbers of nursing staff have fallen slightly by 0.8 per cent while growth has continued in some other groups of staff such as medical staff who are likely to increase demand for nursing services [Table 1]. There is evidence that in the past, nursing staff spending has been much more sensitive to changes in the aggregate growth rate of spending than to spending on other services, and as this pattern seems to have continued demands for it, nursing time has become a scarcer resource (1981 Bosanquet). The competition for this resource will be affected by the decisions made in 1976-82.

TABLE 1

PERCENTAGE CHANGES IN STAFF NUMBERS :
ENGLAND AND WALES, HOSPITAL STAFF

	1976-82	1983-84
Medical and Dental	18.1	2.9
Nursing/Midwifery	12.3	-0.8
Professional/Technical	23.7	+1.3
Maintenance/ Domestic	-0.2	+0.2
Admin/Clerical	10.4	+0.3

[Source: Annual Abstract of Statistics 1985]

3.1 The Allocation of Nursing Resources 1976-82

The total number of nursing and midwifery staff rose by 17 per cent between 1976 and 1982 [Table 2] and adjusting for the change in hours, this represented growth of 9 per cent in the total hours available per week. This growth in the nursing stock can be related to a corresponding growth in the population during the same period. The overall growth in population amounted to 0.9%, however there was a dramatic increase in the size of the very elderly population (i.e. those aged 75 and over). This has a knock-on effect of increasing demand for a wide range of health care resources for the elderly, of which nursing care is one. An example can clearly be seen in extracting 1981 OPCS data. The acute hospital treatment rate for the 0-64 age group was 26.2 per thousand population; for the 65-74 age group it was 49.5 per thousand population; and for the 75 plus age group it was 112.5 per thousand population. Thus it follows that a larger proportion of acute hospital resources (including nurse manpower) will be devoted to the care of the 75 plus age group.

Data given by the Health and Personal Social Services show how workload in four main hospital types has grown during 1976-1982 despite substantial reductions in bed numbers:

	<u>%Change Beds</u>	<u>%Change Deaths and Discharges</u>	<u>%Change Day Cases</u>	<u>%Change Out-Patient Attendance</u>
Acute hospitals	-23%	+7.6%	+50%	+14.8%
Geriatric hospitals	-20%	+3.5%	+100%	+32%
Mental Illness hospitals	-32%	+2.8%	-40%	+ 8.3%
Mental Handicap hospitals	-27%	+7.6%	-	-

TABLE 2

TABLE TO SHOW THE CHANGES BETWEEN 1976 AND 1982 IN THE AGE STRUCTURE OF THE POPULATION, THE LEVELS OF NURSE TO CATCHMENT POPULATION AND OCCUPIED BEDS

YEAR	POPULATION (THOUSANDS) ENGLAND	TOTAL NURSING AND MIDWIFERY STAFF ENGLAND (WTE)	HOSPITAL NURSING STAFF (WTE) ENGLAND	PRIMARY HEALTH CARE NURSES (WTE) ENGLAND	ACUTE HOSPITALS ENGLAND	GERIATRIC LONGSTAY HOSPITALS ENGLAND	MENTAL ILLNESS HOSPITALS ENGLAND	MENTAL HANDICAP HOSPITALS ENGLAND
1976	0-64 years	NUMBERS 335,200	NUMBERS 288,000	NUMBERS 26,400	NURSES/BED 0.95	NURSES/BED 0.25	NURSES/BED 0.38	NURSES/BED 0.38
	65-74 years	ACTUAL HRS PER WEEK EXC. OVERTIME AND AGENCY STAFF 13408000	HOSP. NURSES/ 1000 POP'N 6.2	P. H. C. NURSES/ 1000 POP'N 0.6	QUALIFIED NURSES/BED 0.48	QUALIFIED NURSES/BED 0.11	QUALIFIED NURSES/BED 0.21	QUALIFIED NURSES/BED 0.17
	75+ years				UNQUALIFIED NURSES/BED 0.18	UNQUALIFIED NURSES/BED 0.11	UNQUALIFIED NURSES/BED 0.09	UNQUALIFIED NURSES/BED 0.15
	2,400							
	TOTAL 46,373							
1982	0-64 years	NUMBERS 391,800	NUMBERS 335,000	NUMBERS 33,000	NURSES/BED 1.54	NURSES/BED 0.60	NURSES/BED 0.63	NURSES/BED 0.67
	65-74 years	ACTUAL HRS PER WEEK EXC. OVERTIME AND AGENCY STAFF 14692500	HOSP. NURSES/ 1000 POP'N 7.2	P. H. C. NURSES/ 1000 POP'N 0.7	QUALIFIED NURSES/BED 0.81	QUALIFIED NURSES/BED 0.31	QUALIFIED NURSES/BED 0.34	QUALIFIED NURSES/BED 0.28
	4,276				UNQUALIFIED NURSES/BED 0.42	UNQUALIFIED NURSES/BED 0.27	UNQUALIFIED NURSES/BED 0.19	UNQUALIFIED NURSES/BED 0.31
	75+ years							
	2,832 TOTAL 46,795							
% Change between 1976 and 1982	0-64 years	NUMBERS 16.9%	NUMBERS 16.3%	NUMBERS 25.0%	NURSES/BED 62%	NURSES/BED 140%	NURSES/BED 66%	NURSES/BED 76%
	65-74 years	ACTUAL HRS PER WEEK EXC. OVERTIME AND AGENCY STAFF 9.1%	HOSP. NURSES/ 1000 POP'N 16.1%	P. H. C. NURSES/ 1000 POP'N 16.6%	QUALIFIED NURSES/BED 69%	QUALIFIED NURSES/BED 181%	QUALIFIED NURSES/BED 62%	QUALIFIED NURSES/BED 65%
	0.7%				UNQUALIFIED NURSES/BED 133%	UNQUALIFIED NURSES/BED 145%	UNQUALIFIED NURSES/BED 111%	UNQUALIFIED NURSES/BED 106%
	75 years +							
	18% TOTAL 0.9%							

TABLE 3

NURSING AND MIDWIFERY STAFF IN POST STAFF ANALYSIS BY BROAD OCCUPATIONAL GROUP
IN ENGLAND (W.T.E.)

Year	Total Nurses (1)	Hospital Nurses (2)	Nursing Cadets (3)	Community Nurses (4)	School Nurses (5)	Primary Health Nurses (4) + (5) = (6)	Hospital Midwives (7)	Community Midwives (8)
<u>1971</u>	282,000	233,000	7,000	20,000	4,000	24,000	13,000	5,000
% TOTAL	100%	82.6%	2.5%	7.1%	1.4%	8.5%	4.6%	1.8%
<u>1976</u>	342,000	288,000	3,000	26,000	3,500	29,000	16,000	3,000
% TOTAL	100%	84.2%	0.9%	7.7%	1.0%	8.7%	4.7%	0.9%
REGISTERED	109,000	86,000		20,000	3,000	23,000		
QUALIFIED	159,200	133,000		23,000	3,200	26,200		
<u>1982</u>	397,000	335,000	-	33,000	3,100	36,100	17,000	3,500
% TOTAL	100%	84.3%	-	8.3%	0.8%	9.1%	4.2%	0.9%
REGISTERED	127,600	101,000		24,000	2,600	26,600		
QUALIFIED	196,800	167,000		27,000	2,800	29,800		
<u>1983</u>	397,000	332,300	-	33,300	3,100	36,400	18,100	3,700
% TOTAL	100%	83.7%	-	8.3%	0.8%	9.1%	4.5%	0.9%
REGISTERED	133,400	106,600		24,200	2,600	26,800		
QUALIFIED	201,300	170,800		27,700	2,800	30,500		

[Source: DfSS Statistics and Research Division and Computer Compilations for 1982, 1983] NB. these figures do not correspond with those in table 2 because midwifery is included in this table, and agency staff are excluded.

Along side this substantial growth in activity is the growth in hospital nurses, 6.2 per thousand in 1976 and 7.2 per thousand in 1982.

Primary health care nurses have also increased their ratio of numbers per thousand population from 0.6 to 0.7.

The balance between hospital and community nurses did not change very much in terms of total numbers over the period, but the position is rather different for registered nurses. By 1982 one in five of registered nurses were employed in the community whereas in 1979 one in six had been employed [Table 3].

84 per cent of nurses were still working in hospitals in 1982. How had the balance between types of hospital and grades changed over the previous six years, for hospital nurses?

In terms of numbers there was much growth in all types of hospital. Total numbers in the general hospitals rose by 24 per cent compared to 97 per cent in the geriatric hospitals, 12 per cent in mental illness hospitals and 28 per cent in mental handicap hospitals [Table 4].

It is possible to look in more detail at where the nursing manpower budget of additional nurses went.

In 1976, 47 per cent of sisters and staff nurses worked outside the general hospitals: in 1982 there were 52 per cent. This continues a change which has been taking place over a long period. In the late 1960's 80 per cent of registered nurses were working in acute hospitals. The image of the nurse is still that of the hospital nurse - working in the

TABLE 4

HOSPITAL NURSING STAFF (W.T.E.) ENGLAND - ACTUAL % CHANGE (1976-1982) IN THE NURSING STOCK

	Acute Services		Geriatrics		Mental Illness		Mental Handicap	
	No(1976)	No(1982) % Δ	No(1976)	No(1982) % Δ	No(1976)	No(1982) % Δ	No(1976)	No(1982) % Δ
Registered Nurses	48,967	58,173 18.8	4,034	8,269 104	13,304	14,975 12.6	5,585	6,877 23.1
Nursing sisters	20,804	21,569 3.7	2,589		8,710	7,084 -18.7	4,165	3,726 -10.5
Staff Nurses	23,576	33,850 43.6	1,445		4,594	6,118 33.2	1,420	1,818 28.0
Enrolled Nurses	23,343	35,482 52.0	3,692	8,140 120	8,525	9,401 10.2	4,111	4,867 18.4
Student Nurses	30,857	25,373 -17.8	364	232 -36.2	5,970	4,818 -19.3	2,257	2,146 -4.9
Pupil Nurses	12,472	8,772 -29.7	589	423 -28.1	2,207	1,875 -15.0	1,204	1,234 2.5
Unqualified Nurses	26,780	48,739 81.9	7,321	14,455 97	9,643	13,363 38.5	8,668	12,874 48.5
TOTAL ALL GRADES	142,419	176,539 23.9	16,000	32,248 96.9	39,648	44,404 12.0	21,845	27,998 28.3
Number of Average Occupied Beds	150,000	115,000 -23.3	65,000	52,000 -20.0	105,000	71,000 -32.3	58,000	42,000 -27.5

intensive care of acutely ill patients - but many nurses now work in different roles.

3.2 Changes in the Mix of Staff.

What were the outcomes in terms of the demand for different grades of nursing staff? There were some very important changes here and it is worth looking at them in some detail [Tables 4 and 5].

In the acute services the numbers of registered nurses rose by a fifth although in fact staff nurse hours rose by a third, whilst the total number of hours available from sisters fell by 2.8 per cent. The numbers and hours of enrolled nurses rose while those of student and pupil nurses fell sharply. Student nurse hours fell by 23 per cent and pupil nurse hours by 34 per cent. There was a rise of 82 per cent in the numbers of auxiliaries and of 71 per cent in their hours.

This increase in the number of auxiliaries took place at a time when the profession was being encouraged to increase the number of trained, rather than unqualified, nurses. The pay recommendations of the Halsbury Committee in 1974 were designed to encourage recruitment of qualified nurses and the policy of the Royal College of Nursing was also to do this (1974, HMSO). Nurse managers at the local level either could not or would not follow the advice of their professional leaders. The balance of decision also implies that registered nurses were on average less experienced with the main growth coming in the staff nurse grade. The enrolled nurse grade is often spoken about as if it had no future and was about to be phased out: but over this period it showed rapid growth and the greater stability and length of service of staff in the grade will ensure its importance for a long time to come. The phasing out related to the numbers of pupils entering training and will take a long time to have

TABLE 5

HOSPITAL NURSING HOURS (W.T.E.) ENGLAND - ACTUAL % CHANGE (1976-1982) IN NURSING HOURS
AVAILABLE FOR THE AVERAGE WORKING WEEK

	Acute Services	Geriatrics	Mental Illness	Mental Handicap
Registered Nurses	11.4	92.0	5.5	15.4
Nursing Sisters	-2.8		-23.8	-16.1
Staff Nurses	34.6		24.8	20.0
Enrolled Nurses	42.5	106.0	3.4	10.9
Student Nurses	-22.9	-40.2	-24.3	-10.9
Pupil Nurses	-34.0	-32.6	-20.4	-3.9
Unqualified Nurses	70.6	85.1	29.9	39.2
Total All Grades	16.2	84.7	5.0	20.3

[Source: DHSS Computer Compilations 1982 Job No 0254 and DHSS Statistics and Research Division 1978.]

an impact beyond the immediate reduction in the number of newly qualified nurses available for recruitment.

In geriatric care there was a more general increase in the number of nurses and hours available covering both qualified and unqualified nurses. The reduction in trainee hours was more statistical than real as there were very few hours to start with. But the growth was, on balance, faster with qualified staff hours increasing by 92 per cent and 106 per cent respectively for registered and enrolled nurse hours.

In psychiatric care there was a significant change in the balance between grades with trained registered nurse time rising by 5.5 per cent while the hours available from unqualified staff rose by 30 per cent. Within the registered nurse band the number of sister hours fell dramatically by 24%. It is difficult to see how this change could be justified in terms of the quality of care, given the stress on more active treatment and rehabilitation for patients staying in hospital for shorter periods. Much of the increase in registered nurse time would have been accounted for by the rise in community psychiatric nursing. The numbers of trainees in this specialty also fell substantially.

In the mental handicap hospitals the total number of hours rose by a fifth. The hours available from registered nurses rose by 15 per cent and those from nursing assistants by 39 per cent. This represented a shift in emphasis towards the more trained grades: in the past much of the increase had been in unqualified staff.

The changes set out here were partly the result of decisions made in the past in terms of numbers of nurses entering training. Thus the large intakes into training in the early 1970's were an important influence. There may also have been some effect from local manpower shortages with less possibility of recruiting qualified staff in some areas than in

others. However even with these qualifications nursing managers had greater potential freedom during this period if they chose to exercise it. For the first time in the history of the NHS they were operating in a buyers market where the security of NHS jobs was sought after. The period 1974-80 was also a favourable period in terms of the relative pay of NHS staff with two major awards from the Halsbury Commission and the Clegg Committee. There might at first sight have seemed to be greater budgetary pressure with the growth rate of spending in real terms being reduced to 1.5-2 per cent compared with 3.5 per cent per annum from 1964-76. But the earlier growth rate had been highly variable and in the later period there was a shift of spending from hotel functions to direct patient care in the hospital service which meant that the budgetary position of nursing was rather easier than might have appeared from the change in the general rate of growth in spending (1982 Bosanquet). Thus the outcomes can be taken as reflecting the choices made by managers who had greater freedom than their predecessors in the NHS. In spite of the exhortations from the centre the numbers of nursing auxiliaries rose by 82 per cent so that they were 18 per cent of the nursing force in 1976 and 31 per cent in 1982.

3.3 Changes by Region

Between 1976 and 1982 there were some important differences in the growth of manpower numbers between Regions. The changes here were directly influenced both by national policy and by budgetary factors. The main difference is between the RAWP-losing Regions and others [Table 6]. Only North East Thames and Oxford continued to defy the pull of budgetary gravity by increasing their nursing staff at the same pace as the RAWP-gaining Regions.

What policies did the RAWP-losing Regions pursue? With two exceptions they would seem to have followed policies of increased spending

TABLE 6

REGIONAL HOSPITAL NURSE MANPOWER - ACTUAL PERCENTAGE CHANGE BETWEEN 1976 AND 1982
IN NURSING HOURS AVAILABLE PER WEEK

<u>Region</u>	<u>Registered Nurses</u>	<u>Sisters</u>	<u>Staff Nurses</u>	<u>Enrolled Nurses</u>	<u>Student Nurses</u>	<u>Pupil Nurses</u>	<u>Unqualified Nurses</u>	<u>Total All Grades</u>
* Northern	13.2	1.6	29.5	31.9	-3.1	4.4	22.1	13.2
* Yorkshire	16.2	5.0	39.0	24.1	2.0	-11.3	6.3	8.9
* Trent	20.1	7.1	41.8	34.2	-2.9	-6.2	14.7	13.4
* E. Anglia	7.3	9.9	9.4	43.8	2.0	-7.2	20.7	12.9
* Wessex	13.2	14.8	30.1	22.0	-3.6	-14.0	15.2	10.6
* S. Western	21.9	11.0	44.5	28.2	0.5	-0.5	10.5	13.8
* W. Midlands	11.6	4.7	22.0	32.9	6.0	-15.6	9.9	10.1
* N. Western	25.0	16.6	44.6	38.8	-6.3	-9.9	21.4	13.4
N.W. Thames	-8.9	-0.9	-1.2	19.8	-30.9	-19.7	12.0	-4.2
N.E. Thames	21.6	13.6	35.6	29.9	4.5	-21.9	8.8	11.8
S.E. Thames	9.7	-3.8	27.4	17.4	-12.6	-19.4	-0.8	1.2
S.W. Thames	-2.6	-9.0	8.6	4.2	-14.9	-34.5	13.4	-2.9
Oxford	19.7	10.2	36.4	41.4	-10.9	-25.4	16.0	10.4
Mersey	5.2	-0.9	25.4	20.6	-20.9	-20.2	13.4	1.7

* - RAWP gaining regions

[Source: DHSS].

on qualified nursing staff but of reduced spending on nurses in training, and of raising spending on auxiliaries rather more slowly than elsewhere. Thus they have given the priority to spending on qualified staff. The South West Thames Region and North West Thames Region does not seem to fit this pattern however, as in these Regions spending on registered nurse hours was reduced. The increase in manpower was fairly widely distributed between Regions with no one Region accounting for more than 5 per cent of the total increase in registered nurses [Table 7].

3.4 Changes as Between Whole-Time and Part-Time Workers

There were some significant changes here in the balance of supply between whole-time and part-time workers [Table 8]. The proportion of whole-time staff rose, reflecting the easier recruitment position. Thus during a period when other employers in the economy were moving towards making more use of part-time staff on efficiency grounds, the hospitals were using more full-time staff. On the face of it there are peaks and troughs in workload which could make it sensible to use more part-time staff but this depends on the relative cost and productivity of such staff. On the other hand contrary arguments in terms of the continuity of care provided by full-time staff could also be raised. In the absence of detailed evidence it is difficult to say which consideration should be weighted most.

3.5 The Distribution of Hospital Nurses Between Wards and Departments

How are nurses distributed between wards and departments? The usual view here is that the demand for qualified nurses is concentrated on the most technologically advanced areas of care, and especially in intensive

TABLE 7

REGIONAL HOSPITAL NURSE MANPOWER - ABSOLUTE CHANGE IN W.T.E. AVAILABILITY BETWEEN 1976 AND 1982
 (%)† = As a % total change in hospital nursing staff

Region	Registered Nurses		Nursing Sisters		Staff Nurses		Enrolled Nurses		Student Nurses		Pupil Nurses		Unqualified Nurses		Total All Grades	
	No	(%)†	No	(%)†	No	(%)†	No	(%)†	No	(%)†	No	(%)†	No	(%)†	No	(%)†
* Northern	1180	(2.7)	206		991		1457	(3.3)	114	(0.3)	150	(0.3)	1286	(2.9)	3840	(8.7)
* Yorkshire	1446	(3.3)	339		1137		1293	(2.9)	347	(0.8)	-94	(-0.2)	778	(1.8)	1531	(8.0)
* Trent	1850	(4.2)	441		1346		1878	(4.3)	146	(0.3)	1	(-)	1741	(3.9)	5122	(11.6)
* East Anglia	478	(1.0)	201		289		721	(1.6)	133	(0.3)	-8	(-)	836	(1.9)	2056	(4.6)
* Wessex	1016	(2.3)	169		877		701	(1.6)	69	(0.2)	-80	(-0.1)	1097	(2.5)	2783	(6.3)
* S. Western	1691	(3.8)	431		1342		1103	(2.5)	202	(0.5)	26	(-)	1032	(2.3)	3969	(9.0)
* W. Midlands	1568	(3.6)	476		947		2022	(4.6)	656	(1.5)	-255	(-0.6)	1472	(3.3)	5131	(11.7)
* N. Western	2289	(5.2)	853		1316		1811	(4.1)	-5	(-)	-85	(-0.1)	1954	(4.4)	5325	(12.1)
N.W. Thames	1308	(3.0)	173		233		958	(2.2)	-1555	(-3.5)	-236	(-0.5)	810	(1.8)	1193	(0.7)
N.E. Thames	2116	(4.8)	606		1471		1490	(3.4)	712	(1.6)	-351	(-0.8)	859	(1.9)	4742	(10.8)
S.E. Thames	1276	(2.9)	79		1227		945	(2.1)	-343	(-0.7)	-274	(-0.6)	333	(0.7)	1904	(4.3)
S.W. Thames	260	(0.6)	-87		457		368	(0.8)	-359	(-0.8)	-465	(-1.0)	926	(2.1)	715	(1.6)
Oxford	973	(2.2)	261		718		745	(1.7)	-113	(-0.3)	-199	(-0.4)	751	(1.7)	2049	(4.7)
Mersey	589	(1.3)	162		536		914	(2.1)	-510	(-1.2)	-207	(-0.4)	982	(2.2)	1502	(3.4)

* - RAWP Gaining Regions

[Source: DHSS Computer Compilation 1982 Regional Breakdown and DHSS Statistics and Research Division 1978.]

TABLE 8

HOSPITAL NURSING STAFF - ANALYSIS BY CONTRACT. NUMBER OF FEMALE
STAFF AND PERCENTAGE OF TOTAL HOSPITAL NURSING STAFF

	<u>Whole-time</u>	<u>Part-time</u>
<u>1976</u>		
<u>Total all Grades</u>	173,200 (57.4)	128,700 (42.6)
<u>Qualified nurses</u>	77,500 (56.4)	59,800 (43.6)
<u>Registered nurses</u>	50,600 (58.3)	36,200 (41.7)
 <u>1982</u>		
<u>Total all Grades</u>	207,300 (61.7)	128,400 (38.3)
<u>Qualified nurses</u>	100,900 (61.2)	63,900 (38.8)
<u>Registered nurses</u>	64,500 (64.4)	35,700 (35.6)

[Source: DHSS and HPSS]

care units. The available data are not very good -- but they do tend to show that nurses are scattered around between different units and types of work [Table 9]. In fact, nearly half of them have no strong attachment to any particular type of unit and are grouped under 'Combined Duties'. There would seem to be considerable flexibility in how the nursing workforce could be deployed -- it is not tied down to any one type of work. There seems to be rather little variation in the balance of staff between grades in the different specialties although intensive and coronary care units, emergency units and renal units use higher proportions of qualified staff. However, the ratio of unqualified to qualified staff on the maternity wards is very high.

3.6 Community and Hospital Care

The general impression is that over this period there has been a major shift away from hospital nursing towards the community. There were certainly increases in some grades of community nurses and especially in district nurses and health visitors - but these increases were off-set by falling numbers among school health nurses. The number of community midwives fell in the 1970's but has been rising again in the 1980's.

4 The Outcomes 1976-82

There has been speculation about where the extra nurses have gone, and this speculation usually raises the following possibilities:

(a) Into high technology nursing in Intensive Care Units, Recovery Rooms and operating theatres. These were not usually areas for experience by learners and would make particular demands on qualified staff. Advances

TABLE 9

ACUTE HOSPITAL NURSING STAFF (W.T.E.) ENGLAND, 1982 -
IDENTIFYING THE LARGE SPECIALTY USERS OF NURSE MANPOWER

Specialty	Registered Nurses	Enrolled Nurses	Qualified Nurses	Unqualified Nurses	All grades	Total grades
Combined Duties	23864	14043	37907 (71%)	15286 (29%)		53269
Maternity	2322	1785	4107 (38%)	6748 (62%)		10904
Medical	5302	2832	8134 (75%)	2753 (25%)		10888
Surgical	4689	2467	7156 (78%)	2050 (22%)		9209
Theatres	4266	2665	6931 (86%)	1122 (14%)		8057
Orthopaedic	1810	1471	3281 (72%)	1242 (28%)		4526
Paediatrics	2146	1013	3159 (71%)	1304 (29%)		4417
Out-patients	1835	1327	3162 (79%)	852 (21%)		4017
Intensive Care/ Coronary Care	2793	877	3670 (94%)	221 (6%)		3892
A and E	2223	823	3045 (91%)	285 (9%)		3334
Gynaecology	1018	661	1679 (80%)	426 (20%)		2108
Nurse Bank	851	487	1341 (84%)	257 (16%)		1598
E.N.T.	386	351	737 (77%)	207 (23%)		947
Ophthalmology	404	311	715 (77%)	209 (23%)		927
Renal	501	268	769 (90%)	80 (10%)		852
Dental	85	65	150 (88%)	20 (12%)		170
Total	54513	30119	84632 (71%)	33062		119175 (28%)

[Source: DHSS Computer Compilations 1982]

in medical science and technology are thought to have had an effect on demand for nurses.

(b) Into the acute sector. Although the number of acute beds was reduced they were used more intensively, with shorter stays and more patients in the high dependency groups.

(c) Into psychiatric hospitals and those for the mentally handicapped as people sought to meet the 'minimum standards' set in DHSS guidelines.

(d) Into services for the elderly, reflecting national priorities.

(e) Into the community as a result of increasing workloads.

The evidence allows us to give a precise answer to some of the possibilities raised. For registered nurses the changes were as follows:

Changes in Numbers (WTE's) 1976-82

	<u>REGISTERED NURSES</u>		<u>ALL STAFF</u>	
		%		%
Acute hospitals	+ 9,206	11.4	+29,730	16.2
Geriatrics	+ 4,235	92.0	+16,248	84.7
Mental Illness	+ 1,671	5.5	+ 4,756	5.0
Mental Handicap	+ 1,292	15.4	+ 6,213	20.3
Community Nursing	+10,000	4.3	+13,300	17.4

It is not possible to say where the additional nurses went in the acute hospitals although the evidence for 1982 suggests that the numbers in special units were quite small. The pattern of change for all qualified nurses (enrolled as well as registered) was very similar to that for registered nurses. In general the extra nurses went as much into long-stay care and the community as into the general hospitals and the more technological areas.

Some of the results set out here involve issues on which there was a clear national policy. Thus there was a clear intention in raising staffing in priority care areas and this has happened. There was also a clear intention to shift resources towards certain Regions and this has happened, although to a lesser extent. Some of the outcomes however, involve issues on which there was no clear national policy. Thus there was no strong lead on the balance between grades. Here the outcomes reflected partly local labour markets and partly managerial choice. On one issue there would seem to be agreement between the national view of best practice and what happened locally. Thus the leaders of the profession urged that the dependence on the work contribution of trainees should be reduced and this happened between 1976 and 1982. In addition there has been a reduction in the number of trainees (in 1976 there were 36,904 which fell to 33,484 in 1982) which may or may not create conditions for better training. Wastage rates given by the Institute of Manpower Studies indicate a fall from 24% to 15% in both student and pupil trainees. Wastage rates for student nurses seem to have remained at about a third for the usual training although they were much lower for students in graduate nursing courses.

On all these issues there were some obvious relationships between local outcomes and the policies and guidelines on professional best practice set out at the national level. On other issues local managers seem to have gone their own way. They have recruited many auxiliaries in spite of the exhortations not to do so. They have continued to recruit enrolled nurses although here again, national opinion tended to the view that the grade should be phased out. They have not increased numbers in the career grade of sister thus, in a sense, bringing about a reduction in the average age and seniority of the registered nurses while the pressures

from changes in technology and in methods of treatment were supposedly raising the requirements for skill and experience. There are differences here between the national perception of priorities and what actually happens locally. Budgetary pressures probably supply part of the reason for the discrepancy. Staff nurses cost less than sisters and auxiliaries cost less than qualified nurses. Thus, budgetary pressures may have acted to counteract professional guidelines on the need for increasing the contributions of qualified and experienced staff. Given the lack of information about the relative contribution of different grades to either the quality or quantity of care there must be considerable pressure locally to provide more hours of cover by recruiting staff at lower cost.

Finally, looking at the past record large gaps in the information available to local managers were noted. One is how various grades, lengths of service and contractual terms contribute to the quality of care. The outcome evidence might suggest that nurses think that auxiliaries can make a strong contribution, that length of service in the sister grade is not a priority and that it is a good thing to have full-time rather than part-time staff. Others will have different opinions - but there is little hard evidence one way or the other to guide local managers or national policy-makers. It could be argued that the NHS was showing a swing towards employing a higher proportion of full time staff at a time when other employers generally were turning in another direction.

The lack of information about the effects of experience and length of service on the quality of care is probably the most important gap. Before 1974, the nursing workforce had a very high turnover. This meant, in practice, that in a large general hospital there might be only 80 nursing staff out of 800 who had been on particular wards or departments long enough to make an independent contribution and take some responsibility for patient care. The others were either in training, were

unqualified auxiliaries, or were staff nurses who had been in post only for a short period of time. A detailed case study of a large general hospital showed then that the hospital depended on a core of long-served ward sisters (1974 Bosanquet).

Now, the position is very different: sisters are younger and have less experience, staff nurses stay in jobs for longer and there are many more of them, and new recruits at all levels are more highly selected. In general, turnover for trained staff has fallen. It may be that such changes mean a rise in quality and experience which in the general hospitals could off-set the slower growth in numbers likely in the future - but there is very little information available on these issues at present.

5. The Outlook for the Future

The context for future policies on training and manpower is radically different from anything which the profession has had to face before (1985 RCN). There has always been expanding demand for nursing staff, but in a situation where nursing staff numbers were expanding by 30 per cent in a decade, there could be some extra for most demands and the sharp edge was taken off most choices. The convention also grew up (unknown in most other kinds of employment in the UK) that it was essential and natural that any reduction in hours should be fully financed through extra staff posts. Now the nursing profession faces a situation in which there has been no growth in manpower over the past two years and there may well not be any more growth over the next five years.

Numbers entering training fell between 1976 and 1982 and have fallen further since. Locally, intakes to training may be used as a regulator to change total numbers. It is possible that the fall in intakes will continue

especially as in the medium term demography is turning against nurse training schools. At present there are about 71,000 female school leavers in the relevant educational levels: by 1992/3 there will probably be about 53,000 females with five 'O' Levels or one or two 'A' Levels - a fall of 27 per cent from 1981/2 (1985 Hutt). The profession would have to recruit nearly a third of all these to maintain intakes at the present level. The uncertainties surrounding the future of the enrolled nurse grade are likely to mean that this no longer plays its previous role in times of difficulty in recruiting registered nurses. In practice the profession is likely to have to put relatively more weight on existing trained staff. The 'stock' will become more important relative to the 'flow' of new trainees. The old issue, of retention and of incentive to return may well come back much higher up the Agenda.

All this adds up to a tightening in the supply of nurse hours: but the changes in the last ten years have divided up the profession and have increased the number of different kinds of care competing for nursing time. The demands have become more diverse.

There is a particular scarcity of trained SRN nurse time at the Ward level in hospital nursing. In broad terms there are only some 55,000 registered nurses (or 2 million nurse hours a week) available for general nursing. They are providing nursing cover for some 5 million in-patients, 21 million new out-patients and an increasing number of day patients. The demands for increased transplant programmes are already putting extra pressure on these resources.

The shift to community care means that much of the staffing time and training investment made in the "priority" services is now in the wrong place. There is a massive job to be done in retraining, in developing career structures which allow nurses to move into the community and to

ensure that effective use is made of this human capital investment.

Thus the manpower context is one in which there will be little increase in nursing time: the probability of particular shortages in general nursing, a need for more flexibility than in the past and in which there are disincentives both to initial and on-the-job training.

In this situation what are the range of choices open to managers and policy-makers? They are having to make decisions in the dark. There is little hard information on the effects of different levels and different combinations of staff on the quality of care. In this situation of ignorance about the likely returns to large investments there must be some advantage in looking at a series of smaller ones. The nursing force is comparatively young reflecting the high level of recruitment from 1970-1983 and has low labour turnover. In such a situation policies to increase the skill level and flexibility of the existing work-force become much more attractive. In the past the main training effort has been directed at initial training and in-service training has been added on as an afterthought. The new situation suggests that there should be more attention to a training budget as a whole covering both initial and later training. Some of the options for greater in-service training would include:

1. The development of more training opportunities for enrolled nurses. Currently there are only 72 people taking conversion courses: there could be incentives for more people to go on such courses and also a wider range of in-service training for enrolled nurses. Whatever the future of pupil nurse training, the importance of the current stock of enrolled nurses will remain for a long time to come.

2. Investment in developing the skills of registered and qualified nurses who are already in service. There has been some advance in in-service training but there could be much more. There are many new problems and many new techniques which emerge over a period of years. For example midwives, are dealing with a major increase in the number of people given epidural anaesthetics during child-birth. Taking a very different staff and age group, district nurses are having to deal with problems of mental confusion or problems of mental confusion among elderly patients. Nurses on acute wards are having to deal with the rehabilitation and discharge of elderly patients. All these may be problems to nurses whose main period of training was in the past. There could be much more investment in upgrading the skills of people already in service.

3. The development of in-service training for nursing auxiliaries. These have been a rapidly growing group but there seems to be a view that nursing auxiliaries are soon going to fade away. In reality in 1982 (after a period in which there had been a much greater chance to reduce their numbers than before) they made up 31 per cent of nursing staff in general hospitals, 45 per cent in geriatrics, 39 per cent in mental illness hospitals and 49 per cent in mental handicap hospitals. They are providing a great deal of direct patient care but there is little training investment in them at present. There is a large difference in the policies of training bodies at the centre and of managers recruiting locally.

4. The development of more detailed manpower career and retraining plans for nurses working in areas where change is especially great. About 100,000 staff are now working in hospitals for the mentally ill and in hospitals for mentally handicapped people. Where hospitals are closing and

patterns of care changing rapidly, there is a possibility that local surpluses and shortages will develop. Many of the trained staff giving this kind of care have trained quite recently and have long periods of service ahead of them. There are ways in which local manpower and training plans could be organized to ensure that people were offered some chance of career development.

As well as the investment in initial training, there could be more attention to smaller, more local investments in various kinds of training and career development. Two changes make this important. First the pressures both from the NHS manpower and the U.K. demographic situation seem likely to reduce the numbers of initial trainees even further. Second, in times of rapid change in patterns of care staff will soon face new problems which will not be fully dealt with in the initial training. New training policies are required for a situation in which the initial entry to the nursing work force is much smaller than in the past, to achieve a more flexible and client responsive training system.

As well as new policy options in training, there is a case for a new appraisal of policies on the manpower side. Trained nurse time is likely to be an increasing constraint as the total number of hours available will not be growing very much over the next few years. Districts need to examine how the existing resource is being used and weigh up competing claims in terms of their effects on services. Increasingly shortages of particular kinds of manpower will come a serious constraint on changes in patterns of care. Unless a clearer system is developed for rationing out available resources and for developing possibilities for substitution, the position is likely to get worse. There are many local pressures to reduce the amount of initial training and such reductions will of course worsen the shortages in the longer term. If nursing quality is to be maintained

and improved there is a requirement for new approaches to economic decision-making on the resource of nursing manpower which is likely to become increasingly scarce.

What is apparent from this analysis is that over the period studied a large redeployment of nursing resources across different hospital types, nursing grades and geographical regions has taken place and will continue. However, there has been no substantive evidence in the form of any production function analysis to suggest that these manpower changes represent the 'best-mix' of inputs for the provision of changing future needs of health care requirements. As Uwe Reinhardt emphasises :

"Further concrete information is needed on the extent to which task delegation from medical to paramedical personnel is technically feasible. This information requires further estimation of parameters characterizing the health care production process."

(1974 Reinhardt)

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