General medicine and related medical specialties—consultant survey 1991

ABSTRACT — A census of all consultant physicians in England and Wales was carried out on 2 January 1991 by the Royal College of Physicians of London. The total number, 3,573, agreed closely (97%) with the numbers known to the Department of Health (DoH). Of this total, 1,352 were general physicians. Their commonest specialty interests were cardiology, endocrinology, gastroenterology, and thoracic medicine; one-sixth of the geriatricians held posts with some general medical component. In all specialties there is a bulge in the number of consultants aged 40-50. This will lead to a substantial increase in the number of vacancies in the early part of the next century, and will need careful manpower planning. The proportion of women consultants in medical specialties, with perhaps the exception of dermatology, haematology, and geriatric medicine, remains low at 13%. An adequate 'safety net' of junior staff for the care of adult emergencies was present in most main district hospitals at the time of this census.

The number of consultants in general medicine and related specialties was last assessed by the Royal College of Physicians in 1984 [1]. Since that time there have been increasing demands on the College to update this information in order to assist manpower planning. The need came partly from the specialties themselves as a result of increasing specialisation, and partly from the pressures of the Joint Planning Advisory Committee (JPAC). Accurate figures for the number of consultants in each specialty became essential in order to plan senior registrar and then registrar numbers.

In 1990 the Royal College of Physicians decided to undertake an annual census of all consultant physicians in England and Wales. This report details the results of the first census carried out on 2 January 1991.

Methods

The census was coordinated by the RCP Manpower Unit using the NHS nominal roll for England and Wales from 1988 as a basis. As with the survey in 1984,

questionnaires were distributed through the College's district tutor network in early December 1990. Tutors were provided with a list of consultants in their district from the 1988 nominal roll; they were asked to amend and update the listing and to coordinate the distribution and collection of survey forms from individual consultants.

Considerable resources were concentrated to ensure that the returns were made, and by 15 February 1991 51% of district tutors had returned the necessary information. It quickly became clear, however, that a significant proportion of consultants had been overlooked, and detailed information was sought from individual specialist societies and other sources (eg medical charities). The various cross-checking exercises led to the number of known consultants being increased by 13% from those notified to the Manpower Unit by the College tutors. Complete returns were particularly difficult from the large teaching hospitals with departments on multiple sites. Final 'listings' were circulated in early 1992 to College tutors for cross-checking, and analysis of the data was carried out on the basis of all returns received by Friday, 3 April

The basis of this report is the information on individual forms by consultants themselves rather than the information provided by the College tutors. Discrepancies, where they existed, were resolved by personal enquiry. All the information was entered on the College's main computer. In the case of holders of the MRCP(UK) and Fellows of the Royal College of Physicians of London, personal details were already available and were linked to this information. The data of consultants who were Members or Fellows of other colleges were entered for use in subsequent censuses.

The questionnaire fell broadly into three parts: first, personal details; second, details of the consultant post: whether NHS or academic, the specialty, and the component of general medicine; and third, details of the hospitals visited and the junior staff support at each site. Some of the answers were inevitably ambiguous and some data were omitted, but the overall response rate was gratifyingly high.

As in the previous survey, a commitment to general

Prepared on behalf of the Manpower Committee by:

C DAVIDSON, FRCP, Consultant Cardiologist, Royal Sussex County Hospital, Brighton

M A THOMPSON, BA (Hons), Administrative Head

S J G SEMPLE, MD, FRCP, Medical Director, Manpower Unit, Royal College of Physicians of London

medicine was defined as responsibility for unselected adult emergency admissions, and respondents were asked to indicate the percentage of overall time spent in general medicine. General physicians formed the single biggest grouping. They represented a wide range of specialties, numerically the most important being cardiology, endocrinology, gastroenterology, nephrology, thoracic medicine, and geriatric medicine.

Results

Overall numbers

The total number of consultants in the medical specialties who returned forms and were in post on the census date (2.1.91) was close to the number listed by the DoH [2]; the comparable figures excluding haematology, which is a mixture of laboratory and clinical consultants, are 3,445 (census) and 3,558 (DoH), a response rate of 96.8%.

Table 1 summarises the information on the 15 medical specialties where there were 50 or more consultants. The age profile of consultants in post was gener-

ally similar throughout the specialties, though in geriatric and genito-urinary medicine there were more under the age of 40 than in other specialties. In geriatric medicine, dermatology, genito-urinary medicine, haematology and rheumatology the proportion of women was greater than in other specialties, but the overall proportion was low (about 13%). There were relatively more consultants with academic or joint contracts in clinical pharmacology, haematology, medical oncology, and neurology than in other specialties (eg cardiology, endocrinology, gastroenterology, and thoracic medicine).

General medicine

The general medical component of work by consultant physicians is indicated in Table 2. The average time spent in general medicine was about 45%; cardiology, gastroenterology, and thoracic medicine were associated with lower average time in general medicine than endocrinology and diabetes. In geriatric medicine there were 107 consultants with joint general medicine and geriatric medicine appointments, but most of them spent less than 50% of their time in general

Table 1. Categorisation of work and age ranges

Speciality	Categorisation of work by gender					Age ranges								
	NHS		Academic*		Total									
	M	F	M	F	M	F	-34	35–39	40-44	45-49	50-54	55–59	60-64	65+
Cardiology**	244	12	40	_	284	12	6	47	75	65	40	41	21	1
Clinical neurophysiology	42	8	7	-	49	8	2	6	17	8	6	6	12	-
Clin pharmacol/therapeutics	10	2	49	2	59	4	4	7	12	15	15	6	3	1
Dermatology	163	49	21	7	184	56	2	48	73	36	29	33	19	_
Endocrinology/Diabetes	227	10	58	5	285	15	2	38	80	69	53	39	19	1
Gastroenterology	244	6	54	6	298	12	3	29	86	72	52	46	22	-
General (internal) medicine	55	5	17	1	72	6	1	5	14	15	16	14	13	-
Genitourinary medicine	119	38	8	-	127	38	13	28	35	30	29	18	12	-
Geriatric medicine	481	71	34	4	515	75	27	134	143	80	92	78	33	3
Haematology	67	25	30	6	97	31	4	27	46	17	20	7	6	1
Medical oncology	33	5	42	6	75	11	4	17	25	16	14	6	3	1
Nephrology/renal	113	1	29	1	142	2	1	24	33	20	34	20	12	-
Neurology	143	4	50	2	193	6	-	27	55	41	25	32	17	2
Rheumatology†	224	37	37	7	261	44	1	49	93	53	55	39	15	-
Thoracic medicine	254	16	41	3	295	19	1	48	103	76	47	21	18	-
Other††	132	44	98	23	230	67	12	52	68	74	43	48	18	2
Overall total	2551	333	615	73	3166	406	83	586	958	687	570	454	243	12

^{*} Include those with academic appointments and those with mixed NHS and academic sessions.

^{**} Figures for cardiology do not include paediatric cardiology.

[†] Figures for rheumatology include rehabilitation medicine, disability medicine and spinal paralysis.

^{††} Includes audiology, clinical cytogenetics, clinical genetics, clinical immunology/allergy, clinical nutrition, clinical physiology, HIV/AIDS medicine, homoeopathic medicine, infectious diseases, intensive care medicine, medical ophthalmology, metabolic medicine, nuclear medicine, occupational medicine, paediatric cardiology, palliative medicine, public health medicine, and tropical medicine.

Table 2. General medical component

Specialty	Total consultants with general	Percentage time in general medicine						Total consultants in specialty	
	(internal) medicine	1–24	25-49	50	51-74	75-99	100	-Postato)	
Cardiology*	160	41	53	29	20	15	2	296	
Clinical pharmacology/therapeutics	43	3	9	15	8	7	1	63	
Endocrinology/diabetes	242	19	41	69	69	37	7	301	
Gastroenterology	267	33	99	71	45	14	5	310	
General (internal) medicine**	59	_	7	12	15	9	16	78	
Geriatric medicine	107	16	56	21	11	3	-	590	
Nephrology/renal	91	17	25	20	18	9	2	144	
Rheumatology †	50	8	19	16	5	2	_	305	
Thoracic medicine	254	19	93	85	38	18	1	314	
Other ††	79	17	26	15	12	7	2	1172	
Overall total	1352	173	428	353	241	121	36	3573	

* Figures for cardiology do not include paediatric cardiology.

** The discrepancy between the figures for the total number of consultants and the number with a general medical component is a result of some consultants failing to indicate the time spent in general medicine.

† Figures for rheumatology include rehabilitation medicine, disability medicine and spinal paralysis.

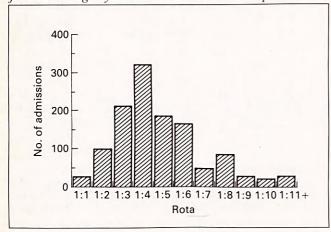
†† Includes clinical genetics, clinical immunology/allergy, clinical neurophysiology, clinical physiology, dermatology, genitourinary medicine, haematology, HIV/AIDS medicine, infectious diseases, intensive care medicine, medical oncology, medical ophthalmology, metabolic medicine, nuclear medicine, neurology, occupational medicine, and tropical medicine.

medicine. Only 78 consultants did not specify a specialty interest, and as expected, spent more time in general medicine.

Emergency duties

Details of the on-call rota for consultants for unselected emergency adult admissions are shown in Fig 1. A substantial number of consultants registered that they

Fig 1. The frequency of the on-call rota of general physicians for adult emergency admissions at their main hospital.



were on call more frequently than 1:4. Although these findings are similar to those in the last survey [1], it seems that some consultants included being on call for their specialty rather than for general medical emergencies. This misunderstanding is being addressed in the current census.

Peripatetic duties

The number of hospitals at which consultants had clinical responsibility is shown in Table 3. For the five main medical specialties most consultants work at either one or two hospitals. In dermatology, geriatric medicine, neurology, and rheumatology a substantial minority of consultants have responsibilities at four hospital sites, indicating the peripatetic nature of these specialties.

Junior staff level

The number of junior staff giving clinical support in general medicine and geriatric medicine at the main and second hospital is indicated in Table 4. At the main hospital the commonest support team in general medicine comprised three on call, almost always a houseman, a SHO or GP vocational trainee, and a registrar or senior registrar. In geriatric medicine the commonest support team was two, either a SHO and GP vocational trainee or a SHO and registrar or senior

Table 3. Number of hospitals at which consultants work

Specialty	One	Two	Three	Four 3	
Cardiology*	223	63	7 .		
Clinical neurophysiology	37	16	4	_	
Clinical pharmacology/ therapeutics	55	6	2	_	
Dermatology	116	69	32	23	
Endocrinology/diabetes	227	67	6	1	
Gastroenterology	240	61	7	2	
General (internal) medicine	53	19	4	2	
Genitourinary medicine	102	50	8	5	
Geriatric medicine	191	195	127	77	
Haematology	94	28	6	_	
Medical oncology	62	21	2	1	
Nephrology/renal	121	18	4	1	
Neurology	105	52	27	15	
Rheumatology**	174	93	24	14	
Thoracic medicine	212	89	9	4	
Other†	261	30	3	5	
Overall total	2271	877	272	153	

^{*} Figures for cardiology do not include paediatric cardiology.

registrar. At the second hospital the commonest support team was two on call (general medicine) or one on call (geriatric medicine).

Discussion

For manpower purposes the information on consultant physicians had to be complete or nearly so. Our experience of previous manpower surveys and the vigorous cross-checking which we undertook suggest that the data are reliable and close to the figures supplied by the DoH. Even so, the acquisition of data over the course of nearly a year from the census date leads to inaccuracies, and it is hoped that with this existing data base the response in future censuses will be much quicker. It is also hoped to develop closer links with the specialist societies to avoid duplication of effort.

One of the main purposes of this survey was to acquire the profession's own assessment of specialty interests, particularly for general physicians. The six main specialty interests of general physicians were, as

Table 4. Number of junior staff in on-call team

Number on call	General	medicine	Geriatric medicine			
	First hospital	Second hospital	First hospital	Second hospital		
4+	93	1	1	8		
3	580	49	143	30		
2	363	103	218	57		
1	54	68	102	126		

in 1984, cardiovascular medicine, endocrinology and diabetes, gastroenterology, geriatric medicine, nephrology and thoracic medicine. Indeed, with the exception of cardiovascular medicine, the majority of consultants in each of these specialties was made up by general physicians rather than 'pure' specialists (Table 2). In geriatric medicine about one in six consultants had contractual commitments to general medicine, a figure similar to that given in a survey in 1988 [3]. Other specialties with a significant general medical component in their work included clinical pharmacology and therapeutics, medical oncology, and rheumatology.

A comparison of the specialty interests of physicians with a general medical component to their work between the census in early 1991 and the medical manpower review by the DoH in late 1990 [2] shows quite good agreement, but there are discrepancies which were evident in the last survey [1]. In geriatric medicine, clinical pharmacology, dermatology, neurology and rheumatology, numbers from the census agreed within 10% of the figures held by the DoH. In cardiology, nephrology, and thoracic medicine the numbers of consultants recorded by the DoH were 82%, 85% and 85% of those collected by the census; the corresponding percentages for gastroenterology, endocrinology with diabetes, and medical oncology were 61%, 57% and 58% respectively. The reasons for these discrepancies are not clear but must reflect the different sources from which the data were acquired.

The definition of general medicine used in this survey was similar to that used in 1984 and has some validity in practice. However, in completing their forms consultants indicated that they were general physicians but did not always indicate the time spent in general medicine (and vice versa), so that the figures provided in the Tables show minor discrepancies. Nevertheless, it is possible to compare the proportion of general medicine in the work of the general physicians in this survey and the previous one (Fig 2). In the seven-year period between the surveys there has been an increasing trend to specialisation with the perception that more time is now spent within the specialty rather than in general medicine.

^{**} Figures for rheumatology include rehabilitation medicine, disability medicine and spinal paralysis.

[†] Includes audiology, clinical cytogenetics, clinical genetics, clinical immunology/allergy, clinical nutrition, clinical physiology, HIV/AIDS medicine, homoeopathic medicine, infectious diseases, intensive care medicine, medical ophthalmology, metabolic medicine, nuclear medicine, occupational medicine, paediatric cardiology, palliative medicine, public health medicine and tropical medicine.

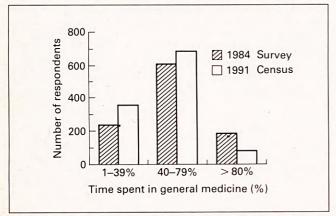


Fig 2. The proportion of time spent in general medicine by respondents to the College survey of general physicians in 1984 [1] and the College census in 1991.

The demography of consultants in the survey shows that in most specialties there is a major bulge in the age range from 40 to 50. This cannot be compared directly with the last survey of general physicians [1] but must reflect the overall growth of consultant numbers in all specialties over the past decade. This bulge means that, while the number of consultants retiring in the age range 60-64 is only 243, that number will rise to 1,024 over the next 10 years (the 50-59 age group). The implications for long-term manpower planning are considerable, even taking into account the Calman proposals for shortening the length of training for specialists, and suggest the need for a substantial increase in trainee numbers over and above those necessary for consultant expansion. The number of women consultants in most medical specialties is still disappointingly low despite initiatives by both the DoH and the profession to encourage part-time training and job-sharing.

One of the secondary purposes of the survey was to obtain details of the junior staff cover for emergency admissions, the 'safety net'. Unfortunately, the layout of the form proved ambiguous, and we believe that many specialists filled out details of their availability for their specialty rather than the general medical 'take'. Nevertheless, the survey does provide an overall picture of the junior staff structure for the main and subsidiary hospitals for each consultant. This shows, reassuringly, that for general medicine at least, only a small minority (less than 5%) have only one junior member of staff on call, although there were rather

more of them in geriatric medicine, particularly at the second hospital site. This was a post-registration doctor in all cases.

This is the first College census involving medical specialties such as neurology and dermatology. In these specialties, manpower negotiations have, in the past, been conducted directly between the specialist societies and the DoH. This is appropriate when considering senior registrar quotas, but less so for registrars, the subject of concern in 1991 when this census was carried out. The College's view then was that medical registrars should be considered together, with certain exceptions, because of their pluripotential nature at that stage in their training. Such considerations may be less relevant after the implementation of the Calman Report, which proposes the abolition of the registrar grade as such, with early specialisation in the training grades.

This census achieved much that it set out to do, both in terms of obtaining a complete consultant roll and defining specialty interests within medicine. The 1992 census, as well as updating the consultant roll, has included both registrar and senior registrar grades and will begin to give information on time trends. With the rapid changes in the NHS brought about by the government's reforms, such information is vital if the profession is to control manpower effectively.

Acknowledgements

We would like to thank the many participants in this survey, and in particular the College tutors for their hard work in collating the replies from each district. We are also grateful to members of the Manpower Committee of the Royal College of Physicians for their constructive suggestions, and to Ms Annette Cooper and other members of the Manpower Unit for entering the data on the computer.

References:

- Davidson C, King RC. General medicine in the 'eighties. Br Med J 1986;293:547–50.
- 2 Department of Health. Medical and dental staffing prospects in the NHS in England and Wales 1990. Health Trends 1991; 23:132-41.
- 3 Davidson C, Brocklehurst J, Moore-Smith B. Geriatric services in the United Kingdom. *Health Trends* 1989;21:48–51.

Address for correspondence: Dr C Davidson, c/o The Manpower Unit, Royal College of Physicians, 11 St Andrews Place, Regents Park, London NW1 4LE.