**THE RESEARCH REGISTER OF THE
COLLEGE OF GENERAL
PRACTITIONERS**

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C. A. H. WATTS, M.D., D.R.C.O.G.

College of General Practitioners

AND

K. W. CROSS, Ph.D.

Department of Medical Statistics, University of Birmingham

The Research Committee of the Foundation Council of the College of General Practitioners was formed on January 21, 1953. The Steering Committee before then had been aware that some doctors in general practice realized the value of the clinical material in their hands, but the number of potential research workers and the range of their interests were unknown. One of the first decisions of the research committee, therefore, was to open a College Research Register to members and associates who were interested in the conduct of research in their practices. This was done by an invitation published in both the *British Medical Journal* (1953) and the *Lancet* (1953) inviting members and associates to join the register, specifying their particular research interests.

The first object of the register was therefore to locate and record those general practitioners who had an interest in research. A second was to bring about collaboration between doctors who might live miles apart, so that they could work together on some subject in which they had a common interest. This type of group research can be done by private arrangement, but it can be arranged more easily if a central organization exists. The Morbidity Survey (which was jointly organized by the College and General Register Office) and the Group Investigation of Acute Chest Infections were examples of this procedure. These studies were made possible by recruiting those who had expressed an interest in the subjects concerned.

A rough-and-ready form had been designed on which the applicants were asked to record basic details of their practices as well as their interests, and an analysis of the interests of the earliest members to join the register was published in the first Research Newsletter (*Practitioner*, 1953). Subsequent entrants to the register were asked to complete a practice classification sheet, which was enlarged and improved as time went on. On January 1, 1957, there were over 500 names on the research register, and classification sheets have been completed by the large majority. Analysis of these records is interesting and provides useful information showing the extent to which the register has developed, the range of interests, and the practice details of the doctors concerned.

Doctors' Interests

An examination was first made of the interests of the members on the register. These results, of course, do not remain static, and the Registrar is continually receiving additions to those originally recorded by doctors. These findings therefore refer to those interests recorded at a given time. A very wide variety exists, including those subsumed under broad groupings, such as obstetrics and paediatrics, and more specific conditions such as lead-poisoning and tetanus. Furthermore, interests are not confined to clinical

subjects; the administration of general practice has its adherents, while others are interested in subjects as diverse as clergy and doctors, medical photography, and the medical aspects of sailing. It is difficult to classify such an assortment of interests. This problem has been discussed by Bevan (1948), who adopted a twofold system of classification for the analysis of contributions to "Any Questions?" in the *British Medical Journal*. One group was made up of specific diseases, and the other of subjects belonging to the field of medical science generally.

It seemed that interests specified in the register fell more naturally into three groups: (1) disease groups, specialties and allied subjects; (2) clinical entities and symptoms; and (3) miscellaneous topics. Other methods of classification could be adopted, but this one was considered satisfactory for our purpose, which was to show their range and relative popularity.

The results of such an analysis are shown in Table I, which lists the interests in order of frequency within each group. Where a doctor entered more than one interest,

TABLE I.—*Doctors' Interests*

<i>Group 1</i>		<i>Group 2</i>	
Paediatrics	90	Measles	114
Obstetrics	74	Asthma	55
Respiratory diseases	74	Hypertension	11
Psychiatry	51	Backache	7
Cardiovascular diseases	48	Fibrositis	6
General medicine	37	Glandular fever	2
Skin diseases	30	Otitis media	2
E.N.T. conditions	25	Appendicitis	1
Allergic diseases	22	Injuries	1
Geriatrics	18	Lead-poisoning	1
Gynaecology	12	Mental defect	1
Rheumatic diseases	12	Chilblains	1
Neurology	11	Tetanus	1
Anaesthesia	11	Congenital pyloric stenosis	1
Virus diseases	10	Diverticulitis	1
Alimentary diseases	9	Peptic ulcer	1
Surgery	4	Pink disease	1
Metabolic diseases	4	Poliomyelitis	1
Orthopaedics	3	Pulmonary tuberculosis	1
Malignant diseases	3	Raynaud's phenomenon	1
Occupational diseases	3	Menopause	1
Fevers	3	Fluorosis	1
Animal diseases	2	Symptoms	3
Renal diseases	2		
Stress diseases	2	<i>Group 3</i>	
Dental conditions	1	Therapeutic trials	69
Streptococcal infections	1	Statistics (including morbidity survey)	57
Endocrinology	1	Organization of practice	9
Tropical diseases	1	Appointment systems	6
Diseases peculiar to general practice	1	Photography	6
Minor medical conditions	1	Education of patient	5
		Meorology and medicine	5
Epidemiology	40	Administration	4
Pharmacology	22	Group practice	4
Genetics	16	History of medicine	3
Pathology	8	Vitamins	3
Haematology	6	Home care	2
Preventive and social medicine	4	Records	2
Forensic medicine	3	Penicillin	2
Industrial medicine	3	Economics of practice	2
Biochemistry	1	Clergy and doctors	1
Parasitology	1	Equipment	1
Dietetics	1	Research analysis	1
Anatomy	1	Sailing, medical problems of	1
		Special schools	1
		Manipulation	1
		Somatotyping	1

each has been included. As was to be expected, the first group contains the bulk of the interests specified. Measles and asthma are both outstanding, although the figures are artificially inflated because the College had been conducting a survey on measles (Research Newsletter, 1956) and a long-term study of asthma is still in progress. The relatively large number of doctors who are interested in statistics, morbidity surveys, and therapeutic trials denotes a useful potential research weapon.

Distribution of Members According to Type of Practice

By recourse to the classification sheets, members on the register have also been grouped according to the type of area in which they are practising and to the organization of their practices. These results are given in Table II, and correspond with figures given in a report of the Ministry of

TABLE II.—*Distribution by Type of Area and Number of Practitioners*

No. of Practitioners	Urban	Rural	Mixed	Total
Single-handed, no assistant	79	17	23	119
with " "	9	4	7	20
2 partners	71	23	41	135
3 " " " " " " " "	29	12	37	78
4 " " " " " " " "	14	11	7	32
5 " " " " " " " "	9	1	9	19
6 " " " " " " " "	—	—	4	4
7 " " " " " " " "	—	1	3	4
8 " " " " " " " "	1	—	—	1
Total	212	69	131	412

Health (1955). The division into urban, rural, and mixed areas, however, is not strictly comparable, since the classification used by the Ministry was based on a "mileage" scheme, whereas our system is based on the interpretation of the doctor.

Knowledge of the type of practice has two uses. Firstly it makes it possible for one research worker to compare his findings with a colleague in a similar type of practice. Hopkins (1956), for example, was able to compare some of his findings with those given by Logan (1953) for similar urban types of practice. The value of being able to check and compare statistical data is obvious. Secondly, by careful selection of various practices—urban, rural, and mixed,—it is possible to have under survey a sample of the population representative of the country as a whole.

One-third of the members on the register are in single-handed practice, with or without assistants, and a further third are in partnership with one other doctor. Almost one-fifth are in partnership with two other doctors. The proportion of members who are single-handed is much greater among those practising in urban areas than for those in the other two types of area. The distribution of members geographically and by type of area is given in Table III, taking a standard region as a unit of area in which they are practising.

TABLE III.—*Distribution by Type of Area and Standard Regions*

Standard Regions	Urban	Rural	Mixed	Total
Ireland	6	6	6	18
Scotland	9	5	7	21
Wales	4	3	2	9
England:				
Northern	7	2	7	16
E. and W. Riding	36	5	10	51
North-Western	19	4	14	37
North Midland	9	9	6	24
Midland	17	2	12	31
Eastern	9	5	12	26
London and South-Eastern	79	8	20	107
Southern	7	13	18	38
South-Western	10	7	17	34
Total	212	69	131	412

Size of Doctors' Lists

The number of N.H.S. patients on each *practice* list, and in the case of partnerships the estimated number of patients

for whom the member himself was responsible, were also recorded on the classification sheet. Members' own lists varied in size from fewer than 500 patients to over 3,500. These figures are valuable in the planning stages of research work, since it is essential to be able to draw upon an adequate sample representative of the population. If it is assumed, for example, that there are five epileptics to every 1,000 of the population, and one wishes to make an analysis of 1,000 epileptics, it is a matter of simple arithmetic to work out how many practices must be included in the survey.

The sizes of the lists of practices represented by members of the register have been used to calculate the average number of patients per doctor in different parts of the country and in each type of area. Details are given in Table IV. Where two or more partners in the same practice are members of the register, that practice is included once only; the number of doctors specified is the total number responsible for patients on combined lists. With the exception of patient-doctor ratios based on small numbers of doctors there is close agreement between regions. This is true of each type of area, and for each region in England there are rather more patients per doctor in urban than in rural areas.

Discussion

The Research Register of the College of General Practitioners has been analysed in some detail to demonstrate the function and the potential of the organization. It may help workers both inside and outside the College. Any member or associate of the College can obtain from the registrar a list of names and addresses of other doctors who are interested in a particular subject or who live in a particular region. It has been suggested that any general practitioner who undertakes research should inform the secretary or the chairman of the Research Committee of his project. This suggestion has been made for two reasons: (1) an investigator, if he so desires, can obtain advice on methods of collecting, handling, and analysing data; and (2) the risk of work overlapping and wasteful repetition is reduced. Although it is useful deliberately to check the work of others, it is disappointing for a doctor to discover that work that he thought was original has already been carried out by others. Workers outside the College, such as consultants who need the assistance of general practitioners, can ask the Research Committee for the names of those who are likely to be able to help them in their problems. A number of subjects lend themselves to a combined operation by both specialist and general practitioner, as was demonstrated in two recent surveys of alcohol addiction.

By the co-ordinated work of individuals and groups of practitioners, new methods of research in general practice are being evolved and improved; and for the first time it will be possible to make an accurate assessment of morbidity in relation to the background against which it arises. The discipline of research not only assists in the investigation of problems that confront doctors in their work, but it gives

TABLE IV.—*N.H.S. Patients per Doctor by Standard Region and Type of Area*

Standard Regions	Urban			Rural			Mixed			Total		
	No. of Doctors	No. of Patients	Patients/Doctor	No. of Doctors	No. of Patients	Patients/Doctor	No. of Doctors	No. of Patients	Patients/Doctor	No. of Doctors	No. of Patients	Patients/Doctor
Ireland	5	6,150	1,230	6	13,675	2,279	7	19,270	2,753	18	39,095	2,172
Scotland	18	44,906	2,495	5	8,786	1,757	13	28,315	2,178	36	82,007	2,278
Wales	11	25,064	2,279	8	18,250	2,281	2	4,700	2,350	21	48,014	2,286
England:												
Northern	17	46,550	2,738	5	12,641	2,528	15	33,100	2,207	37	92,291	2,494
E. and W. Riding	63	149,099	2,367	11	22,800	2,073	30	73,104	2,437	104	245,003	2,356
North-Western	35	84,856	2,425	6	10,258	1,710	28	65,108	2,325	69	160,222	2,322
North Midland	24	61,600	2,567	16	36,878	2,305	18	34,739	1,930	58	133,217	2,297
Midland	38	102,771	2,705	6	12,100	2,017	30	74,306	2,477	74	189,177	2,556
Eastern	18	48,778	2,710	9	22,600	2,511	32	69,514	2,172	59	140,892	2,388
London and South-Eastern	124	294,699	2,377	16	30,831	1,927	61	131,886	2,162	201	457,416	2,276
Southern	14	31,267	2,233	31	66,163	2,134	56	127,655	2,280	101	225,085	2,229
South-Western	13	31,149	2,396	24	46,110	1,921	40	79,204	1,980	77	156,463	2,032
Total	380	926,889	2,439	143	301,092	2,106	332	740,901	2,232	855	1,968,882	2,303

to those who take part in such projects a stimulus to observe and record which inevitably improves the quality of their medical practice.

We acknowledge all the help and encouragement we have received from Drs. R. J. F. H. Pinsent, D. L. Crombie, and the Publications Committee of the College of General Practitioners.

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ROYAL SOCIETY OF HEALTH

CONGRESS AT FOLKESTONE

The Royal Society of Health held its 64th annual congress at Folkestone from April 30 to May 3. There were 13 sectional meetings and five conferences. The Congress was inaugurated by Mr. J. K. VAUGHAN-MORGAN, Parliamentary Secretary to the Ministry of Health.

Here, besides Mr. Vaughan-Morgan's inaugural address, we give short accounts of the Conference of Medical Officers of Health and of some of the papers read in the Sections of Food and Nutrition, Occupational Health, and Hospitals. Other Sections, not here reported, were concerned with subjects such as preventive medicine, health education, the health and welfare of the family, mental health, tropical hygiene, "World Health," and housing and town planning. There were also special conferences for domiciliary nurses and midwives, engineers and surveyors, health visitors, and public health inspectors. Some 3,000 delegates and their friends attended the Congress, many from abroad.

Mr. Vaughan-Morgan's Address

The Congress opened in the Odeon Cinema, Folkestone, on April 30, under the chairmanship of Professor HAROLD BURROW, of the Royal Veterinary College, London, chairman of council of the Society. After a welcome to delegates by the Mayor of Folkestone, Professor Burrow installed Mr. Vaughan-Morgan as President of the Congress, and called upon him to deliver the inaugural address.

Mr. VAUGHAN-MORGAN began by referring to the food and catering trades. They had shown a gradual improvement in hygiene, he thought, since the Food Hygiene Regulations had come into force 15 months ago. People could see for themselves some of the improvements in shop layout which had taken place. But thanks to the work of medical officers of health and public health inspectors, and with the good will of the trades, he believed there had also been a similar improvement behind the scenes, where hygiene mattered just as much.

The President then raised the question of the health visitor. To-day the health visitor was faced by a dilemma, he said: whether to stick firmly to the job on which she had concentrated since the beginning of the century and in which she had seen such remarkable improvements—the care of mothers and young children—or whether to devote more and more of her time to special problems and to adopt what was now known as "selective visiting." But, said Mr. Vaughan-Morgan, the health visitor was the starting-point from which many of the more specialized services began to operate, and much would be lost if she was not, as a routine, watching for the early signs of physical or mental handicap among all the young children in her care. Although the total number of health visitors had been rising year by year since the Health Service started, there was an alarming drop in the numbers training. He hoped the publication of the Working Party Report would stimulate recruitment.

Turning to mental health, Mr. Vaughan-Morgan said it was essential for the child welfare services to pay increasing

attention to the mental and emotional development of the child. The recent reports of both the committees on mal-adjusted children and the Working Party on Health Visitors had emphasized this. A working party, appointed last year, was now inquiring into the field of work and training of all types of social workers employed by local authorities, but in view of the very wide range of this inquiry its report could not be expected for some time.

New Methods of Food Preservation

The use of antibiotics and ionizing radiations in food preservation was discussed by two of the staff of the D.S.I.R.'s low-temperature research station at Cambridge at the opening session of the Section of Food and Nutrition. The Section was meeting in conjunction with the Food Group of the Society of Chemical Industry. Miss ELLA M. BARNES, D.Phil., said that during the past year there had been a steady increase in the number of countries using one or more antibiotics as food preservatives, although at the moment this was not allowed in Britain. Almost all the antibiotics used therapeutically were active against the bacteria but they had little activity against yeasts and moulds. Some had a narrow range of antibacterial activity, others a broad spectrum, but the choice of a suitable antibiotic for food preservation depended not only on the type of spoilage to be controlled but also on other important considerations. Would the use of antibiotics ensure a better quality of food for the consumer, she asked, or would they be employed merely to disguise insanitary conditions in the food-processing plants or to prolong the marketing period?

In the case of fish it was the time necessarily spent at sea before bringing the haul to market which largely governed its condition on arrival. Although the flesh and body fluids of newly caught fish were sterile, their external surface (as well as the gut) might carry considerable bacterial loads. Ice was used to prevent the rapid growth of these organisms, but even at freezing-point most marine bacteria grew actively. Fish remained fresh for only about 14 days under the best conditions of handling. The use of chlortetracycline in the ice would enable fish to reach the market in a considerably better bacteriological condition. The position with meat and poultry was different. Other factors being equal, the rate of spoilage depended on both temperature of storage and the initial load of micro-organisms. Tetracycline compounds were of little value for meat or poultry of low initial bacteriological quality or if kept at temperatures higher than usual. The use of antibiotics in hospitals had led to a progressive build-up of resistant staphylococci, and it was difficult to believe, said Miss Barnes, that there would not be a similar development in the holds of trawlers, in slaughterhouses, or in poultry-processing plants unless suitable precautions were taken.

Dr. R. S. HANNAN, Ph.D., said that food preservation by irradiation was still some way from general application in Britain, but there were some aspects of it which were beginning to show promise for commercial use. Foodstuffs were irradiated until they had accumulated a given dose of radiation, for times ranging from minutes or hours with gamma-ray sources to seconds or less with cathode-ray generators. Several aspects of this work were of obvious interest to the public-health worker, the most obvious being the possibility of the food itself becoming radioactive. If radiation energies not exceeding 15 MeV were used there was not much danger, but above that energy common elements in food could become radioactive, although in many cases their half-life was short. The other possible harmful effect was the induction of changes in the chemical composition of the food. It would need considerable work before irradiated foods could be accepted as harmless after treatment at any but the lowest dose levels.

Conference of M.O.H.s

Dr. J. D. KERSHAW, President of the Society of Medical Officers of Health, opened the Conference of Medical Officers of Health with an address entitled "Physicians in