Medical Emigration from Great Britain and Ireland*

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Brit. med. J., 1964, 1, 1173-1178

Two years ago I published a paper indicating that over 600 graduates of the medical schools of Great Britain and Ireland¹ had registered annually for practice in North America, Australasia, South Africa, and the Rhodesias in the years 1956-60 (Seale, 1962). No estimate was made of the number who had subsequently returned to the British Isles, but it was assumed that the majority had remained overseas and should be regarded as medical emigrants.

Several authorities have claimed that a figure approaching 600 per year greatly overstated the true rate of medical emigration from the British Isles in the late 1950s. Sir Robert Platt (1962) suggested that the estimate may be "as much as 400 to 800% in error." Mr. Enoch Powell (1962), when Minister of Health, thought that the figure represented a "grotesque allegation," and, although no precise estimate of the number of doctors emigrating was made in his paper, it can be deduced from figures he published that he considered it must be much less than 150 per year from Great Britain alone. The *Lancet* (1963) made a similar estimate—140 per year from Great Britain—which, it stated, was a figure "of the same order as that for overseas graduates joining the hospital service in senior posts" in Britain (my italics).

With new data available a more precise estimate of the number of doctors from the British Isles emigrating permanently can now be made. It would appear that the number of doctors emigrating from Great Britain and Ireland to North America, Australasia, South Africa, and Southern Rhodesia during 1956-60 may have been 20% less than 600 per year—that is, 480 per year. From Great Britain alone during the same years the average number may have been as low as 370 per year—a figure between two and a half and five times as large as the estimates of Sir Robert Platt, Mr. Enoch Powell, and the *Lancet* of medical emigration to the whole of the rest of the world. In this paper details are given of how the more precise estimates of recent medical emigration to North America, Australasia, and parts of Africa have been arrived at, and an analysis is made of the fallacies that have led to the substantial underestimates of medical emigration referred to above.

Canada

Since 1953 the Department of Citizenship and Immigration in Ottawa has published each year the number of doctors entering Canada as immigrants by country of origin. In the nine years 1953 to 1961 inclusive, 1,420 physicians and surgeons of English, Scottish, and Welsh origin entered Canada as immigrants (an average of 158 per year), and in another paper (Seale, 1962) it was assumed that the majority have remained in Canada. It was further assumed that medical emigration from Britain to Canada in the 1930s had been low.

Data since published by the Census Division of the Dominion Bureau of Statistics in Ottawa now shows that these assumptions were correct. The Canadian Census figures for 1931, 1941, 1951, and 1961 (Fig. 1) show that the number of doctors

FIG. 1.—Physicians and surgeons born in the United Kingdom and resident in Canada, 1931-61. Source: Census Division, Dominion Bureau of Statistics, Ottawa.

born in the United Kingdom who were residing in Canada fell in the 10 years 1931-41 by 248. Between 1951 and 1961, however, and coinciding with the high immigration rate recorded by the Department of Citizenship and Immigration, the number of U.K.-born doctors resident in Canada rose from 557 to 1,638,² an increase of 1,081 doctors in 10 years, at an average of 108 per year. As some of the 557 U.K.-born doctors in Canada in 1951 would have died by 1961 it could reasonably be assumed that during these 10 years the rate at which U.K.-born doctors were settling permanently³ in Canada was about 120 per year. The difference between the 158 doctors who entered Canada as immigrants per year and the 120 doctors who settled there would represent those who had returned to the U.K. or had moved elsewhere. A reduction to 75% of the medical immigrant figures published by the Department of Citizenship and Immigration should therefore indicate approximately the number of doctors emigrating from the British Isles to Canada (Table I and Fig. 2).

¹ Throughout this paper Ireland refers both to the Republic of Eire and Northern Ireland. England has for long relied on the medical schools of Ireland, as well as those of Scotland, to supply it with many doctors. Emigration of Irish doctors away from the British Isles, rather than to England, may have much the same significance as a similar change in the migration pattern of Scottish doctors.

² This figure is consistent with the finding of Dr. R. H. Davison (1964) after a study of 9 of the 10 recent provincial medical registers of Canada that there were (about two years after the 1961 Census) more than 1,900 graduates of British medical schools licensed in the nine provinces.

³ All estimates that claim to be of recent "permanent" emigration are necessarily based on assumptions about future events. In theory all the 1,900 or so British doctors now in Canada could return to Britain to-morrow. Similarly, the purist may consider that a British doctor returning to live in Britain after practising for 30 years in Canada has not been a permanent emigrant, thereby implying that all estimates of recent permanent emigration are meaningless. Nevertheless such considerations did not deter the Fellows of the Royal Society (1962) studying the emigration of scientists from estimating "permanent" emigration, using reasonable assumptions concerning probability similar to those which I have made here.

*Paper presented to the Folkestone and Dover Division of the British Medical Association on 1 April 1964.

TABLE I.—British and Irish Doctors Emigrating to Canada, 1953–63

Year	Doctors of English, Scottish, Welsh, and Irish Origin Entering Canada as Immigrants		Doctors from the British Isles Emigrating to Canada. (Reduction to 75% of Cols. A and B—See Text)	
	English, Scottish, and Welsh (A)	Irish (B)	British	Irish
1953	151	45	113	34
1954	121	39	92	29
1955	155	40	116	30
1956	173	41	130	31
1957	249	62	187	46
1958	165	37	124	28
1959	147	35	110	26
1960	136	26	102	20
1961	123	20	92	15
1962	126	11	95	8
1963	215	17	161	13

Source (cols. A and B): Department of Citizenship and Immigration, Ottawa.

FIG. 2.—Medical Emigration to Canada, 1953–63. Physicians and surgeons of English, Scottish, Welsh, and Irish origin entering Canada as immigrants, 1953–63 (A), and an estimate of the number both entering and remaining in Canada (B)—see text. Source: (A) Department of Citizenship and Immigration, Ottawa.

United States of America

The Immigration and Naturalization Service of the United States Department of Justice has published figures of the number of physicians and surgeons admitted since 1952 to the

FIG. 3.—Medical Emigration to the United States of America, 1945–63. Physicians and surgeons from Great Britain admitted as immigrants to the U.S.A., 1953–63 (A), and graduates from medical schools of Great Britain passing the State Boards examinations in the U.S.A., 1945–62 (B). Sources: (A) U.S. Department of Justice; (B) Council on Medical Education and Hospitals of the American Medical Association.

U.S.A. as immigrants by their country of last permanent residence (Fig. 3). In the 11 years June 1952 to June 1963, 1,214 doctors who had been permanently resident in England, Scotland, and Wales were admitted as immigrants to the U.S.A.—an average of 110 per year. As some who are admitted as immigrants return to Great Britain, and as some move to other

countries, the number of immigrant doctors will exceed the number of those who remain permanently, just as it does in Canada.

Another indication of the number of doctors emigrating to the U.S.A. is supplied by the number of graduates of medical schools of the British Isles obtaining licences to practise there. To obtain a licence to practise in any of the States of the Union, graduates of European medical schools have to pass the final medical examinations again as a minimum requirement. A licence to practise is not required for those working in a hospital as a resident or intern, or in a research appointment, and obtaining a licence usually means that a graduate intends to remain in the U.S.A. In the 11 years 1952–62 inclusive, 828 graduates of medical schools of Great Britain passed the State Boards examinations—that is, 68% of the number of doctors from Great Britain entering as immigrants in the same period.

The trend of the number of doctors admitted as immigrants since 1952 and the rather smaller number passing the State Boards examinations (Fig. 3) are similar, with the peak in 1958 of those entering as immigrants preceding by two years the peak in 1960 of those passing their examinations. Until the examinations have been passed the emigration of a doctor should not be regarded as permanent. Even the lower figure of those passing the State Boards examinations may slightly exaggerate the number of emigrants, as a few still return to Britain after passing them. A reduction to 90% of this lower figure (which is equivalent to a reduction to 61% of the number of doctors entering the U.S.A. as immigrants) should indicate approximately the number of doctors emigrating from the British Isles to the U.S.A. (Table II).

TABLE II.—British and Irish Doctors Emigrating to the U.S.A., 1948–62

Year	Graduates of Medical Schools of Great Britain and Ireland Passing the States Boards Examination in the U.S.A.		Graduates Emigrating to the U.S.A. (Reduction to 90% of Cols. A and B—See Text)	
	England, Scotland, and Wales (A)	Ireland (B)	England, Scotland, and Wales	Ireland
1948	28	9	25	8
1949	33	17	30	15
1950	32	16	29	14
1951	31	17	28	15
1952	36	15	32	13
1953	44	16	40	14
1954	58	30	52	27
1955	55	46	50	41
1956	71	33	64	30
1957	73	57	66	51
1958	93	58	84	52
1959	100	72	90	65
1960	126	66	113	59
1961	91	59	82	53
1962	81	57	73	51

Source (cols. A and B): Council on Medical Education and Hospitals of the American Medical Association.

New Zealand

The Secretary to the Medical Council of New Zealand provided figures of the number of graduates of medical schools of England and Wales, Ireland, and Scotland who registered in

FIG. 4.—Medical Emigration to New Zealand, 1930–63. Graduates of medical schools of the British Isles registering in New Zealand, 1930–63 (A), and graduates resident in New Zealand in 1962 by year of registration (B). Sources: (A) Medical Council of New Zealand; (B) New Zealand Medical Register, 1962.

New Zealand each year since 1930. The New Zealand Medical Register of June 1962 was examined to determine how many of these graduates were still both registered in and resident in New Zealand (Fig. 4). Doctors in New Zealand must pay an annual fee to the Medical Council if they wish to practise there, and it is probable that nearly all those doctors giving a New Zealand address in 1962 were resident there at the time.

There were more doctors from the British Isles who registered in New Zealand each year since 1930 than were still living there in 1962 because some returned to the British Isles, some moved to other countries, and some died. It is reasonable to assume, however, that nearly all those who have been in New Zealand for between 5 and 15 years have settled there and are emigrants rather than visitors. Of the 396 doctors from Great Britain who registered in New Zealand between 1948 and 1957, 256 (65%) were still in New Zealand in 1962. Of the 57 doctors from Ireland, 38 (67%) were still in New Zealand. A reduction to 65% of the number of doctors from the British Isles who register annually in New Zealand should indicate approximately the number emigrating (Table III).

TABLE III.—*British and Irish Doctors Emigrating to New Zealand, 1948–63*

Year	Graduates of Medical Schools of Great Britain and Ireland Registering in New Zealand		Graduates Emigrating to New Zealand (Reduction to 65% of Cols. A and B—See Text)	
	England, Scotland, and Wales (A)	Ireland (B)	England, Scotland, and Wales	Ireland
1948	32	7	21	5
1949	44	3	29	2
1950	24	3	16	3
1951	57	3	37	2
1952	59	6	38	4
1953	47	11	30	7
1954	26	7	17	5
1955	34	3	22	2
1956	25	4	16	3
1957	48	8	31	5
1958	24	5	16	3
1959	30	7	19	5
1960	27	6	17	4
1961	22	7	14	5
1962	35	6	23	4
1963	53	2	34	1

Source (cols. A and B): Medical Council of New Zealand.

Australia

The Registrars or Secretaries of the Medical Boards of Victoria, New South Wales, Western Australia, and South Australia and the Secretary of the Medical Council of Tasmania provided figures of the number of graduates of medical schools of the British Isles who registered in their States each year since 1930 (Fig. 5). Some of the graduates have since returned to the British Isles and some have moved on to other

FIG. 5.—*Medical Emigration to Australia, 1930–63.* Registrations of graduates of medical schools of the British Isles in five Australian States, 1930–63 (A), and graduates resident in Australia in early 1963 by year of first registration (B). Sources: (A) Medical Councils and Boards of New South Wales, Victoria, South Australia, Western Australia, and Tasmania; (B) J. M. Last (1963).

countries. In addition, double counting occurs when the figures for the five States are added together if an individual doctor has registered in more than one State.

In 1963 Dr. J. M. Last (1963) examined the Registers of the Australian States and Territories to ascertain the number of graduates of medical schools of the British Isles who were both registered in and resident in Australia (Fig. 5) and found the total to be 1,766 early in 1963. As 361 of these graduates had arrived in Australia in 1961 and 1962 the figure is consistent with the Australian census for 1961 (the first to give medical practitioners by country of birth), which showed that there were in Australia on 30 June 1961 1,310 medical practitioners who had been born in the United Kingdom or the Republic of Ireland. The difference between the number of registrations in the five States between 1930 and 1961 and the number of graduates who were still resident in Australia in 1963 is caused by those who left Australia or died before 1963 and by the double counting in the former figure.

Between 1948 and 1957 inclusive 1,126 registrations of medical graduates from the British Isles occurred in five Australian States. In early 1963 (5–15 years later) there were 635 graduates (57% of the registrations) resident in Australia who had registered there during those 10 years. A reduction to 57% of the annual number of registrations of doctors from the British Isles in the five Australian States should indicate approximately the number of doctors emigrating to Australia (Table IV).

TABLE IV.—*British and Irish Doctors Emigrating to Australia, 1948–63*

Year	Registrations of Graduates of Medical Schools of the British Isles in Five Australian States		Graduates Emigrating to Australia (Reduction to 57% of Cols. A and B—See Text)	
	England, Wales, and Scotland (A)	Ireland* (B)	England, Wales, and Scotland	Ireland
1948	63	8	36	5
1949	64	18	36	10
1950	83	10	47	6
1951	114	25	65	14
1952	83	19	47	11
1953	57	5	33	3
1954	77	15	44	9
1955	100	15	57	9
1956	127	20	73	11
1957	200	23	114	13
1958	185	25	105	14
1959	227	29	130	17
1960	193	31	110	18
1961	202	11	115	6
1962	169	22	97	13
1963	190	25	108	14

Sources (cols. A and B): Medical Boards of New South Wales, Victoria, South Australia, Western Australia, and the Medical Council of Tasmania.

* Separate figures for Ireland were not available for New South Wales between 1948 and 1957 inclusive. It has been assumed that the number of doctors registering in New South Wales in these years who were Irish was the same as the number registering in Victoria in the same years were Irish.

South Africa and Southern Rhodesia

The Registrar of the South African Medical and Dental Council provided figures of the number of graduates of medical schools of the British Isles who registered in South Africa each year since 1945. The South African Medical and Dental Register of 1961 was examined to determine how many of these graduates were still both registered in and resident in South Africa (Fig. 6). Doctors in South Africa are required to pay an annual fee if they wish to remain on the Register, which enables the Registrar to verify their current address, and the Register indicates with a high degree of accuracy the location of doctors registered in South Africa at the time of publication.

Of the 634 graduates from Great Britain who registered between 1945 and 1954, 356 (56%) were still in South Africa in 1961—that is, 5 to 15 years later; of the 79 doctors from Ireland, 47 (59%) were still in South Africa. A reduction to 57% of the number of doctors from the British Isles who register annually in South Africa should indicate approximately the number emigrating (Table V).

Study of the names in the Register suggested that a small number of the graduates, particularly from Irish and Scottish medical schools, were of South African origin who had studied in the British Isles and then returned home. These were doctors with Indian names, and averaged about five per year.

FIG. 6.—Medical Emigration to South Africa, 1945–63. Graduates of medical schools of the British Isles registering in South Africa, 1945–63 (A), and graduates resident in South Africa in 1961 by year of registration (B). Sources: (A) Medical and Dental Council of South Africa; (B) Medical and Dental Register of South Africa, 1961.

TABLE V.—British and Irish Doctors Emigrating to South Africa, 1945–63

Year	Graduates of Medical Schools of Great Britain and Ireland Registering in South Africa		Graduates Emigrating to South Africa (Reduction to 57% of Cols. A and B—See Text)	
	England, Scotland, and Wales (A)	Ireland (B)	England, Scotland, and Wales	Ireland
1948	139	15	79	9
1949	54	6	31	3
1950	30	2	17	1
1951	57	9	32	5
1952	41	5	23	3
1953	26	4	15	2
1954	35	8	20	4
1955	34	8	19	4
1956	37	11	21	6
1957	28	8	16	4
1958	38	10	22	6
1959	32	8	18	4
1960	21	9	12	5
1961	23	8	13	4
1962	42	19	24	11
1963	39	16	22	9

Source (cols. A and B): South African Medical and Dental Council.

The Registrar of the Medical Council of Southern Rhodesia provided figures of the number of graduates from medical schools of the British Isles who have registered in Southern Rhodesia each year since 1930. It has not been possible to obtain a copy of a Medical Register of Southern Rhodesia, but an estimate of the number of doctors emigrating from the British Isles from 1948 to 1963 has been prepared (Table VI) on the assumption that registrations should be reduced to 57% as in the case of South Africa.

TABLE VI.—British and Irish Doctors Emigrating to Southern Rhodesia, 1948–63

Year	Graduates of Medical Schools of Great Britain and Ireland Registering in Southern Rhodesia		Graduates Emigrating to Southern Rhodesia (Reduction to 57% of Cols. A and B—See Text)	
	England, Scotland, and Wales (A)	Ireland (B)	England, Scotland, and Wales	Ireland
1948	38	1	22	1
1949	23	2	13	1
1950	24	0	14	0
1951	15	3	9	2
1952	26	4	15	2
1953	19	3	11	2
1954	26	3	15	2
1955	19	6	11	3
1956	19	6	11	3
1957	23	5	13	3
1958	37	4	21	2
1959	28	5	16	3
1960	16	2	9	1
1961	15	2	9	1
1962	11	7	6	4
1963	15	2	9	1

Source (cols. A and B): Medical Council of Southern Rhodesia.

Total Emigration from the British Isles

An estimate based on the above calculations has been made of the number of doctors from the British Isles emigrating to Canada, the U.S.A., Australia, New Zealand, South Africa, and Southern Rhodesia from 1954 to 1963 inclusive (Table VII). During the 10 years 3,425 emigrated from Great Britain, and 967 from Ireland. Included in these figures will be a small number of doctors—perhaps 250⁴—who originated from these overseas countries, received their medical training in the British Isles, and then returned home. However, some doctors from Britain also emigrated to other countries—22% of 100 graduates of the Birmingham Medical School⁵ who emigrated in recent years went to countries other than those mentioned above (Whitfield, 1963). If it were possible to ascertain total medical emigration from the British Isles to the rest of the world in the decade 1954–63 it would probably be nearly 4,000 doctors from Great Britain alone (400 per year—equivalent to nearly one-quarter of the output of British-born graduates of the medical schools of Great Britain), and well over 1,000 from Ireland (over 100 per year—equivalent to about one-third of the output of the medical schools of Ireland). If these figures are approximately correct then there must be major fallacies in the reasoning used by Mr. Enoch Powell (1962), in his paper read at the

⁴ Few of the 607 graduates of British medical schools who had come from overseas to study in Britain and graduated in the five years 1955–9 inclusive (ref.: Medical Staffing Structure in the Hospital Service (1961), p. 30, H.M.S.O., London) had come from the countries referred to in this paper.

⁵ Although about one-fifth of the emigrants from Birmingham Medical School went to countries other than those studied in my paper the proportion may not be representative of all British medical schools. The proportion for all may be higher or lower. It is, however, the only figure at present available and is unlikely to be wildly unrepresentative.

TABLE VII.—British and Irish Doctors Emigrating from British Isles to North America, Australasia, South Africa, and Southern Rhodesia, 1954–63

Year	Emigration from Great Britain							Emigration from Ireland							Emigration from British Isles
	Canada	U.S.A.	Australia	N.Z.	S.A.	S.R.	Total from G.B.	Canada	U.S.A.	Australia	N.Z.	S.A.	S.R.	Total from Ireland	
1954	92	52	44	17	20	15	240	29	27	9	5	4	2	76	316
1955	116	50	57	22	19	11	275	30	41	9	2	4	3	89	364
1956	130	64	73	16	21	11	315	31	30	11	3	6	3	84	399
1957	187	66	114	31	16	13	427	46	51	13	5	4	3	122	549
1958	124	84	105	16	22	21	372	28	52	14	3	6	2	105	477
1959	110	90	130	19	18	16	383	26	65	17	5	4	3	120	503
1960	102	113	110	17	12	9	363	20	59	18	4	5	1	107	470
1961	92	82	115	14	13	9	325	15	53	6	5	4	1	84	409
1962	95	73	97	23	24	6	318	8	51	13	4	11	4	91	409
1963	161	(73)*	108	34	22	9	407	13	(51)*	14	1	9	1	89	496
Total 1954–63	1,209	747	953	209	187	120	3,425	246	480	124	37	57	23	967	4,392

* The number of graduates of medical schools of Great Britain and Ireland passing the State Boards examinations in the U.S.A. in 1963 is not yet available. It has been assumed that the number was the same as in 1962.

Annual Conference of Local Medical Committees in June 1962, to demonstrate that medical emigration of this scale could not have occurred.

Increase in British Medical Man-power

Mr. Powell stated that few British doctors could be emigrating because the difference (about 650 per year) between the annual output of the medical schools, and the loss of doctors from the National Health Service through death and retirement, was largely absorbed by "an average annual increase of British doctors in the National Health Service alone of nearly 500. . . . There is therefore left only a relatively small fraction of the output of British graduates to be accounted for. Out of that small residual fraction must come not only net emigration but the replacement, and in some cases the expansion, of the number of medically qualified persons in industry, in public civil employment outside the Health Service, and in private practice. The residue has also to cover all those who go out of practice—or who never enter it—for other reasons, such as marriage. . . . It must be clear that there is no room here for net emigration of British doctors on any massive scale."

The premises on which this conclusion was based are of dubious validity. Firstly, the figure given for loss through death and retirement (1,100) was only an estimate and could be incorrect; secondly, the figure of an average increase of 500 British doctors in the N.H.S. per year was also an estimate, which may be incorrect because the number of British doctors in junior hospital posts in any year before 1960 was unknown (there were 2,847 doctors born outside the British Isles in junior hospital posts in England and Wales in March 1960, and 30 months later, in September 1962, they had increased by 868 to 3,715); and, thirdly, even if the average increase of 500 per year is correct, the average conceals a highly significant trend.

The average increase of 500 per year when examined in detail is composed of a much higher rate of increase during the early 1950s and a much lower rate thereafter. Mr. Powell stated that general practitioners (principals and assistants) in the Health Service increased by an average of about 240 per year between 1952 and 1961—but 80% of the increase occurred before 1956. Between 1956 and 1962 the rate of increase of general practitioners averaged only 85 per year. Similarly with senior specialists in the hospitals (consultants and senior hospital medical officers) there was an increase of 2,000 between 1950 and 1961 (an average of nearly 200 per year—but 1,150 of the increase occurred in the first three years, 1950–3. Between 1956 and 1962 the rate of increase of senior specialists averaged only 83 per year. The average increase of general practitioners and senior specialists combined since 1956 has therefore been about 170 per year. Furthermore, there is no evidence that there has been any increase since 1956 in the number of British-born doctors in the other major segment of medical man-power—junior hospital staff; there may well have been a decrease. The entire increase in junior hospital staff which has occurred could be accounted for by doctors arriving from overseas. In so far, therefore, as a detailed study of the trend of British-born medical man-power in the N.H.S. is possible by using the figures published by the Ministry of Health, it does not exclude the possibility of the emigration of 400 British-born doctors per year since 1956 and another 100 per year from Ireland.

Medical School Studies

Mr. Powell said that his general deduction about a low rate of medical emigration derived from a study of the total number of doctors in the Health Service was "confirmed by direct information collected in the last few months from our medical schools about the whereabouts of their students who graduated in recent years. . . . Data from a dozen medical schools in

London and the provinces show that of British doctors who graduated from them during the 1950s the proportion who are at present resident abroad is between 6 and 7%." It appears to have been assumed that emigration of British doctors in recent years was therefore equivalent to about 6% of the output of the British medical schools—that is, about 100 doctors annually. A similar assumption was made as recently as 26 October 1963 by the *Lancet* (1963), and Sir Robert Platt (1962) based his assessment of emigration on a similar line of reasoning.

The basic assumption underlying this reasoning—medical emigration from Britain in the 1950s was confined to those who had recently graduated—is incorrect. Of all medical emigrants from the British Isles who arrived in New Zealand during the 17 years 1946–62 inclusive, 60% had graduated before 1946 (Fig. 7). Only 33% of the doctors from the British Isles who have emigrated to the State of Victoria in Australia between 1946 and 1962 arrived within five years of graduating, and 37% arrived more than 10 years after graduating (Fig. 8).

FIG. 7.—Year of Emigration to New Zealand and Year of Graduation in the British Isles. Graduates of medical schools of the British Isles registering in New Zealand, 1946–61, and still resident in New Zealand in 1962, by year of arrival in New Zealand and by year of graduation. Source: Medical Register of New Zealand, 1962.

FIG. 8.—Interval between Graduation in the British Isles and Emigration to Victoria. Graduates of medical schools of the British Isles registering in Victoria 1946–62 and resident in Australia in 1962 by interval between graduation in the British Isles and arrival in Victoria. Source: Medical Register of Victoria, 1963.

If the pattern of medical emigration to New Zealand and to Victoria is typical then a follow-up only of doctors graduating from a medical school in the 1950s will lead to substantial underestimates of the true rate of emigration in the 1950s, if it is assumed that only graduates of the 1950s emigrated in the 1950s. An adequate study by a medical school of emigration of its graduates during the 1950s must, at least, include all those who graduated between 1930 and 1959, because a follow-up of over 20 years is required before a British doctor can reasonably be classified as a non-emigrant. No such study has yet been

carried out. However, the study of Birmingham graduates by Dr. Whitfield (1963) (Birmingham is the only medical school to which Mr. Powell referred which has yet published details of the results of the study of emigration of its graduates and of the methodology used) shows that emigration during the first three years of the 1960s of doctors who graduated from Birmingham between 1948 and 1958 alone was at a rate equivalent to 20% of the output of graduates from Birmingham Medical School (Seale, 1963). Mr. Powell was therefore mistaken in believing that the medical school studies confirmed that the rate of medical emigration was low.

Figures for Australia

Mr. Powell analysed in detail the registrations in Australia in 1957 of graduates of medical schools of the British Isles. He confirmed that there was some double counting, that some of the doctors were Irish, some were not British-born, and some had moved to other countries or returned to Great Britain. He correctly concluded that the total number of registrations should be reduced to at least 60% to estimate the number of British medical emigrants arriving in Australia in 1957, but this did not confirm that emigration from Great Britain in 1957 was low. In this paper the Australian figure for 1957 is reduced to only 57% of registrations, and appropriate reductions for other countries are made, but the conclusion is reached that at least 427 British and 122 Irish doctors emigrated from the British Isles in 1957 alone.

Conclusion

It is apparent that the three groups of facts—trends in the total of British medical man-power; the data from the medical schools; and the Australian registration figures—used to refute the thesis that medical emigration from the British Isles was high during the 1950s do not do so when carefully analysed. Mr. Powell mentioned another set of facts which adequately analysed could settle the question of the number of doctors emigrating from Britain during the years of the National Health Service when he said, "it is perhaps of interest here to add that no fewer than 166 doctors who left Great Britain in 1961 to take up work abroad are shown by the superannuation records of the Health Departments to have done so on terms which indicate that they intend to return." During the last 18 months, in an attempt to estimate the number of doctors leaving Great Britain, a detailed and independent study of the superannuation records of doctors in the Health Service has been made with the co-operation of the Ministry of Health and the support of the British Medical Association (*B.M.J.*, 1962). The results will shortly be published and they should show, even more pre-

cisely than I have been able to do, the total number of British doctors who have emigrated to the rest of the world in recent years. It would be surprising if the findings of this study differed substantially from those which I have reported above.

Summary

Estimates have been made of permanent emigration of doctors from Great Britain and Ireland to North America, Australasia, South Africa, and Southern Rhodesia during the 10 years 1954–63. The basic data have been derived from medical registration authorities overseas, from the immigration authorities in the United States and Canada, and from the national censuses of Canada and Australia. Efforts have been made to avoid double counting and to exclude doctors who leave the British Isles for less than five years.

It has been concluded that during the decade 1954–63 4,392 doctors (3,425 from Great Britain and 967 from Ireland) emigrated permanently from the British Isles to Australia, New Zealand, Canada, the United States, South Africa, and Southern Rhodesia alone. It is further suggested that the total emigrating during these years to all countries must have averaged nearly 400 per year from Great Britain and over 100 per year from Ireland.

The fallacies in the reasoning of those who have suggested that emigration of doctors on this scale could not have occurred have been analysed.

I wish to thank the registrars and secretaries of the Medical Councils and Boards of New Zealand, Victoria, New South Wales, Western Australia, South Australia, Tasmania, South Africa, and Southern Rhodesia; the Chief, Statistics Section of the Department of Citizenship and Immigration (Canada); the Associate Commissioner, Immigration and Naturalization Service of the United States Department of Justice; and the Commonwealth Statistician, Commonwealth Bureau of Census and Statistics (Australia) for providing me with the data which have formed the basis of this paper.

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