



A STUDY OF MEDICAL MANPOWER IN LEBANON

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This study has revealed that the doctor, population ratio in Lebanon is one of the highest in the Middle East. However, the finding that about two-thirds of practising physicians work in Beirut indicates their uneven distribution. One-third of all doctors covered by this study graduated from medical schools located in foreign countries. Registration of specialities at the Orders of Physicians deserves additional attention by the medical profession.

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Lebanon is a small country having an area of 10,500 square kilometers and a population of about 2,167,000¹. It overlooks the Eastern coast of the Mediterranean sea and is considered in many ways an important link of trade and culture between the East and West. The country is divided into five Governorates (Mohafazat) (as seen from the accompanying chart), namely, Beirut, Mount Lebanon, North Lebanon, South Lebanon and Beka'a.

There are two medical schools in the country, both located in Beirut, the capital city. These are the Medical School of the American University of Beirut (founded in 1867), and the French Faculty of Medicine, Université Saint-Joseph (founded in 1883). The language of teaching is English at the the former and French at the latter.

To be licensed to practise medicine in Lebanon, a qualified medical graduate has to pass an examination (colloquium) organized by the Ministry of Health, following which his name is entered in a Register with the Ministry and is subsequently recorded in the Order of Physicians in Beirut or Tripoli, depending on the district of his work.

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ANNEX I

Practising Physicians by Nationality

Country	Beirut	Mount Lebanon	North Lebanon	South Lebanon	Beka'a	Total
Australia	1	—	—	—	—	1
Europe	11	—	—	—	—	11
Iraq	8	1	—	—	—	9
Jordan	8	—	—	—	—	8
Lebanon	950	214	163	74	58	1459
Palestine	11	—	—	—	—	11
Syria	25	4	2	—	1	32
U.A.R.	1	—	—	—	—	1
U.S.A.	3	—	1	—	—	4
Unknown	2	1	—	—	—	3
Total	1020	220	166	74	59	1539

Unfortunately, no regular and efficient system of follow-up is in current practice to check the whereabouts of physicians and to verify whether or not the licensed physician left Lebanon temporarily or permanently. The main purpose of this study was, therefore, to obtain accurate information about the physicians working in Lebanon by the end of 1967, including their number, geographic distribution, age and sex, medical school and year of graduation, fields of specialization and other related matters.

Methods

The authors dedicated a great deal of time to study the records available at both Orders of Physicians in Beirut and Tripoli, resorting frequently to cross-checking and to personal contacts and interviews with the medical profession, Medical Faculties and governmental agencies. The results of the study are outlined in this report.

Findings

Practising Physicians :

According to this study, the total number of practising physicians in Lebanon by the end of 1967 was 1539, leading to a physician/popula-

tion ratio of 1:1408. Broken down by Governorate, the physician/population ratio is calculated to be about 1:585 for Beirut, 1:2102 for Mount Lebanon, 1:2752 for North Lebanon, 1:5277 for South Lebanon and 1:4420 for the Beka'a. It has been noted during this study that approximately 110 Lebanese physicians are outside Lebanon as emigrants or otherwise. The names of this group have been deleted from the Register of the respective Orders of Physicians and are therefore not included in the above physician/population ratio.

Nationality

The breakdown of practising physicians by nationality is demonstrated in Annex I. Out of 1539 practising physicians, 1459 (93.05 per cent) are Lebanese nationals. Syrians come next but constitute only 2.1 per cent of the total number of physicians. Those who are nationals of Australia, the United States and European countries (16 in all) are involved mainly in academic teaching at the two medical schools referred to above.

Age and Sex

It is clear from Annex II, that 33.92 per cent of practising physicians fall in the age group 30-39 years, 26.77 per cent in the age group 40-49 years and 18.13 per cent in the age group 50-59 years. The small number of those aged less than thirty years (0.90 per cent) is explained by the tendency of new graduates to travel abroad for specialization. Females constitute 6.56 per cent of the total number of practising physicians, and the majority of these women doctors are stationed in Beirut.

In Lebanon, the retirement age for physicians is 65 years or following 30 years of practice; in either case retirement is not compulsory. The retired physicians are not included in this study.

Year and Place of Graduation

Annex III outlines the number of practising physicians by year and place of graduation. It would appear that the French Faculty of Medicine in Beirut heads the list, having graduated 762 physicians (49.49 per cent of the total number of practising physicians in Lebanon). The Medical School of the American University of Beirut follows, having graduated 330 physicians (21.44 per cent of the total number of practising physicians). The remaining places of graduation are in the following order: France (12.08 per cent); Syrian Arab Republic (4.61 per cent); Switzerland (2.92 per cent); United Arab Republic (2.20 per cent); Germany (1.43 per cent); and Turkey (1.04 per cent). It is noted that a small proportion (0.9 per cent) of practising physicians graduated from

ANNEX II

Practising Physicians by Age and Sex

Muhafazat	<30 years		30-39 years		40-49 years		50-59 years		60-69 years		70+ years		Total		
	M	F	M	F	M	F	M	F	M	F	M	F	Male	Female	Total
Beirut	72	16	313	38	263	14	185	6	75	2	36	-	944	76	1020
Mt. Lebanon	23	5	79	5	48	3	30	1	16	1	9	-	205	15	220
North Lebanon	12	-	48	3	46	1	28	2	20	-	5	1	159	7	166
South Lebanon	7	1	19	-	21	-	16	-	7	-	3	-	73	1	74
Beka'a	3	-	16	1	16	-	11	-	5	1	6	-	57	2	59
Total	117	22	475	47	394	18	270	9	123	4	59	1	1438	101	1539
	522		139		412		279		127		60		1539		

medical schools in Eastern Europe. This trend which began in 1960 seems to be on the increase.

Distribution by Governorate (Mohafazat)

The distribution of medical manpower in the five Governorates (Mohafazat) is shown in Annex IV. The physicians practising in Beirut (1020) constitute 66.28 per cent of the total number of physicians practising in the whole country. The remaining 519 physicians (33.72 per cent) are distributed among the four Governorates, namely Mount Lebanon, North Lebanon, South Lebanon and the Beka'a. Of the physicians working outside Beirut, 57.20 per cent are graduates of the two medical schools in Lebanon, the remaining 42.80 per cent being graduates of medical schools outside Lebanon. Graduates of the French Faculty of Medicine constitute 52.45 per cent of physicians practising in Beirut, as compared to 25.49 per cent who graduated from the American University of Beirut Medical School. The remaining are graduates of medical schools outside Lebanon. It is also worthwhile mentioning that out of 59 physicians practising in the Beka'a Governorate, only one graduated from the American University Medical School compared with 13 graduates of the French Faculty of Medicine. There are more practising physicians in the Beirut suburbs (which are administratively incorporated in the Mount Lebanon Governorate), than in the remaining parts of the same Governorate (134 in the suburbs and 86 in the remaining parts of the Governorate).

Specialization

This item constitutes a weak link in this study, owing primarily to under-registration of specialities. The Orders of Physicians in both Beirut and Tripoli accept to register a speciality on the basis of at least two years of postgraduate training in a particular field. It is, however, difficult to assess accurately the scope and magnitude of the postgraduate training acquired in each case particularly when training was received abroad. It is obvious from the above that Annex V which lists practising physicians by speciality and sex, should be viewed with caution. Having this in mind only highlights are outlined under this heading.

It would appear from Annex V that there is only a small number of specialists engaged in fields such as anesthesiology, dermatology, laboratory specialities, otolaryngology, physical medicine, psychiatry and public health. There are 170 general surgeons, and the majority of these (60.59 per cent) are practising in Beirut. Six neurosurgeons are practising in the country, all in Beirut. The number of these highly specialized physicians can be considered excessive for this small country, but it should

ANNEX III

Practising Physicians by Year and School of Graduation

Medical School country of study)	1910 1919	1920 1929	1930 1939	1940 1949	1950 1959	1960 1967	Total
A.U.B.*	15	24	74	51	176	78	339
F.F.M.**	6	40	114	165	256	161	762
Algeria	—	—	—	1	—	—	1
Australia	—	—	—	—	2	—	2
Austria	—	—	—	—	1	—	1
Belgium	—	—	—	—	5	8	13
Colombia, S.A.	—	—	—	—	1	—	1
Cuba	—	—	—	1	—	—	1
Czechoslovakia	—	—	—	—	—	2	2
Dominican	—	—	—	—	1	—	1
France	1	2	15	8	78	79	186
Germany	1	2	3	1	3	12	22
Greece	1	—	—	1	—	—	1
Iraq	—	—	2	2	—	—	4
Italy	—	—	2	4	1	3	10
Mexico	—	—	—	1	1	—	2
Senegal	—	—	—	—	—	2	2
Spain	—	—	—	—	3	5	8
Switzerland	—	5	15	6	18	1	45
Syria	—	2	22	16	21	10	71
Turkey	3	4	1	2	5	1	16
U.A.R.	—	—	—	1	19	14	34
U.K.	—	—	1	1	2	1	5
U.S.A.	1	—	3	—	3	—	7
U.S.S.R.	—	—	—	—	—	10	10
Yugoslavia	—	1	—	—	—	1	2
Total	27	109	235	261	528	388	1539

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ANNEX IV

Practising Physicians by Medical School of Graduation and Place of Work

Medical School (country of study)	Beirut	Mt. Lebanon	North. Leb.	South Leb.	Beka'a	Total
A.U.B.*	260	29	27	13	1	330
F.F.M.**	535	117	55	27	28	762
Algeria	1	—	—	—	—	1
Australia	2	—	—	—	—	2
Austria	—	1	—	—	—	1
Belgium	5	2	3	1	2	13
Colombia, S.A.	1	1	—	—	—	2
Cuba	1	—	—	—	—	1
Czechoslovakia	—	1	—	—	—	1
Colombia, S.A.	—	1	—	—	—	1
France	102	29	31	16	8	186
Germany	9	5	4	2	2	22
Greece	1	—	—	—	—	1
Iraq	3	1	—	—	—	4
Italy	4	5	1	—	—	10
Mexico	2	—	—	—	—	2
Senegal	—	1	1	—	—	2
Spain	4	3	1	—	—	8
Switzerland	27	1	11	4	2	45
Syria	19	10	22	7	13	71
Turkey	8	1	6	—	1	16
U.A.R.	20	9	2	3	—	34
U.K.	4	1	—	—	—	5
U.S.A.	7	—	—	—	—	7
U.S.S.R.	5	1	2	1	1	10
Yugoslavia	—	1	—	—	1	2
Total	1020	220	166	74	59	1539

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be recalled that patients from neighbouring countries as well make use of their services. The number of physicians engaged in general practice is reportedly 658 (42.76 per cent of the total number of physicians). Sub-specialities such as aviation medicine, legal medicine, industrial medicine and others have been incorporated in major specialities and they do not therefore appear in Annex V.

Specialities which seem to attract women physicians include anaesthesiology (8 out of a total of 26 engaged in this field); pediatrics (33 out of 134); laboratory disciplines (6 out of 27); dermatology (4 out of 27); and radiology (4 out of 29). It is somewhat surprising that only a few women physicians are engaged in gynecology and obstetrics (6 out of 118), in general medical practice (36 out of 658) and in public health (2 out of 15). No women physicians are engaged in surgery or in psychiatry. Out of a total number of 101 women physicians, 76 (75.25 per cent) are working in Beirut.

Discussion

It is clear from the above that the physician: population ratio in Lebanon is among the highest in the Middle East. This is not unexpected in a small country where two medical schools are functioning. However, the distribution of physicians leaves much to be desired, in the sense that about two-thirds of the medical manpower are stationed in Beirut which is reported to have only a quarter of the total population of the country. The rural areas are certainly in an unfavorable position regarding the availability and accessibility of practising physicians, and particularly of specialists. For instance, the number of otolaryngologists located outside Beirut is exceedingly small.

The small percentage of female physicians (6.56 per cent of the total number of practising physicians in Lebanon) represents a trend commonly encountered in the Middle East.

Approximately one third of all practising physicians graduated from medical schools outside Lebanon. It would be interesting to follow up this group in a separate study so as to explore the reasons why they had to travel abroad to study medicine.

In the light of discussions held at the Orders of Physicians in Beirut and Tripoli, it would seem that the registration of specialities is inadequate in many respects. Practising physicians should take more interest and initiative in reporting to the Orders of Physicians their up-to-date fields of specialization. Further, practising doctors often fail to advise the Orders of Physicians when they leave the country for study or work abroad for variable periods of time. This makes it practically impossible to keep

an accurate record of the number of practising physicians in the country at a given time. An alternative solution would be to adopt a system of re-registering, i.e. every two years. The cooperation of the medical profession is obviously needed in this respect.

The small number of physicians specialized in public health through academic postgraduate training (only 15) is noted with concern vis-à-vis the expanding health services of the country. Efforts should be made to encourage doctors to carry out postgraduate study in this field, possibly by sponsoring the training of suitable candidates.

Conclusion

An endeavour has been made to define medical manpower in Lebanon, with particular attention to the number, distribution, nationality, age and sex, year and school of graduation and specialization. There is need for improving record keeping, notably with respect to the number and specialities of practising physicians. In this context, the cooperation of the medical profession in keeping the Orders of Physicians duly informed about travel abroad for work or for further specialization, is essential and most valuable. Research in some areas is highly desirable, including particularly the factors inciting Lebanese students to study undergraduate medicine abroad, whereas two medical schools are functioning in Lebanon.

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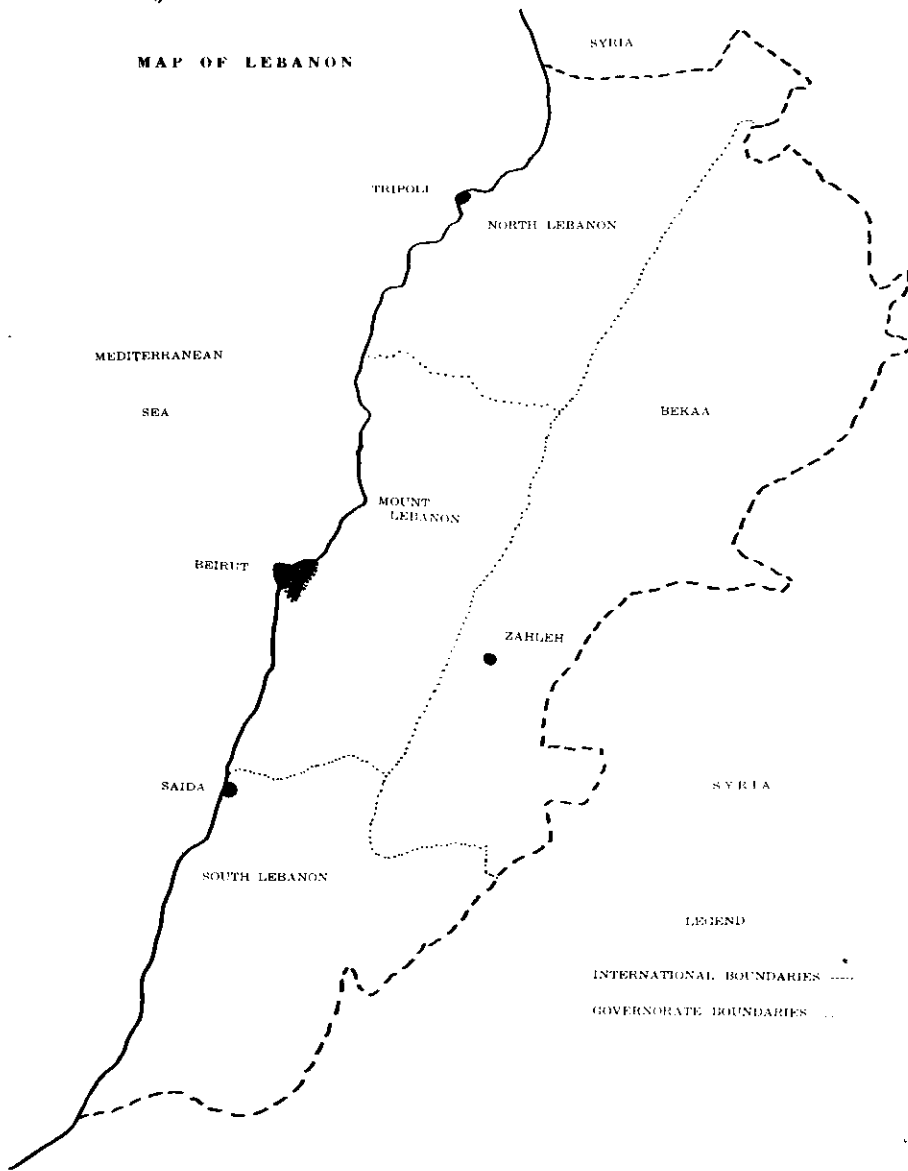
Résumé

Cette étude montre que le nombre de médecins par nombre d'habitants au Liban, est le plus élevé au Moyen-Orient. Cependant il est à remarquer que les 2/3 des médecins au Liban pratiquent dans la capitale.

ANNEX V
Practising Physicians by Speciality and Sex

Speciality	Beirut		Mount Lebanon		North Lebanon		South Lebanon		Beka'a		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
Allergy	2	—	1	—	—	—	—	—	—	—	3	—
Anesthesiology	15	6	2	2	—	—	—	—	—	—	18	8
Cardiology	42	—	4	—	6	—	2	—	—	—	54	—
Cardiovascular Sur.	3	—	—	—	—	—	—	—	—	—	3	—
Dermatology, V.D.	21	3	—	1	—	—	—	—	1	—	23	4
Endocrinology	13	1	—	—	—	—	—	—	—	—	13	1
Gastroenterology	31	—	2	—	2	—	1	—	—	—	36	—
General Medicine	312	22	121	6	99	5	50	1	—	—	622	36
General Surgery	103	—	28	—	25	—	8	—	40	2	170	—
Laboratories	19	6	1	—	1	—	—	—	6	—	21	6
Neurology	10	—	2	—	1	—	—	—	—	—	14	—
Neuro-Surgery	6	—	—	—	—	—	—	—	—	—	6	—
Obs. Gyn.	89	4	—	1	6	1	3	—	6	—	112	6
Ophthalmology	42	1	2	—	4	—	—	—	—	—	49	1
Orthopedic Surg.	24	—	1	—	—	—	1	—	—	—	26	—
Otolaryngology	18	—	3	—	—	—	1	—	—	—	23	—
Pediatrics	76	27	10	5	9	1	5	—	1	—	101	33
Physical Med.	2	—	—	—	—	—	—	—	—	—	2	—
Plastic Surg.	10	—	—	—	—	—	—	—	—	—	10	—
Psychiatry	14	—	8	—	—	—	—	—	—	—	22	—
Public Health	10	2	3	—	—	—	—	—	—	—	13	2
Pulmonary Dis.	22	—	6	—	2	—	—	—	—	—	30	—
Radiology	23	4	1	—	—	—	—	—	—	—	25	4
Thoracic Surg.	4	—	—	—	—	—	—	—	—	—	4	—
Urology	24	—	1	—	—	—	1	—	—	—	27	—
Others	1	—	—	—	—	—	—	—	1	—	2	—
Basic Med. Sciences	8	—	1	—	—	—	—	—	—	—	9	—
Total	944	76	205	15	159	7	73	1	57	2	1438	101
	1020		220		166		74		59		1539	

MAP OF LEBANON



D'autre part 1/3 des médecins exerçant au Liban ont pris leurs diplômes dans des pays étrangers. Enfin les auteurs insistent sur l'établissement de nouveaux critères pour l'enregistrement des spécialistes.

موجز

تظهر هذه الدراسة ان عدد الاطباء في لبنان بالنسبة لعدد السكان هو اعلى ما يكون في منطقة الشرق الاوسط . ولكن ثلثي الاطباء يمارسون عملهم في العاصمة . ولقد حاز ثلث الاطباء على شهاداتهم من جامعات اجنبية خارج لبنان . ويصر اصحاب المقالة على ضرورة الاعتماد على مستندات حديثة في تسجيل الاختصاصات .

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