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MEDICAL EDUCATION
1926-1928

By

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SECRETARY OF THE COUNCIL ON MEDICAL EDUCATION AND HOSPITALS OF THE AMERICAN MEDICAL ASSOCIATION

[Advance sheets from the Biennial Survey of Education in the United States, 1926–1928]

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MEDICAL EDUCATION, 1926–1928

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Secretary of the Council on Medical Education and Hospitals of the American Medical Association

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During the past two years the number of medical schools recognized by the American Medical Association has been reduced from 80 to 74. The charters of two medical schools, the Kansas City College of Medicine and Surgery and the St. Louis College of Physicians and Surgeons, were revoked on June 23, 1926, and May 23, 1927, respectively, on the grounds that they had been convicted of selling medical diplomas. Although institutions under new names were promptly chartered, information indicated that they were to be conducted under the same control or in the same manner as their predecessors.

Four other medical schools, the College of Physicians and Surgeons, Boston, the Middlesex College of Medicine and Surgery of Cambridge, Mass., the Kansas City University of Physicians and Surgeons, and the Chicago Medical School, are omitted from the list inasmuch as official reports show that they are not recognized as medical schools by the medical licensing boards of 47 States and the Territory of Alaska, and because they were deemed by the Council on Medical Education and Hospitals of the American Medical Association to be unworthy of being recognized as medical schools.

A new medical school not yet recognized by the American Medical Association was opened rather precipitately in the fall of 1928 by the University of Southern California, Los Angeles. In the fall of 1930, the new School of Medicine of Duke University, after extensive preparation, is to be opened, which will raise the present total to 76.

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TWENTY-EIGHT YEARS OF MEDICAL EDUCATION IN THE UNITED STATES

(Fewer medical colleges in number since 1900 but of improved standard. A. Council on Medical Education created. B. Report of the Carnegie Foundation for the Advancement of Teaching issued. C. Minimum entrance requirements for class A medical schools raised to one year of college work. D. Two years of college work required for admission to all class A medical schools.)

Admission requirements of medical colleges, 1901–1928

Year	Colleges requiring—			Total number of medical colleges	Year	Colleges requiring—			Total number of medical colleges
	High-school graduation	1 year of college	2 years of college or more			High-school graduation	1 year of college	2 years of college or more	
1901	158	.....	2	160	1915	12	44	40	96
1902	158	.....	2	160	1916	10	38	47	95
1903	157	.....	3	160	1917	10	30	56	93
1904	156	.....	4	160	1918	9	1	80	90
1905	153	.....	5	158	1919	6	.....	79	85
1906	156	1	5	162	1920	6	.....	79	85
1907	148	2	9	159	1921	7	.....	76	83
1908	135	5	11	151	1922	6	.....	75	81
1909	116	8	16	140	1923	6	.....	74	80
1910	91	13	27	131	1924	6	.....	73	79
1911	80	14	28	122	1925	5	.....	75	80
1912	72	16	30	118	1926	5	.....	75	79
1913	60	16	31	107	1927	5	.....	75	80
1914	24	44	34	106	1928	.....	.....	74	74

MEDICAL STUDENTS

Reports to the American Medical Association show that the enrollment of medical students has been increased from 18,840 in 1926 to 20,545 in 1928, an increase in the two years of 1,705 students.

Various reports during the past several years have made it appear that many qualified students were finding it impossible to obtain enrollment in medical schools. An investigation made by Dr. Burton D. Myers, of Indiana University,[1] in the fall of 1926 showed that the 8,500 individual applicants made altogether 20,093 applications, or each applicant on the average had applied to two and one-half medical schools. Of the applications received 6,420 were accepted, but when the session began, only 5,020 students were actually enrolled, indicating that 1,400 students had applied and been accepted by two or more medical schools. Thus, at the beginning of the college year of 1926–27, there were 1,400 vacancies still existing, or one-fourth of the entire first-year capacity. Fortunately, the medical schools had waiting lists, so that 989 of these vacancies were filled since later reports showed that 6,009 students had been admitted.

The report of the investigation stated also that of the 3,480 not accepted, 2,622 were rejected because of unsatisfactory qualifications.

Again, in the fall of 1927, it was found that 11,282 students sent in 23,590 applications, some having applied to as high as 19 different medical schools. Of those rejected in 1926, 1,340 reapplied in 1927 and 750 were accepted, most of whom had secured additional pre-

[1] Bulletin of the Association of American Medical Colleges, vol. 2, No. 2, April, 1927, p. 97.

liminary qualifications. The statistics reveal, what is apparently true, that most of those rejected were students having unsatisfactory qualifications.

The fact that larger numbers of students are being accepted by medical schools each year shows that the medical schools are gradually adding to their teaching staffs, equipment, and hospital facilities so that larger numbers of students can be enrolled. The opening this year of the medical school of the University of Southern California and, next year, of the School of Medicine of Duke University leads to the belief that adequate provision will be made whereby all properly qualified students can secure enrollment.

TABLE 1.—*Enrollment of medical students during the past 10 years*

College year	Total	College year	Total	College year	Total
1918–19	12,930	1922–23	16,960	1926–27	19,662
1919–20	13,798	1923–24	17,728	1927–28	20,545
1920–21	14,466	1924–25	18,200		
1921–22	15,635	1925–26	18,840		

MEDICAL GRADUATES

During the past two years the number of students graduating from medical schools has been increased from 3,962 to 4,262, an increase of 300 in the two years.

TABLE 2.—*Graduates of medical schools for the past 10 years*

Year	Graduates	Year	Graduates	Year	Graduates
1919	2,656	1923	3,120	1927	4,035
1920	3,047	1924	3,562	1928	4,262
1921	3,192	1925	3,974		
1922	2,529	1926	3,962		

Between 1904 and 1919 the number of graduates each year decreased from 5,747 to 2,656, which represented, under normal conditions, the lowest ebb in the number of graduates due to the raising of entrance requirements of medical schools and to the mergers by which the number of medical schools was reduced from 162 to 85. Thereafter the number of students increased steadily each year. Also, the number of graduates would have continued to increase except for the smaller class enrolled in 1918 due to the war, which accounts for the fact that only 2,529 students graduated in 1922.

The percentage of medical-school graduates who were graduated from class A medical schools, however, has increased from 94.2 to 96

per cent, while the proportion holding baccalaureate in addition to medical degrees has increased from 60.3 to 63.6.

AGES OF GRADUATES, CLASS OF 1928

For the students who graduated in 1928 a special tabulation was prepared which gave the average age at graduation from the 4-year medical course as 26.8 years. Or, counting the fifth year of hospital interneship, the average age was 27.8.

TABLE 3.—*Ages at graduation, medical graduates of 1928, exclusive of interneships*

Age	Graduates	Age	Graduates	Age	Graduates
21	2	28	387	35	45
22	37	29	243	36	21
23	205	30	205	Over 36	58
24	573	31	114		
25	758	32	97	Total	4,187
26	797	33	77		
27	502	34	66		

Grouped by ages and excluding the interne year the largest number, 797, graduated at the age of 26, followed by 758 at the age of 25, 573 at the age of 24, and 502 at the age of 27. Note, therefore, that 2,874, or 68.6 per cent, of all graduates for whom the age was known graduated at the age of 27 years or less.

MEDICAL STUDENTS WHO DID NOT GRADUATE

From the Medical Students' Register, which was established in 1910 by the American Medical Association, it is found that, in the past 16 years, out of 67,198 students enrolled, 55,476, or 82.6 per cent, graduated. Of the 11,722 who did not graduate—mainly because of low scholarship—7,688, or 65.6 per cent, dropped out during the first year; 2,647, or 22.6 per cent, dropped out during the second year; 1,059, or 9 per cent, dropped out during the third year; and 328, or 2.8 per cent, dropped out during the senior year. It is interesting to note, therefore, that 10,335, or 88.2 per cent, of those who discontinued medical study did so during the first two years of the medical course. This is as it should be, since the student's time is not wasted if his disqualification for medicine is discovered early and he can more promptly enter on some other line of activity.

TABLE 4.—*Medical students who do not graduate* [1]

Year	Medical students dropping out—					Number graduating
	First year	Second year	Third year	Fourth year	Total	
1907–08	350				350	
1908–09	371	149			520	
1909–10	873	291	218		1,382	
1910–11	710	388	153	9	1,260	4,273
1911–12	704	227	129	48	1,108	4,483
1912–13	664	217	91	37	1,009	3,981
1913–14	658	197	68	33	956	3,594
1914–15	359	147	52	25	583	3,536
1915–16	345	129	55	29	558	3,518
1916–17	344	92	36	17	489	3,379
1917–18	342	77	30	19	468	2,670
1918–19	321	99	30	10	460	2,656
1919–20	362	126	34	25	547	3,047
1920–21	377	101	26	6	510	3,192
1921–22	455	119	25	19	618	2,529
1922–23	453	137	29	13	632	3,120
1923–24		151	53	15	219	3,562
1924–25			30	13	43	3,974
1925–26				10	10	3,962
Total	7,688	2,647	1,059	328	11,722	55,476
Per cent of all students leaving before graduation	65.6	22.6	9.0	2.8	100.0	

[1] Total number of students registered, 67,198.

ENLARGEMENT OF MEDICAL SCHOOL PLANTS

During the past 20 years new medical school buildings or enlarged teaching hospitals have been erected in at least 48 medical schools, of which 24 were new and complete medical teaching plants. No less remarkable improvements have been made at the medical schools of Canada. Within the past two years the greatly enlarged plants previously reported as under way at Columbia University and the University of Colorado have been completed, as have also new buildings at Howard University, and the State Universities of Iowa, Kansas, and Tennessee, and at Johns Hopkins. Thus the capacity of medical schools is continually being increased, which is making it possible to enroll constantly increasing numbers of medical students.

NEGRO MEDICAL STUDENTS

Statistics regarding the negro medical students and graduates show that during the past five years 2,644 students have been enrolled and 586 have received medical degrees. Of the students, 2,193 were enrolled and 475 were graduated from the two negro colleges, while 451 students and 111 graduates obtained their medical training in other medical schools in the United States and Canada. On the average, during the five years, there have been 529 students enrolled each year, of whom 117 graduated.

TABLE 5.—*Negro medical students*

Institution	1923–24		1924–25		1925–26		1926–27		1927–28		Totals	
	Students	Graduates	Students	Graduates	Students	Graduates	Students	Graduates	Students	Graduates	Students	Graduates
NEGRO COLLEGES												
Howard University	228	26	245	71	226	54	218	49	233	55	1,150	255
Meharry Medical College	172	38	206	34	225	47	229	55	211	46	1,043	20
OTHER COLLEGES												
Boston University	2	1	3	1	1				2	1	8	3
Chicago Medical College [1]			19	5	24	3	20	7	20	4	83	19
College of Medical Evangelists	1	1	1		1		2		2		7	1
Columbia University			2		1		1		3	1	7	1
Harvard University	4		4		7	2	3	3	4		22	5
Indiana University	2	2			5	1	3	1	6		16	4
Jefferson Medical College	1										1	
Long Island College Hospital			1		1		1		1	1	4	1
Loyola University					15		2		1	1	18	1
Northwestern University	12	3	6	1	10	3	4	3	2	1	34	11
Ohio State University	6	1	10	2	4		3	2	2		25	5
Rush Medical College	5	4	6	2	14	2	5	2	14	5	44	15
Syracuse University	2		1	1					1		4	1
Temple University	6		7	4	2	1	1		1	1	17	6
Tufts College			2	1	4		5	2	3		14	3
University of Buffalo	2	2									2	2
University of California	1	1	1		1		1	1			4	2
University of Kansas					1						1	
University of Michigan	19	5	4	1	3	2	5		7	1	38	9
University of Nebraska	1		1		1		1		1		5	
University of Vermont	2	1									2	1
Women's Medical College of Pennsylvania	5		3	2	1				1	1	10	3
Western Reserve University			1	1	1				2		4	1
Dalhousie University					4	4	3		2	1	9	5
McGill University			20		16	3	11	1	8	3	55	7
Queen's University							1		1	1	2	1
University of Montreal									2	1	2	1
University of Toronto					6		7	3			13	3
Total	471	85	543	126	574	122	526	129	530	124	2,644	586

[1] A class C college.

SAVING TIME IN MEDICAL EDUCATION

During the past two years the idea of a more continuous method of medical instruction, usually given under the so-called quarter system, has been strongly advocated, whereby a student can complete the four required college years of medical education of eight or nine months each in three calendar years. Under this plan any three consecutive quarters of completed work would count as a "college year." Indeed, the avowed adoption of this plan by the new school of medicine of Duke University has given fresh impetus to the movement and shows that the plan is feasible, even in the warmer climate of the Southern States. The quarter system is already in effect, or readily possible, in the following medical schools: Stanford University School of Medicine, San Francisco; University of Chicago, Rush Medical College; Loyola University School of Medicine,

Chicago; University of Minnesota School of Medicine, Minneapolis; Marquette University School of Medicine, Milwaukee.

It will be put into effect in the fall of 1930 at Duke University School of Medicine, Durham, N. C., and is also contemplated by Tulane University School of Medicine, New Orleans, and the University of Tennessee School of Medicine at Memphis.

RELATIVE SUPPLY OF PHYSICIANS IN THE UNITED STATES

Since the biennial report of 1924–1926 more complete statistics from foreign countries showing the supply of physicians in proportion to population as compared with the United States has been obtained and is given in the accompanying table.

TABLE 6.—*Relative supply of physicians in the United States and abroad*

Country [1]	Physicians per 100,000 population	Physicians per 100 square miles	Relative position of countries [2]	Country [1]	Physicians per 100,000 population	Physicians per 100 square miles	Relative position of countries [1]
1. United States	126.59	4.94	19	22. Irish Free State	52.60	6.20	16
2. Austria	113.89	22.98	5	23. Portugal	39.97	6.79	15
3. Great Britain	111.35	52.85	1	24. Sweden	34.57	1.28	28
4. Iceland	85.00	.21	36	25. Brazil	33.76	.28	33
5. Switzerland	79.93	19.44	7	26. Poland	30.41	6.00	18
6. Spain	77.16	8.64	13	27. Bulgaria	29.54	4.06	21
7. Japan	76.85	17.60	8	28. Finland	24.71	.65	26
8. Cuba	75.81	6.11	17	29. Mexico	23.57	.43	31
9. Hungary	73.15	17.21	9	30. Costa Rica	20.89	.51	30
10. Estonia	71.78	4.35	20	31. Lithuania	20.61	.78	27
11. Italy	71.27	25.08	4	32. Chile	19.70	.23	35
12. Denmark	70.07	13.99	11	33. Venezuela	16.65	.12	39
13. Argentina	64.47	.56	29	34. Yugoslavia	13.41	1.83	24
14. Germany	64.43	22.15	6	35. Peru	12.83	.10	38
15. France	58.88	11.28	12	36. Honduras	12.27	.19	37
16. Czechoslovakia	58.51	14.67	10	37. Salvador	12.18	2.38	23
17. Greece	57.97	7.54	14	38. Guatemala	8.78	.36	32
18. Norway	56.88	1.20	26	39. Bolivia	6.57	.04	40
19. Netherlands	30.95	30.95	3	40. Siam	5.08	.24	34
20. Latvia	54.90	4.05	22	41. Persia	2.50	.04	41
21. Belgium	53.76	35.73	2				

[1] The countries are arranged in the order of the number of physicians in ratio to the population.
[2] The numbers in column 3 show the relative position of the countries of column 1 were they arranged in the order of the number of physicians per 100 square miles.

Note that although the United States has a greater percentage of physicians to population than any other country, it has a smaller number to each 100 square miles than 18 other countries, but a larger number than 22 other countries.

SUPPLY OF PHYSICIANS IN THE VARIOUS STATES

In Table 7 is given the supply of physicians in each State in proportion to each 10,000 people, as well as the number for each 100 square miles. District of Columbia, comprising the city of Washington, leads in both.

TABLE 7.—*Supply of physicians in the United States shown by States*

State	Population (estimate)	Area, square miles	Number of physicians	Physicians per 10,000 population	Physicians per 100 square miles
1. District of Columbia	540,000	62	1,848	34.22	2,980.64
2. California	4,633,000	155,652	8,854	19.97	5.69
3. Colorado	1,074,000	103,658	1,805	16.81	1.74
4. Nevada	77,407	109,821	129	16.66	.12
5. New York	11,423,000	47,654	18,634	16.31	39.10
6. Missouri	3,510,000	68,727	5,713	16.28	8.31
7. Vermont	372,428	9,124	529	15.01	5.80
8. Maryland	1,597,000	9,941	2,387	14.95	24.01
9. Illinois	7,296,000	56,043	10,593	14.93	19.44
10. Massachusetts	4,242,000	8,039	6,242	14.72	77.65
11. Oregon	850,000	95,607	1,225	13.77	1.28
12. Iowa	2,425,000	55,586	3,302	13.62	5.94
13. Nebraska	1,306,000	76,808	1,846	13.22	2.40
14. Florida	1,363,000	54,861	1,787	13.11	3.26
15. Indiana	3,180,000	36,045	4,164	13.09	11.55
16. Maine	793,000	29,895	1,029	12.98	3.44
17. New Hampshire	455,000	9,031	584	12.83	6.47
18. Kansas	1,828,000	81,774	2,296	12.56	2.80
19. Ohio	5,710,000	40,740	8,287	12.35	20.34
20. Tennessee	2,485,000	41,687	3,016	12.14	.24
21. Connecticut	1,636,000	4,820	1,966	12.02	40.79
22. Pennsylvania	9,730,000	44,832	11,405	11.72	25.44
23. Kentucky	2,538,000	40,181	2,971	11.71	7.39
24. Washington	1,562,000	66,836	1,807	11.57	4.49
25. Michigan	4,490,000	57,480	5,145	11.46	8.95
26. Texas	5,397,000	262,398	6,123	11.35	2.33
27. Minnesota	2,686,000	80,858	2,982	11.10	3.69
28. Rhode Island	704,000	1,067	779	11.07	73.01
29. Arkansas	1,923,000	52,525	2,103	10.94	4.00
30. Louisiana	1,934,000	45,409	2,039	10.55	4.49
31. Delaware	243,000	1,965	251	10.33	12.77
32. Oklahoma	2,384,000	69,414	2,458	10.31	3.54
33. West Virginia	1,696,000	24,022	1,747	10.30	7.27
34. New Jersey	3,749,000	7,514	3,755	10.02	49.98
35. Wisconsin	2,918,000	55,256	2,896	9.92	5.24
36. Utah	522,000	82,184	516	9.88	.63
37. Wyoming	241,000	97,548	238	9.87	.24
38. Virginia	2,546,000	40,262	2,506	9.84	6.22
39. Mississippi	1,790,618	46,362	1,680	9.38	3.62
40. Georgia	3,171,000	58,725	2,935	9.26	5.00
41. New Mexico	302,000	122,503	357	9.11	.29
42. Alabama	2,549,000	51,279	2,254	8.85	4.40
43. South Dakota	696,000	76,808	603	8.66	.78
44. Arizona	459,000	113,810	393	8.56	.35
45. North Carolina	2,897,000	48,740	2,328	8.04	4.89
46. North Dakota	641,192	70,183	497	7.75	.71
47. Idaho	543,000	83,354	401	7.39	.48
48. Montana	714,000	146,131	507	7.10	.34
49. South Carolina	1,845,000	30,495	1,309	7.09	4.29
Total United States	118,127,645	3,026,791	149,521	12.65	4.94

Although California is next in line, having 20 physicians for each 10,000 population, it has only 5.59 for each 100 square miles, as compared with 75.51 for each 100 square miles in Massachusetts, showing that in California the population is not nearly so dense as it is in Massachusetts.

MEDICAL SCHOOL FINANCES, 1926–27

Reports received from 63 of the 74 medical schools give a total income of $11,983,783 and a total expenditure of $11,308,800—an average income per school of $190,219 and an average expenditure of $179,505. The 63 colleges reporting had a total enrollment during 1926–27 of 16,042 students, who paid in fees a total of $4,057,304. The average amount paid by each student, therefore, was $254, as compared with the average expenditure of $704 for each student.

TABLE 8.—*Medical school finances, 1926–27*

Institution	Income					Expenditures					
	Total	Students' fees	Endowments	State or city	Other sources	Total	Full-time teachers	Part-time teachers	Wages	Maintenance	Other expenditures
1. Harvard University	$834,666	$160,366	$559,337		$114,963	$675,943	$348,309	(1)	$84,410	$125,212	$118,012
2. Johns Hopkins University	[3] 697,933	82,928	528,390		86,615	697,933	500,084	(1)	184,768	(1)	13,081
3. Cornell University	[3] 692,035	80,162	197,450		414,423	692,035	183,327	$10,595	19,954	45,011	433,148
4. Rush Medical College	[4] 550,670	165,000	246,170		139,500	550,670	281,500	(1)	90,000	(1)	179,170
5. Vanderbilt University	451,087	46,207	254,930		149,950	311,872	125,905	2,000	16,615	40,863	126,489
6. University of Illinois	402,510	22,510		$380,000		380,000	93,400	77,000	77,020	132,580	
7. University of Pennsylvania	[4] 398,379	145,500	19,000		233,879	308,379	215,116	(1)	67,975	66,288	49,000
8. Ohio State University	381,008	50,684		283,359	46,965	381,008	51,381	84,758	33,377	109,210	102,282
9. Western Reserve University	370,839	68,357	209,946		92,536	370,839	214,144	(1)	17,056	42,375	97,264
10. University of California	356,279	52,187	1,282	50,000	252,810	288,322	162,573	(1)	71,124	54,625	
11. University and Bellevue Hospital Medical College	315,500	218,000	43,000		54,500	314,672	102,561	31,800		57,752	122,559
12. University of Minnesota	292,361	[4] 41,610		250,751		292,361	(3)	(3)	247,811	44,550	
13. University of Oregon	290,479	42,725	119,254		128,500	[4] 193,642	(4)	(4)	106,390	87,252	
14. University of Cincinnati	[3] 281,130	77,729	161,877		41,524	281,130	201,624	(1)	10,800	10,887	57,819
15. Tulane University	257,099	105,739	67,635		83,725	238,185	113,290	34,600	36,340	35,370	18,675
16. University of Wisconsin	[4] 256,925	22,300		234,625		256,925	(3)	(3)	207,125	12,000	37,800
17. University of Texas	[4] 232,795	30,000		197,795	5,000	232,795	102,800	39,900	39,260	50,835	
18. St. Louis University	228,235	169,235	9,000		50,000	225,709	114,455	24,300	29,269	23,099	34,586
19. Long Island College	215,159	210,487			4,672	184,402	66,000	25,840	22,356	55,076	15,130
20. Medical College of Virginia	197,484	120,608		65,500	11,376	194,448	100,268	(1)	30,438	(7)	63,722
21. Jefferson Medical College	191,068	186,524			4,544	185,603	45,600	43,775	32,833	63,395	
22. University of Maryland	[4] 172,350	119,800		50,150	2,400	172,350	40,520	32,350	27,480		72,000
23. University of Colorado	164,533	27,500		87,033	50,000	164,533	67,030	4,185	30,862	62,456	
24. University of Pittsburgh	170,000	77,500	2,000	83,000	7,500	170,000	118,300	(1)	3,750	44,950	3,000
25. Indiana University	166,821	55,581	5,575	15,000	90,665	166,821	49,820	16,595	25,386	54,465	20,555
26. Leland Stanford University	156,088	25,195			130,893	156,088	(8)	(8)	122,520	16,677	16,891
27. Marquette University	151,775	79,375	62,600		9,809	151,775	42,950	10,400	40,572	14,196	43,657
28. Tufts Medical College	[3] 150,303	149,434	86		783	125,489	52,414	(1)	2,072	13,003	58,000
29. New York Homeopathic Medical College	149,308	118,803	17,114		13,391	138,848	54,200	6,836	14,280	29,288	34,244
30. University of Georgia	147,973	13,341	17,476	94,100	23,056	139,027	55,100	7,540	35,596	36,791	3,000
31. University of Buffalo	144,683	114,803	29,880			144,683	57,700	16,450	32,555	16,490	21,488
32. Loyola University	[3] 140,873	103,623			37,250	140,873	58,725	13,539	5,822	21,033	41,754
33. University of Nebraska	139,358	57,026		82,332		139,358	66,977	10,725	15,156	46,500	
34. Medical College of South Carolina	129,242	1,000		128,242		128,242	78,415	7,500	3,000	39,327	
35. College of Medical Evangelists	[3] 124,006	62,618	61,388			124,006	(1)	(1)	89,467	(1)	34,539
36. Emory University	120,969	42,067	17,612		61,290	120,943	82,133	1,899	13,521	3,914	19,476
37. Meharry Medical College	116,113	41,089	38,995		36,029	77,514	21,700	13,317	6,160	4,695	31,642
38. George Washington University Medical School	111,417	81,323	5,400		24,694	98,392	61,280	7,125	3,908	7,620	18,459

39. University of Virginia	109,750	59,000		42,750	8,000	109,750	63,625	20,350	11,420	14,355	
40. Hahnemann Medical College	99,216	85,100	13,000		1,116	99,216	52,160	5,320	12,736		29,000
41. University of Oklahoma	95,545	8,633		86,912		[1] 95,545	67,412	10,000		18,133	
42. Boston University	95,350	63,500	14,100		17,750	95,350	30,100	17,850	21,300	26,100	
43. University of Tennessee	94,206	48,398		45,808		94,206	39,902	4,250	[2] 5,165	14,960	29,929
44. Georgetown University	92,102	77,917			14,185	68,118	24,067	24,645	5,578	5,957	7,871
45. University of Arkansas	91,145	23,345		67,800		91,145	47,000	12,000	14,472	13,673	4,000
46. Albany Medical College	[3] 86,896	30,077	41,444		15,375	85,008	45,180	2,100	7,782	3,016	26,930
47. Baylor University	[4] 80,238	77,544			2,694	78,959	55,924	(1)	21,035	(1)	
48. Woman's Medical College	77,606	26,503	21,749	25,030	4,324	77,606	29,419	18,400	11,150	854	17,782
49. Temple University	74,120	45,000		25,000	4,120	73,651	35,700	13,519	6,631	17,801	
50. Syracuse University	73,608	51,478	488	1,080	20,562	[5] 73,608	60,217	(1)	4,397	5,618	3,376
51. University of Missouri [13]	71,573	11,353		60,220		71,573	42,500	7,500	7,325	14,248	
52. Creighton Medical College	62,876	34,187			28,689	62,876	32,379	2,300	11,201	3,393	13,603
53. University of North Carolina [13]	61,361	15,000		46,361		61,361	40,000	(1)	2,500	18,861	
54. University of West Virginia [13]	57,150	15,575		41,575		[6] 57,150	42,900	650	3,000		10,600
55. Howard University	[7] 57,000	44,000	4,500	4,500	4,000	55,600	(8)	(8)	40,000	400	15,200
56. University of Alabama	55,684	19,653		25,000	11,031	55,684	25,427	617	4,656	10,535	14,449
57. Dartmouth Medical College [13]	[9] 40,240	10,650			29,590	40,240	29,325	(1)			10,915
58. University of Utah [13]	36,050	(10)		36,050		[9] 36,050	24,750	4,380	3,000		4,000
59. Chicago Medical School	30,665	28,265			2,400	30,250	12,468	1,318	6,034	2,512	7,918
60. University of Mississippi [13]	28,640	4,140		24,500		28,640	21,000	360	(11)	(11)	7,280
61. University of North Dakota [13]	[4] 21,950	2,750		19,200		21,950	16,670	400			4,880
62. University of South Dakota [13]	21,300	(10)		21,300		21,300	8,200	7,600	1,500	4,000	
63. Wake Forest College [13]	20,149	6,300	13,849			[6] 20,149	14,200	1,650	390		3,909
Total	11,983,873	4,057,304	2,784,527	2,574,973	2,567,069	11,308,800	4,790,056	679,158	2,098,300	1,642,201	2,099,085

[1] Total sum reported was for full-time and part-time teachers.
[2] Report of 1925–26.
[3] Maintenance included under wages.
[4] Estimates.
[5] Total sum reported for full-time and part-time teachers and wages.
[6] In these figures are included income and expenditures for university students not registered in medical school.
[7] Maintenance included under other expenditures.
[8] No charge is included for rent, water, lights, or janitor service and other general overhead that is provided by the general university budget.
[9] These financial data cover period from Sept. 1, 1926, to June 1, 1927, the fiscal year ending Aug. 31, 1927.
[10] Fees not available to medical school.
[11] No record kept separate from university account.
[12] Give only first 2 years of the medical course.

Note that of the total expenditures, $5,469,214, or 48 per cent, was expended for instruction, an average of $86,812.92 per college.

GRADUATE MEDICAL EDUCATION

Statistics regarding graduate medical education for 1927–28 published recently[2] showed that 3,472 students were enrolled during the year, of whom 2,336 were in the 41 approved graduate medical schools[3] and 1,136 were taking higher interneships—better known as residencies—in 272 approved hospitals.

Statistics for 1922 gave, altogether, 3,556 graduate students, of whom 2,915 were in 25 unsupervised postgraduate medical schools and polyclinics and 641 were residents in 285 unsupervised hospitals. The figures for 1927 did not include students who may have been enrolled in the few unapproved graduate medical schools, or to physicians who were residents in hospitals which had not been approved for residentships although, of the latter, a careful record is kept. Although the enrollment of graduate students in 1927 was smaller, nevertheless, it represents improved conditions since all reported were enrolled in institutions approved by the Council on Medical Education and Hospitals.

EXPERIMENTS IN MEDICAL TEACHING

During the past several years there has been a tendency on the part of certain schools to try new methods in medical teaching, some of which appear to be objectionable. For example, a few have overemphasized research in the undergraduate medical schools, and some have granted higher grades to the students undertaking certain assigned experimental work. Certain others have provided an extreme degree of elective work, and placed an unjustified degree of responsibility on the individual student, apparently without providing the essential supervision through consultants or advisory committees, such as are usually provided for graduate students. Institutions adopting such extreme methods should not overlook the first duty of a medical school—that of providing its students with a thorough grounding essential for every practitioner of the healing art. Another danger in some medical schools is the too early drift by the student into some narrow specialty and his failure to obtain the broad training which is fundamental to any specialty. Without this essential foundation the physician is not in position to make a satisfactory or dependable diagnosis from the general practice point of view.

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[2] Journal of the American Medical Association, 91: 482, Aug. 18, 1928.

[3] A copy of this approved list will be sent, on request, by the American Medical Association, 535 North Dearborn Street, Chicago, Ill. Inclose 4 cents for postage.

HOSPITAL INTERNESHIP

The physician's undergraduate training should be such as will provide him with a thorough knowledge whereby he can intelligently examine any patient coming to him, make a reliable diagnosis of his trouble, and prescribe or apply reasonably efficient treatment. Such a training should include or be followed by a year's interneship in a general hospital, where he comes into contact with all varieties of diseases and can put his general knowledge into practice.

Experts in graduate medical education now agree that such an interneship, to round out the student's undergraduate medical education, should be completed before the young graduate enters on his preparation for any specialty.

SPECIALIZATION

The trend toward specialization in medicine has perhaps reached its highest degree of acceleration, due largely to the public idea regarding "specialists," and, probably, to the larger fees which the specialist is usually able to command. A more justifiable reason, however, is the physician's belief that he can render a better service in a special field and become more expert in both diagnosis and treatment. The increase of hospitals in both numbers and capacity during the past 15 years has added impetus to the trend toward specialism, because, in the organization of hospital staffs, they are commonly divided into departments representing the several specialties. To secure admission to a hospital staff, therefore, the physician is induced to limit his work to the specialty of the department to which he is assigned.

In the long run it is believed, however, that the physician who has acquired a good, comprehensive knowledge whereby he can accurately diagnose and provide fairly efficient skill for the great majority of ailments which come to him will prove to be of greater service to the public and more successful than the physician who limits his practice to a narrow specialty.

INVESTIGATION REGARDING MEDICAL EDUCATION

In 1925 a commission on medical education was appointed,[4] with funds donated from several agencies interested in the subject, to carry on a 5-year investigation of medical education. The commission has issued three annual reports, of which the third calls particular attention to: (*a*) The tendency to prolong unnecessarily the student's period of preliminary and professional education. Such

[4] Under the auspices of the Association of American Medical Colleges.

shortening of existing courses as may be possible and the saving of time by the use of overlong summer vacations is strongly urged. (*b*) The overcrowding of the curriculum with nonessential details; the overemphasis placed on laboratory procedures; and the unnecessary duplication of teaching through a failure to correlate laboratory work with clinical teaching; (*c*) the undue emphasis in medical teaching which is laid on the separate organs and systems which make up the human body rather than considering man as a complete living human being. This is resulting in a marked and dangerous trend toward specialization; (*d*) the need of more and better systematized instruction in preventive medicine; (*e*) the hindrances to medical education resulting from unwise legislation or rulings of boards or agencies which in effect assume prerogatives belonging to the medical schools; (*f*) the desirability of providing the student with more time to think and to use the library in reviewing current and reference literature; and (*g*) the advisability of more electives in the curriculum.

INVESTIGATION REGARDING THE COST OF MEDICAL CARE

An important investigation by a special committee on the cost of medical care was begun in 1928. The modern trend toward specialization and the public belief that the best treatment can be obtained only from "specialists" and hospitals, has necessarily added to the cost of medical care. It is well known that for the more intricate methods of treatment which have been developed in recent years the hospital has become increasingly important as a place where such treatment can be more efficiently and safely applied. For all cases where surgical procedures are required, as well as when serums, antitoxins, blood transfusions, and other modern methods are utilized, the hospital is the best place. The urgent problem, therefore, is to ascertain how the benefits of modern medical care can be brought within the reach, both physically and financially, of the greatest possible proportion of the people. This 5-year study, therefore, is of vital importance both to the public and to the future practice of medicine.

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