DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1925, No. 31

MEDICAL EDUCATION
1922-1924

By

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[Advance Sheets from the Biennial Survey of Education in the United States, 1922-1924]

WASHINGTON
GOVERNMENT PRINTING OFFICE
1925

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5 CENTS PER COPY

MEDICAL EDUCATION, 1922–1924

By N. P. COLWELL, M. D.,

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I. A QUARTER CENTURY'S PROGRESS IN MEDICAL EDUCATION

A review of the previous reports on medical education, together with the statements presented herewith, will show that since 1900 a vigorous campaign has been successfully carried on for the improvement of medical education in this country. A better understanding of the conditions now existing can be obtained through a brief review of the development of medical schools since 1800. As shown in Chart 1, since 1800 the number of medical schools increased more rapidly than the population. From 4 medical schools in 1800 for 5,000,000 people, in 1860 the number had increased to 66 for 31,000,000. During the 5 years covered by the Civil War, 20 medical schools ceased to exist or were suspended, thereby reducing the number to 46. Following the Civil War, however, the medical schools multiplied very rapidly, so that by 1900 there were 160 for 75,000,000 people.

With the rapid increase in the numbers of medical schools there was a correspondingly rapid increase in the number of medical students and in the numbers who were graduated each year. Figures in regard to students and graduates are available only since 1880. For the 100 medical colleges existing in 1880 there were 11,826 students, an average of 118 per college, and 3,241 graduates, an average of 32 for each college. In 1904, however, when the maximum number of students and graduates had been reached, there were 160 medical colleges which enrolled 28,142 students and graduated 5,747. The population in 1904 was approximately 82,000,000 people.

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There was, therefore, one college for each one-half million people. Although the number of medical colleges has been largely reduced, the average size and capacity has been increased. In 1904, the aver-

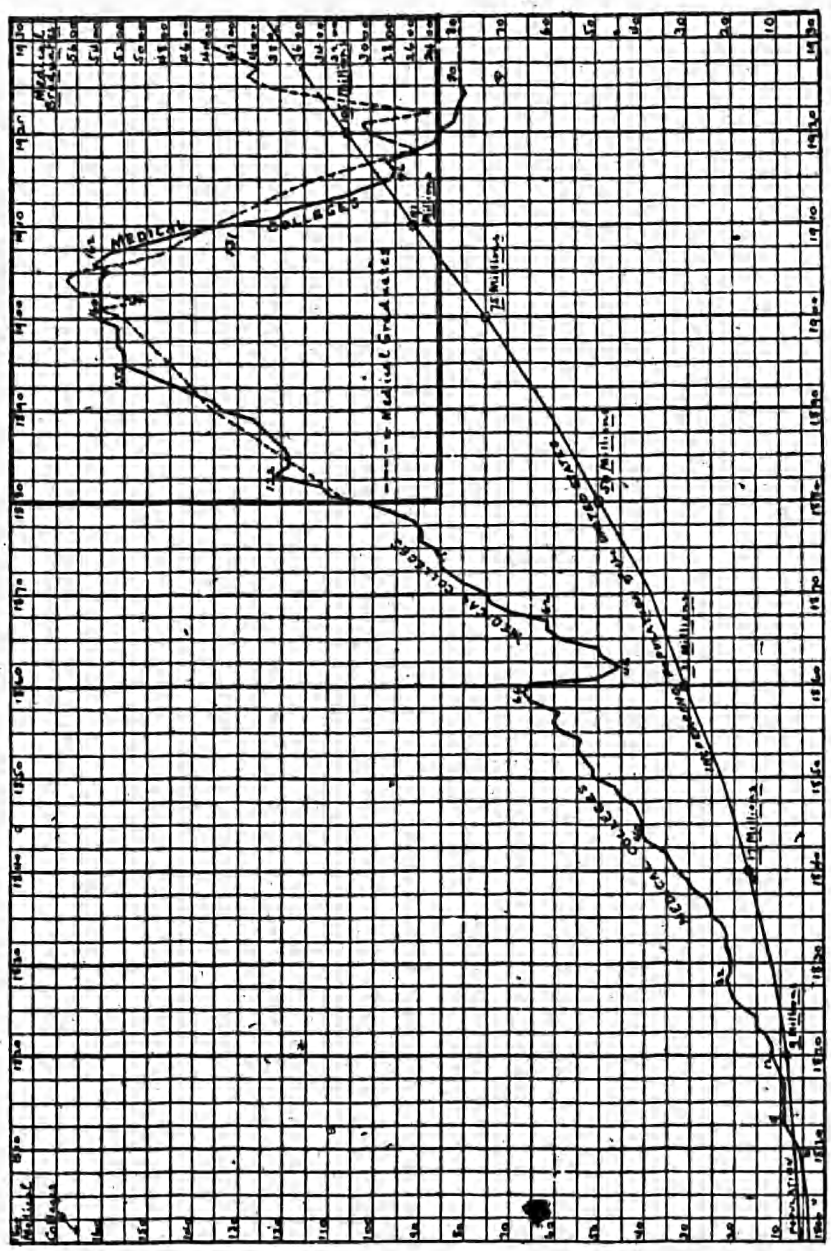

FIG. 1.—*Medical colleges and population, 1800–1925.*—Medical graduates shown since 1880. Note that the number of medical colleges increased rapidly until 1900—much more rapidly than the population—and that since 1880 the numbers of graduates kept pace with the colleges. After 1904 both colleges and graduates were diminished until after 1922, when the numbers of graduates again increased, although the number of colleges still gradually decreased. Medical schools now have larger plants, and on the average a larger capacity. The number of graduates each year to satisfy the increases in population is approximately 4,000.

age attendance per college was 176 and the average number of graduates was 36; now the average attendance in each college is 227 and the average number of graduates 50.

TABLE 1.—*Number and capacity of medical schools*

Year	Colleges	Students		Graduates	
		Total	Average per college	Total	Average per college
1880	100	11,826	118	3,241	32
1900	160	22,171	114	5,214	33
1904	160	*28,142*	176	*5,747*	36
1906	162	25,204	156	5,364	33
1919	85	*12,990*	152	2,656	31
1922	81	15,635	193	*2,529*	31
1923	80	16,960	212	3,120	39
1924	79	17,728	224	3,562	45
1925	80	18,200	227	3,974	50

Although the number of medical colleges has been reduced, the average size and capacity has been increased. The largest number of medical schools was 162 in 1906; the largest numbers of students and graduates were in 1904 (figures *in italics*). The lowest number of medical colleges since 1871 was 79 in 1924; the lowest number of students was in 1919 and of medical graduates in 1922.

INADEQUATE GOVERNMENTAL CONTROL OVER MEDICAL EDUCATION

In this country the control of medical education and practice was left by the National Constitution to the police powers of the various States, a function which, if assumed at all by the States, was only to a limited and inadequate extent. In only a few States have efficient regulations been established over the chartering of educational institutions; and therefore no legal regulations were made in regard to essential buildings, finances, teachers, or equipment which a medical school should possess; and as a consequence the majority of medical schools established were of an inferior type.

TABLE 2.—*The past century and medical education*

[Showing for certain years the numbers of medical colleges, students, and graduates in proportion to population]

Year	Population	Medical colleges		Medical students		Medical graduates	
		Number	People per college	Number	People per student	Number	People per graduate
1800	5,308,483	4	1,327,121			18	294,968
1810	7,239,881	6	1,206,647			75	96,532
1860	31,443,321	65	483,743				
1880	50,155,783	100	501,558	11,826	4,241	3,241	15,476
1900	75,994,575	160	474,966	25,171	3,019	5,214	14,575
1904	[1] 84,000,000	160	501,250	27,142	3,021	5,747	14,268
1920	105,710,620	85	1,243,654	13,798	7,661	3,047	34,693
1925	[1] 113,000,000	80	1,412,500	18,200	6,209	3,974	28,435

[1] Estimate.

ACTION BY A VOLUNTARY AGENCY

In the absence of adequate legal control, the agency best qualified to recognize the serious deficiencies in medical education was the medical profession, and at different times prior to 1900 investigations and reports in regard to these conditions were made by special com-

mittees of the American Medical Association. These had little effect other than to aid in stimulating a few States to create licensing boards and to begin some regulation of medical schools. The most effective work of this kind was that of the Illinois State Board of Health, during the secretaryship of John H. Rauch, as described in a previous report.[1] For 15 years that board exerted the only powerful and nation-wide influence toward improvement in medical schools and in the closing of a score or more of notorious diploma mills in various parts of the country. In 1892 a change of administration in Illinois brought with it a sweeping change in the personnel of that board, including its able secretary, only one member of the former board remaining. Not only the forces for improvement but also the restrictions against institutions of low grade and of doubtful character were at once removed, and the country relapsed into another period in which low-grade medical schools were unhindered in their activity.

LEGAL POWER *v.* PUBLICITY

Beginning in 1900 the statistics collected and published in the Journal of the American Medical Association started a campaign for improvement, and in 1904 the association created a permanent council to exert continuous and persistent efforts toward that end. The work of this council, with its series of annual conferences, inspections and classifications of medical schools, the securing of mergers of two or more medical schools in each of many cities, and the recommending of higher entrance standards—all of this is now history. In 1910 the entry of the Carnegie Foundation for the Advancement of Teaching into the campaign not only obtained additional publicity to the campaign but also attracted the attention of philanthropists to the financial needs of medical education. The details of this campaign are given in greater detail in previous reports. By 1910 the number of medical schools had been reduced, mostly through mergers, from 160 to 95, the number of students from 28,142 to 12,930, and the number of graduates from 5,747 to 2,656. By 1924 the number of medical colleges was further reduced to 80, but the number of students had again increased to 17,728 and the number of graduates to 3,562. As a result of the improvements, however, 74 of the medical schools were in every way greatly improved institutions, and, of the students, 98 per cent were enrolled in these higher institutions, which also turned out 97 per cent of those who were graduated each year. In brief, the colleges had been reduced to half the former number, but the numbers of well-trained and qualified students and graduates had been tremendously increased.

[1] Report of 1913, vol. 1, p. 32.

It is interesting to note, also, that the number of students enrolled since the lowest ebb in 1919 has been increased by an average of 1,000 per year, nearly all of which have been trained in medical schools which in every way have been greatly improved.

TABLE 3.—*Entrance standards of medical schools*

	Two years of college work		High school or less		Total
	Number	Per cent	Number	Per cent	
Medical colleges requiring:					
1904	2	1.3	158	98.7	160
1924	74	92.2	6	7.8	80
Students receiving:					
1904	640	2.3	27,502	97.7	28,142
1919	12,552	91.7	500	3.8	12,930
1924	17,358	98.0	370	2.0	17,728
Graduates receiving:					
1904	178	3.1	5,569	96.9	5,747
1922	2,347	92.8	182	7.2	2,529
1924	3,458	97.0	104	3.0	3,562

GREATLY ENLARGED TEACHING PLANTS

A marvelous development in the construction of large medical teaching plants has occurred during the past 15 years. Beginning with the large teaching plants for Johns Hopkins and Harvard, the wave of construction moved rapidly forward through both State and private medical schools until, in 1920, large teaching plants had been constructed in a score or more of medical schools. Among these are the medical schools of the State Universities of California, Georgia, Indiana, Iowa, Michigan, Minnesota, Nebraska, and Virginia; and among the private institutions were Chicago, Cincinnati, Jefferson, Pennsylvania, Rush, Stanford, Washington, and Yale. New but individual buildings were erected in about a score of others. More recently, greatly enlarged teaching plants have been constructed by the Universities of Colorado, Illinois, Ohio, Rochester (N. Y.), St. Louis, Vanderbilt, Western Reserve, and Wisconsin; and others are now in course of construction, or have been planned for early completion, at Chicago, Columbia, Iowa, and Northwestern Universities. The marvelous wave of improvements in the standards of medical education, therefore, has been followed by an equally marvelous period of construction of new and larger teaching plants.

HOSPITALS AS RELATED TO MEDICAL EDUCATION

Along with better buildings, better finances, improved laboratories, and more expert teachers, came also the necessity for closer relationships with hospitals, whereby the students under the supervision of other physicians could secure valuable experience by observing the examination and treatment of the sick in hospitals and

dispensaries. At the beginning of the nineteenth century there were, of course, comparatively few hospitals; and, as the number of medical schools increased, few of them were fortunate enough to have hospital connections. During the last 25 years, however, the numbers have been greatly increased. In 1912 there were approximately 2,500 hospitals in the United States, whereas in 1924 the

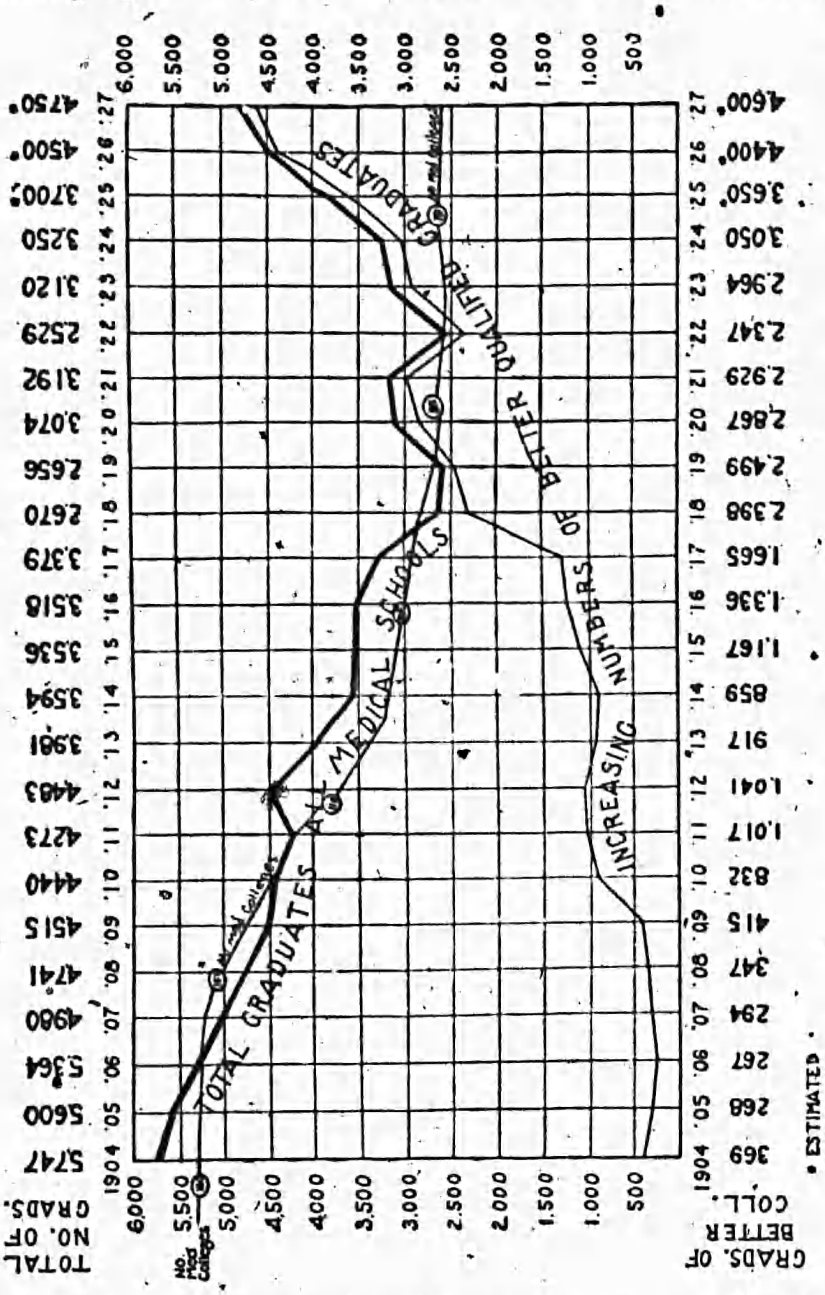

FIG. 2.—*Well-qualified physicians increasing*, even with the reduced number of medical schools. The heavy line shows the total numbers of graduates in the respective years. The light line from the upper left corner of the chart shows the decreasing numbers of medical colleges. Note that the two lines continue in the same direction until 1922, when the line for the totals of graduates turns sharply upward, but the line for the colleges continues on the level. The light line from the lower left corner shows the steady increase of better-qualified physicians, and that, since 1918, these have included nearly all of the graduates

number had increased to over 7,000. As the numbers have increased, better relations have been established between hospitals and medical schools, so that now every reputable medical school has a close relationship with one or more hospitals and is providing its students with valuable training in the observation of, and assistance in, the examination and care of the sick.

HOSPITAL INTERNESHIPS

During the past three decades, attention of the recent graduate has been increasingly attracted to the great value of spending an additional year or two as an interne in a large hospital, where he has an opportunity to apply his medical knowledge while still under supervision and before he enters on an independent practice. In 1912 there were not enough hospitals using internes to provide places for all graduates. With the improvements in medical schools, and the greatly improved qualifications of modern medical graduates, however, their services became of greater value to the hospitals and the demand for internes was greatly increased. At the same time, the number and size of hospitals were greatly increased, which provided additional places. At present, therefore, the demand for internes would exceed the supply, even if the numbers graduating each year should be doubled. The great value of the hospital interne training is that the graduate has an opportunity to secure experience in the care of sick people while he is still under observation, so that any errors will be corrected without injury to the patients. Before these hospital internships were available, the graduate had to secure the experience in his own active practice without any safeguards in cases of error. It is gratifying to state, however, that the ill results in the care of patients were extremely few in spite of the lack of the opportunity for interne training. The number of hospitals seeking internes is now sufficiently large to warrant a requirement in all States that medical graduates should not be licensed to practice their profession unless they have completed an internship in a general hospital.

THE HOSPITAL AN IMPORTANT EDUCATIONAL FACTOR

An internship in a general hospital has now come to be recognized, not only as a rounding-out process for the training of the general practitioner, but also as the basis for graduate medical work leading to a higher degree of knowledge and skill in the various specialities. In other words, an internship in a general hospital now occupies an important zone separating undergraduate from graduate medical education. As hospitals are increasing in number, so also are they developing as an important factor in medical and public health education. Besides their value in the education of medical students, nurses, and internes, they are also places where physicians can secure a higher degree of training as a specialist in some clinical field, such as in skin diseases, surgery, internal medicine, children's diseases, or in diseases of the eye, ear, nose, and throat or some other speciality. They are also important in their communities as educational centers, not only for the higher instruction of the physicians in the neighborhood, but also through their patients, nurses, and others, as a means of keeping the people of the community informed in regard

to matters relating to infant welfare, public health, and disease prevention.

II. NEWER PROBLEMS IN MEDICAL EDUCATION

As a direct result of the great changes and improvements in medical education, newer problems have been developed. Among these may be mentioned the higher cost of medical education, an overcrowded medical curriculum, an unusual rush into specialization by recent graduates, the elaborate equipment required for the practice of modern medicine, and the decreased number of physicians in rural communities as compared with the increasing proportion of physicians in the cities.

HIGHER COST OF MEDICAL EDUCATION

Prior to 1900, with only a few exceptions, medical schools were maintained entirely on the fees obtained from students, and some could still pay out dividends after all expenses were paid. As medical schools were developed, however, the costs were enormously increased. The larger buildings, with the correspondingly larger expenses for heat, light, and care; the several essential and better equipped laboratories; the larger numbers of skilled teachers, many of whom necessarily devoted their entire time to teaching; the special and highly technical apparatus; the maintenance of library and museum; the more elaborate curriculum, with the higher costs of administration—the cost of all these required a higher income than could be obtained from students' fees alone. To provide a training in accordance with the present wide knowledge of the causes, recognition, treatment, and prevention of diseases, the medical schools must now have, in addition to students' fees, incomes from either State appropriations or private endowment.

An investigation covering the college year of 1914–15 showed that the average income of each college was $68,277, of which $23,795 was from students' fees, and the average of expenditures was $66,258. The average cost of instruction per student in that year was $419, whereas he paid in tuition fees only $150. In brief, it cost three times as much to teach a medical student as he paid in tuition fees. For the session of 1920–21 an investigation showed that the average cost of instruction for each student increased to $655, whereas the average fee paid by each student had increased to only $185. The average income of each medical school was $130,672, including $35,135 from students' fees. The average expenditure by each college was $123,947, of which $46,162 was for full-time teachers; $21,131 for part-time teachers; $19,068 for wages of clerks, janitors, etc.; and $36,974 for maintenance and supplies.

TABLE 4.—*Cost of furnishing medical education*

College year	Colleges reporting	Average income		Average expenditures		Cost per student	Fees per student
		Student fees	Other	Instruction	Other		
1914-15	82	$23,795	$44,482	$38,273	$27,980	$419	$130
1920-21	69	35,135	95,537	67,203	56,654	675	185

To offset these greatly increased costs of furnishing medical education, great sums have been donated by the large educational foundations, private donors, and State legislatures; so that, where formerly gifts of more than a few thousand dollars were very rare, in later years the gifts of from many hundred thousands to a few millions became so frequent as to be considered a matter of course.

SCHOLARSHIPS AND LOAN FUNDS

The requirements for admission to medical schools have been increased since 1912, from a high-school education or less, to two or more years of college work. This increased time requirement, as well as the higher tuition fees in medical schools, has added considerably to the time and expense of obtaining a medical education. So far as the student is able to do so, it is reasonable to expect him to pay at least a fair portion of the amount necessary to provide him with that training. There always has been, however, a considerable number of students who do not have sufficient money to pay tuition fees and are struggling to secure a medical training. As a rule, also, this group of students contains many who have unusual qualifications and ability, and from this group in times past many physicians of high attainments have come. As the educational standards and costs of medical education have advanced, more scholarships and loan funds for the aid of such students have been established. At the present time, 576 scholarships are reported in 46 medical schools. Each of these scholarships is available only once in four years; so that only 144 are available each year. Loan funds are also available in 31 medical schools.

The present-day medical curriculum is much more severe than it was 20 years ago, which makes it much more difficult for a student to earn money at the same time he is studying medicine. Nevertheless, many students are still reported to be earning a major portion of their expenses during their medical school time. It is a question, however, whether the money so earned is not at the expense of much valuable experience which they otherwise might have and should have obtained. It is during the student's medical course, while he is under able instructors, that he has the best opportunity of his lifetime to study and observe diseases of patients in both dispensary and hospital. In order to make the best use of this opportunity, therefore,

it would be far better for the student to borrow money with which to meet his expenses or to have the advantage of a free scholarship.

A more worthy object for those who have money to give could not be found than in the endowment of more of these scholarships, or the establishing of additional loan funds. In granting these, however, proper safeguards should be established so that they will be used only for students who not only have high scholarly ability, but also are actually in need of financial aid.

THE MEDICAL CURRICULUM

Prior to 1900 little concern was felt regarding the course of instruction, because few of the medical schools had developed their curricula in accordance with the unprecedented expansion of medical knowledge since the time of Pasteur. With the improvements in medical schools since 1900, however, new subjects were rapidly added to the medical curriculum, until it soon became seriously overcrowded. So important became this problem that, in 1908, a special committee of 100 prominent medical educators was appointed by the Council on Medical Education to make a special study and to present a report[2] recommending a model medical curriculum. This committee was made up of subcommittees covering the 10 departments of medical teaching, including both the laboratory and clinical subjects. The original plan was to prepare a curriculum consisting of 900 hours each year, or 3,600 hours for the four years, but when the subcommittees' reports were presented in 1909, they called for a total of 4,400 hours. These reports were accompanied by a recommendation, however, that the total be cut down by the colleges to 4,000 hours.

This report doubtless brought some improvements, but the curriculum continued to be overcrowded, and groups representing certain subjects continued to clamor for larger numbers of teaching hours. It became evident, also, that in the teaching of the clinical subjects very rare or highly complicated conditions were being unduly emphasized at the expense of the basic principles of diagnosis and treatment, which were of greater importance to the student. The emphasis laid on special operations also induced graduates, without further special study, to begin immediately the practice of some specialty.

GRADUATE MEDICAL EDUCATION

It is now well recognized that the chief function of the undergraduate curriculum is to furnish a basic training for general practitioners. Then should follow the hospital interneship, which would round out and complete the physician's training as a general practitioner and not further lure him into some specialty before he has

[2] Proc. 5th An. Conf., Council on Med. Educ., Chicago, Apr. 5, 1909. Amer. Med. Assoc. Bul., vol. 5, No. 1, Sept., 1909.

secured the essential additional training. The exceptional types of diseases, and the highly technical and complicated forms of treatment, should come after the completion of the general hospital interneship, in special hospitals or in the graduate medical school.

The development of graduate medical schools during the past 10 years is helping to solve the curriculum problem, in that a place has been found for certain courses which are better omitted from the undergraduate curriculum. The students of some graduate medical schools aid in the teaching of undergraduate students, who are thereby made familiar with the routine of securing a higher training before they can be qualified for practice in any special field. They learn also where and how the higher training can be obtained, and by observing the work of the graduate students can note the character of that work.

The graduate medical school, therefore, has helped in the solution of three problems in modern medical education: (*a*) It has aided in an improvement of the medical curriculum in the clearer understanding established as to what subjects belong in the undergraduate department; (*b*) it has helped to stop an inadvised rush of recent graduates into specialization by transferring the subjects which have stimulated this tendency from the undergraduate to the graduate school curriculum; and (*c*) better facilities have been provided in the graduate medical schools where graduates can develop the higher knowledge and skill essential for the practice of the specialty selected.

Meanwhile, gradual improvements are being made in graduate medical education in this country. Inspections of the various graduate and postgraduate medical schools which were made by a committee of the American Medical Association in 1916 and 1919 showed that conditions were decidedly unsatisfactory. While a few of these schools were well conducted, in the others the work was unorganized and poorly graded; little or no attention was paid to the character or qualifications of the physician-student, and practically no record was kept aside from his payment of fees. Nevertheless, some of the schools granted pretentious diploma-like certificates for some courses of instruction extending over no more than one or two weeks. By 1923, however, through the suggestions given out during the previous inspections, conditions were considerably improved, and most of the postgraduate medical schools had ceased to grant certificates except for courses of six months or more.

In 1920, in order to secure a basis for the approval of graduate medical schools, 15 special committees were appointed to recommend what preparation was deemed essential to establish proficiecy in each of the 15 specialties to which they were assigned. Their report was presented at the annual conference on medical education in

Chicago in 1921.[3] The committees were unanimous in their decision that an interneship in a general hospital was not only essential to round out the education of the general practitioner, but also should be the foundation on which further training in the various specialties should be based.

Following a third inspection made in 1923, a schedule of principles regarding graduate medical education was prepared which provided for admission requirements, records, supervision, curriculum, graded instruction, qualified teachers, properly equipped laboratories, library and museum facilities, essential hospital and outpatient material, annual announcements, and regulations in regard to the granting of degrees and diploma-like certificates. On the basis of these principles, out of 35 institutions investigated, a list of only 15 approved graduate medical schools was prepared. Since 1923, however, 19 other institutions have been added, making a total at the present time of 34. To this list has been added 16 hospitals in which, through a higher interneship or residency, a physician can perfect himself in the practice of some specialty.

Where in 1916 only 20 postgraduate schools were offering courses of unknown quality and quantity, there are now 50 institutions giving courses that have been investigated and found worthy of approval. A list of medical subjects has also been prepared, after each of which is given the names of graduate medical schools or hospitals in which opportunity for higher training in that subject or specialty can be obtained. The physician, therefore, is now provided with a carefully prepared list of graduate schools from which he can make an intelligent selection. As time goes on, an even greater use will be made of the abundance of hospital and dispensary patients in providing opportunities for physicians to perfect themselves in the practice of their profession and thereby render a better care to the people coming to them for treatment.

LIMITATION OF ENROLLMENTS

During the improvement of medical education, medical schools found it necessary to limit the enrollment in their classes so that better supervision could be given to the student's individual work, and the results have shown the wisdom of such action. This limitation, however, coupled with the unprecedented rush of students into

[3] The several fields of clinical specialization that were studied are shown in the following list. The minimum years designated after each subject represent what were considered by the committee as essential to insure efficiency in the specialty:

	Years essential		Years essential
(a) Surgery, general	3	(g) Internal medicine	3
(b) Surgery, orthopedic	3	(h) Pediatrics	3
(c) Surgery, genito-urinary	3	(i) Neuropsychiatry	3
(d) Gynecology and obstetrics	3	(j) Dermatology	2
(e) Ophthalmology	2	(k) Public health and hygiene	2
(f) Otolaryngology	2		

—*Amer. Med. Assoc. Bull., vol. 15, No. 1, Jan., 1921.*

medical schools, increased the difficulty of well-qualified students in securing enrollment in medical schools. After having applied to one medical school after another and securing the reply that their classes were full, a student would send a letter simultaneously to a score or more of the remaining institutions. As a result he would be enrolled by two or more medical schools, although when the session began he could attend only one. This practice resulted in vacancies which otherwise might have been filled. Following the opening of the session of 1924–25, an investigation showed that after all registrations were completed, 1,355 vacancies still remained. Some of these students had registered and actually paid matriculation fees at two or more medical schools. Thus the capacity of medical schools is still adequate although some qualified students were temporarily debarred. The Class A medical schools report that, without much difficulty or expense, they can provide capacity for an additional 5,000 students. Our well-equipped colleges should soon provide more space, or other high-grade medical colleges should be established. Properly qualified students show a laudable desire to enter well-established medical schools, since it is this type of medical school, rather than the lower type, in which the enrollments are first filled.

SPECIALIZATION IN MEDICINE

In the past 50 years the exact knowledge of the recognition, treatment, and prevention of diseases has increased more than in all previous ages. This increase is but a parallel to the marvelous developments in other fields of knowledge and experience, all of which have occurred during the same time. With this expansion of medical knowledge and the multiplication of the methods and agencies for the diagnosis and treatment of diseases, it is but natural that physicians in increasing numbers should desire to limit their practice within the narrow bounds of some specialty in medicine. Such, indeed, is necessary if a physician expects to develop the highest degree of knowledge and skill in any specialty. That many physicians are specializing is but a parallel to what is done in other professions. Among engineers, for example, there are now those who specialize in civil, electrical, aeronautical, mechanical, or chemical engineering; and in law there are those specializing in, or limiting their practice to, patents, wills, corporations, bankruptcies, or to civil, criminal, or divorce cases.

With such specialization in medicine comes the importance of developing as specialists those who are highly skilled as diagnosticians and who are especially qualified to decide what particular form of treatment will best meet the patient's needs. At present, this field is occupied largely by those referred to as specialists in "internal medicine" or "internists," many of whom have demonstrated unusual skill in diagnosis.

CHANGES IN GENERAL PRACTICE

Several factors are leading to changes in the routine of medical practice. As the knowledge of medicine has been enormously increased, many valuable laboratory aids have been devised for the diagnosis and treatment of diseases. The advantage of being where all these aids are available has led to a rapid increase in the number of patients seeking treatment in hospitals. The tendencies of the public also to seek specialists makes the hospital additionally advantageous, since its staff includes physicians representing the several specialities, and in unusually complicated cases the judgment of the group can be readily obtained. Hence, access to a hospital has come to be looked on, both by recent graduates and by the public, as very helpful if not essential for an up-to-date physician.

This view of the public in regard to the hospital, coupled with the development of the automobile and cement roads, has induced many country people to go to city doctors and to the hospital for treatment. This in turn, has forced some of the country physicians likewise to move to the city. The future practice of medicine, therefore, calls for some arrangement whereby medical care will still be available even in the smaller and more remote rural districts. Just how these facilities can be provided still remains to be seen. The building of hospitals in all communities where there are people enough to maintain them will help. A suggestion has been made that physicians in the larger towns have office hours for a certain day or days of the week in smaller but near-by rural towns. Another suggestion is that health centers or clinics be provided in rural districts where first aid can be given in emergencies and, when necessary, ambulances can be secured promptly to transport a patient to the nearest hospital.

CONCLUSION

In 20 years medical education in the United States has undergone a marvelous improvement, so that the medical schools of this country are at least on a par with those of other leading nations. The problems which remain are chiefly those due to the other improvements made. The greatest of all problems is how the benefits of the present-day knowledge of the cause, recognition, treatment, and prevention of diseases can be brought within the reach of the entire population, both from the standpoint of accessibility and cost. This problem is one of many other economic and sociological problems which have developed during the past few decades due to the rapidly changing conditions under which we are living. Readjustments will be made under these conditions which will doubtless bring about the desired results.