Fiftieth Anniversary Celebration of the Chicago Lying-in Hospital

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UNDERGRADUATE AND GRADUATE INSTRUCTION IN OBSTETRICS AND GYNECOLOGY*

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IT SEEMS fitting that the teaching of obstetrics and gynecology should be a topic of discussion at these exercises commemorating the half-century mark in the life of the Chicago Lying-in Hospital. This Institution will forever be identified with the early growth and development of obstetrics in this country. Its place and that of its founder, the late Dr. Joseph B. DeLee, are secure in the annals of our medical history. Through the medium of his textbook, his clinic, and his teaching and training of undergraduate and graduate medical students, DeLee exerted a profound influence on this branch of medicine. It is fortunate for our field in general and for this Institution in particular, that his successors, Drs. Fred L. Adair and William J. Dieckmann, maintained his standards and ideals.

Just a decade ago I made a plea that the faculties and deans of our medical schools accord obstetrics and gynecology more recognition in the curricula of these institutions. At that time I ascribed the appalling maternal mortality in the United States to inferior and insufficient teaching of the undergraduate, and inadequate hospital training of the graduate entering the practice of obstetrics. My views were fully substantiated by the findings and recommendations of the Committee on Prenatal and Maternal Care of the White House Conference on Child Health and Prevention. Looking back over the past ten years, it becomes apparent that the recommendations of the White House Conference Committee played an important role in the notable reduction in maternal mortality observed during this period. Their findings as well as those of many studies conducted by medical societies and groups throughout the country made the medical and lay public aware of conditions needing urgent correction and improvement.

To refresh our memories I again quote from the report of the White House Conference of 1934:

"Instruction in obstetrics to medical students is a desideratum of prime importance in the determination of maternal morbidity and mortality. The better the clinical training of students in the art of obstetrics, the better obstetrics they will practice and this, in turn, will be reflected in improved results. Didactic teaching of obstetrics, in the United States, is and has been fairly satisfactory, save that it has been overstressed in many schools for

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want of clinical material. The need is not for less theory but for more clinical instruction." The Conference further recommended: "Unification of the departments of obstetrics and gynecology in medical schools and in all hospitals affiliated with and controlled by the university."

In order to evaluate our present status in the teaching of obstetrics and gynecology I have recently written the deans of all the Class A medical schools in the United States and Canada and have studied the catalogues of each of these institutions. Of the deans to whom my inquiry was directed, 71 gave me full data and answers to all questions. The information thus gathered from 71 of the 75 Class A medical schools offering the full four-year course, forms the basis of this presentation.

Combined Departments of Obstetrics and Gynecology

The present survey shows that of the 71 medical schools which gave complete answers to my inquiries, 51, or 73.2 per cent, have combined departments of obstetrics and gynecology, leaving only 20 schools where the two branches of our specialty are separated from one another, and it is encouraging to note that of the latter group there are only three instances where gynecology is a subdepartment of surgery.

TABLE I. COMBINED OR SEPARATE DEPARTMENTS

SCHOOLS AND DEPARTMENTS	NUMBER OF SCHOOLS	PERCENTAGE OF TOTAL
Medical schools studied	71	
Combined department of obstetrics and gynecology	51	73.2
Obstetrics an independent department	20	26.8
Obstetrics a subdepartment	0	
Gynecology an independent department	17	28.2
Gynecology a subdepartment of surgery	3	4.2

It is significant that almost every year we have one or more applications to positions on the residency staff of the New York Lying-In Hospital from graduates who have had hospital training in a separate department of either obstetrics or gynecology and who realize, unfortunately late in their training, that they need adequate preparation in the whole field of obstetrics and gynecology as a specialty. It is to be noted, likewise, that our American Board of Obstetrics and Gynecology presumes requisite training in both branches. As I have previously done so, it is not my purpose at this time to discuss the arguments of the few remaining "isolationists" as to why obstetrics and gynecology should be separate. These arguments have been more than adequately answered by the White House Conference Committee as well as by others. Suffice it to say that "obstetrics and gynecology are so intimately related as to be inseparable." It is to be hoped that private interest, tradition, or lack of a broad vision will not continue for too long to keep these two separate in the few remaining schools where today such is the case.

Medical School Curricula

In the British Isles all clinical instruction in medical schools is divided into three equal parts—medicine, surgery, and obstetrics and gynecology. Mid-

wifery and the diseases of women constitute one-third of all final and qualifying examinations and, as Berkeley pointed out, are probably the most important of the three divisions because they deal with the well-being of those supplying the nation with citizens. He states, "The Medical Act draws, and knows, no difference between medicine, surgery and midwifery." Likewise, in the Scandinavian and German universities, obstetrics and gynecology have a prominent place in the undergraduate teaching schedule.

TABLE II. AVERAGE HOURS OF INSTRUCTION

SUBJECT	NUMBER OF HOURS	PERCENTAGE OF TOTAL HOURS IN THESE SUBJECTS
Obstetrics	279	14.9
Gynecology	136	7.3
Obstetrics and gynecology	403	21.6
Medicine	863	46.1
Surgery	604	32.3
Total	1,870	100.0

In Table II one sees the hours of instruction in the three main clinical branches. It should be noted that in the case of six schools it was difficult to translate the time allocated to practical obstetrics and gynecology in terms of hours. In these schools the student is not required to reside in the hospital and devote full time for a given period to obstetrics and gynecology, but must observe and attend a given number of deliveries or operations. However, even allowing for such errors in the study where the time actually allocated to obstetrics and gynecology is undoubtedly more than shown in the table, it is clear that in the majority of our American and Canadian schools this subject does not receive sufficient recognition in the curriculum. This is particularly true in the case of practical clinical work in obstetrics and gynecology. The average hours for medicine, surgery, and obstetrics and gynecology are 863, 604, and 403, respectively. Obstetrics and gynecology occupies 21.6 per cent of the total time given to these three divisions of clinical instruction. The average ratio of obstetric to gynecologic hours of teaching is two to one.

It must be clear to all of you why I am concerned about the apportionment of time in our curricula to these three subjects. I am not unconscious of the fact that the period of instruction does not tell the whole story, as it does not inform one regarding the type, caliber, and efficiency of that instruction. On the other hand, it gives an index of the amount, and practical aspects, of that teaching. It stands to reason that the student receiving 600 hours of instruction and required to reside two months in a hospital in order to devote full time to obstetrics and gynecology has a far greater opportunity to acquire a fundamental

TABLE III. DISTRIBUTION OF HOURS OF INSTRUCTION

SUBJECT	AVERAGE NUMBER OF HOURS	LIMITS OF NUMBER OF HOURS
Obstetrics	279	152 to 730
Gynecology	136	28 to 337
Obstetrics and gynecology	403	200 to 882
Medicine	863	400 to 1,526
Surgery	604	242 to 1,103

owledge of that subject than the one with one-third that number of hours instruction, no hospital residence, and only an "observation" course in the ctical aspects of the subject.

You will observe that the minimum hours of instruction in this branch of edicine is 200, while the maximum is 882. The distribution of the required ours in obstetrics and gynecology is shown in Fig. 1, from which it will be en that the large number of schools (36 per cent) offer between three and ur hundred hours during the clinical years of instruction.

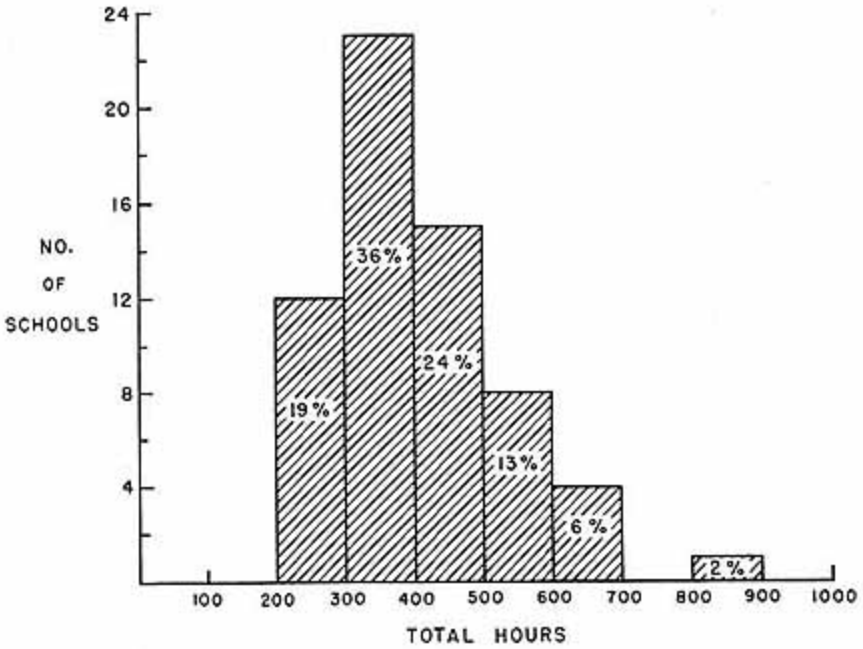

Fig. 1.—Hours required in obstetrics and gynecology (data from 63 schools).

In the next graph (Fig. 2) is recorded the number of hours required in our specialty, expressed as a percentage of the total hours of instruction in the three major clinical divisions, medicine, surgery, and obstetrics and gynecology. It is to be noted that only 6 per cent of the schools accord obstetrics and gynecology a place on a par with the other two branches, while the majority of schools allocate to obstetrics and gynecology from 20 to 25 per cent of the total hours.

Although there is this wide discrepancy as shown above, I was pleased to find that in 20 schools, obstetrics and gynecology was approximately on a par with surgery. This is a great improvement over my findings of ten years ago. At that time I wrote:

In considering the maternal and fetal mortality in the United States, I believe that the chief factor which is responsible for our appalling results is the inadequate teaching of obstetrics and gynecology in most of the medical schools of our country. . . . I am firmly convinced that better obstetrics can be realized only through two factors, firstly, by far

more thorough teaching of our specialty in the medical schools, and secondly, by better hospital training in obstetrics for the young graduate who will sooner or later be called upon to deliver a woman of her child. I believe that obstetrics and gynecology should be on a par with medicine and surgery in the curricula of our schools.

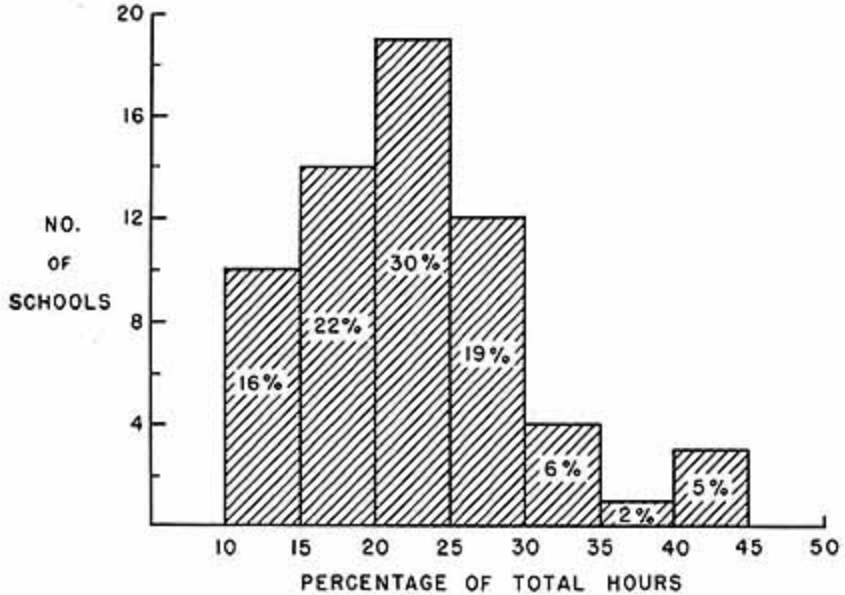

Fig. 2.—Hours required in obstetrics and gynecology as percentage of total hours required in medicine, surgery, and obstetrics and gynecology (data from 63 schools).

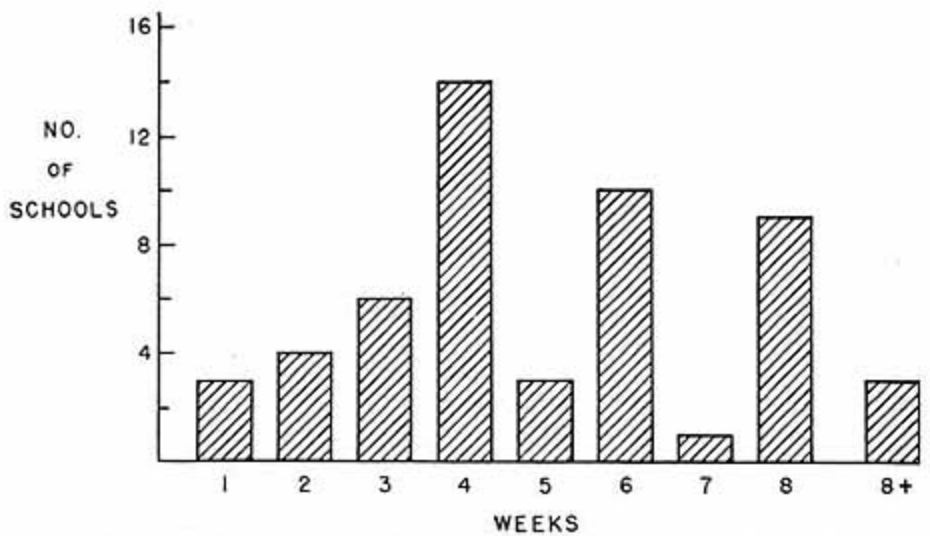

Fig. 3.—Weeks of residence required in hospital (data from 53 schools).

Today, at least 79 per cent of the 71 schools require that the student live in the teaching hospital, devoting full time to the practical work in obstetrics and gynecology, or in obstetrics. This residency period varies from one to eleven weeks, with an average for all schools of approximately five weeks. Were

TABLE IV. PRACTICAL OBSTETRICS AND GYNECOLOGY

PRACTICAL WORK	NUMBER OF SCHOOLS	PERCENTAGE OF SCHOOLS
Required	56	78.9
Optional	4	5.6
No Data	11	15.5
Total	71	100.0

this average eight instead of five weeks, it would more nearly conform to the White House Conference recommendations and so meet the need for more clinical instruction in obstetrics and gynecology.

It is also most encouraging to observe that nearly all schools give a course in manikin and that 62 per cent of the medical colleges offer a special course in obstetric and gynecologic pathology; although, on the other hand, only 29.6 per cent of schools have a special course in obstetric bacteriology and infection. It is hoped that the next ten years will see a like improvement in this very fundamental clinical application of bacteriology and infection.

TABLE V. SPECIAL COURSES IN OBSTETRICS AND GYNECOLOGY

COURSE	NUMBER OF SCHOOLS	PERCENTAGE OF TOTAL SCHOOLS
Pathology	44	62.0
Bacteriology	21	29.6
Manikin	64	90.1

The study of the 71 schools reveals that in 30, or 42.3 per cent, obstetrics and gynecology is on a full-time or modified full-time system. In 40.6 per cent of the schools the three clinical divisions, medicine, surgery, and obstetrics and gynecology are on full-time or modified full-time, while in only 7.2 per cent are medicine and surgery, but not obstetrics and gynecology.

This usually indicates that the head and one or more of his assistants devote their full time to instruction, research, and care of patients within the department. My inquiry shows further that several schools contemplate the establishment of a full-time system. It should be explained that in this system, as originally proposed by Welsh and his associates and as established in most instances, part-time or attending doctors are utilized to the fullest in all three functions of the department, namely, care of patients, teaching, and research. This promotes and enables close integration and cooperation between the department and the practicing medical profession, thus materially strengthening the former, while enabling the latter to work in a university atmosphere with its many opportunities for development and improvement in knowledge and skill. It is indeed encouraging to note the increasing number of clinical departments in our universities embracing the full-time or modified full-time system.

Maternal and Fetal Mortality

A comparison of our national statistics for the year 1933 with those for 1943 reveal a reduction in maternal deaths of from 6.2 to 2.5 per 1,000 live

births; while the fetal mortality for these two years are 37.0 and 26.7 per 1,000 live births, respectively.

It is the usual custom to express maternal mortality as a ratio per thousand live births, for the reason that fetal deaths (including abortions, ectopic gestations, and stillbirths) are very incompletely reported. A table for 1940, appearing in the Report of the Subcommittee on Maternal, Stillbirth, and Infant Mortality of the Committee on Statistical Practice of the American Public Health Association, reveals the complete lack of uniform legislation and practice in the various states and cities in the reporting of stillbirths. Since 1939, the City of New York Department of Health, recognizing the inaccuracy of this general custom, expresses the maternal mortality from causes associated with pregnancy and childbirth as a ratio per 10,000 reported terminated pregnancies, a practice we have employed at the New York Lying-In Hospital for the past thirteen years. Should all vital statistics throughout the country be so recorded, we would have an accurate index of the loss of life in women undertaking pregnancy. The maternal and fetal mortalities are graphically shown in Fig. 4.

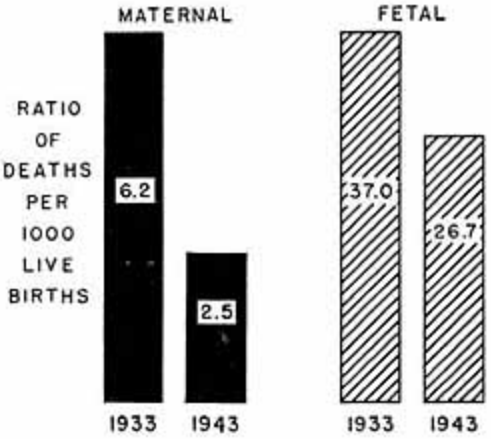

Fig. 4.—Mortality rates in the United States.

From these rates, it is clear that the maternal mortality has been markedly reduced, although there is still room for improvement, and this is particularly true in certain areas and sections of this country. Without question, the good results so far attained are in large measure due to the improvement observed in undergraduate and graduate teaching and training. The excellent efforts of city, county, state, and national medical societies and lay groups are further responsible for this reduction in maternal mortality.

On the other hand, it appears that equal attention and effort have not been focused on the offspring. A fetal mortality of 2.7 per cent is far too high and constitutes a loss of life so great that it becomes an outstanding challenge to modern medicine. When one considers that this death rate does not include abortions and ectopic gestations, it is evident that the actual loss of offspring is far greater than indicated by the figures. The Department of Health of the City of New York requires the reporting of any deadborn fetus, regardless of

the period of gestation, and on this basis the fetal mortality in New York City for the year 1944 was 81.5 per 1,000, a figure more accurately expressing the actual loss of fetal life than the commonly used "stillbirths per 1,000 live births."

Time does not permit a discussion of the preventable causes of fetal death; suffice it to say that I firmly believe that our medical schools and hospitals, through better and more adequate teaching and training of both undergraduate and graduate, will have to assume the responsibility for the improvement which must be brought about within the next decade or two.

Those of us, responsible for large gynecologic hospital services are only too well aware of the great number of patients, attending such services, who have had most inadequate previous medical attention. The reduction in preventable illness and death in this group is likewise dependent upon better preparation of the doctor and gynecologist of tomorrow. Anyone in the practice of gynecology becomes discouraged at times at the ever-present failure of early recognition and diagnosis of malignancy on the part of licensed doctors. Refresher and postgraduate courses, medical society meetings, and dispersion of information to the laity are factors designed to improve the situation and reduce or eliminate preventable deaths among women; but to accomplish the desired ends, we must add to these forces the more fundamental and far-reaching elements of sound and adequate undergraduate and graduate teaching, and training in gynecology.

The desired curriculum and training in obstetrics and gynecology will vary with each institution because of the inherent and physical characteristics incident to each medical school and hospital. However, it seems to me that we should all strive for a certain minimum. From the above reported study of our medical schools, it becomes clear that in about 20 per cent of schools the teaching and training of the undergraduate may be considered adequate, while this cannot be said about the other 80 per cent.

Undergraduate Instruction in Obstetrics and Gynecology

What should all schools strive for? In answer to this question may I express my opinion in the form of the following requirements:

1. Obstetrics and gynecology should be a combined department. If this is impossible or impracticable because of inherent or traditional characteristics of the institution or because of available hospital facilities, the two departments, independently administered, must be closely integrated in both teaching of medical students and training of graduates. In no instance, should either obstetrics or gynecology be maintained as a subdepartment of surgery or some other branch of medicine.

2. The time allocated to obstetrics and gynecology must be equivalent to that allowed for general surgery and general medicine.

3. A special course in obstetric and gynecologic pathology is an absolute essential. Similarly, bacteriology should have a place in the teaching schedule in a department of obstetrics and gynecology.

4. Each medical student must be required to reside in the hospital for a minimum period of from six to eight weeks, devoting his full time during that

period to practical obstetrics and gynecology. A requisite number of deliveries attended or performed is no index of the value of the practical work afforded the student. In the paper referred to above, I outlined in detail a course of instruction and practical experience embodying these requisites.

Graduate Instruction and Training in Obstetrics and Gynecology

I should like to stress once more that anyone desiring to enter our branch of medicine must be prepared to devote four to five or more years to hospital training in obstetrics and gynecology. The requirements of the American Board of Obstetrics and Gynecology are in line with this. Before the war the residency training in obstetrics and gynecology in our hospital was five years and we hope soon to be able to return to that schedule of training. This appears to me to be the minimum amount of time in which the average young graduate can acquire the knowledge and experience essential to practice our specialty. In this system of training the young intern spends his first year primarily in obstetrics, while the second year is devoted to gynecology and a small amount of obstetrics. During his third year he assumes duties of greater responsibility, such as having charge of the registrations and house staff of the outpatient or dispensary and of obstetric wards, and working on the gynecologic wards and operating rooms. His fourth year he is first assistant resident, spending six months in obstetrics, where he sees, supervises, and does a great deal of abnormal obstetrics, and six months on the gynecologic wards and operating rooms. He also spends a great deal of time in the subdepartment of gynecologic pathology, having had an introduction to this work during his third year of training. His fifth year he becomes the resident obstetrician and gynecologist.

In conclusion, I wish to appeal to the deans and faculties of our medical schools in which obstetrics and gynecology are still given a place distinctly secondary to either medicine or surgery. These schools must share part of the responsibility for our continued high fetal mortality throughout the country, a maternal mortality that must be lowered still further, and for the many deaths from the diseases of women resulting from gynecologic practice not consonant with early and correct diagnosis and adequate prophylactic and curative treatment. The family doctor usually does not practice surgery and most frequently has time to consult another physician or internist. On the other hand, he invariably delivers women and cares for the ills of women. Thus he assumes a great responsibility, the lives of both mother and child. He often and usually starts as a general practitioner without postgraduate hospital training in obstetrics and gynecology. It therefore becomes imperative that his undergraduate instruction and training in this field be as adequate as possible. It is for this reason among others previously pointed out, that I ask these deans and faculties to restudy their curricula and accord obstetrics and gynecology a place at least on a par with surgery, a branch of medicine which scarcely anyone today practices without previous postgraduate hospital training. Lastly, I also appeal to our hospitals in general, and to our university or university-affiliated hospitals in particular, to afford adequate house staff training, consisting of at least four and preferably five years in obstetrics and gynecology.