THE OUTLOOK FOR WOMEN IN OCCUPATIONS IN THE
Medical Services

Women Physicians

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THE OUTLOOK FOR WOMEN IN OCCUPATIONS IN THE MEDICAL SERVICES

This pamphlet is one of a series prepared by the Women's Bureau to present the post-war outlook for women in particular occupational fields. Many of the 13 million women who were working before the war, as well as some of the 5 million who have joined them since, must continue to support themselves and their many dependents. Like their younger sisters in schools and colleges, they are confused by the sometimes glowing and sometimes dark predictions regarding their future opportunity for employment. They want the facts.

Many monographs are available that describe an occupation at a particular time in its pre-war or wartime setting. But no detailed studies have been published that show the considerable changes that have taken place during the war and the effect of these changes on the post-war supply of and demand for women in particular occupational fields. This pamphlet presents such a dynamic study as distinct from a static description. It discusses the pre-war situation, the wartime changes, and the post-war outlook for women in one of the occupations in the field of medical services, in which women in 1940 composed almost two-thirds of the workers.

Because of the pressing demand for this type of information, some of the occupational discussions in this field are being issued separately as they are completed. An over-all pamphlet will coordinate the series and discuss the general trends affecting the many women employed in these services so important to the Nation whether at peace or at war.
LETTER OF TRANSMITTAL

UNITED STATES DEPARTMENT OF LABOR,
WOMEN'S BUREAU,

MADAM: I have the honor of transmitting a summary of the outlook for women as physicians in the years to come. This report presents the pre-war situation of women physicians, reviews the wartime changes in their status, and discusses their future outlook as it can be projected from the experiences of the past and the present.

The study is one of a series prepared by Marguerite Wykoff Zapoleon with the assistance of Elsie Katcher of the Bureau's Research Division.

I wish to express my appreciation to the many persons who have contributed to this bulletin by what they have written or said. To those listed on the following page, who read all or part of the manuscript or contributed to its content, special acknowledgment is made.

Respectfully submitted.

FRIEDA S. MILLER, Director.

HON. FRANCES PERKINS,
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Representatives of Organizations and Agencies Whose Special Assistance Is Gratefully Acknowledged

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¹ Deceased in 1945.
CONTENTS

Letter of Transmittal........................................... III
Acknowledgments................................................... IV
Definition of Physician........................................... VIII

Pre-war Situation of Physicians............................... 1
  Distribution of Physicians................................... 1
  Specialization.................................................. 2
  Annual Addition to the Supply of Physicians............... 3

Wartime Changes.................................................. 3
  Changes in Number and Distribution of Physicians......... 3
  Women Physicians in Wartime................................. 5
  Women’s Opportunities for Medical Training................ 7

Earnings, Hours, and Advancement............................. 10

Professional Organizations of Women Physicians............. 12

Opportunities for Women With Special Employment Problems... 12
  Older Women.................................................... 12
  Married Women................................................ 13
  Negro Women................................................... 13
  Physically Handicapped Women............................... 14

Post-war Outlook.................................................. 14
  Special Fields.................................................. 16
  The Future Compared With the Past........................... 19

Appendix A.
  I. Usual Requirements for Entrance to an Approved Medical
     School......................................................... 21
  II. Requirements for M.D. Degree From an Approved Medical
       School....................................................... 21
  III. Usual Requirements for a State License to Practice Medicine 22
  IV. Minimum Requirements for Civil Service Position as Intern and
       Psychiatric Resident (Medical Officer) at St. Elizabeth's Hospital in Washington, D. C. 22
V. Principal Requirements for a Beginning Federal Position as a Physician (Medical Officer) .......................................................... 23

VI. Qualifications for Women Physicians in the Army Medical Corps .......................................................... 23

VII. Qualifications for Women Physicians in the U. S. Naval Reserve (with Medical Corps Duties) .................... 24

VIII. Qualifications for Women Commissioned as Assistant Surgeons in the Regular or Reserve Corps of the U. S. Public Health Service .......................................................... 24

Appendix B.
Sources to Which Reference Is Made in the Text and Other Selected References .......................................................... 25

Illustrations:
Physician about to administer intravenous therapy ................ VII
Physician gives an intravenous injection.................................. 6
Surgeon cares for an accident case from an industrial establishment .................................................. 8
Physician examines patient with foot abnormality .................. 11
Physician takes blood pressure of school child ..................... 17
Physician about to administer intravenous therapy.
Physician as Defined in the Dictionary of Occupational Titles (33)\(^1\)

Physician; doctor of medicine; m.d. (medical ser.) 0-26.10. A classification title for persons of recognized experience, educational, and legal qualifications who are engaged in such phases of medicine as diagnosing, prescribing medicines for, and otherwise treating, diseases and disorders of the human body, and performing surgery and operations. These persons often specialize in treating one part of the body, or one sex, or the correction of deformities. Classified under this title are the following occupations: Aurist; Cardiologist; Dermatologist; General Practitioner; Gynecologist; Laryngologist; Medical Examiner; Neurologist; Obstetrician; Oculist; Orthopedic Surgeon; Pathologist; Pediatrician; Physician, Research; Proctologist; Psychiatrist; Public Health Officer; Rhinologist; Roentgenologist; Surgeon; Urologist.

\(^1\)References in parentheses throughout this report are to Appendix B—Sources to Which Reference Is Made in the Text, p. 25.
OUTLOOK FOR WOMEN AS PHYSICIANS

In any given medical team, the physician is the captain. As more and more medical service is performed in hospitals, medical centers, and clinics, this position of leadership becomes even more significant in its effect on all medical work and on the nurses, the technicians, and other workers in the medical services. Actually the physicians, who comprise a fifth of the personnel in medical and other health services (30) (31),¹ set the pace and the standards for the remaining four-fifths.

Though women constitute the majority of all workers in the health and medical fields, among physicians they are relatively few, numbering 7,600 in 1940, or 4.6 percent of the 165,000 practicing at that time. (31) Eight other professions are more commonly followed by women, four of them primarily in the field of teaching. They are: Teaching, nursing, music and music teaching, social welfare, library service, college teaching, art and art teaching, and editing and reporting.

The proportion of women physicians to the total number of physicians also is lower than the comparable proportions for each of these other professions. Furthermore, this proportion, hovering continuously about the 5-percent mark, has shown little change in the past 40 years. To study the outlook for women physicians, therefore, it is necessary to look at the entire profession in which they are so small a minority.

Pre-war Situation of Physicians

Distribution of Physicians.

Wherever there are births, deaths, illness, the physician is needed. The majority of physicians (78 percent), therefore, usually are found where there are concentrations of people, in cities and towns or so-called urban centers. (31) Among women physicians, the pre-war tendency to settle in such centers was even greater; 85 percent of them were located there. Only 2 percent of all physicians were practicing in rural farm areas, and 20 percent of the men and 13 percent of the women were practicing in rural nonfarm areas. That the need for additional physicians was greatest in rural areas is shown by the fact that the ratio of physicians to population in 1940 was 1 physician to 575 people in urban areas as compared with 1 to about 850 people in rural nonfarm and farm areas. (32)

Various regions in the United States also differed in the number of physicians normally available to serve them, (see summary on next page). Though the numbers are too small to be significant, the proportion of
women physicians to the total was slightly higher in the West (6.4 percent) and slightly lower in the South (3.1 percent) than in the country as a whole (4.6 percent).

Specialization.

The majority of physicians, men and women alike, engage in private practice and are self-employed. Relatively few work on a salaried basis. These few are for the most part employed by public agencies; by private schools, colleges, and institutions; by social agencies; by educational or research organizations; by industrial or other miscellaneous groups employing physicians to service themselves or others.

Most physicians engage in general practice, diagnosing and treating a variety of maladies. Some tend to serve certain types of cases. But to become a recognized "specialist," a physician must meet certain standards set up by the American Boards in the medical specialties organized under the auspices of the Council on Medical Education and Hospitals of the American Medical Association. In order to be accepted as a "diplomate" of a Specialty Board, a physician must have graduated from an approved medical school and in addition have completed an approved internship and a period of 5 years of training and practice in a selected field. By March 1944, more than 23,000 specialists had been certified by the 15 Specialty Boards. (10) In order of the number of physicians certified, the specialties are as follows:

- Otolaryngology (diseases of the ear, nose, throat).
- Internal Medicine (diseases of internal organs such as heart, lungs, intestines).
- Surgery (operations).
- Ophthalmology (diseases of the eye).
- Pediatrics (children's diseases).
- Radiology (X-ray and radium diagnosis and treatment).
- Obstetrics and Gynecology (births of children and diseases peculiar to women).
- Psychiatry and Neurology (mental and nervous disorders).
- Pathology (the nature and causes of diseases).
- Urology (diseases of the urinary organs).
- Orthopedic Surgery (correction of deformities).
- Dermatology and Syphilology (diseases of the skin).
- Anesthesiology (anesthesia).
- Plastic Surgery (operations to restore skin and tissue).
- Neurological Surgery (brain operations).

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1 For distribution of physicians see Reference 31, p. 75, and of population see Reference 32, pp. 8, 96-97.
In 1941, Dr. Margaret D. Craighill, now Major Craighill in the Army Medical Corps, reported that 2.7 percent of the specialists certified by the 12 Specialty Boards then in existence were women. (6) Five percent of all women physicians were qualified specialists as compared with an 8 percent ratio for men physicians. The distribution of the 385 women specialists covered in her analysis, as shown below, indicates a different pattern for women from that for men. Their tendency toward pediatrics, psychiatry, and pathology is believed to be in large part due to the fact that it is easier for women to obtain proper training in these fields than, for instance, in general surgery.

<table>
<thead>
<tr>
<th>Total</th>
<th>385</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatrics</td>
<td>88</td>
</tr>
<tr>
<td>Psychiatry and Neurology</td>
<td>55</td>
</tr>
<tr>
<td>Pathology</td>
<td>55</td>
</tr>
<tr>
<td>Radiology</td>
<td>37</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>34</td>
</tr>
<tr>
<td>Obstetrics and Gynecology</td>
<td>33</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>31</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>26</td>
</tr>
<tr>
<td>Dermatology and Syphilology</td>
<td>21</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>3</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>2</td>
</tr>
</tbody>
</table>

An analysis of the status in 1938 of women graduated in medicine from Johns Hopkins from 1897 to 1938 revealed little variation from the pattern for men in percentages practicing, types of practice, and number who had gained distinction, except for the relatively small number who specialized in surgery and a rather marked emphasis on pediatrics, psychiatry, and public health. (15)

**Annual Addition to the Supply of Physicians.**

Before the war, some 5,000 physicians a year were graduated by the approved medical schools of the country, from 4 percent to 5 percent of them being women. (13) Some 6,000 new State licenses to practice medicine were issued each year to these graduates and graduates of foreign medical schools. (For usual requirements for a State license, see Appendix A, III.) Normally, the annual loss of physicians due to death is about 3,400, (22) leaving approximately 2,600 net additions to the profession each year. The number of women included usually is just sufficient to maintain their 5-percent proportion of the total.

**Wartime Changes**

**Changes in Number and Distribution of Physicians.**

As the armed forces increased in size shortly before the war, medical reserve officers in increasing numbers were called by the Army and Navy for active duty. A Medical Preparedness Committee was formed by the American Medical Association. Almost all the medical schools in-
creased their enrollments and adopted an accelerated curriculum. On October 31, 1941, less than 2 months before Pearl Harbor, the President ordered the establishment of a Procurement and Assignment Service for Physicians, Dentists, and Veterinarians as part of the Office of Defense, Health, and Welfare Services to "stimulate voluntary enrollment of these professions." (28) Corresponding State committees were formed to enroll physicians and to cooperate with local draft boards in determining which physicians were locally essential. When the attack by Japan came, the Procurement and Assignment Service went into high gear. The war meant that 10 or 11 million men and women in the United States, as soldiers, sailors, and marines, would need to be serviced by from 6 to 6.5 physicians per 1,000 rather than by the 1.2 physicians per 1,000 who served them as civilians. (26) In 1943, this ratio was revised to 4.6 doctors per 1,000 men in non-battle areas and 6.6 doctors per 1,000 men in combat areas.

To increase the supply of available physicians to meet this need, virtually all medical schools adopted an accelerated program, which will result in producing more than 20,000 graduates during the 3-year period ending in June 1945, (14) an average of 6,700 a year and more than 1,000 over the pre-war annual average. Eighty percent of these young doctors were destined for the Army (55 percent) and Navy (25 percent), as were sufficient premedical students to maintain this percentage under the Army specialized training and the Navy V-12 programs. Early in 1944, the Army arranged not to assign additional premedical students to its Army Specialized Training Program after June 7, 1944, and it reduced its quota of medical students entering in 1945 from 55 percent to 28 percent.

Dovetailing with the accelerated undergraduate medical curriculum, the Procurement and Assignment Service put the so-called "9-9-9" program into operation January 1, 1944, which limits young medical officers taking graduate medical training to 9 months of internship. For one-third of them an additional 9 months of junior residency is allowable and for one-sixth of the original number another 9 months of senior residency is provided. Under this plan hospitals are given quota allotments which set the number of deferrable internships and residencies.

In February 1944, the American Medical Association placed the estimated number of physicians in the United States at 186,496, of whom about 100,000 were engaged in private practice, some teaching part time. The others were in military service, full-time hospital work, full-time teaching, or not in practice. By the summer of 1944 over 50,000 physicians had been supplied to the armed forces. Compared with a pre-war basis of 1 active physician to approximately 1,000 persons, the national average number of persons per active civilian physician was expected to reach 1,500 early in 1944 and to "continue to rise at a considerable rate." (25)
In addition to the obvious military demands, the increased industrial activity and its early concentration in so-called boom towns created almost immediate shortages of physicians in certain areas crowded with additional workers living under conditions likely to increase rather than decrease their per capita need for medical care. In Jackson County, Miss., for example, where the population jumped from 20,000 in 1940 to an estimated 50,000 in 1943, there were only 21 physicians in the entire county in December 1943, or 1 doctor to 2,400 people. Moreover, 4 of them were employed in a shipyard and not available for general practice, and 7, a third of the total number, ranged from 67 to 81 years of age and were too old to carry a heavy load of patients. (38)

Such local shortages become so serious that the Congress appropriated funds to the Public Health Service on December 23, 1943, to provide financial assistance to civilian physicians and dentists, men or women, who would agree to relocate in areas where the shortage of medical personnel was critical. Physicians receiving such assistance (not to exceed $250 a month for 3 months and the actual cost of travel and transportation for self and family) agreed to remain in the new location not less than 1 year and had to obtain a license to practice in the State. Further, a request from the community was required. This program was discontinued June 30, 1944.

Women Physicians in Wartime.

What were women physicians doing during this period of increasing shortage? What was their status with regard to the need?

As early as 1940 the American Medical Women’s Association appointed a subcommittee on Emergency Service Registration of its Medical Service Committee. In July 1940 this committee sent registration blanks to over 8,000 women physicians registered in the United States. Up to December 1, slightly more than 2,000 replies had been received. About one-third of this number offered their services wherever needed in this country or abroad; about half were willing to serve anywhere in the United States; and the remaining one-sixth were limited to particular localities. As might be expected, the group replying were on the whole the younger group, two-thirds being 40 years of age or less. The specialties represented among them in largest numbers were public health, psychiatry, pediatrics, obstetrics, and gynecology. Others well represented were anesthesia, laboratory medicine, and the teaching profession. (23)

Meanwhile a few women were accepted by the Army as “contract surgeons” with Army status but without commissions (54 women had served as contract surgeons with the U. S. Army in World War I). For some years women have been eligible for commissions in the U. S. Public Health Service, the first one being commissioned in 1932. Following the organization of the WAAC in 1942, a few women physicians received commissions as WAAC officers but they were not admitted to the Army Medical Corps. The Navy accepted women physicians as Reserve
Officers in the WAVES. Only after more than 2 years of repeated effort, and the marshaled support of women's organizations, the American Legion, and a number of county and State medical societies (36), did women physicians, in April 1943, achieve through legislation the right to appointment in the Army Medical Corps or Navy Medical Corps. (37) (For qualifications for appointment, see Appendix A, VI and VII.) By this time there were no vacancies in the higher ranks. In 1943, 300 women physicians were believed to be qualified for such service, in addi-

![Physician giving an intravenous injection.](https://example.com/image.jpg)

**Physician gives an intravenous injection.**

tion to 600 to 700 young interns about to be graduated who might prove eligible. (3) In the summer of 1944, 133 were serving with the armed forces or as commissioned officers in the U. S. Public Health Service (75 in the Army, 38 in the Navy, and 20 in the Public Health Service). Though the Army, the Navy, and the Public Health Service were seeking them in 1944, women physicians had for the most part become engaged in other war work and naturally failed to respond to the delayed call for their services.

A number of women physicians had taken over the practice of male relatives or other male doctors who went into military service. Some who had been practicing part time worked full time; some retired physicians returned to practice. A college physician, for example, took an industrial physician's job in a war plant, while her mother, also a physician, came out of retirement to carry on her daughter's job at the
Many war plants hired women physicians as medical examiners and for work in the dispensaries. "The demand far exceeds the supply" was the report from the Civil Service Commission in April 1943 on Federal positions in medicine. Women physicians were being requested not only by such Government agencies as the Children's Bureau but for the first time by the Veterans' Administration, one of the two largest Government employers of physicians, which heretofore had used only men. (For principal requirements for beginning Federal positions, see Appendix A, IV and V.) In public health work in school, city, county, and State, jobs vacated by men have in many cases been filled by women. War neuroses and psychoses and the "bumper crop" of babies increase the demand for medical service in psychiatry, obstetrics, and pediatrics—fields in which women have tended to specialize. Everywhere the demand for women physicians has grown: In private practice, in institutional work, as well as in the public health fields. But unfortunately there are not enough women trained to fill the need.

Though the number of men training for medicine has increased under the accelerated program, the number of women has remained fairly constant. In 1941 there were 1,146 women students in approved medical schools; in 1944, 1,176. The percentage of women students to the total medical students decreased slightly during this period, from 5.4 to 5.0; the percentage of graduates declined from 5.3 in 1941 to 4.7 in 1944. (14) Though it is too early to be sure, the number of women now training and entering the medical field seems to be remaining fairly constant, while their proportion of the total decreases as more men are trained under the accelerated program. The recent reduction of the Army's quota of entering medical students from 55 percent to 28 percent may result in a higher proportion of women students, but prediction is difficult because of the few women in premedical courses and the competing demands for their service.

Women's Opportunities for Medical Training.

Of the 77 schools offering approved training in medicine in the United States in 1941, all but 7 admitted women students before the war, and one, the Woman's Medical College of Pennsylvania, accepted women students only. (6) Since the war the number of schools that do not admit women students has been reduced to 4. About half of all women applicants to medical schools and only a slightly higher proportion (52 percent) of all men applicants are normally accepted.

Almost half the States include an internship as one of the requirements for a license to practice, and practically 99 percent of all medical graduates since 1938 have secured internship appointments as a customary part of their preparation for practice. (19) Though training facilities have been open to women, their great difficulty in preparation has been in less opportunity with regard to the number and variety of residencies, though the number of residencies has trebled since 1927.
and in 1944 totaled 5,393. (18) Residencies in surgery have been especially difficult for women to obtain, notwithstanding the increase in the number of such residencies.

Opinion differs as to whether the accelerated training program has resulted in greater or in less opportunity for women for admission to medical schools and for internships and residencies. It is possible that women have greater opportunities than in the past but because their proportion to the total number of medical students being trained is smaller, their gains appear to be less. In June 1942, Dr. Alice Stone Woolley, on the basis of a questionnaire study by a committee of the American Medical Women’s Association, reported a decided increase in the number of hospitals willing to take women interns or residents. Since there was a reported shortage of 2,392 interns in civilian hospitals approved for intern training in January 1943 (20), and especially since the Procurement and Assignment Service is urging hospitals to use women physicians in filling vacancies created by the 9-9-9 program, the opportunities for women for residencies may continue to improve as Dr. Marion Josephi, writing in the Medical Woman’s Journal in November 1942, indicates:

Never has there been such a demand for women, both as internes and residents, as exists today. Almost all hospitals are opening their doors and begging
women to enter. There are at this moment residencies available in many specialties from which women were practically excluded before this present emergency, such as surgery, orthopedics, neurology, and neuropsychiatry.

The length of the training program for medicine as compared with other professions is of itself a deterrent to many women, since it not only increases the total cost to the student but also postpones the date at which she can begin to earn. Before the war, an estimate of $1,000 a year was considered a conservative allowance for a medical education budget for a single year; $1,200 is a safer allowance now. Since the war, tuition rates as well as other expenses have increased. The average tuition fee for medical schools in 1943 was $409 (14) as compared with $378 in 1940. (12) The charge at the Woman's Medical College is $500.

Though 80 percent of those in training in medical schools in early 1944 were members of the ASTP or Navy V-12, programs, and at least 53 percent of the students of the classes entering since then are military personnel and have all their training expenses paid, the remaining students, including all the women, must finance their own education unless they can secure a scholarship or loan. The only financial inducement to civilian medical students has been the Student War Loan Program for students within 2 years of completing professional training in one of 7 specified fields. From July 1942 to June 30, 1943, when it was discontinued, only 120 out of a total of 11,000 loans were made to women students, but most of these were in the field of medicine. Very few applications were received from women and this was attributed by those who administered the program to two facts:

(1) The number of women enrolled in the 7 fields authorized by the law is small to begin with, and is further reduced by the limitation to the last 24 months.

(2) Women do not normally take loans in colleges since such an obligation is felt to be a bar to matrimony, and furthermore, since few families urge girls into college unless financial provisions can easily be made for them.

A number of medical schools have scholarships open to men and women alike. The American Medical Women’s Association has a Committee on Scholarship Awards which makes loans of $100 to $500 to women medical students and loans up to $1,000 to women physicians for graduate study. A number of women’s professional organizations and service clubs in local communities have aided particular women to complete a medical education. Some 20 percent of the students at the Woman’s Medical College of Pennsylvania receive some aid from scholarship or loan funds. More scholarships for women are needed, according to Dr. Margaret Warwick, who writes:

The girl with limited funds will have difficulty in a medical course because the work is very exacting in both time and health, so that there is little opportunity for work aside from school duties. Also the price of tuition, books, labora-
tory fees and instruments represents a large outlay of money, and after graduation the financial rewards are slow in coming. (41)

Earnings, Hours, and Advancement

What are the financial rewards for women physicians? For all physicians, the average net income in the year 1941 was $5,179, according to a study covering 1,898 physicians, wholly or chiefly in independent practice, made by the Bureau of Foreign and Domestic Commerce. Half the physicians netted less than $4,000 in 1941, and 13 percent earned more than $10,000. Those practicing in cities of 100,000 to 250,000 population earned relatively more than those in larger or smaller communities. (17) A number of income studies made in the years 1928-30 bear out these more recent statistics. In summarizing the earlier studies, Dr. Harold F. Clark (4) reported the median income for all physicians to be $4,600, while that for the graduates of Grade A medical schools was $6,070. He found—

... that the average income is greater in urban communities than in rural, that it is greater for specialists than for general practitioners, and that it is greater for physicians with seven or more years of training than for physicians with less training.

The income of women physicians is lower, on the average, if the limited statistics available are valid indications. According to the National Federation of Business and Professional Women's Clubs, the median income of 147 women physicians among its membership in 1942 was reported to be $3,000, considerably lower than the general averages of all physicians as given above. The only direct comparison, though based on a very few cases and on a younger group, bears out this difference. In 1936, the median income of 167 men physicians who had been out of college 8 years was $3,032 as compared with a median of $2,017 for 11 women physicians who had been out of school the same length of time. (34)

Long and irregular hours are characteristic of the life of the physician, especially if engaged in general practice and hence subject to the emergency calls of patients at any hour. Physicians engaged on a salaried basis in public health, teaching, research, industry, or institutional work have a more regular and set schedule of hours, though some of them may carry some private practice or do additional work beyond the set schedule. Because of the rapid development in medicine, a considerable amount of the physician's time must be spent in professional reading and discussion as well as in free dispensary and hospital work. Vacations usually are short for the physician in private practice, who must arrange for the care of patients during absence. Institutional teaching, research, and public health jobs generally provide a month's vacation.

To the private practitioner, advancement comes in terms of an increasing practice. Though women physicians experience some prejudice,
they are preferred by many patients, notably children. Generally speaking, the opportunity for women physicians depends on their ability to inspire confidence in their medical capacity. There has been one real handicap, however, in their association with hospital staffs. In greater New York in 1940, for example, outside the New York Infirmary for

Physician examines patient with foot abnormality.

Women and Children there were only two women serving as hospital directors of service. As to staff affiliations, of some 700-725 women physicians in New York City, 309 had no hospital connections. Only 140 were on hospital staffs, 123 had only out-patient connections, and 103
were connected with the New York Infirmary for Women and Children. (40)

The war has increased both the hours and the income of physicians, and has widened the practice of most women physicians as well as men. Hospital connections now are easier for women to obtain, though women are still distinctly handicapped there. In the public health field, except in maternal and child health, women often have been unable to secure advancement to administrative posts.

Professional Organizations of Women Physicians

Most women physicians, like the men, belong to a county medical society affiliated through the State medical societies with the American Medical Association. A number of women also belong to the American College of Surgeons and the American College of Physicians. Though in the past few women have held offices in these organizations, advances have been made. (2) Dr. Emily Dunning Barringer has recently served as a member of the House of Delegates of the American Medical Association and Dr. Zoe Allison Johnston in 1944 served as president of the Allegheny County Medical Association (which includes Pittsburgh). A number of women have served or are now serving as members of the House of Delegates of the various State medical societies; New York, for example, in 1944 had 3 women seated.

There are numerous organizations for specialists, such as the American Pediatric Society and the American Psychiatric Association, to which women may belong who qualify in the respective fields. But even here there are notable exceptions. For example, the American Gynecological Association has only one woman member. Many local groups of medical specialists, such as the New York Obstetrical Society, do not admit women to membership, though in Philadelphia, on the other hand, the Obstetrical Society has recently elected a woman to serve as its president.

Women physicians have long banded together in local associations such as the Women's Medical Association of New York City. In 1915 a National organization, the American Medical Women's Association, Inc., which in 1944 had 1,200 members, was formed. It meets with the American Medical Association and publishes a quarterly journal, Women in Medicine. Through this association there is an affiliation with the Medical Women's International Association.

Opportunities for Women With Special Employment Problems

Older Women.

Except in their youth, women are not likely to enter on the long, strenuous, and expensive training period required for a career in medicine. Most medical schools do not accept them beyond the age of 28 or 30. But the Woman's Medical College of Pennsylvania has had
successful experience in training a considerable number of women over 35, most of whom have been highly trained in allied scientific fields or have been prevented by personal circumstances from studying medicine at an earlier age. That physicians begin their professional work fairly late because of the long training period is shown by the fact that only 1 percent of the men physicians and less than 4 percent of the women were under 25 years of age in 1940. (31) On the other hand, age itself is no handicap once a physician has become established. One of the most prominent women physicians in the country is a surgeon still operating though nearing the age of 80. In 1940, the Census reported 560 women physicians between 65 and 74 years of age and 116 who were 75 years or more. Nine percent of all women physicians were 65 years of age or older in 1940. The median age for women physicians was 41.3 years; that for men, 44.1. Slightly more than half the women, like the men physicians, were between 25 and 45 years of age.

During the war, women as well as men physicians who had retired or limited their practice due to age have helped to meet shortages by returning to practice or increasing their practice.

Married Women.

As physicians, women have experienced relative freedom from discrimination because of marriage; in fact, marriage frequently has been considered an asset in general practice as well as in the field of maternal and child health. In 1940, about half of all women physicians were single, one-third were married, one-seventh were widowed or divorced. (31) Marriage apparently is more usual among women physicians than among women in other professions, since two-thirds of all women in professional and semiprofessional work in 1940 were reported as being single, while only half of the women physicians were so reported.

Negro Women.

Two percent (2.2) of the men physicians and 1.7 percent of the women physicians practicing in 1940 were Negroes; only 3.7 percent of the Negro physicians were women. A special study of Negro physicians in 1942 reported a 5-percent decrease in their number in the 10-year period 1932 to 1942, though in practically the same period (1930-1940) the Negro population increased by about 8 percent. The ratio of Negro physicians to the Negro population in 1942 was 1 to 3,377, as compared with 1 physician to 750 people among all races in the United States. (5) Meharry Medical College, Howard University, and some of the medical colleges in the North admit Negro women students for training. There are relatively few opportunities for internship and for hospital affiliations. The lower economic level of Negro patients also makes the income of the Negro physician in private practice less, while training is just as expensive. This may explain the lower percentage of women among Negro physicians, since they are faced with the double problem of being
in a minority racial group as well as a minority sex group (as far as the profession of medicine is concerned). During the war the opportunities of Negro women physicians, like those of other women, have expanded, but few were trained to meet the need.

**Physically Handicapped Women.**

Physical handicaps, on the whole, are likely to be more serious and limiting in medicine than in most professions because of the strenuous, unpredictable schedule and the probability of fatigue. However, certain types of medical research are suitable for individuals whose limited physical activity may be compensated for by unusual scientific interest and ability.

**Post-war Outlook**

What pre-war trends affecting physicians will continue?
Which of the war changes are likely to be permanent, which temporary?
What is the future outlook for women in medicine?

Before the war, though the proportion of women in medicine had remained relatively unchanged over a long period, there had been steady progress in the opening of medical schools to women and in their acceptance for internships and residencies. It is true that there still was much room for improvement. Especially were there handicaps with respect to hospital affiliations and administrative posts. In January 1941, Dr. Margaret D. Craighill summarized the situation as follows: (6)

1. The number of women studying medicine is not increasing rapidly.
2. Men and women applicants (to medical schools) are being accepted in almost equal proportions.
3. A slightly smaller percentage of women than of men is graduated.
4. There are adequate opportunities for women to study medicine in the United States.
5. Relatively fewer women than men are being qualified as specialists.

The war has increased tremendously the demand for women physicians in all fields and has enlarged their opportunities for training, undergraduate and graduate. The major difference that now exists between the opportunities for men and those for women is that the young men selected by the Army and Navy receive their training free, while young women (like civilian men) must finance their medical education even though they too may plan to enter military service. On the other hand, women have a compensating freedom of choice of school and of profession, whereas the Army and Navy draftee has a limited choice of school and may not become a medical student unless found fit and needed by the military services. The Army and Navy experience in selecting students earlier and on the basis of qualifications (without regard to ability to finance the medical course) may establish the importance of supplying scholarships to young men and young women who are unusually well-
qualified but who cannot attempt the long period of premedical and medical training without financial assurance.

The acceptance of women in the Army and the Navy Medical Corps was limited by the legislation to the duration of the present war and 6 months thereafter, the same limitation that applies to men in the Army of the United States as distinct from the regular United States Army. However, some of the men may stay on in the regular Army after the war, whereas women, under existing provisions, may not. Like the men, women physicians in military service will be entitled to assistance in relocation by the Veterans' Employment Service offered through local employment offices. These representatives have been instructed to work closely with the Procurement and Assignment Service in assisting physicians in relocation. (29)

There is some talk of the overcrowding of the profession because of the increase in the supply of physicians being trained, more than a thousand each year above the usual number. However, there never has been a time when all the medical needs of the population have been met. Moreover, the adequacy and extent of service available have varied markedly in different localities or areas and at different income levels. Factors indicating increases rather than declines in future needs for medical care may be outlined as follows:

On the supply side—

1. The rate of casualties among physicians in military service is likely to be higher than the normal rate of casualties among them had they remained in civilian practice.

2. The strain under which civilian physicians are working has already increased the death rate among the older group now practicing.

3. Fewer foreign physicians have entered the United States during the war period.

4. The need for medical services in the devastated war areas will cause:
   a. The assignment of some physicians to foreign service.
   b. Reduction in the number of foreign physicians who will emigrate to the United States to practice.

5. The bulk of those trained during the war will be only partially prepared as far as graduate work is concerned, and their experience is likely to be highly specialized; many of them will want to broaden their experience through residencies before engaging in civilian practice. Of 1,000 medical officers replying to a recent questionnaire, 796 wanted post-war training, ranging from less than 6 months to more than 3 years. (1) (21) Plans for assisting them are already under way. (8) (27)

On the demand side, offsetting factors are—

1. War casualties will need extra medical care long after the war is over (8) and the Veterans' Administration was already 600 doctors short in 1944. (7)

2. Military personnel, many of whom are experiencing the best of medical care for the first time, are more likely to prefer such care when they return to civilian life.

3. The Army and Navy are likely to retain more physicians after the war.
than they had before the war, if the indications of a larger peacetime
Army and Navy continue.

(4) The dearth of medical service available to civilians during the war has
resulted in the postponement of certain types of medical care and this
neglect will result in an increased need later on.

(5) The increasing population and the higher proportion of aged persons
requiring medical care is adding to the demand.

(6) The marked increase in the demand for medical care through compulsory
or voluntary hospitalization and sickness insurance plans and group pre-
medical-care plans should result in spreading medical service to lower
income groups.

(7) The post-war expansion of certain growing fields of medicine, especially
neuropsychiatry, public health, industrial health, physical medicine, tropi-
cal medicine. (11) (24)

Special Fields.

Pediatrics, psychiatry, and public health fields in which women have
tended to specialize in the past will continue to be popular among them
in the future. And in all fields some women will be found. In medical
research and in teaching a few women have distinguished themselves,
though positions of this type, like administrative posts, are comparatively
difficult for women to obtain. Nevertheless, outstanding women physi-
cians have held professorships at Johns Hopkins and Harvard Medical
School. A number have also filled teaching positions, especially in the
medical schools attached to State universities and in women’s medical
colleges.

In the growing field of public health women are finding a wide variety
of positions, though their opportunities have been relatively greater in
the maternal and child-care phases of public health, and in school and
institutional jobs, than in general programs. However, a number of
women are county health officers, assistant county health officers, and
heads of important bureaus in large city health departments; and at
least two have served as State health officers. According to a physician
engaged in training men and women in public health administration (15),
women are gradually coming into administrative positions in this field.
Those with a year of training in public health, following graduation in
medicine and the completion of a year or more of internship in a hos-
pital, seem to have no difficulty in finding and holding a wide variety
of positions in public health service.

Among women physicians, pediatrics will continue to rank high as a
specialty. Among all physicians who are diplomates of Specialty Boards,
pediatricians rank fifth in number, whereas among women physicians
they rank first. (6) (10) The demand on the part of parents for medical
treatment for their children by specialists has steadily increased over the
years. A “significant quickening of interest by pediatricians, as well as
by public health and educational authorities, in *** the area of child
health” has also been evidenced. (42) The School Health Committee
of the American Academy of Pediatrics, for example, has recommended
standard qualifications for school physicians and suggested medical advisory committees as aids in the administration of school health service. That the development of school health services has been rapid, but "by no means universal, nor often adequate," is indicated in the report of a 1940 survey. Though 69 of the 71 school systems in cities of 100,000

or more population replying to the questionnaire reported one or more physicians in health services in the city schools, a third of the systems in the 648 cities with populations between 10,000 and 100,000 replying, reported none. (35) The Maternal and Child Health Program and the Program for Crippled Children for which the Social Security Act
provided has increased public health services to children, and thus the demand for pediatricians in public health agencies. The high birth rate during the first years of the war has increased the immediate need (as well as that for the next decade) for medical services for children. More services are needed especially in rural communities, where more than half the children in the United States who were under 15 years of age in 1940 were located, though only 22, less than 1 percent, of the 2,642 pediatricians were in these areas in 1941. These trends point toward a continuing need for physicians specially trained in pediatrics, in which women have had opportunities for adequate preparation as well as a special interest.

In the future as in the past, women psychiatrists probably will be in relatively greater demand than other women physicians. “Psychiatrists belong to the scarcest category of medical specialists,” according to the director of the Neuropsychiatry Division, Office of the Surgeon General, United States Army. The number of qualified psychiatrists in the United States is estimated at not more than 4,200, of whom 3,389 are members of the American Psychiatric Association. (An M.D. degree plus one year of general internship and one year of internship in a mental hospital are required for membership.) Only 160 to 170 of these members, or roughly 5 percent, are women.

The greatest demand for psychiatrists is in the 575 institutions in the United States that are recognized for the treatment of mental disorders. The number of patients hospitalized for mental illness in these institutions has increased steadily. “It has been reliably estimated that of 7,000 infants born each day in the United States, about 270, or 1 in 26, eventually become incapacitated by abnormalities of the mind.” But the experience of the Army suggests that “patients in mental institutions represent a small percentage of the total number of individuals whose emotional disturbances cause their inefficiency and incapacitation, patients needing psychiatric treatment.” Further, as of June 1, 1944, mental disease had accounted for an estimated 17 percent of the rejections by the Selective Service System of registrants 18 to 37 years of age. Mental deficiency accounted for another 14 percent. Since the rates of mental disease “increase with age steeply and uninterruptedly,” the incidence of mental disease is likely to become higher as the proportion of older persons in the population increases, following the long-time trend.

As the concept of psychiatric treatment has broadened, more opportunities for psychiatrists have opened up outside of institutions for the mentally ill. The number of child-guidance clinics in the larger cities has grown steadily to meet the demand for psychiatric diagnosis and treatment of young children who show early lack of adjustment. Traveling clinics to serve outlying areas have been organized by State departments of mental health or hygiene in such States as Connecticut, Massa-
chusetts, Pennsylvania, and New York. "Behavior clinics" established before the war in connection with juvenile courts were demonstrating their value in some of the larger cities. For adults, marriage clinics, services for parolees from mental hospitals, out-patient and other guidance clinics were growing in number before the war. In 1939 there were some 700 clinics under various auspices, many of them staffed by psychiatrists from the State hospitals. Psychiatry in industry is still largely in the discussion rather than practice stage, but it offers future promise of development. During the war psychiatrists have not been available to many industries wanting to employ them, though a few of the larger establishments have been able to retain the services of psychiatrists already on their medical staffs, among whom are a few women engaged in industrial psychiatry.

More and more individuals are consulting psychiatrists regarding their particular problems of emotional adjustment. Private practice is, therefore, growing. Though until recently facilities for training in psychoanalysis were not available in the United States, 248 members of the American Psychiatric Association are engaged in this field and 55 of them (22 percent) are women.

There has been a marked increase in the number of women engaged in psychiatry in the last 5 to 10 years and an increasing number of women physicians are studying psychiatry. Opportunities for desirable residencies have been relatively great for women in this field. But even so, the supply of women psychiatrists has never equaled the demand, and opportunities continue to be more numerous than those qualified to take advantage of them. Unfilled positions in institutions in child-guidance and other clinics are many. Only 2 candidates were found in 1944 for 12 postgraduate scholarships for training in psychiatry to head up a child-guidance clinic. Open to women as well as to men, these scholarships required an M.D. followed by 2-years' internship or training in basic psychiatry. For as long ahead as one can see, the well-trained woman psychiatrist will be needed in this constantly expanding medical specialty.

The Future Compared With the Past.

Indications are that the increased demand in the post-war years for physicians of all types will more than offset the increase in the supply trained during the war period. There seems to be general agreement that the women now studying in medicine are likely to have greater rather than less opportunity than those who preceded them; that with their added chances they will be able to hold their own in the post-war world with the adequately but hastily trained young physicians entering the Army and the Navy Medical Corps and with the 4-F group who have physical handicaps to offset their equal advantage of less hurried training. Whether the gates that have opened during the war period—to wider opportunities for practice, to acceptance in the Army and the
Navy Medical Corps, to a greater number and variety of internships and residencies—remain open depends on the pressures that are brought to bear to close them again, on the continued efforts of those who struggled so long to open them, and on the achievement of the women who have gone through them. Other women physicians are inclined to agree with Dr. Jessie Gray of Canada, who says:

There will never be any great surge of women into medicine. Marriage at an earlier age than is compatible with a medical education will always be more attractive to the vast majority of girls. So there is nothing to fear from the few of us who are really serious enough about it to carry through with it. (16)

Though women physicians believe that opportunities will continue to increase, most of them support Dr. Gray’s statement that “a woman [physician] encounters, to greater or less degree, more opposition than her brother does”; and “it is necessary for her to have a greater desire to follow this chosen profession, more strength of purpose, tenacity, determination, stubbornness, if you prefer, to achieve the same degree of success as is required of a man.” (16)

Women physicians therefore advise only those who are willing to sacrifice much of themselves and their future leisure to plan to take the oath of Hippocrates that makes them servants as well as masters of the sick.
APPENDIX A

I. Usual Requirements for Entrance to an Approved Medical School

**Pre-war**

2 years (60 semester hours) of premedical college training required since 1918, but 3 years recommended or required since 1938. Five schools required a baccalaureate degree for entrance and many schools in selecting applicants preferred college graduates.

**Wartime Changes**

The Army's 15-months premedical program under ASTP and the Navy's V-12 18-months program are accepted by practically all medical schools. Some 27 schools have retained higher premedical requirements for civilian students but most schools have reduced their requirements for all students to 2-years premedical work or its equivalent under the accelerated program.

**Note:** All but 1.2 percent of the freshmen entering medical schools in the United States (1941-42) had more than the minimum preparation and 78 percent of the graduates (1942-43) had baccalaureate degrees in addition to their M.D.'s.

II. Requirements for M.D. Degree From an Approved Medical School

(A list of approved medical schools is published annually in one of the August issues of the Journal of the American Medical Association.)

**Pre-war**

Completion of a 4-year (32-weeks-in-the-year) standard medical curriculum of 3,600 to 4,400 hours grouped according to certain percentages under:
- Anatomy, including histology and embryology
- Physiology
- Biochemistry
- Pathology, bacteriology, and immunology
- Pharmacology
- Hygiene and sanitation
- General medicine
- General surgery
- Obstetrics and gynecology

11 medical schools also required a year of internship or research.

**Wartime Changes**

Completion of the standard medical curriculum usually in 3 calendar years by foregoing vacations under the accelerated program. The Woman's Medical College operates an accelerated program during the junior and senior years only.

Only 6 schools still require an internship for graduation.
III. Usual Requirements for a State License to Practice Medicine

Pre-war

Generally include:
Graduation from a medical college approved by the State Board of Medical Examiners.
Good moral character.
Minimum age of 21.
Passing of a State Board Examination or its equivalent covering subject fields similar to those included in the standard medical curriculum.

Wartime Changes
No change in basic requirements.

43 States required completion of 2 years of college before medical school.

21 States and the District of Columbia required an internship following completion of the medical curriculum.
19 States required full citizenship and 10 States first papers.
15 States and the District of Columbia required certificate of proficiency in the "basic sciences." An examination usually is required covering: Anatomy, physiology, pathology, chemistry, and bacteriology.

IV. Minimum Requirements for Civil Service Positions as Intern and as Psychiatric Resident (Medical Officer) at St. Elizabeth's Hospital in Washington, D. C.

Pre-war

Basic salary $2,000 a year.

To qualify for the Rotating Internship of 25 months, applicants must be fourth-year students in a Class A medical school, but cannot enter on duty until the completion of the full course in the medical school.

To qualify for the Psychiatric Residency of 1 year, applicants must have successfully completed 4 years of study in a Class A med-

Wartime Changes

Basic salary is the same but wartime lengthening of hours brings actual salary to $2,433 a year.

To qualify for the Rotating Internship of 9 months, must be third or fourth-year students in approved medical school, but cannot enter on duty until completion of the full course in the medical school.

To qualify for Psychiatric Residency of 9 months, must have successfully completed their fourth year of study in approved
V. Principal Requirements for a Beginning Federal Position as a Physician (Medical Officer)

**Pre-war**

Basic salary $3,200 a year.

Graduation from a medical school of recognized standing with the degree of M.D. subsequent to May 1, 1930, or graduation from a Class A medical school.

One year of internship.

Age under 53.

Sound physical health with certain minimum specifications with regard to vision and hearing and provision for a rigid physical examination.

**Wartime Changes**

Basic salary is the same but wartime lengthening of hours brings actual salary to $3,828.

Graduation from a Class B medical school subsequent to 1920 is acceptable.

No change.

No age requirement.

No change.

VI. Qualifications for Women Physicians in Army Medical Corps

**Pre-war**

Women not eligible prior to April 1943, though some were employed as contract surgeons and others were accepted as members of the WAAC in the early phase of the war.

**Wartime Changes**

For the rank of first lieutenant:

Citizenship in the U. S. or one of the co-belligerent Allied Nations.

Age preferably under 45.

Graduation from a medical school approved by Surgeon General.

Internship of not less than 9 months preferably of the rotating type in hospitals approved by Surgeon General.

Physical examination.

For the rank of captain or major:

Specialized training or experience required; must be over 38, in addition to the other requirements.
VII. Qualifications for Women Physicians in United States Naval Reserve (With Medical Corps Duties)

**Pre-war**

Women not eligible prior to about October 1942.

**Wartime Changes**

Graduation from approved medical school.
Certificate of license to practice medicine.
Membership of good standing in County or State medical society.
Evidence of at least 1 year's experience in general practice or in specialty.
Statement indicating type and duration of internship.
Physical examination.
May not be married to a Navy man or have children under 18 years of age.

VIII. Qualifications for Women Commissioned as Assistant Surgeons in the Regular Corps and the Reserve Corps of the United States Public Health Service

**Pre-war**

For Commission in the Regular Corps as Assistant Surgeon (corresponding to 1st Lieutenant in the Army):
- Citizenship in the United States.
- Age, 23 to 32 years.
- Graduation from an approved medical school.
- At least 1 year of experience in the profession following graduation.
- Physical examination.
- Comprehensive written and oral examination consuming approximately 1 week.

For Commission in the Reserve Corps as Assistant Surgeon:
- Same requirements as for Regular Corps except that the comprehensive written and oral examination is not required. Though women were eligible as needed for the Reserve Corps before the war, none were appointed.

**Wartime Changes**

No change.

No change in requirements. Since the war a number of women have been appointed in the Reserve Corps (to serve for the duration and 6 months).

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1 Except for j.g. lieutenants.
APPENDIX B

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