OUTLOOK FOR WOMEN OCCUPATIONS IN



Medical Services

# Dental Hygienists

**Bulletin 203, Number 10** 

### ED STATES DEPARTMENT OF LABOR

L. B. SCHWELLENBACH, Secretary

U OF ILL LIB.



## THE OUTLOOK FOR WOMEN IN OCCUPATIONS IN THE MEDICAL AND OTHER HEALTH 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 and other health 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

U. S. DEPARTMENT OF LABOR,
WOMEN'S BUREAU,
Washington, July 9, 1945.

SIR: I have the honor of transmitting a summary of the outlook or women as dental hygienists. This report presents the pre-war sitution of women in this type of work, reviews the wartime changes in heir status, and discusses the future outlook for women 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 Zaoleon with the assistance of Elsie Katcher of the Bureau's Research Division.

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

Respectfully submitted.

FRIEDA S. MILLER, Director.

Hom L. B. Schwellenbach, Secretary of Labor.

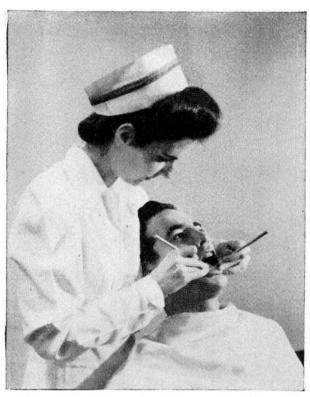
### Representatives of Organizations and Agencies Whose Specia Assistance Is Gratefully Acknowledged

- Mr. Joseph E. Bagdonas, Secretary, Committee on Economics, American Dental Association.
- Dr. Katherine Bain, Director, Division of Research in Child Develop ment, Children's Bureau, U. S. Department of Labor.
- Dental Division, Office of the Surgeon General, War Department.
- Dr. Russell A. Dixon, Dean, College of Dentistry, Howard University Washington, D. C.
- Miss A. Rebekah Fisk, Secretary, American Dental Hygienists' Association.
- Dr. Charlotte S. Greenhood, Chairman, Division of Dental Hygiene College of Dentistry, University of California.
- Miss Sophie Gurevich, President-Elect, American Dental Hygienists Association.
- Dr. Harlan H. Horner, Secretary, Council on Dental Education, American Dental Association.
- Dr. Ruth Jackson, Sr. Medical Officer, U. S. Civil Service Commission Miss Margaret H. Jeffreys, President, American Dental Hygienists' As sociation.
- Dr. John W. Knutson, Dental Surgeon, Division of States Relations U. S. Public Health Service.
- Dr. Lon W. Morrey, Director, Bureau of Public Relations, American Dental Association.
- Office of Assistant for Dentistry, Bureau of Medicine and Surgery, Nav Department, Washington, D. C.
- Dr. A. Harry Ostrow, Director, Bureau of Dental Services, District o Columbia Health Department.
- Mrs. Frances A. Stoll, Chairman, Committee on Education of the Den tal Hygienist, American Dental Hygienists' Association.



### **CONTENTS**

	Page
Letter of Transmittal	iii
Acknowledgments	iv
Definitions of Dental Hygienist	vi
Pre-war Number and Distribution of Dental Hygienists	1
Wartime Changes	3
Earnings, Hours, and Advancement	5
Opportunities for Women with Special Employment Problems	5
Post-war Outlook	G
Appendix A:	
I. Minimum Requirements for Entrance to a School	
for Training Dental Hygienists	11
II. Minimum Requirements for Completion of Training in a School for Dental Hygienists	11,
III. Minimum Requirements for Licensure as Dental Hygienist	12
IV. Minimum Requirements for Membership in the	
American Dental Hygienists' Association	12
V. Minimum Requirements for Beginning Civit Service Position as Dental Hygienist	12
Appendix B.—States and Territories Which Have Legislation Providing for the Licensing of Dental Hygienists (June 1945)	13
Appendix CSchools for the Training of Dental Hygienists	14
Appendix D.—Sources to Which Reference is Made in the Text and Other Selected References	15
Illustrations:	
Dental hygienist giving dental prophylaxis	vi
Dental hygienist interests children in the value of dental care	8



Dental hygienist giving dental prophylaxis.

Courtesy, American Dental Hygienists' Association

## Dental Hygienist as Defined in the Dictionary of Occupational Titles (24)<sup>1</sup>

Dental Hygienist; oral hygienist; prophylactician (medical ser.) 0-50.07. Removes calcareous deposits, accretions, and stains from the surfaces of the teeth and performs other dental duties not reserved by law to dentists.

## Dental Hygienist as Defined by the American Dental Hygienists' Association

Dental Hygienist; public health educator and oral prophylactician; college trained and legally qualified auxiliary dental personnel. Promotes dental health through educational activities in schools, clinics, and institutions. Performs operative prophylaxis for removal of stains, accretions and calcareous deposits from the surfaces of teeth and other preventive services consistent with the respective State dental laws.

References in parentheses throughout this report are to Appendix D—"Sources To Which Reference Is Made in the Text," p. 15.

### **OUTLOOK FOR WOMEN AS DENTAL HYGIENISTS**

For many years, dentists customarily took care of all but the clerical functions connected with their practice. Toward the end of the last century, however, some of them began to employ assistants, usually men and later called dental mechanics, to help with such laboratory work as the preparation of dental plates and crowns and bridges. Somewhat later, in the early 1900's, they began to use another type of assistant to help with dental prophylaxis, or cleaning of teeth. As early as 1906, a woman without a degree in dentistry was permitted to clean and polish teeth. (19) By 1913, the demands for women for this work had grown and a training course for them was opened in Bridgeport, Connecticut. In 1915, Connecticut became the first State to pass a law permitting the issuance of a license to practice dental hygiene. Today, there are 16 schools which offer recognized training for dental hygienists and 35 States, the District of Columbia and Hawaii have laws regulating their practice.

As the occupation developed, educational work was included as an important phase of this specialty. Dental hygienists began to give instruction, especially to children, in the care of teeth. This educational function has become more and more prominent as the occupation has developed.

In 1923, 46 women formed an organization called the American Dental Hygienists' Association which meets annually at the same time and place as the American Dental Association. (See Appendix A, IV, for requirements for membership in the American Dental Hygienists' Association.) The organization has grown steadily since that time.

### Pre-war Number and Distribution of Dental Hygienists

Since dental hygienists are grouped in Census reports with a number of other specialized workers under "technicians and assistants, laboratory," separate Census statistics are not available on their number in 1940. At that time, however, the number of dental hygienists reported as licensed in 32 States and the District of Columbia totaled more than 5,700. (18) A later estimate of the American Dental Association in early 1942 placed the number of practicing dental hygienists at 4,200. (1) It is possible that some of the women with licenses in 1940 were

(1) It is possible that some of the women with licenses in 1940 were not actually engaged in practice. However, allowing for this and for the fact that statistics for one of the 32 States issuing licenses were not available, it is safe to say that in 1940 there were probably 5,000 dental hygienists in actual practice.

The geographical distribution of dental hygienists is indicated by 1940 licensing statistics for 32 States and the District of Columbia. (18)

Regional Distribution of Dental Hygienists Licensed in 32 States-1940

Region N	umber	Percent
Region N United States	5,705	100
Northeastern States	3.516	62
North-Central States	1,219	21
South	559	10
West	411	7

This marked concentration of dental hygienists in the Northeastern States is borne out by a later study which indicates that New England dentists employ twice as many dental hygienists in proportion to their number as do dentists throughout the United States, for whom the rate is 4 percent. (19)

The place in which a dental hygienist may practice is limited by all but one of the State laws to a dentist's office or a public or non-profit institution. (1) (See Appendix A, III, for licensure requirements.) A majority of the dental hygienists work in the offices of dentists engaged in private practice, although a large number are employed in public health programs conducted by public school systems or by State or local health departments. Hospitals, clinics, and dental hygiene training schools represent the other major employers of women trained in this field. A few are also employed in industrial health departments. The distribution by place of employment is not available on all the licensed group but a study made by the American Dental Hygienists' Association (18) in 1940 showed that 2,000 dental hygienists were then employed as follows:

Total	Number 2.120	Percent 100
Dentists' offices		65
Schools		25
Health departments	85	4
Hospitals	59	3
Teaching training courses	37	2
Clinics	19	1

This distribution seems to underrate the size of the group working in approved hospitals where, in 1941, the American Medical Association reports that 919 dental hygienists were working full-time and 593, parttime. (23) The full-time group in hospitals alone would compose almost 20 percent of the total if we assume 5,000 were practicing in 1941 as in 1940. On the other hand, the relative size of the group working in dentists' offices is substantially verified by the conclusion of the American Dental Association that in 1941 there were 4.2 hygienists for every 100 dentists. (19) This estimate places the number of hygienists so employed at approximately 3,000, or 60 percent of the estimated 5,000 dental hygienists in active practice.

Each year some 300 women graduates of recognized schools of dental hygiene are added to the supply. (See Appendix C for list of schools.) No comparable statistics on withdrawals from practice are available,

but a considerable number leave annually because of marriage and family responsibilities. The American Dental Hygienists' Association and other authorities agree that before the war those being added annually to practice were not exceeding withdrawals. (19) (20) Like the practice of dentistry, that of dental hygiene appeared to be in a static stage immediately prior to World War II. This was due in part at least to the lack of training facilities.

### **Wartime Changes**

During the defense period preceding the war, the American Red Cross began to enroll dental hygienists to serve the needs of an expanding Army. (17) In the first year following Pearl Harbor, the United States Civil Service Commission estimated the additional hygienists needed for Federal Service at between 300-400 for the year 1942. The Navy announced that it required 300 additional dental hygienists. (5) When the WAVES were organized in the summer of 1942, dental hygienists were among those especially sought by recruiters. Those who enlisted received the rating of pharmacist's mate and continued the practice of their technique in the Navy. In August 1944, dental hygienists in the WAVES became eligible for commission as ensigns and lieutenants (j.g.) (13) and in May 1945, 3 lieutenants (j.g.) and 5 ensigns were serving in this capacity. For a commission, certain formal education in addition to certification as a dental hygienist was required; those who lacked the educational requirement were rated as a pharmacist first class or above. Efforts to obtain a commissioned status for the 366 dental hygienists currently serving with the Army (February 1945) as civilians and for those serving as enlisted personnel in the WAC have so far proved unsuccessful.

Obviously all of the 600-700 additional dental hygienists needed in military service could not be supplied by recognized training schools at the existing rate of enrollment. Students taking such training had actually begun to decrease, numbering only 240 in 1942 as compared with 327 in 1941. (20) Although the 17 schools had a total training capacity of more than 500, enrollments for many years had not been at the maximum.

The Army and Navy had to meet a part of their need by training enlisted personnel, both men and women, to help with this work. By May 1945 the Navy had 7,950 men and women trained as hospital apprentices or pharmacists' mates to serve as dental (general) technicians to assist at the chair and serve in oral hygiene and X-ray work. Approximately 50 of these had had training as hygienists in a recognized civilian school. The dental technician classification in the Navy is not comparable to that of the dental hygienist since the duties are a combination of some of the duties of the dental hygienist, the dental mechanic

and the dental assistant. Not only does the technician clean tecth, but she assists with X-ray work, performs clerical duties, and in some instances carries out laboratory procedures including the preparation of dentures. In the Women's Army Corps, 559 women had assignments with the Dental Corps early in 1945, many of whom were working as dental technicians or as dental assistants and some of whom had entirely clerical duties. Only those with prior training as dental hygienists were classified as such.

In the Army the dental technicians are dental assistants who assist the dentist at the chair and perform clerical duties. In both the Army and the Navy, dental hygienists frequently help to train dental assistants and technicians and are helped, in turn, by them. (17)

Shortages were likewise experienced in civilian practice as some dental hygienists entered military service and as those remaining were left with the burden of helping dentists to meet an increasing civilian demand for dental service with a smaller staff. Experienced dental hygienists were hard to find. The U. S. Civil Service Commission dropped its requirement of 2 years of experience and still had difficulty in recruiting dental hygienists. (See Appendix A, V, for requirements for Civil Service positions.) In 1943, the demand everywhere exceeded the supply. Reporting on the scarcity of dental hygienists in Mississippi, the executive officer of the State Board of Health stated that a minimum of 20 dental hygienists could be used to advantage among the 65 county health departments in the State although the Board at present employed only 8. He pointed out that, in the entire South, there was no recognized training school for dental hygienists following the closing for the duration of the one in Memphis. (26)

During the war, two institutions (University of Tennessee in Memphis and the Murry and Leonie Guggenheim Dental Clinic in New York City) discontinued training dental hygienists and one institution (Ohio State University at Columbus, Ohio) established a course.

In spite of this net loss of one school the decrease in enrollment of dental hygiene students during the first year of the war was reversed by 1943, when 351 students were reported as enrolled, almost half again as many as in 1942 and a third more than in 1941. (2) (20) By 1944, all schools were full and, having to turn down applicants, they were giving preference to those with previous college work. The total number of practicing dental hygienists was estimated early in 1945 at 7,000. (22)

Most of the schools offer a 1- or 2-year course for high school graduates. (For minimum entrance requirements and course content, see Appendix A, I & II.) The average cost for the course, covering fees, instruments, books, and uniforms, is \$400. (3) Limited funds for schol-

arships and other student-aid arrangements are available at some of the schools.

### Earnings, Hours, and Advancement

Before the war, in 1941, the average annual earnings of more than 400 dental hygienists employed full-time by dentists were reported to be \$1,232, or approximately \$24 a week. (8) In this income study, conducted by the American Dental Association and the Bureau of Foreign and Domestic Commerce, salaries were found to be lower in small communities with population under 25,000 where they were under \$1,100 a year; or less than \$21 a week. In the late thirties, the average salary for dental hygienists was reported as \$25-\$30 a week. (27) Those in schools and institutions earned \$25-\$40 a week; those in dentists' offices, from \$18 to \$20 a week, although some hygienists in the South received beginning salaries of \$12 a week.

The beginning Civil Service salary for the dental hygienist is \$1,620 base pay. With wartime hours, the actual amount earned is almost \$2,000. In private employment, too, salaries have gone up, although there are exceptions as indicated in an editorial in the spring 1944 issue of the Journal of the American Dental Hygienists' Association which reports the average salary in one city as \$20-\$25 a week, although the salaries ranged up to \$58 a week. (10) The wide range in salaries is due to differences in income levels of the dentists and also in part to the wide variation in background and personal qualifications of those practicing dental hygiene. The graduate of a college-degree program, for example, engaged in educational work is likely to earn more than the girl who works in a dentist's office after completing a one-year training course upon graduation from high school. Statistics show that the dental hygienist receives considerably more than the dental assistant, (8) who has not met the higher standards of training and registration required to practice dental hygiene.

Hours vary from 40 to 48 in most work situations. In the offices of dentists engaged in private practice, there is likely to be overtime during the war period because of the increased load placed upon the dentists remaining in civilian practice. Vacations of one to two weeks are customary, and one-month vacations are provided on some jobs.

Since most of the supervision of work in this field is done by dentists, advancement is largely confined to the field of teaching and public health education. Only in very large organizations are there enough dental hygienists to warrant a supervisory position. In most instances a dentist by State law must supervise the work of the dental hygienist.

### Opportunities for Women With Special Employment Problems

Women seldom enter this occupation after the age of 25, although those already in the work are likely to have no difficulty in continuing in it through middle-age. A woman wishing to change jobs, however, is likely to find more opportunities if she is young. The constant standing characteristic of the work in most situations (although there is a trend toward working from stools) and the personal contact with patients influence the dentists in their preference for young women, other qualifications being the same. In public health work, especially in activities with school children, the mature woman between 25 and 35 is preferred.

Because of the regular hours, marriage does not handicap the hygienist, and the extent to which it interferes with retaining or obtaining work depends upon the attitude of the dentist who employs her or, in public health work, upon community attitudes as reflected in discriminatory rulings based on marital status. In California a recent study revealed that 23 of 33 dental hygienist positions were filled by married women. Part-time practice is possible in many cases.

Negro women may secure training for this work at Howard University (Washington, D. C.) and at Meharry Medical College (Nashville, Tenn.), as well as at some of the training schools which admit Negro and white students. The demand for Negro hygienists is greater than the small supply trained for this work. Public schools, institutional clinics, and private practice are the principle outlets.

Since almost constant standing and activity are required, the hygienist must have good health and be reasonably vigorous. Any physical handicap reducing her manual dexterity or her ability to stand and move about quickly, or any disfiguring handicaps would prove difficult to overcome in this work.

### Post-war Outlook

Will the demand for dental hygienists increase or return to its prewar stationary level? Although there is general agreement that the opportunities for dental hygienists in public health service and in institutional work are gradually increasing, there is difference of opinion about the future demand for dental hygienists who work in dentists' offices. This difference arises primarily out of the fact that two types of workers are valuable in assisting the dentist. A dentist who can afford only one helper may prefer a dental assistant who is trained in secretarial duties and whom he can teach to assist him with such duties as the preparation of filling materials, the sterilization of instruments, and the operation of X-ray equipment while he takes care of the cleaning and prophylaxis that the dental hygienist is trained to do. However, the hygienist who can handle duties as a chair-side assistant as well as perform dental hygiene is even more valuable. Some dental hygienists work on a commission basis which involves no salary guarantee by the dentist and under which the hygienist shares the risks of practice. Nevertheless, in the 1941 income study in which more than 13,000 dentists stated the number of persons they employed full-time, only 461 dental hygienists were reported. The 4,812 dental assistants employed outnumbered the hygienists more than 10 to 1. (8)

There is a definite trend toward the employment of at least one person since an auxiliary person increases the number of patients a dentist can serve. (9) (15) With greater emphasis placed on the periodic care of teeth and on dental health education, and with an increasing amount of group practice by several dentists joining forces. it is possible that the practice in more dentists' offices will be large enough to warrant the employment of at least two persons, in which case one is almost certain to be a dental hygienist. Dentists returning from military service where they have been aided by hygienists are more likely to employ one than dentists who have not become used to such assistance. However, since expenditures for dental care follow a luxury-item rather than a necessity-item spending pattern (11), the employment and salaries of dental hygienists in dentists' offices are likely to fluctuate more directly with the level of national income than do those of corresponding workers in medical service. Although dental hygienists are employed in military establishments throughout the country and in institutions in 47 States (19), dental hygienists are licensed to practice in only 35 of the 48 States and in the District of Columbia and Hawaii. (See Appendix B for list.) The legislation specifies the work which the dental hygienist is licensed to perform and varies from State to State. There is room for expansion through additional licensing in 13 States.

There exists no doubt that the actual need (as distinct from the effective demand) for the type of service the dental hygienist renders is far greater than the supply of persons prepared to fill it. In 1938 it was estimated that the 4,151 dental hygienists registered at that time could not provide as much as 1 percent of the estimated initial and maintenance prophylactic service needed by the population of the United States, were this service performed completely by hygienists. (6) In hospitals and clinics where dental service is being gradually expanded, dental hygienists are customarily employed to conserve the dentist's time and to assist with the dental education program.

Perhaps in public health work lies the most promising outlook for the dental hygienist. In this field, where qualifications and carnings are generally higher, the demand has been steadily increasing and is likely to continue to do so as local, State and Federal authorities provide more dental service as a part of the general health program. The effectiveness of the dental hygienist in the field of public health has been clearly demonstrated in Washington, D. C., where an active educational and follow-up program conducted in the public and parochial schools by the Health Department has resulted in a phenomenal increase in the number of corrections and a corresponding decrease in the number of accumulated dental defects. More than 100,000 children are inspected annually. The number of completed corrections has doubled during the past two years as a direct result of motivation by the 21 specially trained dental hygienists engaged in this program. Their educational activities include classroom talks, dental health assemblies and a follow-up program integrated with the school curriculum. Following experience in another large city school system, one writer has observed, "The time will come when no school system will operate without a dental health educator." (21)



Courtesy, Bureau of Dental Services, District of Columbia Health Department

### Dental hygienist interests children in the value of dental care.

The demand for dental hygienists in public health programs in schools and in county and State programs as well as in Federal service was strong before the war and more active during it. But controversy continues as to their value. There are some who say that a public health nurse or a public health educator can more readily meet the need for dental health education, combining oral hygiene with other public health instruction. (7) There are others, at the opposite extreme, who

would expand the functions of the dental hygienists to include the filling of cavities in children's teeth, following the pattern used in the dental program for school children in New Zealand. (16) This development seems unlikely for some time to come since dental hygienists have gone on record as being in favor of maintaining their present scope of work. (12)

It is probable that, as with other specialists who enter public health work, additional training in the public health field will be required of dental hygienists who engage in educational work. A number of dental schools offer courses for which dental hygienists may obtain credit toward a certificate or degree in public health. (4) In Pennsylvania and in some locations in New York State, the dental hygienist who works in a school system must also possess a special teacher's certificate, since she combines the teaching of dental hygiene with preventive health service. (14) Apparently the relative roles of the public health educator. the teacher who assists in a public health program, and the dental hygienist and other specialists in related areas of service have not yet become clearly delineated through long years of experience which characterize some of the other occupations in the health field. There is variation in the pattern of the organization of personnel requirements in a dental health program; and there is no clear-cut agreement on the role of the dental hygienist in such a program although more and more hygienists are being employed in this capacity and more and more of them are taking training offered in preparation for this specialized field. That the pre-war trend toward an increasing demand for dental personnel in the public health field is likely to continue has been indicated more fully in the bulletin in this series on women dentists. (25)

In spite of the evolutionary status of dental hygienists both in public health and in the dentist's office which makes prediction difficult, there is certain to be a sufficient demand for the employment of the women who are now taking training in this field in approved schools. Outpatient clinics, industrial health departments, and the faculties of training schools provide an increasing number of additional outlets. The steady demand before the war, the anticipated undersupply of dentists caused by the curtailment of the military dental training program (25). as well as the gradual progress in meeting the dental hygiene needs of the population through increased consumer demand induced by dental health education and public health programs point toward an expanding demand for dental hygiene service. Undoubtedly more than the 1940 number of dental hygienists employed to service veterans and military personnel will be needed by an Army and Navy larger than the prewar Services and by the Veterans' Administration with its increased load. Some of the dental assistants and dental technicians trained in

military service will also be absorbed there. But only those who complete an accepted training course for dental hygienists, for which they can obtain financial aid under the G.I. Bill, will be able to qualify and engage in practice as licensed dental hygienists. As in other types of health service, the better positions are likely to be obtained by those who possess not only desirable personal qualifications for the work (such as dexterity, a pleasing personality, and ability to instruct) but also adequate educational background and thorough training for the work they plan to do.

### APPENDIX A

## I. Minimum Requirements for Entrance to a School for Training Dental Hygienists

No change.

### Pre-war

### **Wartime Changes**

Minimum age: 18 years.
High school graduation.
Two schools require two years of college.
Good health.

## II. Minimum Requirements for Completion of Training in a School for Dental Hygenists

### Pre-war

### **Wartime Changes**

Training offered in 17 schools.

Length of course varies from one to two academic years.

Courses usually include:

Gross anatomy and physiology; dental anatomy; dental histology and embryology; bacteriology; biochemistry; dental as-

Gross anatomy and physiology; dental anatomy; dental histology and embryology; bacteriology; biochemistry; dental assisting; public speaking; dental hygiene and prophylaxis; nutrition and hygiene; child hygiene; community dentistry; first aid; dental pathology; dental pharmacology; child psychology; dental radiology; surgical assisting and anesthesia.

16 schools now offer courses. No change.

### III. Minimum Requirements for Licensure as Dental Hygienist

### Pre-war

### 32 States, the District of Columbia, and Hawaii had laws regulating the practice of dental hygienists.

Statutory provisions varied from State to State but usually required: Minimum age of 18 to 21. Good moral character.

High school graduation. Graduation from an accepted school for dental hygienistslength of course sometimes specified.

Successful passing of an examination given by State board of dental examiners covering theory and practice of dental hygiene.

### Wartime Changes

35 States, the District of Columbia and Hawaii regulate the practice of dental hygienists. The additional legislation is not attributable to wartime influences.

Provisions essentially the same.

### IV. Minimum Requirements for Membership in the American Dental Hygienists' Association

### Pre-war

Graduation from a legally incorporated dental college or training school for dental hygienists. License or registration in the State in which she engages in practice.

No change.

No change.

### V. Minimum Requirements for Beginning Civil Service Position as Dental Hygienist

### Pre-war

### For this position at a basic salary of \$1,620 a year, the principal requirements are:

Successful completion of a full 4-year high school course or if otherwise qualified, passing a general test.

Registration as a dental or oral hygienist in a State, Territory, or the District of Columbia.

### Wartime Changes

**Wartime Changes** 

The basic salary is the same, but the wartime lengthening hours brings the actual salary to \$1,970.

Not specified.

No change.

Successful completion of a full course leading to graduation from a recognized school of oral hygiene.

Two years of experience in oral hygicne in public health or school work or in a private ethical dental office. At least I year of experience must have been obtained within the 5 years immediately preceding the date of receipt of application.

Persons who have been graduated as dentists will be accepted for this examination, as far as education is concerned, but in experience they must establish the fulltime period in the performance of oral hygiene work.

Maximum age: 52. Sound physical health.

Successful completion of a full course of at least 12 months' duration from a recognized school of dental hygiene, or may receive provisional appointment prior to completion of course, subject to later proof of completion of course, and registration, before entrance upon duty;

or

One full year of experience as a dental or oral hygienist. Credit will be given for part time or unpaid experience of the type required, and will be credited on the basis of time actually spent in appropriate activities.

Persons who have been licensed to practice dentistry will be accepted for this examination.

No age limit.

Applicants must be physically capable of performing the duties of the position.

### APPENDIX B

## States and Territories Which Have Legislation Providing for the Licensing of Dental Hygienists (June 1945)

Alabama	Kansas	Oklahoma
Arkansas	Kentucky	Pennsylvania
California	Louisiana	Rhode Island
Colorado	Maine	South Carolina
Connecticut	Massachusetts	South Dakota
Delaware	Michigan	Tennessee
District of Columbia	Minnesota	Vermont
Florida	Mississippi	Washington
Georgia	Montana	West Virginia
Hawaii	New Hampshire	Wisconsin
Illinois	New York	Wyoming
Indiana	North Carolina	. 0

Iowa Ohio

### APPENDIX C

### Schools for the Training of Dental Hygienists

### California

Division of Dental Hygiene, College of Dentistry, University of California, San Francisco.

Division of Dental Hygiene, College of Dentistry, University of Southern California, Los Angeles.

### District of Columbia

Course for Dental Hygienists, College of Dentistry, Howard University, Washington.

### Illinois

Course for Dental Hygienists and Dental Assistants, Dental School, Northwestern University, Chicago.

### Massachusetts

Forsyth Training School for Dental Hygienists, Forsyth Dental Infirmary, Boston.

### Michigan

Curriculum in Dental Hygiene, School of Dentistry, University of Michigan, Ann Arbor.

### Minnesota

Course for Dental Hygienists, School of Dentistry, University of Minnesota. Minneapolis.

### **New York**

Courses for Dental Hygienists, School of Dental and Oral Surgery, Columbia University, New York.

School for Dental Hygienists, Eastman Dental Dispensary, Rochester.

### Ohio

Course in Dental Hygiene, College of Dentistry, Ohio State University, Columbus.

### Oregon

Courses for Dental Assistants and Dental Hygienists, School of Dentistry, North Pacific College of Oregon, Portland.

### Pennsylvania

Courses in Oral Hygiene. School of Dentistry, University of Pennsylvania, Philadelphia.

School of Oral Hygiene, School of Dentistry, Temple University, Philadelphia.

### Tennessee

Course in Dental Hygiene. Meharry Medical College, Nashville.

### West Virginia

Department of Dental Hygiene, West Liberty State College, West Liberty.

### Wisconsin

Curriculum for Dental Hygienists, Dental School, Marquette University, Milwaukee.

### APPENDIX D

### Sources to Which Reference Is Made in the Text

(I)American Dental Association, Committee on Dental Legislation. Regulation of the Practice of Dental Hygiene by Law. Chicago, the Association, March 6, 1942. 23 pp. (Mimco.) American Dental Association, Council on Dental Education.

(2) Dental Students' Register 1943. Chicago, the Association,

1943. Table 7.

(5)

(3) American Dental Hygienists' Association. The Dental Hygienist. A Career for Women. The Association [1944?]. 8 pp.

(4)American Dental Hygienists' Association. Report of the Educational Committee. Journal of American Dental Hygienists' Association 18:15, January 1945.

Bailey, Margaret. Dental Hygiene as a Career for Women. Oc-

cupations 21:638-642, May 1943.

Beck, Dorothy Fahs, assisted by Mary Frost Jessup. Costs of (6) Dental Care for Adults under Specific Clinical Conditions. Under the Auspices of the Socio-Économic Committee of the American College of Dentists. Chicago, American College of Dentists, 1943. 307 pp. (2nd ed.) Chapter XII. Cady, Frank C. Selection and Training of Dental Health Per-

(7) sonnel. American Journal of Public Health and the Nation's

Health 29:328-333, April 1939.

(8)Denison, Edward F. Incomes in Selected Professions. Part 5, Dentistry. Survey of Current Business 24:17-20, April 1944.

The Dental Hygienist in Dental Practice. Editorial. Journal of (9) American Dental Association 29:1680-1683, Sept. 1, 1942.

Dental Hygienists' Salaries. Editorial. Journal of American Dental Hygienists' Association 18:3-4, Spring 1944. Dollar, Melvin L. The Present and Probable Future Role of (10)

(II)Dentistry in American Society. Journal of American Dental Association 30:1454-1463, September 1943. (I2)

Editorial. Journal of American Dental Hygienists' Association

19:3-4, January 1945. Gurevich, Sophie. War War Service Committee Report, October (13)1943. Journal of American Dental Hygienists' Association 18:10-11, January 1944.

Kenney, Ruth E. Opportunities for Guidance in the School Dental Health Program. Journal of American Dental Hygien-ists' Association 19:6-11, January 1945. (14)

Klein, Henry. Civilian Dentistry in War-Time. Journal of (15)American Dental Association 31:648-661, May 1, 1944.

(16)McCall, John Oppie. Dental Practice and Dental Education in the Future with Consideration of Social and Health Aspects. Journal of American Dental Association 31:16-30, Jan. 1, 1944.

Miller, Margaret Clark. Dental Hygienists in the Army. Illinois (17)

Dental Journal 11:477-479, November 1942.

(18)- The Role of the Dental Hygienists. Illinois Dental Journal 10:352-354, September 1941.

(19)Morrey, Lon W. Dental Personnel. Journal of American Dental Association 32:131-144, Feb. 1, 1945.

(20) Prince, M. Webster. Is Dental Hygiene as a Vocation to Become

- Static? Journal of American Dental Hygienists' Association 17:95-99, October 1943.
- Smith, L. M. We Need Dental Hygienists. Oral Hygiene 33: (21) 1083-1085, August 1943,
- Stoll, Frances A. An Evaluation of the Training of Dental Hy-(22)gienists. Journal of American Dental Hygienists' Association 19:31-41, April 1945.
- Technical Personnel in All Hospitals. Table in Hospital Service (23)in the United States. Journal of American Medical Association 124:849, Mar. 25, 1944.
- U. S. Department of Labor, U. S. Employment Service. Diction-(24)ary of Occupational Titles, Part I, Definitions of Titles. Washington, U. S. Government Printing Office, 1939. p. 269.
- U. S. Department of Labor, Women's Bureau. The Outlook for (25) Women in Occupations in Medical and Other Health Services. Washington, U. S. Government Printing Women Dentists. Office, 1945. Bulletin 203, No. 9.
- U. S. Senate, 78th Congress, 1st Session. Wartime Health and (26)Education. Hearings before a Subcommittee of the Committee on Education and Labor, Pursuant to S. Res. 74, Part 2, Pascagoula, Miss., December 16, 17, and 18, 1943. Washington, U. S. Government Printing Office, 1944. Testimony of Dr. Felix J. Underwood, Executive Officer, Mississippi State Board of Health, and other members of the Staff of the State Board of Health, p. 825.
- Woodhouse, Chase Going. Dental Careers, Opportunities in (27) Dentistry and Dental Hygiene. New York, N. Y., Funk and Wagnalls Co., 1939. 201 pp. See Chapter XI, The Dental Hygienist.

### Other Selected References

American Dental Association, Council on Dental Education. Dentistry as a Professional Career. Chicago, the Association, 1941. 72 pp.

American Dental Hygienists' Association. Facts About Dental Hygiene -A Career for Women. Arlington, Va., the Association c/o A. Rebekah Fisk, 1704 North Troy Street, 1943. 8 pp.

Dashiell, Eleanor C. Meet Harriet K. Brey-Civil Service Dental Hy-Journal of American Dental Hygienists' Association 19:11, January 1945.

Fones, A. C. Origin and History of Dental Hygienist Movement. Journal of American Dental Association 13:1809, December 1926.

Institute for Research. Career as a Dental Hygienist. Chicago, the

Institute, 1938. 21 pp.
Institute of Women's Professional Relations. Dental Hygiene as an Occupation. New London, Conn., the Institute, Connecticut College, 1936. 32 pp.

Journal of American Dental Hygienists' Association. Published quarterly by the American Dental Hygienists' Association, 3 Franklin Ave., White Plains, N. Y. Editor, Mary Owen Wilhelm, 215 Thorwaldsen Place, Clinton, Iowa.

Text of Report Presented to State Council Outlines Status of Dental Hygienists. Illinois Dental Journal 11:237-245, June 1942.

Woodhouse, Chase Going. The Dental Hygienist. Occupations 14: 646-655, April 1936.

Occupational Index, Inc., New York University, 1936. 11 pp.

**★ U. S. GOVERNMENT PRINTING OFFICE:** 1945-656273

For sale by the Superintendent of Documents, U. S. Government Printing Office Washington 25, D. C. - Price 10 cents