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Objects

The American College of Dentists was established to promote the ideals of the dental profession; to advance the standards of efficiency of dentistry; to stimulate graduate study and effort by dentists; to confer Fellowship in recognition of meritorious achievement, especially in dental science, art, education and literature; and to improve public understanding and appreciation of oral health service.

Teacher Training Fellowship

Recognizing the need for more dental teachers and their proper training in educational procedures, the Board of Regents in 1951 established a fellowship program for the training of teachers of dentistry. The fellowship grant covers a period of one year in the amount of $2500.

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Because of its interest in research, the Board of Regents in 1951 established the following grant-in-aid funds:

(a) The William J. Gies Travel Fund, through which grants are made to research workers "to enable them to visit the laboratories of other investigators to obtain first hand information on associated problems."

(b) Research Fund for Emergencies, available for aid in the event of loss of equipment, animal colonies, needed repair and the like.

For application or further information apply to the Secretary, Dr. O. W. Brandhorst, 4221 Lindell Boulevard, St. Louis 8, Missouri.

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Second Annual

Writing Award Competition

Sponsored by
The American College of Dentists

The American College of Dentists again is promoting a competition in the writing of papers and essays, and the preparation of manuscripts, for graduating students in the dental schools of the United States and Canada.

The purpose of the competition is to create reader interest, to stimulate the more wide-spread use of libraries and to develop competent dental writers.

A prize of $500.00 and a plaque will be awarded the national winner. In addition, an appropriate plaque will be given the winner of each school entry.

Rules and Procedures

1) The competition is open to all senior students in the dental schools of the United States and Canada.
2) Students will be notified of the competition in the spring of their junior year, and manuscripts must be received by the Secretary of the American College of Dentists by February 1 of their senior year. This will allow ten months for preparation. Announcement of the winner will be made not later than April 1. The time and occasion of awarding the prize and the plaques shall be determined by the schools, but it is suggested that this take place prior to the graduation of the recipients.
3) Deans will be asked to designate a faculty member to promote the competition, to decide how the competition will be conducted, and to determine the manner in which the winner is selected, in each school. Only one essay may be submitted from each school in the National competition.
4) Manuscripts submitted shall be accompanied by a letter from either the faculty member designated to conduct the competition, or from the dean of the school from which they originate, assuring the authenticity of the manuscript submitted.
5) For each annual competition, the American College of Dentists will select and announce a topic.

6) The topic will be in a non-technical aspect of dentistry. The ethical, social, historical, or cultural relationships of dental practice, education, research, organization and journalism will be the areas from which the topic will be selected.
7) No hard and fast rule concerning length of the manuscript will be established. However, it is suggested that the manuscript not exceed ten double-spaced typewritten pages, exclusive of bibliography, tables and charts and illustrations. White bond paper, 8½ x 11 inches must be used.
8) The original and five (5) copies must be submitted; this is for judging purposes. Manuscripts must be sent either flat, or folded once in the center. Pages must be held together by clips or fasteners. Footnotes must be designated by placing them at the bottom of the appropriate manuscript page, separated from the text by a line. References and bibliography must be on separate pages and must conform to the style adopted by the American Association of Dental Editors and the American Dental Association. Tables, charts and illustrations also must be on separate pages. Good compositional form must be followed.
9) Manuscripts will become the property of the American College of Dentists. None will be returned. The winning manuscript will be published in the JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS.
10) The Committee on Journalism of the American College of Dentists will assume the responsibility of determining the winner. Its decision will be final.
11) Manuscripts will be judged as they reflect these general qualities: purpose, scholarships, accuracy, impartiality, neatness, objectivity, and as a contribution to the periodical literature of the profession.
12) The topic selected for the 1958 competition is: *"Ethics in Dental Practice."*

For details concerning this competition consult your dean, your faculty advisor or write to:

DR. O. W. BRANDHORST, *Secretary*
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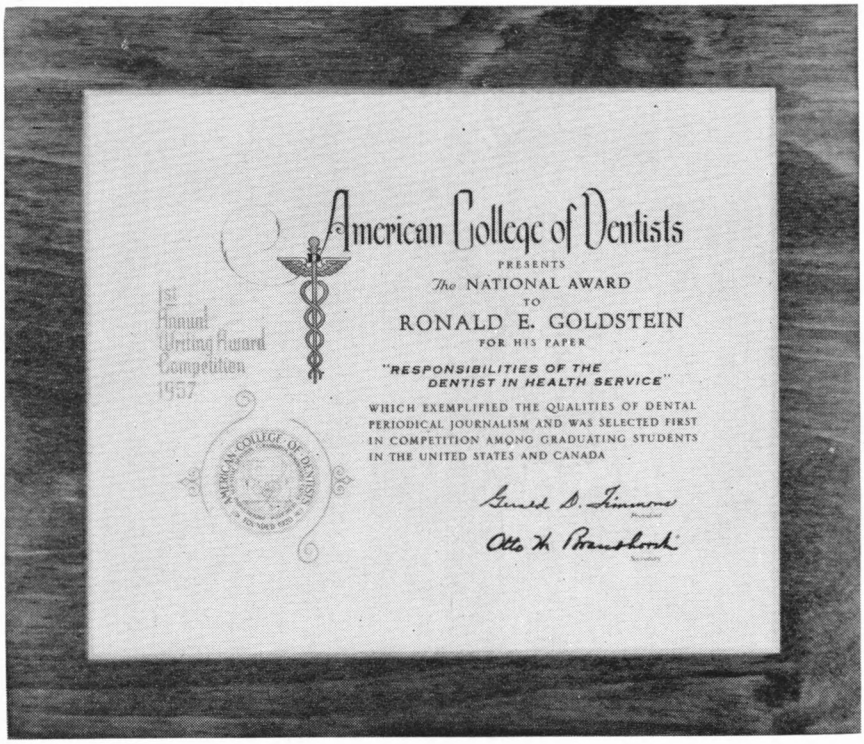

EDITOR'S NOTE: *Winner of the First Annual Writing Award Competition is Ronald E. Goldstein of Atlanta, Georgia, who, in excellent manner points out the responsibilities of the dentist in health service in his essay which appears on the following pages.*

Mr. Goldstein's essay, written from the viewpoint of a senior dental student, is refreshing, and in many instances quickly to the point. His observations are astute and deserving of thoughtful consideration by all of our readers.

We congratulate Mr. Goldstein, and wish him a successful professional career, guided by the precepts he has so ably set forth.

A.E.S.

Responsibilities of the Dentist In Health Service

RONALD E. GOLDSTEIN*
Atlanta, Georgia

"DENTAL PRACTICE unfortunately is characterized by a marked degree of isolation. Most of us are separated from the world around us for most of the day except for patient contacts, and we must admit that the dental patient is usually in no mood to convey or discuss newer concepts and philosophies bearing on world problems. . . . As a result of this occupational environment, limited reading, and infrequent attendance at conferences dealing with socio-political professional problems, most dentists are neither informed nor concerned regarding many problems with important bearings on their personal welfare and that of their profession."[1] This statement made by Dean Harry Lyons, now president of the American Dental Association, comes after over a century of formal dental education. In spite of this isolationism, the profession has made many outstanding accomplishments. If dentistry is to move forward, however, it will take an increased realization on the part of the dentist as to his responsibilities to the public. He must overcome the "marked degree of isolation" by looking beyond the dental office and becoming more aware of dental health.

Is there a need for a dental health service? The fact that dental services are not available to all persons who need them would be reason enough for such a service. However, there are many persons who are in need of dental treatment but do not seek it until it is too late, if at all. Too many children are not receiving adequate dental care, and lastly, many communities have not taken advantage of preventive measures, such as fluoridation of public water.[2] Thus, the proposition is clearly established that such a need does exist and must become a part of the dentist's working day.

If we are to discuss the responsibilities of the dentist in health service, a definition of the term "health service" is in order. Health is defined as "a state of complete physical, mental and social well-

* Senior student, Emory University School of Dentistry.

being, and not merely the absence of disease or infirmity."[3] Furthering our understanding of "health service," Brock[4] has said that "dental health services include the following: (1) health education, (2) prevention of dental disease, (3) control of dental disease by treatment to arrest its progress, (4) rehabilitation or correction of the results of disease, and (5) maintenance of optimal oral health." For the purposes of our discussion, the responsibilities of the dentist in health service can be simplified to four aspects: education, prevention, treatment, and research.

Education

The first responsibility, education, can be divided into four parts: (1) education of the undergraduate—both predental and dental, (2) education of patients, (3) education of the public, and (4) education of other dentists as well as one's self.

A prerequisite to the study of dentistry has always been that the potential student should be of the highest character. The practicing dentist should endeavor to influence the best of young men and women to pursue the dental profession. For this purpose the American Dental Association offers numerous aids: pamphlets, books, magazine articles, and documentary films. A most important factor in influencing youth to enter the profession is the person-to-person contact in and out of the dental office. This relationship should help to impress the young person with the advantages that dentistry has to offer.[5]

It is interesting to note a survey made in 1955 on the factors motivating the study of dentistry.[6] The first factor was native interests and aptitudes which make it natural to pursue this field in preference to all others. The second factor was the expectation of a substantial financial income and economic security. Others were social prestige, independence, previous experience in an occupation closely related, ability to meet many persons, working conditions, and numerous others of minor importance. These reasons are weapons in the hands of each dentist which he can use in influencing our top caliber youth to enter the dental profession.

Dentistry is at a disadvantage when compared to some of the allied professions because there is a lack of scholarships offered to prospective students. It should be the responsibility of each dentist to press for more federal and state funds[7] and each should strive to create, as well as support, alumni funds for this purpose.

The dentist should see to it that responsibilities in health service are instilled at the undergraduate level. Where else can the student receive the initial instruction in professional conduct and obligations if it is not impressed upon him while he is in the dental school?[8]

Courses in public health and civil defense can be offered. At Emory University School of Dentistry a course entitled "Catastrophic Injuries and Diseases" is given to the senior class. Speakers representing the Federal Civil Defense Administration, Public Health Service, military services, the American Red Cross, and allied fields lecture to the class. One night per semester must be spent at the Grady Hospital emergency ward observing types of injuries, priority of treatment, and disposition of cases. A thorough course such as this, helps to prepare the student to assume his responsibilities to the public in both civil defense and health service.

Next is the responsibility of educating our patients. Perhaps this is where education in dental health really begins. While the patient is in the dental chair, the dentist has an excellent opportunity to present the proper message of health service.[9] The environment of the dental office, dental personnel, and procedures should stimulate the dentist to take advantage of this relationship.

Often, the question is asked why the dental profession is not held in higher esteem. Since our service is of a personal nature, patients from their own opinions of us. Some patients will have separate and individual views; but they do form "group opinions" which, when added to other group feelings, make up an opinion of the entire dental profession. It is logical, therefore, to assume that the more honestly and faithfully an individual service is rendered, the more favorably the profession will rank in public esteem. This is public relations, and it is the responsibility of every dentist to do his utmost to create a favorable impression.[10]

Education of the public covers a broad field. The media most frequently used in public education are radio, television, exhibits, films, newspapers, and personal contacts. Since much of the literature concerns dental health education of the public, several good principles can be followed in all mass communication:[11] (1) work with, not against, fundamental human wants; (2) avoid antagonizing group prejudices; (3) appeal to emotions as well as to reason; (4) adapt the message to the understanding as well as the interest of the individuals to be reached; (5) be constructive and specific; (6) recognize the

necessity for gaining and holding attention; (7) build support and goodwill for the project or program by showing that it has a sound scientific and social basis; (8) show support of important persons, as well as popular support; (9) maintain fundamental accuracy even when it is necessary to sacrifice completeness or exactness in the interest of simplicity or brevity; and (10) use repetition.

At this point references are made to two studies on the effects of dental health education, one made in New York, and the other in England. The first one shows the results of a rather small scale study made on 2,426 New York public school children who were instructed by dental hygienists.[12] The study proved that the amount of dental hygiene instruction alone cannot be decisive. An investigation of the motives which kept children away from periodic dental examinations revealed the following reasons: (1) Lack of understanding of the importance of dental care and hygiene was given by 1,303 children (52 per cent); (2) Complete indifference toward the conditions of their dentition was determined in 206 children (8.5 per cent; (3) Economic reasons were established for 822 children (35.5 per cent); and (4) Miscellaneous motives causes 90 children (4 per cent) to stay away from periodic dental examinations. The study also established that more than 60 per cent of the children did not visit the dentist because their parents were not convinced of the necessity, or were unwilling to cooperate. Success in preventive dental care depends mainly on the cooperation of parents, teachers, and dentists, and the action or reaction of children toward dental examination and treatment is of secondary significance.[13]

The other study observed the effect of dental health education on 1,539 school children in St. Albans, England.[14] Because of the method of the study's organization, a summary of the report is worth considering. A total of 3,167 children were available for the survey; 1,539 children formed the experimental group, and 1,628 acted as a control. Each group was made up of similar numbers of boys and girls, drawn in each case from three primary and two secondary schools. While the control group continued its normal school term's work, the experimental group was provided with new toothbrushes and a term's supply of a standard toothpaste in plain tubes, and subjected to an intensive propaganda campaign throughout the term. A weekly lesson was devoted to some aspect of dentistry and dental health, and the ingenuity of the individual teachers was aided by a supply of films and film strips and many posters and booklets which

were supplied by the dental board. In addition, books were given as prizes for the best essays and posters produced by each class. Questionnaires were filled in before and after the term. The results were a picture of reasonably good oral hygiene habits in a prosperous urban community in the south of England. A similar survey in other rural and industrial areas would be of value.

It was shown that girls of all ages have a tendency to practice a better standard of oral hygiene than boys and to be more susceptible to dental health propaganda. On the other hand, the message of the dangers of eating sweets and biscuits between meals failed to be absorbed by both boys and girls. Where a practical lead is given, the education authorities and individual teachers show a keen interest in imaginative oral hygiene teaching and are anxious to include such teaching in the curriculum even when that curriculum is already heavily loaded.

Since there are numerous surveys and studies which point out, to varying degrees, the successful results from dental health education programs to the public, several observations might be made. It is important for the dentist to appear in the schools and establish a personal affirmative relationship with the school schildren. This will help eradicate, to some extent, the fears which are instilled into children about dentists. Oral hygiene courses should be instituted in schools which do not already have them.

Dental health education must have careful planning and intensive organization directed by a competent health educator. To popularize such a program, an annual National Children's Dental Health Week has been organized in the United States by the American Dental Association with the support of the state dental organizations.[15]

Finally, in rendering health service, the dentist has the responsibility of continuing self-education, as well as of conveying his knowledge to professional colleagues. Furthering dental education can be accomplished in many ways: attendance at society meetings and conventions, and by reading the various dental journals. In this light the dentist should never forget his obligation to the dental schools—financially and otherwise. He should take advantage of postgraduate courses and seminars, and continue to use school libraries. Libraries are for students and every dentist should be a student. His thirst for knowledge should never be quenched.

It is a responsibility of all dentists to become a part of civil defense. "The capabilities of the dentist for participation in the care

of atomic casualties are several. These capabilities are the result of medical type academic training, clinical experience and a better than average ability to master surgical techniques and skills."[16]

A dentist's responsibility "to the public is both individual and collective. Individual responsibility may be dismissed with the statement that every professional person is obligated to strive continually to inform himself on all matters which will enable him to render the very best professional service to those he serves. Less than this no man should do. As an outstanding citizen of his community the professional man should interest himself in civic and community affairs. The solution of a great many civic and governmental health problems may be aided by participation on the part of well informed professional persons."[17]

PREVENTION

Brandhorst summed up prevention as "the very foundation of dental service."[18] Sebelius said that prevention is "the earmark of a profession."[19] For our purposes it can be simplified into three facets: (1) prevention of diseases of the hard tissues, (2) prevention of diseases of the soft tissues, and (3) education of the public in preventive measures.

Prevention of diseases of the hard tissues concerns the biggest problem in dentistry—caries. However, there is an equally powerful preventive measure—fluoridation. Of all dental public health preventive measures, fluoridation of public water is perhaps the greatest and most generally needed. Fluoridation will consistently reduce dental caries by as much as 65 per cent.[20] It is the responsibility of every dentist to work for fluoridation of the local public water supply.

Prevention of diseases of the soft tissues includes periodontal diseases and other oral manifestations. "The question of caring for periodontal needs in 75 per cent of the U. S. population is a major issue. Some form of periodontal disease affects the community as a whole. This circumstance makes the disease a public health problem. The prevention of periodontal disease and maintenance of health of the periodontium are two most important areas of periodontics with public health implications."[21]

Although it is not now known whether mass preventive methods can be developed for periodontal diseases, early recognition and prompt treatment is essential for control.[22] The same holds true for

lesions of the oral mucosa. Early diagnosis is the key factor in our prevention program at this time.

Education of the public in preventive measures such as toothbrushing and other methods of oral hygiene is a basic responsibility of every dentist. Recently, a teacher in a high school of over 1000 students asked me if I could get her students toothbrushes. I asked the lady if these supposedly poor families had television sets, to which she replied, "Yes." Our program is definitely deficient when parents can afford T.V. but not toothbrushes. It is the responsibility of the dentist and the local dental society to determine how the local preventive dental health program can be strengthened in their community.

TREATMENT

The third phase of dental health service which is the responsibility of the dentist is treatment. This can be further divided into (1) health care for the indigent, and (2) treatment for those who can afford to pay, including the chronically ill and aged. Subheadings under this topic would be the various modes of accomplishing this treatment as well as health payment programs.

The basic laws which govern the practice of dentistry were passed by the people. The control of the profession would not be in the hands of the dentist if patients were refused health care merely because they could not afford to pay a particular fee. Of course, this does not mean the dentist should accept every individual as a patient; but it does mean that he must feel a sense of responsibility to the indigent. Ideally, care for the indigent involves complete dental health service; oral surgery, operative, periodontics, fixed and removable prosthodontics, and orthodontic correction of both children and adults.

Referring to our definition of health, it is apparent that people cannot enjoy complete social and mental well-being if their mouths are esthetically displeasing. A person suffering from rampant caries, missing anterior teeth, or absence of teeth cannot expect to enjoy good social relations or mental comfort.[23] The term "complete dental health service" clearly indicates the need for specialists in each field of dentistry as well as for the general practitioner.

For the most part chronically ill patients cannot get dental services in the usual pattern of dental practice "because they may not be ambulant, financially solvent, or acceptable to the members of

society represented in the waiting room of the private dental office. The signs are clear that the problem will increase."[24]

Care for the indigent, chronically ill, aged, and other persons in need of dental service, begins in the dental office. Dental treatment can also be performed by becoming affiliated with a dental clinic, or the mobile or stationary units of the Public Health Service. Experimentation with portable equipment is essential. One way of meeting responsibilities to the chonically ill is by extending our services in hospitals.[25]

It is the responsibility of the dentist to see that adequate clinic facilities are available. As a means to prevent socialization in dentistry, it is essential to provide complete dental service through clinics. Initial funds and operational costs can be obtained from private or public philanthropists, the Community Chest, and various other social service organizations.[26]

Although this paper does not discuss the different method of payment for treatment, it is, nevertheless, a responsibility of dentists to develop convenient payment plans.[27] The provision of tax supported dental health care to the indigent by public agencies has been reviewed by the American Dental Association.[28] A set of principles on tax-supported personal health services for the indigent was approved. Among other things, the principles provided that there should be professional supervision of all professional aspects of such programs, and that person eligible for service should have freedom of choice of dentist from among those qualified by the agency responsible for the program. In addition, the program should encourage continuity of care and should emphasize prevention to reduce dependency resulting from ill health. The dentist should investigate the various insurance and group plans which are in effect today.[29]

Research

The last major category under the responsibilities of the dentist in health service is research. Our present dental research resources consist of the 43 dental schools and 7 dental research centers. These are practically without endowment and are already heavily burdened with their effort to increase and support facilities urgently needed to train an adequate supply of dental researchers. The dentists of the country through the American Dental Association have themselves attempted to supply this much needed research and are currently spending almost a quarter of a million dollars per year in direct

research efforts. The only possible solution is increased federal support.[30]

It is indeed an unfortunate situation that such a meager amount of funds is requested by the makers of the federal budget for dental research as compared to the other medical allotments.[31] The time has long passed when a nation as great as ours can blithely dismiss as unimportant, disorders that affect at least 98 per cent of the population.[32] To make the Administration and the Congress realize this fact is the responsibility of every dentist.

Periodic surveys of dental needs and evaluation of health programs are necessary. There are needs for dental research in both preventive and curative measures. Co-ordinated research into the basic problems of etiology, pathogenesis, and epidemiology of dental caries and periodontal disease is a further need.[33]

Much of the research in dental materials and equipment which should be done by the dentist is being done by commercial firms. If dentistry is to improve this situation, there must be available funds for this research, plus the dentists to perform it. This should be of basic concern to every dentist.

Summary

There is a definite need for dental health service. A dentist has four major responsibilities in health service: education, prevention, treatment, and research. Education includes the undergraduate, the dentist's patients, the public, and other dentists. The public must be informed about the necessity of dental health. There are many aids the dentist can employ in this effort.

One of the responsibilities the dentist has is improving the methods of health service education. Dentists must continue their education after graduation to offer complete dental care. In the community the dentist is the spokesman of public health service.

In prevention the dentist has a continuous responsibility in the fight for universal acceptance of fluoridation. The best preventive measure for periodontal disease is giving proper education to the public.

Treatment includes responsibility to those who can afford health service as well as those who are indigent. This can be done by devoting time to clinics, the public health service, and extension of service in hospitals. A great deal of study and investigation must be devoted to improving the present payment plans.

Not enough research is being conducted because of lack of funds —both private and federal. The dentist has an obligation to press for increased federal support in this great health problem.

In conclusion, dentists should disassociate themselves with the past practice and feeling of "isolationism" and accept their responsibilities to humanity in health service.

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Financial Support From the Dental Profession and Alumni Groups*

G. WILLARD KING**
Chicago, Illinois

FROM WHAT I've seen in dental alumni giving records I'm convinced there is more than a million dollars a year *not* being given to dental schools that should be added to the support of their educational programs.

I say this because years of experience in working with alumni have convinced me that alumni, properly cultivated, can be a powerful source of support for dental education. Disorganized alumni can become enough of a problem to cause administrators to refer to them as "those pestiferous alumni." A remark attributed to an eastern university president at the turn of the century. It is all a matter of putting your alumni program on the right track and keeping it rolling.

Before we get into the actual subject of how to develop good alumni support for dental education, let's spend a minute considering why this support is needed. At this moment there are about 100,000 alumni of our dental schools scattered around the world. They give substantial amounts in money and time annually in the support of dental education but even the generous ones give only a small fraction of that which they should be giving. Much of the money comes through organized programs of alumni-fund-raising and some comes through independent giving, but whichever way it comes it is tax deductible. With this money, plus that which comes from tuition payments, plus that from tax support, and an additional amount from gifts and grants from non-alumni sources, we are carrying on a program of dental education. This program of dental education is producing some 4,000 doctors of dental surgery and dental medicine, and dental hygienists annually to better serve the cause of the dental profession. This number has

* Presented before the Thirteenth Congress on Dental Education and Licensure, sponsored by the Council on Dental Education of the American Dental Association February 2, 1957.

** Director, Osteopathic Progress Fund.

not increased substantially during the past few years while our population has increased steadily. Add to this the fact that people are spending more time in dental offices having corrective and restorative work done on their teeth and you have the ingredients which make for a more acute shortage of dentists.

I have been told that there is also need for more good teachers of dentistry and men working on dental research on a full-time basis. This, of course, will again reduce the number of practicing dentists in relation to the population. Helping to provide the money with which to employ more good teachers, expand existing facilities, equip and re-equip our schools to enable them to educate more dentists, is the task before us. There can be no question that there is a real need for getting more support for dental education.

If in my remarks, I make frequent references to our Dental School at Northwestern University, I hope you will pardon the justifiable pride and loyalty I feel toward that program, which I did not help to create but which I helped to promote for almost ten years.

What we are actually talking about in considering the extension of alumni support is setting up a junior sized development program tailored to fit the individual needs of a dental school. At this point I'm reminded of the chap who inquired, "How do you set up a good development program?" The reply was, "It's easy, you start twenty-five years ago!"

Development is the generally accepted word that has been applied to embrace the interrelated activities that a school must carry on if it is to move forward over an indefinite period of time. Proper provision for the development function in the administrative organization of a dental school, I'm sure, has been the exception rather than the rule. Various aspects of development activity (public relations, fund-raising, publicity, etc.) have been lodged in the general administrative offices of the university and I suspect that there have been times when you have yearned for a little personal attention for your particular problems.

Most of you have to compete with the other schools of the university for your share of the development officer's attention. You could make great strides if you had somebody in your dental school whose sole interest was helping on your problems of a development nature. Many of you have wisely called on a faculty member to help part-time on this problem and you have devoted a good deal of your personal efforts to it. I'm going to encourage

you to start thinking seriously about asking for this kind of a person to be added to your staff. If you can't secure a man whose total time would be devoted to your school, perhaps you can convince the university that a man might be assigned to work exclusively on the problems of just the professional schools.

The practice of handling dental public relations and other development functions to the dean of the dental school, without help or budget, has always been unfair. Few deans have been trained in these functions. However, if your university has already crossed the important bridge of setting up a university-wide development program, it should not be too difficult a job to secure the help you will need with public relations.

Just as a university organizes a development committee in its board of trustees, so can you organize your own personal development committee from among your most interested alumni. For a long time Northwestern has relied upon its alumni to maintain a substantial interest in the Dental School and to back up that interest with satisfactory annual support. We shall see how such a program evolves as we continue with the mechanics of a development program which is based on no magic formula but just sound planning and constructive thinking.

Your development committee should be made up of your most able and influential alumni but it should also have outstanding members of your faculty. If your alumni members come from various geographical regions of the country it will have more general appeal than a committee made up largely of local dentists. However, the most important thing to keep in mind in forming such a committee is to pick men who are willing to give as well as lead. In short a development committee should be composed not of legislators, but of leaders and doers. It is more important to have a man who is willing to give than it is of having one who is capable of giving large sums of money. The ideal combination would be the person who fits both categories.

This committee should concern itself with alumni problems as they affect the school. They should be interested in the ideas and welfare of the faculty. The possibilities of enlisting support for your program from firms and corporations friendly to your dental school should not be overlooked and of course cultivation of long term objectives through foundations, special gifts and wills and bequests must not be neglected.

Membership on your committee should be regarded as contingent upon the performance of duty. Ideally the chairman should be a man who has qualifications and drive to carry the program along over a period of years. Because there is no more significant job that can be done for the school, the rewards for doing it, both in personal satisfaction and public recognition, exceed those of almost any other type of civic service that a man can undertake. I would imagine that it is an activity any dentist can throw himself into wholeheartedly without any fear of running afoul of the ethics committee of his dental society.

If you already have in existence something akin to a development committee and it is composed of alumni leaders who are nearing the end of their usefulness, you can include them in building your future plans. However, concentration upon live timber usually results in gradual discarding of dead wood. In some cases where older alumni have given long and faithful service but can no longer serve actively, it may be advisable to create an honorary position to provide such members with appropriate recognition, while making space for new blood. A school should not cut itself off from its traditions or allow names closely linked with its development to drop from sight. The providing of real challenges and worthwhile assignments often reveals unsuspected leadership.

A school cannot harness the participation of alumni or anyone else unless its objectives are clearly defined. An essential step in establishing a development program is to draw up a blueprint for the future—an overall outline of the short-term and long-term objectives of the school.

The basic questions to be answered before projecting a blueprint are: *Where has the school been? Where does it stand now? Where should it go?* Each of these questions must be faced squarely and courageously. From the point of view of enlisting support, a school must build on its strengths and either correct or eliminate its weaknesses.

While a development program—and the impetus for a development blueprint—must initiate from the administration and top alumni, the primary assignment in the creation of a blueprint must be made to the faculty.

In the first place you will always have an internal communications problem unless reservations and skepticism about the public relations programs are overcome through mutual understanding. One

wag has said, "A man may choose his friends, but thank God, he must earn his public relations." In the second place, nobody but members of the faculty can provide you with authoritative data upon which to base a blueprint. In the third place, it is next to impossible to obtain support for a program if the group whose work it is designed to further does not believe in it. Faculty members who are sold on—and made a part of—the development program of their school can carry more conviction to others than can any other individuals, on or off the campus. A survey should consider such things as educational philosophy of the school, departmental strengths and weaknesses, opportunities for development within each department, short-term and long-term requirements in terms of personnel, equipment, buildings, etc.

I can recall at Northwestern the weeks and months of soul searching activity on the part of the faculty which went into setting goals for the Dental School's part in our Centennial fund raising program. Because the faculty felt they had a real hand in setting those goals they were of great help in achieving the final results in money raising. The alumni too, had a personal hand in setting the goals. This accounted for the unusual enthusiasm shown by them.

I warned you in advance that I was going to refer with pride to Northwestern, the school I know best, but I want you to know I recognize the fact that there is equally strong feeling of alumni loyalty in other dental schools including Michigan, Minnesota, Emory, Marquette, Maryland and others.

But, for the sake of a case history, let's review the high points behind the development of strong dental alumni support at Northwestern. The Dental School got off to an early, independent start on a high educational plane and soon became part of a growing university. It was blessed with outstanding leadership by such men as Doctors G. V. Black, A. D. Black, Gilmer and others who were great teachers of dentistry and through their scientific research provided many of the instruments and concepts of modern dentistry. They took pride in their work and their school and infected their students and faculty with that pride to the extent that each Northwestern dentist has to this day become an alumnus with the strong conviction that:

1. He has received the best dental education it is possible to get.
2. He has been graduated by the greatest school of dentistry in the world.

3. He is a member of the most loyal group of dental alumni.
4. His class is the greatest class to cross the threshold of the Dental School.
5. He recognizes the fact that there have been other great classes of dental alumni but they all come from Northwestern.
6. He has attended alumni functions as an undergraduate and is firmly resolved to help his class win all future prizes for having the most members in attendance at alumni functions.
7. He has attended the annual mid-winter luncheon and resolves to help keep this one of the greatest gatherings of its kind anywhere.
8. He has seen the 25-year Honor Class make its anniversary gift proudly to the School and he is starting to make plans to have his class set a new record for giving when their 25th reunion comes up.
9. He recognizes the fact that Northwestern dentists have long been alumni leaders in their communities and he is prepared to carry on this tradition where he sets up practice.

Up to this point we have talked about the finished product of a loyal alumnus. Now let's put him in a test tube and find what ingredients go into making good alumni:

First. *Care in the selection of faculty.* The faculty man who considers his tenure of employment contingent only upon his great intellect, who derides the school, insults and upbraids his students and shows indifference toward parents and alumni, is rapidly taking his place alongside the soldered Richmond crown and foot engine.

Naturally those faculty men with the best sense of public relations who have those good qualities of warm humanness should be out front for your school. They should be the ones to talk with visitors, prospective students and counsel freshmen. They should also be the ones to appear before the general public and alumni groups on behalf of the school. Every school has those diamonds-in-the-rough on their faculty who are excellent clinicians, research men and strict instructors. They too should receive recognition but in a more specialized way among their older students and colleagues who are better able to appreciate their professional abilities and frankness. All members of your faculties should be placed before the public on pedestals as great teachers. If they are not up to your high standards or capable of reaching them, then they should be replaced as painlessly as possible.

The dean can do much to instil a good spirit of positive thinking and teamwork in his faculty. Unless they have this they can hardly be expected to infect their students with pride in the school. If faculty members are to be boosters they must clearly understand the aims and program of the school. There should be good channels

of communication existing between you and the faculty, otherwise it will be most difficult to develop a good working organization.

Second. *Care in the selection of students.* The process of selecting students can be managed to start a chain reaction necessary to produce loyal, generous alumni. With the limited facilities we have in this country today for educating dentists, all schools should have high entrance requirements. Students, their parents, and the general public should be made aware of this and told clearly just what those requirements are. From a public relations standpoint, no school can afford to have variable standards of admission. If in a private school some degree of preference is shown for children of alumni, it should be plainly stated that this is so. While such preference may prove annoying in a few cases with the public, the goodwill and increased support from alumni will be substantial.

You can use alumni to good advantage in helping to recruit students. This course has several advantages; it gives the alumnus something important to do and it makes him feel closer to the school. It helps to assure that applicants recommended by alumni will possess those qualities of leadership, enthusiasm, and maturity you are looking for in entering freshmen. It also gives you an opportunity to get to know alumni better. Of course, it should be made clear to alumni that they are recommending students on the basis of personal qualifications, not their academic preparation. An alumnus may not recognize an agile mind but he can spot a nimble pair of hands. The ground rules as laid down by the school must be clearly stated to the alumni so there can be no misunderstandings.

Third. *Proper student indoctrination.* Good alumni don't happen by accident. They are developed before graduation through the experiences that befall them while in school. If the faculty is enthusiastic about the school, if the administration is friendly, if the students have the opportunity to learn about the school's great past, dynamic present, and destiny in the future, they will start developing the symptoms of alumni loyalty. Little things are remembered by students long after graduation like the comfortable, well-managed dormitory or apartment in which they lived and the tasty food they had to eat. Always be professional, but try occasionally to see things through the eyes of your students. Never hesitate to give a student an honest answer to a question even though you may have to spend a half hour explaining why things are as they are.

Fourth. *Acquaint students with alumni activities.* Never pass up a

chance to let students know what alumni have done and are doing for the school. Point out their gifts with pride. Don't neglect school history and the part alumni played in it. A bronze bust on a pedestal of a deceased faculty man may not help students learn prophylaxis but it adds to the traditions of the school and creates good alumni. Students holding scholarships should come to learn the circumstances around which the scholarship was originally set up.

Don't miss the opportunity to invite and introduce your upper classmen to alumni activities. Those at Northwestern attend many alumni activities during their senior year and become well acquainted with the responsibilities of becoming an alumnus.

Fifth. *Weld your students together in closely knit class units.* Freshman started off properly as a closely knit class generally turn out to become seniors who make some kind of a class gift to the school before they graduate. By the time they leave the school they have elected their alumni class officers to carry them along to the five-year reunion and have started the machinery in motion for compiling an impressive class giving record.

Sixth. *Build your classes as instruments of your alumni association.* Prior to graduation take the graduating students through some ceremony which will officially make them alumni of the school. Let them have class functions which will build group loyalty. Give them all the assistance you can from the school in developing and arranging reunion programs and soliciting gifts but try to make them feel that they are doing most of the work themselves. Guide them as to dates, places and arrangements but leave the details up to them.

Seventh. *Never let an alumnus feel he is through with the school when he is graduated.* Encourage him to keep a lively interest in the school by reporting to him regularly on what is happening on the campus. Northwestern has done a particularly effective job in this respect through the Christmas letter the dean sends out to all alumni and other reports he issues from time to time. Faculty men should travel out into the field to speak to groups of alumni whenever possible. Alumni activities should be arranged in connection with state dental meetings and national gatherings. Never pass up the opportunity to show off your faculty.

Here I'd like to add this observation that with loyal alumni working in the field, promoting the best interests of the school, improving its reputation, raising its standing, there should be no shortage of students. In this respect let us suggest certain definite objectives:

1. The college must keep itself informed concerning the former students.
2. The alumnus must be kept informed concerning the college.
3. The alumnus must be encouraged to represent his school in his community.

From these principles it will follow that:

a. The well informed alumnus will more effectively and readily represent his school.
b. The interested alumnus will more readily make a contribution in money to his school.
c. The alumnus, imbued with the proper responsibility for his college, will more readily and effectively seek financial aid for the school from his classmates and from those who are not alumni.

The first two objectives are clearly the responsibility of the school; number 3 and a, b, and c will be voluntarily performed by the alumnus provided he has a sympathetic understanding of the affairs of the school.

Up to this point I have done a good deal of preaching and I may have misled some of you into thinking that I am an exponent of a stereotyped program. On the contrary I favor a flexible program which can be adjusted to meet the particular needs of each class or geographical group of alumni. It is true that events held on the campus to which all alumni are invited to attend enmasse must have a certain format and be broad enough in scope to interest most dentists. Their subject matter should be general enough to appeal to both the general practitioner or the specialist. In this respect I'm thinking of the alumni homecoming on the campus which Northwestern holds each spring. This affair is held for several days and takes the part of a refresher course. Alumni come from surprising distances to attend these courses and while the same group does not come back each year, a high percentage of the alumni take advantage of this homecoming over a five-year period.

When I think of flexible programs I am immediately reminded of one which I helped organize in Wisconsin. Our Northwestern dental alumni in the eastern part of that state organized, many years ago, the Northwestern University Dental Study Club of Wisconsin which has continued to meet monthly. Generally they have a speaker from the School come up to discuss some technique of dentistry at these monthly meetings but once in awhile they call upon one of their own members who has been doing independent research. Five years ago this winter I received a telephone call in my office at the

University from Dr. Snyder in Milwaukee. He said that some of our alumni had an idea for a seminar which they considered a little out of the ordinary. He asked, would I join Dean Teuscher and one of his administrative associates in a trip to Milwaukee to discuss it? We went up to Milwaukee and sat around Dr. Snyder's dining room table for a whole afternoon discussing it. Out of our talks came the Northwoods Dental Seminar sponsored by the Northwestern University Dental Study Club of Wisconsin. It is now in its fifth year and getting better all the time.

These men realized that dental groups frequently gather to learn more about dentistry but they generally do so in some big city hotel meeting room. Why not, reasoned these men, organize a seminar up in the north woods where the air is pure and the fellows could study dentistry in an atmosphere of good food and relaxation, away from the big city? They arranged to take up all the reservations at a well-known resort for a week in late September. We started to work lining up those from the Dental School faculty who would be agreeable to conducting the seminar and began work on promotion. My particular part of the job was to plan the publicity and promotion to sell the idea and help build up enough reservations to make sure the project broke even and the sponsoring alumni were not left holding the tab.

We set up a format which provided for classes and recreation on alternate days of the week. Once word got around our Dental School that there was fishing and golf included in the program, we had no trouble signing up some of our outstanding faculty men to conduct the seminar. We mailed out announcements only to alumni in Wisconsin but reservations started coming in from Wisconsin, Illinois and upper Michigan, and a dentist in Iowa who is not a Northwestern alumnus wrote in to see if he could enroll. We welcomed him!

The first year's affair was held and attendance was just two reservations short of capacity of the resort. Financially the idea made money for the Northwestern University Dental Study Club of Wisconsin. The Seminar was held in the same location the second year and a capacity group attended with a few late reservations returned to disappointed applicants for lack of space. Since then the seminar has been moved twice, each time to a location with greater capacity and each time the late appliers have been disappointed. Most of the men who attended the first session have been back each year since. I've been told there are other Northwestern groups in other states

who are becoming interested in this informal approach to the professional meeting and appreciate late fall fishing and golf, far removed from the hum drum of the big city.

What have I been talking about in the above paragraph? I have been describing to you some of the devices for helping the dentist keep up-to-date. I have been describing some of the devices through which a dental school shows its alumni that it is never through with being concerned about their welfare. Through these reunions, refresher courses, clinics and seminars, the Dental School at Northwestern is proving to its alumni that the educational learning process goes on and the ties to the School strengthen with age. This may account in some measure for the pride and loyalty alumni feel for the school and it might be one of the reasons they respond with financial support for the school.

Don't underestimate the power of an alumnus as an instrument of great good for your school. Do all that you can to help him keep the spark of interest and enthusiasm burning. Alumni are not born, they are like a delicate flower. One cold blast from the wrong direction and they might fade away. Deft and intelligent care can turn them into something wonderful to behold.

And, never forget that when they have served their time on this earth, earning an above average living, glowing with pride for their school, sending their sons and daughters to be educated by it, giving of their income to help dental education, paying taxes, attending class reunions, going to midwinter meetings, and sitting in on seminars, they will pass on to their rewards where they can play a harp sitting down. They could leave substantial sums of money to the dental school—if they are treated like friends while they are alive. They will feel like leaving money to the school if:

1. They had a happy time while on the campus.
2. They have had a satisfactory alumni life as part of a loyal class.
3. They are friendly toward the current school administration.
4. They feel they have had a hand in helping the school become what it is today.
5. They feel that the school has been interested in their ability and welfare.
6. They have been reminded by the spoken and written word that the school would welcome alumni bequests.
7. They have been accustomed to giving to the school annually.
8. They know their support is necessary and appreciated.
9. They have been successful in selling the school to a son, daughter or a friend.

In closing I must remind you that alumni can be a powerful source of support for dental education by influencing others to give. Like physicians, they enjoy a high degree of respect in their community and could, with a few well chosen words, guide a wealthy patient into making a most worthwhile investment in dental education.

Remember—you can have many friends for your dental school without raising any money, but you will surely raise no money without friends.

CALENDAR OF MEETINGS

CONVOCATIONS

November 3, 1957, Miami, Fla.

November 9, 1958, Dallas, Texas

September 20, 1959, New York, N. Y.

October 16, 1960, Los Angeles, Calif.

BOARD OF REGENTS

November 2 and 4, 1957, Miami, Fla.

Potentialities of the Fund for Dental Education, Inc.*

MAYNARD K. HINE, D.D.S.**
Indianapolis, Indiana

IN THE PAST FIFTY years philanthropic funds dispersed by foundations of one type or another, have assumed a definite and important part of our social and intellectual life. A foundation may be defined as a non-govermental, non-profit organization having a principal fund of its own and established to maintain or aid educational, charitable or other activities serving the common welfare. Modern foundations have deep roots in the past: 1400 years before the Christian era, the Pharaohs of Egypt were setting aside specified amounts of wealth to a "college" of priests who obligated their order to keep a certain tomb perpetually protected or to carry on certain religious rites. In 1280 B.C. a Chaldean named King Marouttach bought some land, built a temple on it, and endowed a college of priests to operate it. Greeks and Romans adopted similar means of perpetuating certain ideas. These "foundations" were on a religious basis but with the advent of Christianity, with its basic tenet of "Love one another" there emerged a deeper concern for the well-being of others. Foundations gradually began to shift emphasis from the mere perpetuation of a name to plans for alleviation of suffering. One analyst concluded that American foundations are the result of the capitalistic system and are motivated by concern for the secular well-being of mankind.[1]

Number of foundations. A witness before a recent Congressional investigating committee estimated that there were between thirty and thirty-five thousand foundations in this country. They admitted that this was by the broadest possible definition and included endowments of every hospital, scientific society, or charitable body. F. E. Andrews, in his report on philanthropic foundations for the Russell Sage Foundation in 1956, included a table showing

* Presented before the Thirteenth Congress on Dental Education and Licensure, sponsored by the Council on Dental Education of the American Dental Association February 2, 1957.

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that in 1915, 27 American foundations were reported in the Russell Sage Directory. In 1926 this number had increased to 179. A larger study made in 1939 by R. Rich Associates listed 243; in 1948, 899 and in 1955, 4162.[2] Only six even mentioned dentistry, and none of them had as their primary objective the promotion of dentistry. They are:

1. Cudahy-Patrick Cudahy Institute, Milwaukee, Wisconsin. Assets, $100,000. Total expenditures have been $4923. They listed major grants in the fields of dentistry, health and medicine and social welfare.
2. Gies Foundation. Total assets, $70,000. Limitations are funds are granted only for purposes which would have the effect of advancement of dentistry. Total expenditures for the year 1953, $2610.
3. Guggenheim Foundation. Purpose, promotion through charitable and benevolent activities of the well-being of mankind throughout the world. Total assets, $4,849,000. Total expenditures for the year 1953-54, $731,000. The foundation has concentrated its activities in supporting the Guggenheim Dental Clinic which provides free dental care for indigent children in the City of New York.
4. Kellogg Foundation. Purpose, to receive and administer funds for educational or charitable purposes. Current fields of interest include dentistry. Total assets $71,500,000. Total expenditures $4,252,000.
5. Lowe Foundation. Purpose, to spend the income as well as principal for assistance to needy, indigent, sick, etc., and awards to artists, sculptors, scientists, musicians for the support and promotion of musical, medical, surgical, dental, chemical and other research. Total assets $36,000. Total expenditures, $46,000.
6. George Henry Mayr Trust. Purpose, provide through schools, colleges, etc., scholarships and other educational aid to deserving young men and women residing in California, particularly emphasizing chemistry, chemical engineering, electrical engineering, mechanics and dentistry. Total assets $2,500,000. Total expenditures not reported.

There are other national foundations which have helped dentistry, but no listing of them could be found. It is known that several other foundations have helped dentistry in the past, but dentistry has not received its share. Furthermore, there was no national fund whose sole purpose is the aid of dental education.

Fund for Dental Education, Inc.

It seemed obvious to many of us that this was a state of affairs that should not be allowed to continue. For example, the 1952-53 President of the American Dental Association, Dr. Otto Brandhorst, presented a resolution urging serious consideration of supporting a fund for dental education and asked the House of Delegates to

approve in principle the establishing of such a fund.[3] Subsequently, the Board of Trustees of the A.D.A. did approve the resolution,[4] and the House of Delegates referred the problem to the Council on Dental Education and the American Association of Dental Schools for study.[5] In 1954 the then president of the American Association of Dental Schools (M. K. Hine) recommended in his President's Address that ". . . the Executive Committee be authorized to establish a mechanism to collect money and spend it to further dental education,"[6] and a similar recommendation was made by Dr. L. E. Blauch of the Committee on Teaching.[7] The Reference Committee on the two reports endorsed the proposal, but urged that caution be exercised.[8] A committee to work on the details of establishing a Dental Educational Fund was then appointed, which studied the organizational plans of several foundations, including the National Fund for Medical Education and of the American Foundation for Pharmaceutical Education, the latter now 12 years old, and decided to suggest the formation of an organization somewhat similar to them.

Types of foundations. Foundations may be grouped into the six main classes, although the separation is not sharp, and foundations actually may change in character and program from year to year. In general they may be classified as follows:

1. General research foundations. These foundations operate under broad charters and support research projects in health, welfare, education, etc.

2. Special purpose foundations. Most of the older foundations were established for a specific purpose and many times the specific purpose is no longer important. Probably the most famous example of an outmoded fund is the so-called "Covered Wagon" fund established in 1851 to furnish relief to poor immigrants coming to St. Louis on their way further West.

3. Family or personal foundations. Some large families have found it advisable to have a foundation to serve as a buffer between the giver and the numerous appeals directed to him. Some of these foundations are very large, as, for example, the Rockefeller Bros. Foundation established by the five Rockefeller brothers.

4. Corporation foundations. In recent years many corporations have established company foundations, trusts or funds which are tax-exempt, non-profit, legal entities which facilitate corporation giving. The number of these is not known but it is estimated by some to be over 1500.

5. Community foundations. Community foundations are a special class concerned with the problems of social welfare but acting under community control. An example is the Cleveland Foundation. Most of the funds coming to such corporations go largely to specific local charities.

6. Governmental foundations. Foundations controlled by the U. S. government and financed by taxation are included in this group. For example, the

National Science Foundation, established in May 1950, initiates and supports basic scientific research in mathematical, physical, medical, biological, engineering and other sciences.

Because of the unusual type of organizational pattern in the American Association of Dental Schools, the lawyers who were interviewed suggested that a separate corporation be organized to collect and dispense funds for dental education. Consequently, articles of corporation for a "Fund for Dental Education, Incorporated" and a set of bylaws were prepared with legal assistance. These were submitted to the Executive Committee of the American Association of Dental Schools, and many other interested people, including officials of the American Dental Association, the American College of Dentists, et al. Stated in the general terms suggested by the legal advisers, the purposes for which the corporation should be formed are:

(a) To accept, receive, hold, invest, reinvest and use gifts, legacies, grants, funds, trust benefits (absolutely or in trust) and any and all properties of any nature or value without limitation as to either value or amount, and to grant use, land, empty, expend, apply, donate or otherwise disburse the income from and the principal thereof for and to devote the same to the fostering, improving, broadening, upholding or otherwise aiding and assisting dental education in any and all ways consistent with the purposes of the corporation, to or through or in cooperation with dental schools and the students thereof, or otherwise;

(b) To aid dental education further in assisting in the selection of research fields and questions therein, to aid in the financing thereof in order that such educational research can be conducted by competent persons under proper scientific supervision;

(c) To assist in the growth, development and advancement of dental education through aiding in the creation of sources of non-artisan and authoritative investigation and experimentation on problems appertaining to dentistry; and

(d) To interpret the requirements of dental education with respect to the American public. To foster the constant improvement of standards and methods of training and education of dental manpower in the United States, to provide adequate personnel of properly trained men and women to care properly for the dental needs of the American people.[9]

The Fund for Dental Education, Inc., under its broad general

charter could be grouped under a general research foundation or a special purpose foundation. Its special purpose, however, that of promoting dental education, is so broad that it could be considered a general purpose foundation.

In other words, the Fund for Dental Education, Inc., is a foundation set up in very general terms to aid dental education. It can receive funds earmarked for special projects or not, and can disburse them, or carry on a program itself. The general objective of the Fund is to assist in the growth, development, and advancement of dental education. The organization of the Fund is similar to that of other funds already serving the other health professions.

The actual name used is not particularly important. For example, important foundations include the Rockefeller Foundation, the Carnegie Corporation, Smithsonian Institution, Duke Endowment, Commonwealth Fund, American Missionary Association, Carnegie Hero Fund Commission, Church Peace Union, etc. It was originally expected to call the "Fund for Dental Education" a "Foundation" but when the view was expressed that other foundations might find it inadvisable to give money to another foundation, the word "Fund" was chosen. Actually it is a "foundation"; the name can be changed at any time.

The members of the Board of Directors of the Fund were chosen by the Executive Committee of the American Association of Dental Schools as follows: Harold J. Noyes and Maynard K. Hine elected for a term of one year; John E. Buhler and Marion W. McCrea, elected for a term of two years; and William R. Mann, Raymond J. Nagle and Wendell D. Postle, elected for a term of three years.

The Board of Directors elected officers for one-year terms: Maynard K. Hine, Indiana University, President; and Raymond J. Nagle, New York University, Vice-President. The office of Secretary was not filled, but an office of Assistant Secretary was created, and was filled by electing Ralph W. Phillips, Indiana University, as Assistant Secretary. This procedure was adopted because it was felt that during the initial operational phases of the Fund it would be advantageous to have the two persons who would be handling most of the affairs of the Fund in the same location. The Assistant Secretary, Ralph W. Phillips, will resign upon the election of the Secretary.[10] The Board voted that a member of the Board can serve no more than two full terms of three years each.

Essentially, the Fund for Dental Education consists of an elected

Board of Directors, and representatives, called Trustees, of dental and other organizations. The dental and the other organizations interested in dental education will be asked to select, in any manner each dental or other organization desires, Trustees to the Fund for Dental Education. These Trustees will meet at least annually to elect members to the Board of Directors. The Trustees can also select as "Trustees-at-Large" interested individuals who do not belong to any dental organizations. The Trustees will review the activities of the Fund and will advise the Board of Directors.

It should be emphasized that the Executive Committee of this Association selected the first Board of Directors for the Fund, and that the various organizational representatives who serve as Trustees of the Fund will elect the future members of the Board of Directors.

Developments planned for the future may be summarized as follows:

1. As soon as the organization of the Fund becomes stabilized, it is expected that the Board of Trustees and perhaps Board of Directors will be enlarged to include influential interested non-professional individuals. It is hoped that nationally-known citizens will be willing to serve on this Board.
2. An active "public relations" program will be instituted soon, designed to influence manufacturers and distributors of dental supplies and equipment, dental instruments, drugs, dentifrices, books, etc., business concerns and individuals not related to dentistry, other foundations, of course dentists to contribute to the Fund. Already a public relations firm, employed through the courtesy of the Dentists' Supply Company, is collecting data and will design brochures for this purpose. A list of potential contributors is being compiled; suggestions of names of individuals are solicited.
3. An active program to aid dental education will be started as soon as funds are available. Projects to be financed are as yet unclassified and will be developed in more detail as money becomes available; they include general plans to improve the status of dental education by sponsoring
   (a) teaching institutes
   (b) scholarship funds
      —The American Dental Trades Association has already offered funds for a scholarship for teachers who desire to study.
   (c) employment of special dental educational consultants to be used in dental schools
   (d) studies of recruitment problems for teachers
   (e) improvement of teacher salaries

Also, the following projects are examples of those under consideration which could be supported if funds become available:

1. Problems associated with student recruitment.
2. Study of evaluation of dental competence.
3. Conferences for dental deans, and potential deans.

4. Study of relationship between dental education and licensure.
5. Development and evaluation of new dental curricula.
6. Undergraduate student support.
7. Problems associated with education of the American public in dental health.

The scope of projects the Fund could support seems limited only by the amount of money which would be available. Obviously these projects would be considered only after surveying work in related fields being done by other groups.

It is our belief and hope that the organization of the Fund for Dental Education will prove to be a valuable asset. It deserves the full support of everyone interested in dental education.

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Programs of Financial Aid Supported by the Federal and State Goverments*

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In 1949 and 1950, the Public Health Service surveyed the financial status and needs of the American dental schools. Their findings were summarized in a report published in 1952. Discussing the unmet needs they stated:

"The problem of providing desirable physical facilities to house the educational programs of dental schools was acute in the year 1949-50. Additional space was needed to relieve the overcrowded classrooms, to expand clinics, and to permit more research to be carried on in the dental schools. The schools estimated that they needed $43 million for construction of physical facilities. In addition, the schools needed about $6 million to purchase equipment such as microscopes, dental chairs, dental engines, and cabinets, to mention a few types.

"The dental schools also needed additional operating income both to maintain and increase their staff and to provide for increases in administrative costs and in costs of operating and maintaining physical plant. In general, additions to staff were required to improve the quality of instruction and to allow for more research. For 1949-50, the additional operating funds needed by the dental schools amounted to $5.5 million. When account is taken of higher prices and increased salary costs, it is estimated that at least $8.2 million more than the schools had in 1949-50 would be required in 1952 to carry on the educational program at the 1949-50 level and to meet the additional operating needs reported in the study."

Since 1952, the Council on Dental Education has conducted several questionnaire surveys of dental schools of the funds needed for construction and remodeling. The most recent data were collected in September, 1956. In a summary made available to the essayist, Mr. Reginald Sullens, Assistant Secretary of the Council, has concluded:

"On the basis of the replies received and tabulated for the December, 1956,

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survey, there is a need for $64,171,000 reported by 34 of the dental schools. Assuming that these data may properly be used for projecting the needs of the schools from which replies have not yet been received, an assumption which is certainly open to question, it could be estimated that the 45 dental schools have a need for nearly $85,000,000 for construction and remodeling of their educational and research facilities. In this survey, we also asked for an indication of the ways in which the construction funds would be used were they to become available. The 34 replies received to date show the following:

Number of Schools	*Type of Activity*
16	Increase dental enrollment
15	Increase dental hygiene enrollment
11	Add dental hygiene education
8	Add dental laboratory tech. educ.
13	Add dental assistant education
24	Add graduate education
19	Add postgraduate education
9	Add continuation education programs
5	Begin or expand research activities

"You may also be interested in some of the figures which reflect the expenditures that have been made by the dental schools during the past 10 years. The following are based on reports from 36 dental schools:

Expenditures for construction	$44,809,937
Expeditures for remodeling	4,773,212
Total	$54,438,564

"The total figure exceeds the amounts for construction and remodeling because of the fact that some of the schools included equipment costs in the remodeling expenses. This was not done by all schools, however, thus the actual total amounts spent for construction, remodeling and equipment would be higher than the above figure."

It is obvious from a consideration of this information that the financial needs of dental schools are great and that every possible source of support must be explored if they are to be met. One encouraging development has been the increasing number of government programs that have the possibility of giving financial assistance. Some of these may be used for enlarging physical facilities, others for adding faculty, and a limited number that aid students. Although it is obviously impossible to describe all of them, selected examples are worthy of comment.

Many dental schools are integral parts of university health centers. All too often these health centers have grown up like "Topsy." They have been unable to expand because acquisition of sizeable

pieces of adjacent property have been beyond their financial resources even though the land is occupied by sub-standard housing units. When such a condition prevails the acquisition of land under Federal Housing Authority should be given consideration. It is possible for the local government and federal government to join hands in an undertaking which would result in the acquisition of the land, its clearance and its subsequent redevelopment for acceptable purposes. The University of Alabama Medical Center expects to benefit from such a program. Ten and a half blocks of slum land immediately adjacent to our Medical Center have been acquired by the Birmingham Housing Authority. It is anticipated that we will repurchase the land from the Authority and develop a master plan for building dormitories, out-patient clinics, hospitals, research institutes, etc. Because of the participation of the federal and local governments the land will be available at a much more modest price than if it were purchased under other circumstances.

When land is available, certain health facilities are eligible for government subsidy. If we accept the broad concept that a dental school has the tripartite function of education, service, and research, federal funds may be sought for buildings falling into the latter two categories. Under the Hill-Burton Act, a dental school clinic may be so arranged physically as to qualify for this type of assistance. The University of Alabama School of Dentistry was so fortunate as to receive $500,000 of federal funds on a matching formula, $2 of federal government money for $1 of local funds, for a facility completed in 1952. It should be pointed out that the matching formula varies in different sections of the country and that a designated state authority—for example, the State Health Department—makes the decision as to which projects will be favored. The Public Health Service has the responsibility of administering the program at the national level.

During the last session of Congress, the Hill-Bridges Act was enacted. This provides federal funds for the construction of facilities to be used for research in the health sciences. Medical schools, dental schools, schools of public health, hospitals, and research institutes are eligible for federal grants on a dollar for dollar matching basis. Thirty million dollars will be available each year for these purposes for a three-year period. Several dental schools have already received awards under this formula. At the University of Alabama, the Medical and Dental Schools made a joint application

for funds and we have been notified that slightly over $1,000,000 have been allocated to us for the construction of a seven-story Medical-Dental Research Building which we plan to build in the very near future. This program is also under the supervision of the Public Health Service. It differs, however, from the Hill-Burton program in that the administration of the act is the responsibility of the National Institutes of Health.

It is also pertinent that dental schools are eligible for federal loans for dormitory construction. In general, if the institution owns land, sufficient long term mortgage monies can be obtained to build the entire dormitory and room rents can be used to satisfy the mortgage payments.

To date federal monies are not available for the construction of teaching facilities with federal grants-in-aid. Such legislation was introduced in the last session of Congress but was not passed. It is interesting that the President has recently reiterated that it will be one of his major objectives during the meeting of the present Congress.

Several federal programs have considerable significance with regard to dental teaching. The National Institute of Dental Research has in this year's budget for the first time a sum of money to support the training of dental teachers. Five hundred thousand dollars have been allocated for this purpose. Successful dental school applicants may use these monies to train dental teachers in the basic and clinical sciences. To date several grants with annual values of as much as $25,000 to $40,000 have been made. These monies may be used for the support of the trainees and to reimburse teachers who participate actively in the program.

Pessimists may ask what is the point in training dental teachers if desirable employment opportunities are not available to them when they have completed their training program. A partial solution to this dilemma is possible under the National Institutes of Health Senior Fellowship program. This program provides monies that may be used to add to the faculties of medical, dental, and public health schools promising young teachers in the biological sciences. These persons can be supported for periods of five years at salaries up to $10,000. Persons with doctorates in medicine, dentistry, and philosophy are eligible for this type of appointment. It should also be pointed out that the National Institutes of Health also have programs wherein research workers may be added to the

dental school faculties under predoctoral, post-doctoral and special fellowship programs.

From the 1949-50 findings of the Public Health Service, it is obvious that American dental schools have need for increased operating funds. Tuition and fees contribute only 22 per cent to 43 per cent of the budgeted monies. Although clinic income has made a substantial contribution to dental school operating funds in the past, a limited amount of support is received presently from these sources. The greatest portion of dental school income is from state appropriation or university subsidy.

It is significant to dental administrators that regional educational plans have been developed. The first of these was the Southern Regional Education Board. Under compact arrangement those states not having state-supported facilities for dental education contract with an area dental school for the education of their residents. Under the agreement the state pays to the school $1,500 per year per student. In addition the student pays the regular tuition charges. Since 1949, states participating in the Southern Regional Education Board program have paid to area dental schools $1,785,750. In the year 1955-56, $398,125 was paid for the education of 271 students.

The success of the southern states has encouraged other sections of the country to attempt similar programs. A Western Interstate Commission for Higher Education is now in operation. In 1955-56, $41,600 was allocated for the support of 26 dental students at $1,600 per year. Attempts are being made to initiate a similar program in the New England area.

The programs cited help dental education by supporting dental schools. In the past several years the armed services have inaugurated Senior Dental Student programs. These offer direct financial assistance to advanced students by commissioning the student as an officer prior to graduation and paying him the regular military service salary and allowances during his senior year. When these programs were being organized, the essayist expressed the belief that the armed services should also subsidize the dental school that participates in the education of the person so favored. His opinion on this point is unchanged.

Financial support for postgraduate and graduate dental education is largely unexplored. There is evidence that it has considerable potential. In Medicine, residency training in the specialties has

been expanded with government funds under joint medical school-veterans hospital programs. Experience at the University of Alabama indicates that similar possibilities exist for Dentistry.

It is also pertinent that the Children's Bureau has supported refresher and extended course work for dental graduates in pedodontics and special types of oral rehabilitation.

In summary it may be said that although dental education has pressing financial needs in terms of teaching and research facilities, in the training of teaching and research personnel, and in the support of operating budgets, the future seems bright. Federal programs are contributing funds for dental service and research programs. Grants for dental educational facilities from the same source seem inevitable. The training of dental teachers and research workers with federal subsidy is possible. The action of certain states in giving financial support to the operating budgets of dental schools under regional agreements is most encouraging.

Financial Support From Foundations and Other Types Of Private Agencies*

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WE WHO ARE gathered here today are quite familiar with the recent studies by the Census Bureau, the Bureau of Economic Research and Statistics, and the Council on Dental Education, as they pertain to dental education.

We know well that unless some strenuous efforts are made, our country will not have the more than 2,100 additional dentists needed by 1965 to maintain even the present ratio of 1,886 persons for each practicing dentist. (These figures were based on the assumption that dentists will remain active practitioners until the age of 68, the approximate median age of retirement.)

Dr. Herbert L. Taub, President of the Dental Society of the State of New York, speaking at the New York University College of Dentistry in November 1956, reminded us that "there is a continuing and sustained trend toward the economic well-being of our peoples." We can look forward to a rapidly rising national income in the next decade. During these same years, we will establish higher standards of living and education which will create new demands for dental services. Dr. Taub's report estimated the need for some 30,000 more dentists throughout the nation by 1975, based on these factors.

We are familiar also with the increasing cost of the four years of professional training presently undertaken by the dental student. The average cost today is just under $12,000, with schooling estimated at approximately $4,500 of the total. To the average dental school, this tuition represents one-third of the educational costs.

We are well aware of the difficulties in recruiting and maintaining faculty and staff in keeping with the needs of our highly special-

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ized professional programs. Means must be found to increase support of the educational and research programs administered and supervised by our dedicated dental educators. Last, but not least by any means, we cannot escape the rather obvious need for modern facilities and equipment, both as replacement for overaged and outmoded teaching quarters, and as additional facilities to help meet the foreseeable increased needs in dental care and research.

We in this country are indeed fortunate in that our citizens are becoming increasingly aware of challenges facing education today and of their responsibilities in helping to overcome these obstacles. From the individual citizen to the civic, business, and philanthropic groups and the governmental agencies, education is gaining year by year in the understanding of its programs and in their support.

What of dental education? To what extent is it understood and supported by the individuals and groups who are among the increasingly important sources of support for education in general? The hard answer we face today is: dental education is *not* known and is *not* supported by philanthropic and other private agencies in proportion to its importance as an educational program and as a vital health science.

In general, our energies must be exerted in two directions. One of these is a program to increase the flow of information to the public; the other is the solicitation of support for our efforts.

We must explain to more and more people what dental education is doing and what it is planning to do in improving health and in lengthening the life span. It is important that the people of our nation understand the true place of dental care in the recognition and prevention of major systemic diseases, as well as in the rehabilitation of the teeth and supporting tissues. Many are aware of the ability of the dentist in the latter instance; too few think of the dentist as a member of a health team in the former. If we wish to gain continuing financial support from individuals, from business concerns, and from philanthropic agencies, we must first explain the real picture of dental education and its increasing importance in our total health program.

The American Dental Association is doing its part in developing this better understanding of dentistry. Dental health informational programs for school children, informational films on dental care, cooperation with the mass media of communication—these and

many more are all part of the Association's program to bring about a greater appreciation of dentistry.

More and more the dentists themselves are realizing the importance of better public relations and are devoting greater efforts to it on an individual basis. We note increasing participation in community programs by dentists throughout the country. Dentists, working with civic leaders, take every opportunity to help plan and maintain health programs for children in the elementary and high schools, for adults in hospitals and clinics, and for indigent patients of all ages. Often participation in these activities means loss of income and less time together for the dentist and his family. Yet, for the most part, dentists do not hesitate to help their neighbors by contributing their professional knowledge and services for the good of their communities. It is impossible to accurately tabulate the wholesome benefits, both to the communities and to dentistry, which result from these individual efforts.

With the widespread appreciation by more people of the important role dental care has in their lives, there will come a better understanding of the need in dental education and a greater willingness to support it. In such a climate of opinion, financial support from private agencies is bound to be facilitated.

No dental school should expect to be offered overwhelming financial support in return for a blunt request for help from business or industry. We do not contribute to the charities we presently support without first knowing what they do and what their needs are! Yet, in many instances, we broadcast large mailings haphazardly and dream of windfalls which never materialize. Or, in other cases, we schedule appointments to see leaders of local industry and try to impress upon them, in rather cold fashion, the facts of our financial needs. It may be that a substantial contribution will result from such an attack; but this is not the best way to build continuing support for an educational program.

In some respects, a development program can be compared to a sound educational program. The cultivation of a prospective contributor is largely his education to the school's program and to its needs. Where the education has been successful, the results will be seen in financial support for the school. Like education everywhere, the same approach will not always get the same results. In most cases, individual differences must be taken into consideration. Final-

ly, the results many times are not immediately obvious; but they are just as rewarding when they become concrete.

The plan for gaining financial support from business and industry should be carefully thought out. An important asset to any development program is a lay committee of sponsors. This should include prominent executives from a variety of professional and vocational fields, with ability and interest in influencing others in behalf of dental education. It is advisable to prepare a list of local business firms which seem large enough to give substantial financial support to your school. (Be sure to include all firms whose economic interests are related to your educational program.) References like Poor's *Register of Directors and Executives* will have the names of the managing officers as well as those of the members of the governing boards.

In trying to establish a favorable contact and rapport with these executives who could influence contributions by their companies, it is advantageous to have mutual acquaintances represent your school in the cultivation of these prospects. Dental alumni, as well as trustees and other alumni of the university, should be requested to act in your behalf to supplement the efforts of your committee of sponsors. Concise information on *several types of support,* as well as on a variety of educational projects to be supported, *should be readily available* for use at the appropriate time.

From this point on, interest in your dental education program can be increased through personal visits by these businessmen to see the educational and research activities, through continuing correspondence and mailings of informational brochures, and through personal attendance and participation by prospective contributors in public events at your school. In the event of any gift to your school, the donor should be consulted prior to a public announcement.

To date, dental education has not taken full advantage of a major source of potential support . . . namely, the philanthropic foundations. This, I believe, is largely due to an ineffective approach on our part. We are beginning now to make our efforts known in such a manner as to gain interest and support. Foundations whose chartered purposes note support for educational and health programs are now gradually including awards for scholarships, new curricula, community services and basic scientific research in dentistry.

What then should a dental school do to interest these foundations in its program? Here is one plan which is commonly used.

From among the thousands of known philanthropic organizations, a list should be compiled of those who have already shown an interest in supporting dental education. This can be learned through examining the annual reports, readily obtained by writing to the foundation headquarters. A very helpful reference in this early stage is the latest edition of *American Foundations and Their Fields.* This book lists foundations alphabetically according to state, and includes data on the interests of the agency, the names of the trustees, the principal involved, one year's expenditures, and other pertinent information. An annual subscription to *American Foundations News* will bring you supplementary bulletins at regular monthly intervals. In addition, various consultant fund-raising firms offer informational bulletins with news of recent grants and gifts.

To the list of foundations known to have supported dental education, it is suggested we add the names of those who *could* give to our dental schools under the terms of their charters (as listed in *American Foundations and Their Fields,* and in the annual reports). It is to be accepted as an axiom by us that, although a foundation may not have yet supported dental education, the exception to the rule can become common practice. In view of this fact, it is up to us to present the best picture of dental education possible and to show good reason why we should be considered for regular grants.

Foundations whose interest is known to be in your geographical locality or in your educational institution provide the best opportunities for support of your dental education program. Secondly, foundation trustees who are known friends of dentistry, or of your dental school in particular, provide excellent avenues of approach for support.

In any event, it is wise to cultivate trustees of foundations in order to educate them to your program and its needs. Here again, any of your committee of sponsors, faculty, alumni, or other friends of your dental school may be in a favorable position to act as your school's representative. With these trustees, as with the local businessmen, it is strongly suggested that you have several concrete proposals available for use at the appropriate time. As a rule, foundations tend to contribute for educational and research programs rather than for new building facilities. Correspondence, informational brochures, invitations to visit and see your dental school in action—these are all part of the education of foundation trustees as they were in the case of businessmen.

What has been discussed to this point is rather common fare in educational fund-raising. Those institutions which undertake these activities seriously, tend to get good results, both in appreciation of their programs and in financial support. Dental education as a whole needs something greater than the individual efforts which have been made thus far. It needs bold action to attract the attention of the whole country to its needs.

The Fund for Dental Education, Inc., has been established recently to raise support for dental schools throughout the country. A number of dentistry's best respresentatives were chosen to be responsible for planning and establishing a program of continuing support to the Fund for Dental Education. These representatives, in a sense, received a mandate to prepare and present major proposals, and the prospects for success are most encouraging.

I have finished my discussion of financial support of dental education by philanthropic and other private agencies. To some of you gathered here, these things of which I speak may seem far off. They have been far off for too long. Many of us are working for this greater recognition of dental education now. To us this dream of a greater dentistry, aided by widespread financial support, comes closer to realization with every day that passes. All of us in dentistry, by our thoughts and actions, are very much a part of this dream. All of us will be proud beneficiaries of this great effort to promote dentistry when the realization comes true.

In your preparation and organization for fund raising, I would suggest the following:

Contents of a Proposal for Dental Education

I. Historical contributions of your dental school

II. Your present dental program (including research and community services) and its contributions

III. Needs of your present program (If building include architect's drawings and estimates)

IV. Changes planned when support is made available

V. Statement of the proposal for the funds you need including detailed breakdown

References Useful in Fund-Raising

1. AMERICAN FOUNDATIONS AND THEIR FIELDS, Rich, W. S., (7th Edition); Raymond Rich Associates, 860 Broadway, New York 3, N. Y. (new edition issued periodically—$35.)

2. AMERICAN FOUNDATION NEWS; American Foundations Information

Service, 527 Madison Avenue, New York 22, N. Y. (monthly newsletter supplementing AMERICAN FOUNDATIONS AND THEIR FIELDS—$16-18.)

3. NATIONAL ASSOCIATIONS OF THE UNITED STATES, The United States Department of Commerce, Washington, D. C. (lists all the associations of the United States according to categories—$3.75.)

4. PHILANTHROPIC DIGEST, John Price Jones, 150 Nassau Street, New York 38, N. Y. (bi-weekly newsletter with concise notes on recent gifts and grants—free.)

5. POOR'S REGISTER OF DIRECTORS AND EXECUTIVES, Standard and Poor's Corporation, 345 Hudson Street, New York 14, N. Y. (book plus four supplements published annually; lists pertinent information on leading business and industrial firms, officers, some biographical information—$75.)

6. WHO'S WHO IN AMERICA, Marquis—Who's Who Company, Marquis Publications Building, Chicago 11, Ill. (annual publication of biographies of leaders in all fields of American society—$20.)

7. WHO'S WHO IN COMMERCE AND INDUSTRY, Marquis—Who's Who Company, Marquis Publications Building, Chicago 11, Ill. (biennial publications of biographies of leaders in American commerce and industry—$20.)

The Council on Dental Education, with its knowledge of present dental school enrollments and of the dropout rates among dental students, has accurate figures on the expected number of graduates through 1960. In addition, the Council is also able to estimate the number of dental graduates expected in the years 1961-65. The Bureau of the Census has made population predictions through 1965, divided into low, medium and high projected increases. The Bureau of Economic Research and Statistics, working with this information, has estimated a shortage of between 600 (low projection) and 2,100 (high projection) dentists by 1960, merely to maintain today's population per dentist ratio of 1,886. The rate of increase since the prediction was made has, to date, exceeded even the high projection of population.

The Importance and Role of Dentistry in Public Health*

R. F. VOYER**
Dallas, Texas

BEING MINDFUL THAT "there is nothing so terrible as ignorance with spurs on," I disclaim here and now any pretense of possessing even a scintilla of knowledge relative to the practice of Clinical Dentistry. Consequently, you may rest assured that I am not about to try to tell any of you how to practice dentistry. My area of interest rests exclusively within the economic and sociologic framework of general Public Health needs and administration, and, for the purpose of this assignment, I shall concentrate upon an important segment of this comprehensive science, namely, Public Health Dentistry.

Doubtless some are present who entertain a natural curiosity concerning the institution which I have directed for the past sixteen years. For such as those, I briefly present the following facts: The David Graham Hall Foundation was designated the lifetime recipient of the total income from one man's estate in 1940, an income which in those days amounted to a $17,000 gross annual figure, and which by last year, 1955, had risen to $120,000 gross. David G. Hall, M.D., a Harvard alumnus and resident of Dallas for more than fifty years, lived for nine years after deeding his accumulations of a lifetime in trust for the use of the Foundation.

During the earlier days of the Foundation's activities, laboratories and clinical diagnostic assistance and services were operated and maintained for the benefit of Texas physicians and their financially less fortunate patients, principally those suspected of venereal disease infection. Texas, at that time, had the dubious honor of acknowledging that one-third of its negro population was infected with syphilis, while Selective Service figures showed that five and one-half per cent of its young white men were likewise infected.

By 1947 penicillin, progressive medicine, a new sense of public

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health responsibility on the part of Texas officials, and an informed public, enabled the Foundation to withdraw permanently from the service field. The values of its pioneer methods and experiences had been carefully reviewed by the experts, and many of its clinical and laboratory services were taken over by State, regional, and local Health Departments. Since then, the Foundation's operations have been channeled to administrative research, to studies and the issuance of public reports relating to official and voluntary agencies, their responsibility and services in the field of Health.

The Foundation's headquarters are situated in Highland Park, a suburb of Dallas, and are composed of a ten thousand foot fireproof library and administrative center, together with requisite staff and auxiliary units. Its operations are principally guided by the advice of the members of its Professional Council, most of whom are named in the folder which each of you found this afternoon placed at your seat. Doubtless you will be pleased and interested to learn that Dr. John W. Knutson, Assistant Surgeon-General of the U. S. Public Health Service, Chief of its Dental Division, and President of the American Public Health Association has accepted a place upon our Council. We trust this relationship will bring about a richer and closer interchange of ideas and understanding between dental health workers and practitioners at the national and local levels.

Public Health Dentistry, per se, has long been of interest to the Foundation, and with in our libraries may be found what we believe to be the most comprehensive set of files and history of the "Battle of Fluoridation" yet compiled in the Southwest. As a matter of fact, the Foundation minutes reflect that in 1949, while Doctor Hall was still alive, the basic objectives of the David Graham Hall Foundation were then determined to be three-fold—(1) The Promotion of consolidations of public health services and departments wherever possible and practical; (2) The Promotion of fulltime public health services upon a District or County-wide basis throughout the State, and (3) The Promotion of scientifically sound adjustment of fluorides to 1 PPM in all Texas public water supplies for the prevention of dental caries.

Now, we must confess that aside from the painstaking accumulation and study of materials within our library, only negligible contributions have been made by us in the field of preventive dentistry. Frankly, during the past ten years, we have concentrated our atten-

tion on the promotion of sound Public Health administration in various parts of the State. We have believed, still do, and have acted accordingly, that until a community is served by a full-time, capable, trained, and efficient public health administrator, no long-range, worthwhile public health program can be successfully established and sustained.

The old expression, "Rome wasn't built in a day," is far too often resorted to by those who defensively explain their shortcomings, limitations, and failures. Sometimes, however, the statement is justified. To paraphrase this time-worn quotation, we all must admit that effective Public Health Dentistry hasn't and won't materialize in the proverbial day! However, we all now have good reason to believe that tomorrow's progress will greatly overshadow that of yesterday.

Texas citizens and professions are fortunate in the choice made by our State Board of Health two years ago of a thoroughly trained, vigorous but reasonably conservative dedicated Commissioner of Public Health. Native born and educated locally, acquainted with the "Texas way" of doing things, Dr. Henry A. Holle has brought to Texas a wide and varied experience and sense of values gained from more than twenty years of Public Health activities, not only within these United States, but through associations and important assignments in other parts of the world.

That the new Commissioner has a proper sense of the place which Dentistry should occupy in the Texas Public Health picture, is evidenced by this week's announcement of his selection of Dr. John Stone, M.P.H., D.D.S., formerly Director of Field Services, Dental Division, Michigan State Department of Health, to fill the position of Chief of the Dental Division of the Texas State Department of Health. Commissioner Holle revealed that Doctor Stone holds a Master's degree in Public Health from the University of Michigan, and has a singular background in the administration of Public Health Dentistry. We of the Foundation join you in wishing Doctor Stone a successful and pleasant Public Health career in Texas. We further pledge the Texas dental profession and Doctor Stone the full use and support of our facilities and personnel in behalf of an exemplary Public Health Dental program.

What is meant by a "Public Health Dental Program"? The only realistic answer to this rests with the practicing dentists themselves, and the character and quality of public health administrator which

the local governments employ. And, I might add, that the choice of a Public Health Officer, good, bad, indifferent, active, or inactive, which your town has, can largely be influenced by the healing arts professions. With this fact in mind, the answer will then lie with how close the clinical practitioners and the Public Health authorities are agreed upon methods, scope of operations, and general welfare policy when discussing the community's dental needs. Finally, in the face of professional "do nothing" attitudes—and they sometimes exist—the answer would, of course, rest with an aroused community itself.

On November 27, in St. Louis, Dr. Harry Lyons, President of the American Dental Association, must have had this question in mind as he spoke to the Mid-Continental Dental Congress, when he emphatically stated, "We must recognize that our profession has a franchise to supply dental care to rich and poor alike. Our franchise was granted to us *by the people* through appropriate legislative channels, and *what the people give, they may take away*. This is our basic challenge!"

"Dental care to rich and poor alike is our basic challenge," he said, but how do those of us engaged in the science of Public Health define, *"Dental Care?"* Does the term as used imply limitations? I believe that "Dental Care" normally would be accepted by the public to mean the application of clinical services as practiced in the dentist's chair. Without differing with Doctor Lyons, who obviously spoke in the comprehensive terms of preventive dentistry and clinical dentistry, I believe we can all agree that the herculean task which lies before Texas Dentistry is to find and utilize ways and means to arouse the intelligent interest of a comparatively disinterested public, so that they will take inventories of each community's dental assets and liabilities, the local conditions, etc., and determine ways and means of coping with the problems found. With that done, "Dental Care" and essential preventive measures will more nearly become community realities.

In my opening remarks, I confessed complete ignorance of the practice of clinical dentistry, and perhaps I should beg your indulgence and understanding as I appear to speak authoritatively upon the major aspects of dental health programs. Please bear in mind that most of my knowledge of the subject was garnered from personal interviews with you and your colleagues as well as from the various

sources which are to be found in the homes, offices, and libraries of every member of this organization.

Dental public health has been defined by the American Board of Dental Public Health, and approved by the American Dental Association, as "The science and art of preventing and controlling dental diseases and promoting dental health through organized community efforts. This definition is based on the concept of three basic career areas in dentistry: Dental Public Health, Research, and Clinical Dentistry. Each of these career areas may involve practice, teaching, or administration. For the purposes of this Board, the term 'community' is used in a restricted sense and relates to the people of a particular region having common organization or interests, and living in the same place under the same laws."

It has been repeatedly stated and demonstrated by experience and reports in professional texts that there are four well known major aspects to any dental health program. Dr. David Ast, Dental Director of New York State, and other authorities invariably emphasize that the first and foremost is, without question, the problem of tooth decay in young and old alike.

The second may be classified as "the finding of ways and means (economic as well as scientific), for the correction of physically handicapping defects." In this respect we can all be mindful that a very real program retardant is the fact that even in "mental health minded" 1956, most people fail to regard dental defects as being physically handicapping, yet almost every day each of you has occasion to observe certain dental defects which are just as severely handicapping as clubbed feet, crossed eyes, partial deafness, or paralysis. Of course, you know that I am referring to such familiar conditions as the cleft palate, the severe malocclusions, and the crooked sets of teeth that physically handicap untold numbers of otherwise healthy Texans, in terms of speech, in terms of function, in terms of proper food mastication, and far from being of least importance, in terms of the aesthetic situations accompanying such deformities, many of which persistently create psychological and social barriers to young victims. These are frequently tragically physically handicapping defects which follow the child throughout his adult life. These are dental problems which affect the whole community, just as surely as they affect the individual.

The third aspect so frequently described by the authorities ap-

pears to be that problem which all of the professional disciplines are endeavoring to solve. I am told that a tremendous amount of additional study and research on the part of Public Health dentists and their colleagues in private practice remains to be done on this problem—periodontal disease, or what we lawyers and other lay folk commonly refer to as "pyorrhea." Dr. Melville Humbert, D.D.S., of the New York Community Service Society Dental Clinics, speaking before the Dental Health Section of the American Public Health Association, on November 12 of this year, had this to say in part about this subject—"Another service that we have found to be indispensible to our philosophy of keeping the tooth in the mouth as long as possible is periodontia. This specialty of treating the tissue around the tooth is unfortunately not too well appreciated by the dental profession itself and is almost unheard of by the general public. Although more teeth are lost in the adult population over the age of thirty due to periodontal diseases than decay, there are few specialists to treat this, and too few practitioners are picking up the early indications when these conditions are most responsive to treatment. We have the same problem in a dental clinic. There is the difficulty of getting staff that can treat the conditions, and the necessity of alerting staff to recognize the need of such treatment early enough. Then there is the additional problem in individual interpretation and much time goes into giving the patient basic education and instruction in care. . . . That the experience of such treatment has real value to the patient is indicated by the very high rate of voluntary returns for periodic treatment."

It is therefore my conclusion, as a non-medical Public Health worker, that much remains to be discovered before a successful approach to the prevention and treatment of periodontal disease as a community problem becomes reality. Certainly, the answers can only come through the understanding and zealous efforts of the dental profession itself. You will note that I said, "come through the profession"—interest must be aroused, resources provided, and guidance furnished by the official Federal and State health services, and of this I will have more to say later.

The fourth aspect of a Public Health Dental Program is that of oral cancer. If it is true that approximately ten per cent of all malignancies occur in and about the oral cavity, and that early detection can frequently lead to cure or arrest, then the dentist is in-

deed in an enviable position for human service. Certainly, there is no one who is in better position to detect signs of early cancer in this area than you people, the practicing dentists. Approximately one hundred thousand of you gentlemen are looking into the mouths of hundreds of thousands of patients each day, and those of you who become suspicious of lesions in and about the mouth and refer such patients to centers or competent physicians for diagnosis, are already rendering a wonderful contribution. The fact remain, however, that the experts and the texts repeatedly emphasize that too many dentists are failing to take advantage of this rich opportunity to save lives, homes, and to prevent community waste. It is obvious that more and more emphasis needs to be made both on the education of the public, and the utilization of the profession along these lines. This must come from the profession itself, from official and voluntary agencies, and stimulated community groups.

My experiences and observations lead me to believe that all leading dentists and research workers among public health people recognize these four aspects as paramount issues to a successful oral health program, and while it must be admitted that a given community may not be able to adopt an ambitious program embracing all of these, each local area should, by all means, be made aware of these essential points for needed dental progress.

The American Dental Association has long been active in this respect, and out of that splendid organization has come some of the most stimulating and practical recommendations and tools, for the use of professional groups and communities alike, that may be found anywhere. I presume that many of you are familiar with the A.D.A.'s 1951 publication, "The Maintown Dental Health Project," and its 1953 procedural guide contained in the booklet, "A Dental Health Inventory in Maintown." Accompanying these basic editions is a multiple number of excellent additional procedural information and aids. It remains only for members of the profession and community leaders to remove them from their shelves, and put them to work!

It is perfectly obvious that a community can assist the dental profession in securing a dental health program, only after it becomes reasonably well-informed and aware of the fact that dental problems of community-wide scope exist within a particular area. Each of you has within your individual area potent influences which may well be

used to stimulate citizen interest in dental health—i.e., the Health Department itself, Chamber of Commerce Health Committees, Parent Teacher Associations, Councils of Social Agencies, church welfare groups, voluntary health agencies, and many others.

But none of these will function well or long as assistants to your program, if their abilities and interests are taken for granted. I might also point out here that our Foundation's pet peeve is the average early demise of worthwhile Public Health projects. Sustained interest on the part of a busy public is hard to hold. A capable person must always be given the responsibility of perpetuating worthy programs and holding the various segments together until the job is completed.

Facts relative to the ways and means of bringing about the establishment of a representative community committee for preliminary study purposes are available to you through the American Dental Association, your State Dental Association, the State Department of Health, the U. S. Public Health Service, the American Public Health Association, the David Graham Hall Foundation, and many other excellent sources. "What *not* to do" must also be thoroughly understood and respected. Certainly no private practitioner or other well-meaning individual or group should attempt to create a Public Health Dental Program in a given area without first having secured, studied, and assimilated adequate basic information relating to sound Public Health practice and procedures. Such materials are as close as his nearest library, Health Department, and Dental Association.

That Public Health is a science within itself we surely all acknowledge. We must be constantly mindful that the practice of Public Health can only be successfully conducted through a "teamwork" plan, wherein each member—the Health Officer, the engineer, the educator, the nurse, the technician, the statistician, the sanitarian, the budget officer, and local members of the healing arts professions —hold a wholesome respect for each other, and the role each should play, together with a willingness to maintain an open mind at all times when faced with plans and programs which differ from traditional ways and concepts of the past. Change is inevitable—and like the ancient Chinese, we might as well resign ourselves to reason, and cooporate with inevitable social and economic evolution. Only then can we have an effective influence on the changes made.

Perhaps the greatest limitations known to exist within some Public Health Departments lie within Public Health Administrators themselves—in public relations—the art of "getting along with people" —the ability to draw Edwin Markham's effective circle—to "take in" those who instinctively, and sometimes just for pure "cussedness," want to "stay out"! Surely you all remember that verse—

"He drew a circle that shut me out—Heretic, rebel, a thing to flout.
But love and I had the wit to win: we drew a circle that took him in!"

I am mindful of one Health Officer who hasn't yet been won to the Markham method, and whose frustrating defense for not doing a real dental health job in his community is, "The dentists won't go—they won't let me!" The echoes of lip service for the fluoridation of public water supplies—pledged interest in a dental health program, and illustrated pages of unused dental equipment in the Annual Report of this individual's Health Department plague us year after year, while the local dental profession, composed of some of the most progressive community minded men in the State, are apparently reluctant to openly place responsibility where it belongs, and to demand a realistic Public Health Dental program.

Many of you come from areas which have only part-time Health Officers. Others are from counties which have as many as thirty separate Public Health jurisdictions—some of which are "served" by part-time and others by full-time Health Administrators. The stock alibis for poor service and accomplishments in such areas are well known to all of us. One of the most important roles which the dentists can play in tomorrow's public health picture is to enlist actively in the efforts to eliminate this archaic system which tends to stagnate and confuse all efforts to promote common sense long-range health programs.

The average part-time Health Officer has neither the time, training, or ability to meet the preventive medicine and dental needs of his community. He is usually a highly respectable physician who accepts the job only because he considers it his public duty. Fortunately for a few communities so served, the chosen part-time Health Officer possesses enough sense of civic responsibility—know how, and time, to render a far better than average service—but, I repeat, this situation is rare!

Perhaps members of this profession would do well to occasionally take inventory of their local full-time Health Departments, lending encouragement, urging improvement, and sometimes even change, as indications warrant. Local Health Officers are key people, who must be "sold" on any program, generally; if they are indifferent or incapable, the job will remain unfurnished. We are all fully aware that they can only be reached and influenced effectively for any Public Health Dental program through and by State, district, and local dental societies.

Earlier I referred to the Foundation's interest in the prevention of dental caries. We realize that although the dental profession is willing, it can not afford to give the time and effort necessary to "sell" a fluoridation program to a community—the promotion of such a program is not dentistry's responsibility, principally. Of course, you will want to be available for consultation service, and for guidance in educational programs, but dentists should not be required to give time and direct leadership to such a local program. You and your colleagues have done an outstanding job in supporting the research in this field; as results of analyses have been made, and you have had opportunity to evaluate those for yourselves, you have come out with the forthright statement that fluoridation is an effective and safe technique in preventing dental caries. Dentistry deserves the grateful commendation of the American public for its courageous position.

Each of us in this room has been reminded only too often that there are scarcely enough dentists to take care of one-third of the present dental needs of the people within this State, and the very fact that in many areas dental caries alone is developing three times faster than the remedial ability of local dental manpower is a tremendous challenge within itself. The singular fact and knowledge that through the simple adjustment of sodium fluorides in our public water supplies, a reduction of this three-to-one ratio to a more encouraging figure of one and one-fourth to one could be expected, is an indictment against every community which fails to act accordingly. With but few exceptions, wherever a community fails to establish a one part per million sodium fluoride concentration in its water supplies, we can only assume that its sense of dental values is sadly deficient.

Before I close, I feel that I would be remiss if I failed to place

especial emphasis upon one more contribution which Texas dentists can make to Public Health. I believe that we can all agree that too little research is being conducted in many areas of the subject matter—that every School of Dentistry and state Department of Health should have the benefit of a dental research laboratory, headed by a qualified dentist who is also a bio-chemist. As in all true research, some of the paths such a research unit may follow may seem of little immediate importance and value to the average observer. Yet, we all know that it is vital that the research man should be "given his head" in matters pertaining to projects or methods. Private industry would call this a "venture capital" project.

I believe that a thoughtful dental profession would consider a dental research laboratory unit worthy of a legislative appropriation of funds. Certainly the project is entitled to the very serious consideration of the Governor, the Commissioner of Health, and the budget units of our State. Research undeniably is an important part, not only of a dental program, but of every Public Health program, whether it is cancer research, maternal and child health research, tuberculosis control research, or whatever else it may be. Research comprises the preliminary background work for all progress in the prevention of disease as well as its treatment. Unless the dental profession itself asks for such a unit, I fear that it will remain nonexistent.

In this paper I have attempted to outline a few of the Public Health problems which deserve the attention of the dental profession. In passing, I would suggest that "Dental Care" must include comprehensive preventive dentistry—that dental clinics, as such, should be frowned upon unless they include comprehensive measures and provisions for health education and disease prevention—that a dental health program must be a community project, born of intelligent community surveys and analysis, all of which should be stimulated, and encouraged by the dental profession.

One more point—beware of the tendency to approve unnecessarily inadequate programs! Public Health Dentistry can only become reality through heroic action and comprehensive plans!

I sincerely believe that with the excellent attitudes towards Public Health which have been manifested in the past by all of Texas' dental professional groups, State Commissioner of Health Holle, his Dental Division Director, Doctor Stone, and others who are dedi-

cated to the furtherance of a Dental Health program for Texas, will make great strides in the months to come.

As for the Foundation which I represent, Doctor Hall's gift was designed to reach, to serve, and to belong to each citizen of the State of Texas. During the coming year, we propose to see that a part of each of his dollars is routed to the cause of dental health. It is for that reason that we particularly urge those of you who live in the Dallas area, or who come Dallas way to put at least one Foundation visit on your calendar as a "must" for the year 1957. We will need your moral support and your guidance.

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Perspectives in Dental Research

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RESEARCH IN THE FIELD of oral health has now reached the threshold of realization that in order to progress further it must look far beyond the limitations of the oral cavity. In the past, a sort of "Yalu River" philosophy has hamstrung dental investigators with the feeling that their researches must be limited to the finite boundaries of the oral cavity. Unfortunately, however, the health and well-being of the teeth and associated structures are associated with and are dependent upon the health of the organism as a whole.

It is becoming increasingly clear, therefore, that dental research must cross this "mental block" which it itself has established. The dental profession as represented by its various component organized groups must take the lead in giving a new forward outlook to dental research. It must stimulate and encourage a more comprehensive research program.

Dental educators must do more than simply pay "lip service" to the importance of a broad biological approach to dental research. At the present time dental education is at the crossroads where a decision must be made. It is presently plagued by a mechanistic tradition, which like the proverbial Janus, is forcing it to face in two directions, the biological and the mechanistic. This dicephalic approach to the future will only weaken the profession and impede its progress. One of the heads must assume dominance over the other if significant progress is to be made towards a sound understanding of diseases of the oral cavity.

It is unfortunate, but nevertheless true, that the mechanistic tradition still dominates dental education. This can only be changed as younger leaders with newer and broader concepts gradually assume positions of leadership in dental education.

It is also the responsibility of the dental schools of the country to see to it that the students are "infected" with this broadened scope of dental research. It must be made meaningful and vital to every dental student in the country. Lectures must not only provide

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information but inspiration as well. It is important that the faculty itself actively participate in research. I know of no better way to imbue the student with the scientific spirit than to nurture his education in an atmosphere where the spirit of inquiry prevails. It is the responsibility of dental education, not only to provide society with well-trained dental clinicians, but also to provide it with professional men and women imbued with the desire and the eagerness to question and to investigate. At the present time there are too few qualified investigators in dental research. In the judgement of the writer, this dearth of qualified dental investigators has two principal reasons: (1) failure of some dental educators to either stimulate or recognize the value of research, and (2) the myopic concept that dental research has to be limited directly to the confines of the oral cavity. The latter attitude has caused many competent scientists from the other areas of biological research to avoid entering the dental field. The proper understanding of diseases of the oral cavity requires a multidiscipline attack. It requires a comprehensive understanding of the numerous and complex interrelationships of cellular metabolism, as well as knowledge of the many exogeneous and endogeneous factors which alter or modify these metabolic pathways. It is for this reason that dental research must be all-inclusive—it cannot be dependent on medical research. We shall be very foolish if, through strict adherence to a mechanistic tradition, we blind ourselves to the need and desirability of biological research.

Our dental schools must be something more than the parasitical users of knowledge obtained by others; they must become centers of active research. They should be prolific contributors to new knowledge; otherwise they will eventually degrade themselves to the "sterile" characteristics of trade schools. The dental school which does not use its every resource towards the furtherance of research is not living in the present. Dental education will be remiss in its responsibility to society as well as to the dental profession if it fails to stimulate dental students with the spirit of inquiry.

The oral cavity, like any other structure in the body, is a target area for any of the endocrine, biochemical and nutritional changes which may affect the individual. It is very often simply expressing locally the resultant of systemic forces, since the blood that nurtures the oral tissues does not originate there. The existence of anemia

is not only reflected by changes in the oral cavity but also by malnutrition of all tissues. The tissues of the oral cavity are subject to nutritional requirements in the same manner as other tissue cells, be they liver, heart, or muscle. The degree of malnutrition may differ among various tissues and in the same tissue in different individuals. It is thus that a greater pathological condition may be established in one tissue over another. What happens in the liver or in the adrenal glands or in some other organ of the body may well be a potent factor for oral disease. We will never know until we look, study, and examine under as many experimental conditions as are possible.

The fields of biochemistry, bacteriology, nutrition, enzymology, and many others must be utilized to a greater extent if dental research is going to make significant headway. These disciplines must be employed in a multilateral attack on dental problems, for by whatever pathway one comes to study the diseases of the oral cavity, one finds one's self in the midst of a complex system of structure and function on the microscopic, submicroscopic, and biochemical levels and possessing numerous and varied interrelationships. A greater emphasis on the importance of the biological perspective in dental research must be made if we are to attract competent investigators from the above-mentioned fields. At present, however, the mechanistic tradition still shackles dentistry and segregates it from the other health sciences.

The mouth is an integral part of the body. At the other end of that tooth is a man. This liaison is established through the soft tissues of the oral cavity which are just as fundamental to our understanding of the basic unit of all life, the living cell, as are those of the liver, kidney, or heart.

It would be presumptuous here to try to specify in any detail the type of work or the precise approach to be adopted, but only by the use of a broader spectrum of investigation and interests can we hope to understand the changes and causes of oral disease. We must educate ourselves as well as the general public in this new and broad outlook of dental research. We need a greater public interest in dental research if we are to succeed in attracting the funds necessary for the proper execution of any program of research.

It is naive and futile to pout with indignation and say that dental research gets 1 per cent or 3 per cent of the total funds available for research in the health sciences. The question may very logically

be asked, "Why should we give you more?" People do not ordinarily die of dental disease. The restorative aspects of mechanical dentistry have achieved a high degree of perfection. The feeling of urgency is not there. For decades we have so imbued dentists themselves with the importance of the mechanical aspects of dentistry alone and ignored its biological relationships that a large percentage of the profession will to this day accept only those aspects of dentistry. Can we expect the intelligent layman or the agencies entrusted with the granting of research funds to think otherwise?

If modern biological research has taught us anything, it is an appreciation and sensitivity of our body structures and the interrelationships of these structures to each other. A thorough understanding of the biology of the oral cavity awaits the formulation and demonstration of these interrelationships. One could go even further and state that what we call the oral cavity, its biochemistry, physiology, bacteriology, pathology, etc., is an artifact; that to comprehend it fully in health and disease, it must be considered in relation to the rest of the body.

Any projection of the role of dentistry in future research must require a re-examination of both methods and goals. It must also reorganize dental education to make it more in keeping with these objectives and goals. It is the duty of dental schools to establish the proper educational background and environment to stimulate young men to enter the field of dental research. The function of a dental school is not only to train men and women for the practice of the profession but to train them for a broader view of dentistry as a health service.

It is also important that dental schools give greater recognition and encouragement to their faculty so as to stimulate them to enter the field of research. The more faculty members involved in research, the greater the stimulation to each of those participating. A research worker grows and thrives best under a system that makes it possible for him to enjoy top-level associates. But the most important factor is a climate which encourages a healthy questioning of the known as well as the unknown. It is the duty of dental education to provide this proper climate.

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