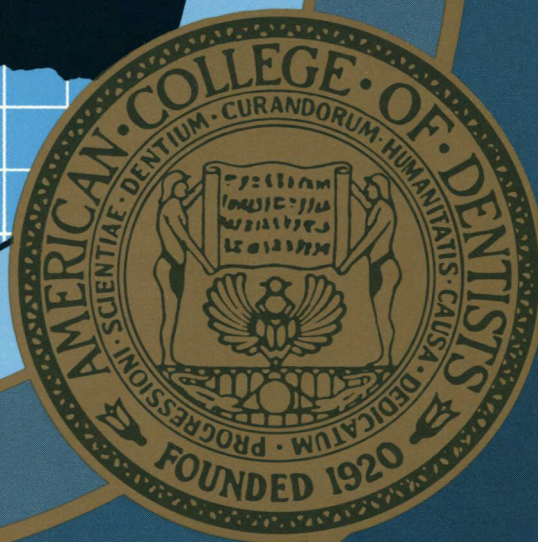
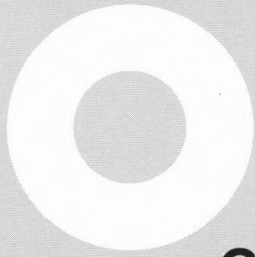


SUMMER • 1990

The  
**JOURNAL**  
of the **AMERICAN COLLEGE of DENTISTS**





## **OBJECTIVES** **of the AMERICAN** **COLLEGE of DENTISTS**

The American College of Dentists in order to promote the highest ideals in health care, advance the standards and efficiency of dentistry, develop good human relations and understanding, and extend the benefits of dental health to the greatest number, declares and adopts the following principles and ideals as ways and means for the attainment of these goals.

(a) To urge the extension and improvement of measures for the control and prevention of oral disorders;

(b) To encourage qualified persons to consider a career in dentistry so that dental health services will be available to all and to urge broad preparation for such a career at all educational levels;

(c) To encourage graduate studies and continuing educational efforts by dentists and auxiliaries;

(d) To encourage, stimulate and promote research;

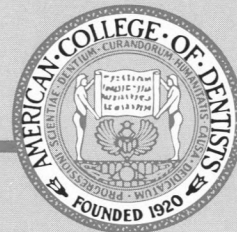
(e) To improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient;

(f) To encourage the free exchange of ideas and experiences in the interest of better service to the patient;

(g) To cooperate with other groups for the advancement of interprofessional relationships in the interest of the public;

(h) To make visible to professional persons the extent of their responsibilities to the community as well as to the field of health service and to urge the acceptance of them;

(i) To encourage individuals to further these objectives, and to recognize meritorious achievements and the potentials for contributions to dental science, art, education, literature, human relations or other areas which contribute to human welfare—by conferring Fellowship in the College on those persons properly selected for such honor.



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## Quality Assurance for Continuing Education

With the current absence of national standards for Continuing Dental Education, it seems that any organization, any commercial interest or any individual can sponsor a program on dentistry (or sometimes not on dentistry) and call it Continuing Education (CE) for dentists. Those attending these programs must take the chance that the course will be worth their time and money and that they will learn something to improve their treatment of patients. It is strictly a CAVEAT EMPTOR situation—*let the buyer beware*.

The emergence of unregulated and unevaluated CE has also provided a new type of entrepreneur—the expert dental lecturer (DDS and non-DDS) who travels nationally on the CE circuit, speaking at nearly 100 meetings a year. Some of these “experts” truly know their subject and make fine, worthwhile presentations, and others do not. Almost a limitless number of CE programs are available each year and the present system does not provide for any way to evaluate the course content, the credentials of the speaker or the quality of the presentation. Unfortunately, there is no organization in the dental profession that has the ability and the means to formally evaluate the effectiveness of all of these CE courses given in every part of the country.

CE courses should be effective in teaching something if they are to influence and improve the quality of care provided in our dental offices. Most CE was formerly associated with and sponsored by dental schools. Now, however, many CE programs are sponsored by manufacturers and dental supply compa-



Keith P. Blair

nies and individual lecturers sell their services to sponsors. Unfortunately, too many dental meetings are held for the main purpose of making a profit for the sponsoring dental organization, with the emphasis on providing popular programs that will draw a high attendance (and sometimes with little concern for the quality of the CE).

Twenty-two States in the USA have now adopted regulations calling for mandatory CE for dentists, most of them requiring between fifteen and twenty-five hours of CE annually. While the intent of required CE is commendable, again there is no quality control on the value of the courses and no guarantee that the act of obligating dentists to be physically present at a lecture will improve their ability in practice.

It is essential that the dental profession find a way, and establish the method, to provide quality as-

## FROM THE EDITOR'S DESK

urance in CE. The Medical Profession has an Accreditation Council for Medical Continuing Education which could serve as a model for a similar program in dentistry. While it would be an impossible task to evaluate all individual courses, it could be very feasible to give accreditation to the sponsors of these courses. The sponsors would then have the responsibility to evaluate and verify the courses they provide for dentists.

The American Dental Association is currently attempting to organize this type of an accreditation program and it is strongly urged that this program be developed as soon as possible. To do so, however, will require the participation, the cooperation and the support of all aspects of the profession.

Serious dental practitioners are obligated to keep abreast of new developments and dentists need to be life-long students. If continuing education is to favorably affect dental care, it must bring changes in *clinical results*.

The American College of dentists is vitally interested in the development of a program to attain Quality Assurance in CE. It was concern for this same issue of dental education standards that first brought the Founders of the ACD together in 1920, seeking ways to correct the deplorable situation in which dentists were being exploited by commercial interests at that time. The College is once again concerned with this problem.

There is an urgent need to develop a program for Quality Assurance in Continuing Education. Δ

Keith P. Blair

# FORUM

## LETTERS FROM READERS

### Editorial: Qualified for FACD —Never Nominated

The Editor is to be commended for his insightful assessment of an inefficiency within the College nomination system.

The nomination procedure itself has been carefully thought out to insure that candidates for Fellowship are considered on the basis of outstanding achievement rather than friendship, politics or less compelling reasons. Activating the procedure, however, involves a serious commitment of time, resources and long range planning, any two of which invites procrastination. Add the ingredient of a demanding life style and procrastination may drift from inactivity to downright torpor. Apply this formula to half of us and we have an explanation for the nominations being made in the waning years of a colleague's career or the nominations never made.

Procrastination is not a fatal disease and is often cured with a gentle reminder. The idea of a Section committee identifying potential candidates and suggesting names to other Fellows in the Section, who are well located in terms of geography and professional relationships, need not compromise the integrity of the nominating procedure, the individual role of the nominator or the work of the Credentials Committee.

I believe that such actions would go a long way toward reducing the ranks of the "Never Nominated."

Odin M. Langsjoen  
Duluth, Minnesota

The excellent editorial in the Winter 1989 issue of the JOURNAL called attention to the inordinate length of time many qualified colleagues are made to wait before being nominated for Fellowship in the College.

Although unintentional, this inertia represents a rather serious problem. A more timely and systematic method of selection should be used, rather than leaving this matter to chance.

This is not to suggest that this effort

should take on the nature of a membership campaign or that the standards of the College should be relaxed. It must be recognized, however, that it is patently unfair and not in the best interest of the College to leave nominations to random selection. I heartily concur that each Section should have a standing committee whose purpose would be to review annually the roster of area practitioners for those dentists who seem to be qualified for ACD nomination.

Richard J. Reynolds  
Memphis, Tennessee

Congratulations on a very pertinent editorial in the Winter 1989 issue of the Journal. I do enjoy reading the Journal and this editorial struck a responsive chord.

An active member of the profession and one who is involved in many areas of the profession I have seen two extremes take place in the proposal process for the College. The one that you noted, which bypassed the "deserving and qualified" and the opposite end of the scale, the proposal of candidates who were far less qualified than those who have been continually bypassed.

I wholeheartedly support a concept whereby each Section would develop committees to seek and review those many qualified candidates who are pushed aside because of factors that should have no role in the proposal process. Further, such committees should have subcommittees in those Sections whose dental population is so large that numbers alone might eliminate those qualified candidates we all would like to see in the College. I would also like to see a very specific limit to the terms of office of all members of such committees.

May I wish you continued success with the Journal.

Robert B. Raskin  
Lindenhurst, New York

Having read your excellent timely editorial in the winter 1989 issue of our Journal, I

felt that I would like to comment and reinforce your thoughts.

It is a singular honor to be nominated for and inducted into The American College of Dentists. I'm sure that every one of our Fellows feels the same.

It should go without saying that for all Fellows, others took the opportunity to recognize another's accomplishments. They then gave of their time to document these and present them to the College in the form of nominations which were reviewed and accepted by the Credentials Committee and forwarded to the Board of Regents which acted on the Committee's recommendations.

At the present time about three and a half percent of the nation's dentists are Fellows of the College. It is my belief that this does not nearly represent the number of our distinguished colleagues who deserve recognition by being offered Fellowship.

It has long been my thought that one of the obligations that attends being a Fellow is to seek out and nominate others who are worthy of this great honor.

Such individuals should not only be seasoned dentists, whose achievements are significant enough to merit Fellowship, but also younger men and women. I have in mind those who are readily identifiable as having recognized the need for and are participating in organized dentistry, their community and or their church etc. albeit at a level somewhat less than their older colleagues. This was one of many intents of the founders of our College in which I strongly concur.

I would like to challenge all our Fellows to look about them and make an effort to identify a colleague whom they know is as worthy of Fellowship as their nominator thought they were. Then call the Central Office at (301) 986-0555 and request a nomination folder. When it is received, take the time as their predecessor did to carefully fill out the nomination form being especially diligent in identifying the significant accomplishments of their nominee and then write a meaningful narrative on the last page of

the form presenting in full detail why the accomplishments previously listed as significant resulted in the nominee meriting Fellowship.

This is not a numbers game but one more way to apply the universal basis for ethical behavior. Treat others as you yourself would be treated.

Robert W. Elliott, Jr.  
Potomac, Maryland

### Dentistry Changed in the 1980's

On reading Dr. Barry Waldman's article in "Dentist & Dentistry Changes in the 80's" in the Winter 1989 issue of the Journal, I am reminded of the quotation by Prime Minister Disraeli of England, that there are three kinds of lies, "Lies, damn lies and statistics".

Dr. Waldman, in his review of the need for dentistry, completely overlooks possibly the most important factor that is affecting dentistry today, the birth control pill. Needless to say, we dentists have relied upon the upper and middle class individuals as a patient load to provide the majority of our services. This is the population that is the greatest user of the birth control pill and the days of large families in the middle and higher income population are disappearing. Our population that we serve is definitely getting much older, as is the general population of the United States, and their needs are changing. His table 1 and table 2 are now 10 years out of date and are now possibly invalid. I know in my experiences in pediatric dentistry that the number of children that I have seen in the last 5 years that are requiring the extraction of permanent teeth have been virtually nil and this includes all social economic strata and races and I think Dr. Waldman's statistics do not fully show the tremendous effects that fluoridation has had in the last 10 years.

The idea that insurance companies and the federal government are going to increase the numbers and the types of the population served is without fact. My experience with the federal government programs and the

insurance programs are that they are trying to provide services at the lowest cost.

In conclusion, my opinion is that anybody who thinks that the future of dentistry is rosy, is seeing the world through rose colored glasses. There have been tremendous changes happening in the practice of dentistry over the last 20 years since the advent of communal water fluoridation and the birth control pill which to me are the most tremendous factors in dentistry today.

William A. Saunders  
Dallas, Texas

### Dental Hygiene Education

Dr. Hein indicates his perception of my 1986 opinion piece as inflammatory. At the time it was written, with the advent of what I believed to be a sharply increased pace across the nation by hygiene for its legislative program to promote unsupervised practice, I wanted to alert the profession to the overall intent and create a climate for discussion and review. Subsequently, that did in fact occur, perhaps abetted by my article. I have been impressed by the degree to which the profession has addressed the overall issue of dental hygiene's legislative interests.

Interestingly, the central point of Dr. Hein's article seems to be the argument that change in the structure of hygiene education programs should not be considered or allowed. On the other hand, he castigates the profession for not allowing a legislative change in Massachusetts to introduce the "principle of academic freedom". It is of course not unusual to note the behavioral display of "I want it my way"; never mind that it is disingenuous to a fault.

It is appropriate for universities to question, as many are, whether what is basically a two year educational program in a technical area is a true *university* discipline, and it is equally appropriate to look at modifications which might provide high quality education and training in different settings. I do believe in accreditation of programs and feel that accreditation should be maintained; the

fact that modification is being considered does not mean that it cannot be or won't be.

Dale F. Redig  
Sacramento, California

### Ethics

Dr. Keith Blair:

Since you have written extensively about ethics, I thought you might like to see this excerpt from the ADA Principles of Ethics, Pre-FTC. This was written by Dr. Harold Hillenbrand in the 50's.

"The practice of dentistry first achieved the stature of a profession in the United States where, through the heritage bestowed by the efforts of many generations of dentists, it acquired the three unfailing characteristics of a profession: education beyond the usual level, the primary duty of service to the public and the right to self-government. The maintenance and enrichment of this heritage of professional status place on everyone who practices dentistry an obligation which should be willingly accepted and willingly fulfilled. . . . The spirit and not the letter of the obligation . . . must be the guide of conduct for the professional man. . . ."

Peter Goulding  
Chicago, Illinois

### Motivated by Grants

The Editor is continuing to do an excellent job. His editorials are in agreement with my thinking.

The articles published, however, seem to be mostly statistical and are motivated by "grants."

What has caused this change?

Gunter Schmidt  
St. Louis, Missouri

*The Journal is now in its third year of being a refereed publication and is publishing more scientific articles which accounts for more manuscripts with graphs from authors funded by grants. Ed.*

# 70th Anniversary Year: Part II

## The ACD Becomes a Catalyst for Significant Changes in Organized Dentistry

**Gordon H. Rovelstad\***

The American College of Dentists came alive between the years 1920 and 1930 with activities during these years eventually having a profound affect on the profession of dentistry. These activities began to unfold with the meeting of the American College of Dentists in Chicago, Illinois on January 26, 1921.

### Administrative Matters

Administrative matters were addressed initially. The colors of the College had been established as Lilac and American Rose in Boston in 1920, as had the Constitution and Bylaws. It was in Chicago that a sample hood for the College was presented. There being a question of conflict with academic rules in the adoption of the hood, Dr. Otto U. King and Dr. H. Edmund Friesell, were charged with investigating the matter.

Another committee consisting of Dr. H. E. Friesell, Dr. C. J. Lyons, Dr. M. M. House, Dr. Guy S. Millberry, and Dr. Arthur D. Black was appointed to formulate a definite statement concerning the intent and purpose of the organization.

Section 9 of the Bylaws was then reviewed. This stated that "All nominations must be made in writing to the Board of Censors at least six months before the annual meeting, which nomination shall be kept in violation by the nominators and the

Censors until such time as it is favorably reported upon."

It was moved, seconded, and voted that this section of the Bylaws be modified so that the time of "at least six months prior to the next annual meeting" shall not apply to nominations for Fellowships which may be made between the time of this meeting and the next annual meeting to be held in the summer of 1921. This set up a means for conferring fellowships to additional persons during the developing years.

### The Gown

The next annual meeting of the College was called to order on Saturday, August 13, 1921, at the Hotel Pfister in Milwaukee, Wisconsin. A sample gown for the College was presented for consideration by the Fellows present (15) and, after slight modification, was adopted as the official gown of the College. Again, a Committee was appointed to determine that it did not present any conflict with academic rules.

### The Certificate of Membership

A sample draft of a Certificate of Membership was also presented at this meeting by Dr. Arthur D. Black. After considerable discussion, a special committee was charged with making such modifications as seemed desirable and to report to the Board of Directors.

### Statement of Intent and Purposes

Dr. H. Edmund Friesell reported for the Committee Appointed to

Formulate a Statement of Intent and Purpose. A written statement was presented to the Fellows which was accepted as the official intent and purposes for the organization known as the American College of Dentists.

Several modifications of the Bylaws were also presented along with the change of the term "Board of Directors" to the "Board of Regents" as the governing body for the College.

### First Convocation

The first annual convocation of the College was held at 7:00 P.M. on August 13, 1921 at the Hotel Pfister in Milwaukee. Fourteen Fellows of the College were present, along with two newly elected Fellows. After a brief address by the President, the official list of all the Fellows who had qualified as Founders of the College was forwarded to President John V. Conzett. Dr. Conzett donned the gown of the College and presented Fellowship Certificates to all the Founders present as well as to those in absentia.

The Secretary then introduced the two newly elected Fellows who were presented Certificates of Fellowship from the President.

Following the conferring of Fellowships, the Convocation Address was given by Dr. C. N. Johnson of Chicago, Illinois. He pointed out the "needs of an organization like the American College of Dentists and the possibilities for the advancement of the profession through its activities."

\*Gordon H. Rovelstad, DDS, Ph.D., ACD Executive Director.

On August 18th an "Adjourned Session" of the College was called to order and President Conzett conferred Fellowship on several newly elected Fellows, five who were present and three in absentia.

The meeting was then adjourned following a motion to hold the next meeting of the College in Montreal, Quebec at the time of the meeting of the American Institute of Dental Teachers.

### Honorary Fellowship Introduced

On January 25, 1922, the American College of Dentists held a Convocation at the Hotel Windsor in Montreal, Quebec. Sixteen Fellows of the College were present for the meeting. President J. V. Conzett conferred Fellowship on five new Fellows. Four of them were conferred in absentia. The President's Address was given after the College dinner. It was with this address that Honorary Fellowship was proposed.

### Regionalization

Also, it was during this meeting that Dr. Arthur Black of Chicago and Dr. S. W. Foster of Atlanta, Georgia proposed that "the Secretary be instructed to divide the United States and Canada into districts and so far as possible to put each district in charge of the several members residing therein and to instruct said members to canvass their several districts and recommend for Fellowship in the College the outstanding and desirable members of the profession in said districts." This was the first indication of regional divisions of the College for the purpose of administration and communication. (It was not until 1973 that formal agencies were established, however.)

### The Seal of the College

At the Convocation in Chicago on March 5, 1924, a copy of the proposed Seal of the College was presented. Dr. H. Edmund Friesell explained the significance of the various figures and symbols.

### William J. Gies Elected to Fellowship

One year and a half after the meeting in Canada and three Convocations later, the College, while meeting in Cleveland, Ohio, unanimously elected Dr. William J. Gies, a Physiological Chemist, to "full membership because of his notable contributions to dentistry and dental education." Fellowship was conferred upon Dr. Gies, along with thirty-nine other candidates, by President Friesell. Among these candidates were Drs. Arthur H. Merritt, J.H. Prothero, J. Ben Robinson, Marcus L. Ward, G. B. Winters, and Ralph Waldron, to name a few.

During the next Convocation of the College held on March 5, 1924, Dr. Gies, armed with the Statement of Intent and Purpose of the College, "presented in a suggestive way the desirability of the College becoming actively interested in the solution of some problems that might assist constructively in the development of dental progress."

### Carnegie Foundation Report

The Dallas convocation of November 12, 1924, focused again on the aims and purposes of the College with focus on nomination procedures. It was at this meeting that Dr. Gies described the attitude of the Carnegie Foundation for the Advancement of Teaching in relation to the work of the College. The proposition of the Foundation was accepted and the Secretary was di-

rected to make application to the Foundation.

### A National Dental Examining Board

A Committee on the National Examining Board was appointed in 1924. Dr. Henry Banzhaf reported for the Committee on September 22, 1925. The resolution emanating from this Committee advised the creation of a National Dental Examining Board. This was adopted.

A report of the Research Committee on Education, Research, and Relations was initially presented at the Convocation of the College on March 24, 1929 by Chairman Gies. This Committee addressed issues of College support of research organizations as well as research publications.

### Aid to Dental Students

Dr. Gies was invited to be the principal essayist following the conferring of Fellowship at the next Annual Convocation of the College in Louisville, Kentucky on September 27, 1925. During this presentation, Dr. Gies outlined various ways in which the College might "promote its usefulness and stressed especially the need of establishing a cumulative revolving loan fund to aid deserving young men and women to study dentistry, and the desirability of the creation and management of such a fund by the American College of Dentists."

The following motion was subsequently offered and carried unanimously:

"That a committee of five be appointed by the President to name a fund to assist worthy young men and women to enter the dental profession or to conclude graduate study for all types of dental specializations

by including teaching and research."

The following committee was appointed: William J. Gies Chairman; Henry L. Banzhaf (Milwaukee, Wisconsin); John V. Conzett (Dubuque, Iowa); Albert L. Midgley (Providence, Rhode Island); and W. R. Wright (Jackson, Mississippi).

Thirty-one new Fellows were inducted into the College at the next Convocation on August 22, 1926 in Philadelphia, Pennsylvania. The proposed rotating Loan Fund was then discussed, following up on the recommendations of Dr. Gies. Dr. Delos N. Hill of Atlanta, Georgia explained various phases of the rotating loan fund operating in the Rotary Club of Atlanta. The recommendations were accepted and the Committee was continued for another year.

At the October 1927 Detroit Convocation, printed copies of the cumulative rotating loan fund plan were distributed to members in attendance. After discussion of this plan, means were sought to "encourage philanthropic persons to recognize the great worth of certain dental projects and to endow them appropriately."

### Dental Journalism

The year 1928 was a significant year for the College. The Convocation was held on August 19, 1928 at the Radisson Hotel in Minneapolis, Minnesota. The following resolution was read by the Secretary, accepted by the Regents, and adopted by the College:

Whereas,

Dentistry as a profession dedicated to the service of mankind, must accept its responsibility and maintain its dignity and ideals, and

Whereas,

A profession is weighed and judged by its educational standards, its accomplishments for the public welfare, and the dissemination of its contemporary knowledge and advancements, and

Whereas,

The educational standards of dentistry are now practically on a par with those of medicine, and dentistry's accomplishments in relation to the public health are well-known and acknowledged, and

Whereas,

A large proportion of dental literature and proceedings of dental societies is still being published in periodicals which are financed and controlled by dental trade houses, and

Whereas,

A broad advance in dentistry would come through the elevation of its journalism to a plane appropriate to the importance of dental relations to the public health, and

Whereas,

The American College of Dentists aims to advance the standards of the dental profession, now therefore be it

Resolved,

That the American College of Dentists create a commission whose function shall be to survey the present situation in dental journalism and report to the College within one year, in particular respect to

- (a) The total amount of dental literature published per annum,
- (b) The proportion of that literature in periodicals not under the auspices or control of the dental profession,
- (c) Measures which may be ef-

fective in terminating the non-professional publication of dental literature,

- (d) Measures which may be undertaken to develop a journalism having capacity sufficient to publish all the worthwhile contemporary dental literature.

This Resolution, an outcome of W.J. Gies' recommendations in 1925, was printed and distributed to the membership of the College for comment. These comments were collected and reported at subsequent meetings of the College and then, together with the report of the Commission on Journalism, were distributed to all members for action at the next annual meeting.

### Summary

Dental Journalism, Dental Examining Boards, Aid to Dental Students, Dental Research, and the Advancement of Dental Teaching all became the business of the College during the first ten years of its organization. The steps taken during these early years, although only in committee, initiated activities which ultimately led to significant changes in the dental profession. Standards were proposed, goals were set, and the College moved into a role as catalyst to organized dentistry to become "actively interested in the solution of some problems that might assist constructively in the development of dental progress." Δ

### References:

1. Minutes of the Meetings of the Convocations, American College of Dentists, Vol. 1, August 20, 1920 to November 3, 1935.
2. Minutes of the Meetings of the Board of Regents, American College of Dentists, Vol. 1, August 13, 1921 to November 1, 1935.

# DENTIST PARTICIPATION IN HEALTH MAINTENANCE ORGANIZATIONS

## A Case Study

Richard C. Oliver\*  
 Mark S. Simmons\*\*  
 Thomas R. Oliver\*\*\*  
 John E. Kralewski\*\*\*\*

The history of health maintenance organizations (HMOs) in the Twin Cities of Minneapolis and St. Paul dates back to 1955 when the Group Health Plan was established. The modern wave of HMO development began in the early 1970s when six new HMOs were organized by a variety of sponsors, including the Hennepin County Medical Society in Minneapolis and Blue Cross-Blue Shield of Minnesota.

In general, physicians in the Twin Cities supported the development of the HMOs and other competitive medical plans on the principle that competition was preferable to regulation as a way to control the costs of health care. Business and civic leaders agreed

with the market approach to health care reform and, as a result, HMO growth has been dramatic. Today, as Table 1 indicates, almost half of the people in the Twin Cities receive their medical care through an HMO.

Very little research about dentistry in HMOs has been reported.<sup>1</sup> Since HMOs in the Twin Cities have a longer history and more extensive market penetration than in most locales, they represent an important opportunity to explore the patterns of development and potential market for HMO dentistry. This report presents an analysis of the factors related to dentist participation in HMOs and the perceptions dentists have about HMO dentistry, including patient needs, quality of care, financial arrangements, patient and professional satisfaction, and the future development of HMO dental programs.

Six HMOs in the Twin Cities were included in the study—one staff model (Group Health), four networks of preferred provider offices (MedCenters, Share, Blue Cross-Blue Shield, Prudential DMO) and one independent practice association (Physicians Health Plan). To obtain information on the HMO dental programs, structured interviews were conducted over an eight month period in 1988-89 with the dental directors of six HMO

plans; with the chief executive officers of two of the HMOs and of Delta Dental of Minnesota; with representatives of the Minnesota Dental Association; with the employee benefits managers at three major Twin Cities corporations; and with 16 dentists. The dentists were selected to represent different ages (32-60), gender (14M, 2F), patterns of practice (9 group, 7 solo), practice locations, and participation or non-participation in HMO dental programs (12P, 4NP). In addition, respondents were asked to complete written questionnaires to supplement the interview data. Additional data on plan subscribers were obtained from the Minnesota Department of Health.

Specific questions were asked of each dentist about his/her reasons for participation/non-participation, where he/she obtained information about the HMOs, the growth of the HMO component of practice, characteristics of HMO patients vs. other patients, patient satisfaction, dentist satisfaction, financial consequences, and perceptions of future prospects for HMO dentistry. The answers and important comments were transcribed from each interview tape. The interview data were then combined with the data from the written questionnaires and analyzed collectively.

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## Participation in HMOs

The HMO dental plans in the Twin Cities and their current enrollment are shown in Table 2.

The growth of HMO dental plans has been slower than HMO medical plans. At the present time, about 10% of the Twin Cities population has comprehensive dental coverage through an HMO and almost twice that number is eligible for preventive dental care through a basic HMO medical plan.

An estimated 75% of the 1,400 dentists in the Twin Cities participate in one or more HMO dental plans. The closed panel programs are relatively small. Group Health has 32 dentists in its 10 staff clinics. The HMOs with networks of group and solo practices have from 40-110 participating dentists. In contrast, nearly 1,000 dentists currently participate in Physicians Health Plan (PHP), which began in 1982 as a closed panel capitation plan with 150 dentists but was converted in 1985 to a modified fee-for-service program and opened to all dentists to match the PHP medical plan (Table 3).

In general, younger dentists have been more likely to participate in HMOs than older dentists and, as with their physician counterparts, Minneapolis dentists were quicker to participate than dentists from St. Paul. It should be kept in mind that, except at Group Health, HMO participation for the dentist is not an all-or-nothing proposition. Dentists who provide HMO care continue to see mostly fee-for-service patients. In a few network offices, the percentage of HMO patients has reached 25-30%, but 5-15% is more common.

**Table 1. Twin Cities Population Enrolled in HMOs  
Selected Years, 1972-1987**

Year	Metropolitan HMO Enrollment	% Population
1972	54,945	2.9
1977	186,538	9.7
1982	535,753	26.6
1987	988,622	46.3

Source: Minnesota Department of Health, 1988

**Table 2. Enrollment in HMO Dental Programs in  
Minneapolis-St. Paul (1988)**

	Comprehensive Dental Plans	Preventive Dental Plans
Group Health Plan	49,416	85,000
Share Health Plan	11,000	120,000
MedCenters Health Plan	42,000	85,000
Physicians Health Plan	40,000	100,000
Blue Cross-Blue Shield	10,000	—
PruDMO	21,000	N/A

**Table 3. Dentists in HMO Dental Programs in  
Minneapolis-St. Paul (1988)**

	Participating Dental Offices	Participating Dentists
Group Health Plan	10	32
Share Health Plan	52	110
MedCenters Health Plan	36	80
Physicians Health Plan	?	980
Blue Cross-Blue Shield	23	40-50
PruDMO	44	74

## Reasons for Participation

The primary reason dentists chose to participate in HMOs was to attract new patients or to keep patients of record that enrolled in an HMO dental plan. A few dentists had noted the success of the HMO medical plans in the Twin Cities and believed the capitation model would grow and could work well in dentistry where prevention and early intervention make both clinical and financial sense.

Non-participants already had busy practices and saw no need to reduce fees or take the financial risk associated with HMO participation. Several perceived and resented interference by HMOs in treatment plans and the doctor-patient relationship.

There was general agreement that most dentists considering HMO participation are not well-informed and do not fully understand the implications of the decision for their practices. Most gain their information on HMOs through informal discussion with other dentists. Many simply "jump on the bandwagon" and later feel "trapped" fearing patient loss if they reverse their decisions.

## Patient Characteristics

With one or two exceptions, neither the dentists nor the HMO dental administrators perceived significant differences between HMO patients and fee-for-service patients in terms of age, dental disease, or utilization of services. There was some adverse selection due to higher than anticipated dental needs in the early days of two of the HMO programs but most pa-

tients had indemnity dental insurance prior to selecting an HMO plan and did not have previously unmet treatment needs. A second factor may be that most of the HMOs, with the exception of PruDMO, have consciously marketed their dental plans to higher income and education groups that have fewer dental care needs than lower socioeconomic groups.

## Quality of Care

Although we did not interview patients, both dentists and patients believe that the quality of HMO dentistry in the Twin Cities has been good and on a level with fee-for-service dentistry to date. Patient surveys conducted by four of the HMOs have consistently shown over 90% patient satisfaction. This parallels Minnesotans' perceptions of HMO medical care. In part, this perception of high quality is the product of a conscious effort by Twin Cities dentists to treat HMO

and fee-for-service patients alike. In addition, several of the HMO dental programs put a high priority on quality assurance through a variety of activities.

As the figures in Table 4 indicate, Group Health and MedCenters have the most comprehensive quality assurance programs, including prospective treatment protocols, retrospective chart reviews, and patient evaluations. Share is developing a similar comprehensive program. The other HMOs monitor the quality of care through less formal mechanisms such as pre-authorization of services, annual office reviews by consultants, or patient complaints.

Another aspect of quality care is appropriate referral of more complex cases for specialty care. While all of the HMOs have provisions for specialty care, referrals are often discouraged or controlled by pre-authorization (PHP, PruDMO), financial disincentives (PruDMO, SH, BCBS) or by encouraging gen-

**Table 4. Quality Assurance Activities in Twin Cities HMO Dental Programs (1988)**

	GH	MC	SH	PruDMO	BCBS	PHP
Patient complaints	X	X	X	X	X	X
Patient satisfaction surveys	X	X		occas.		occas.
Standards of care	X	X				
Utilization review	X	X	X			
Record/patient review	X	X			X	
Office review	X	X	X	X	X	X
Pre-authorization				X		X

GH = Group Health; MC = MedCenters; SH = Share; PruDMO = Prudential; BCBS = Blue Cross-Blue Shield; PHP = Physicians Health Plan

eral dentists to provide a broader range of services. It should be noted that local dental societies have not noticed a difference in complaints or peer review requests between HMO and fee-for-service patients.

### Dentist Satisfaction

Dentist satisfaction was highest in Group Health, MedCenters, and Share, where there is no interference in treatment decisions, no minimal financial risk, and financial compensation meets or exceeds fee-for-service levels. Growth of the HMO patients in these plans has been relatively slow allowing dentists to comfortably adapt to the HMO plans and policies. In contrast, there was fairly extensive dissatisfaction with PHP and PruDMO, which require extensive pre-authorization for treatment plans and referrals and failed to meet dentists' expectations for financial compensation. PHP discounts fees 30%, did not change its fee schedule for four years, and in 1987 chose to keep the 20% dentist contingency reserve to help offset losses in its medical program. For 1988, PHP returned 40% of the contingency withhold to dentists, despite acknowledging that the dental plan made a profit. In PruDMO, the newest capitation program in the Twin Cities, some dentists were in a financial squeeze due to the plan's low premiums and unexpectedly high patient demand for services. Adjustments have been initiated and co-payments have slowed utilization in new contracts. But dentists' incomes have not always met PruDMO's projec-

tions and some dentists have left the program while others are "hanging on".

### Future Prospects

The dentists we interviewed expected minimal expansion of HMO dental plans. A few predicted slow growth to about 25% of the market over the next five years. They noted that younger people with little dental disease are less concerned about "having their own dentist" and seem more satisfied with HMOs. Several others thought the HMO share of the dental market had peaked and may even decline. Minnesota Dental Association representatives expected very little future growth of HMO dentistry, believing that patients place a high value on the free choice of dentists. The opinions of dentists were in marked contrast to HMO executives and dental directors, who predicted that the HMO dental market will triple the current 10% penetration and could go much higher.

Until now, the HMO dental plans have largely been growing at the expense of indemnity programs and rarely competed with each other. But competition is increasing between the HMO plans and so are pressures to control the use of dental services and contain costs. Most observers believe that HMOs must continue to offer quality of care comparable to fee-for-service dentistry to satisfy corporate employers and patients. Yet, some see HMOs and the general development of "managed care" as forces for cost containment that, in the absence of professional agreement on what constitutes good quality

and appropriate treatment, could lower current standards of dental care.

### Discussion

Managed dental care has been successful in the Twin Cities to date in terms of dentist participation and satisfaction, patient satisfaction and profitability. Undoubtedly part of this success can be attributed to the relatively high percentage (50%) of Twin Citians that accept the concept and receive their medical care through HMOs. Other favorable factors have been the slow development and maturation of most of the dental plans, that have allowed appropriate selection, preparation, and policy development, their careful selection of lower risk groups to serve, and the quality of their leadership. Despite the fact that dentistry fits the model of health maintenance, the long-term success of HMO dental plans is less certain. Success will depend on: 1) continuing dentist satisfaction, 2) dental plan marketing and adding providers, and 3) delivering an appropriate level and quality of care to meet professional standards.

At present, dentist dissatisfaction with several of the HMOs has not escalated to the point that it did in medicine in 1987 when there was a "physician rebellion" in the Twin Cities. Dentists have not left PHP and there are waiting lists of dentists and specialists eager to serve the other HMO networks and Group Health. Dentist dissatisfaction with PHP and PruDMO can probably be traced to a lack of input or control over HMO administrative policies. Dentists have sel-

dom been involved at the decision-making level. While dentists' concerns are the same as their physician counterparts, i.e. interference with professional judgment, potential erosion of quality, and financial risk, HMO patients have been a small part of most dental practices as compared to over 50% in many medical practices; therefore, the impact of adverse policies has been much less. There has not been evidence of widespread substitution of lower cost services in the Twin Cities similar to that reported by Beazoglou, Guay and Heffley<sup>1</sup> and suggested by Bentley and Morris<sup>3</sup>, but dentists are concerned that the increasing competition among HMOs, leading to further efforts to reduce fees and control costs to keep premiums down, is a serious threat to the quality of care.

Finally, as Feldman, Kralewski and Dowd have pointed out, HMOs are not what they used to be.<sup>4</sup> This is also true of the HMO dental programs. Originally designed to provide a stated range of services for a fixed annual or monthly fee with the dentist assuming financial risk or gain, they have become increasingly difficult to distinguish from other dental plans in the Twin Cities as they have shifted to pre-authorization of treatment plans and referrals, and co-payments to deliver a broader range of services, control utilization and minimize the dentists' financial risk. Independent practice associations (IPA) initiated these changes, possibly because their size limited their ability to control both quality and costs. The HMO networks quickly

followed. In the Twin Cities, PHP shifted from a capitation program to a discounted fee-for-service program. While dentists welcomed the reduction of financial risk and co-payments to control utilization, requirements for pre-authorization of treatment and referrals have contributed to their dissatisfaction. At the same time, fee-for-service indemnity programs are also practicing cost-containment through more stringent utilization review, pre-authorization, and increased co-payments in order to compete in the market. From the Twin Cities experience, this converging of what were originally markedly different plans for the delivery of dental services may point to the evolution of a single form of managed care in the future.

## Conclusions

Our study of the development of dentistry in the HMOs in Minneapolis-St. Paul has led to the following conclusions:

1. Younger dentists are more likely to participate in HMO dental programs to obtain new patients and avoid losing current patients.
2. The primary reasons for non-participation in HMOs are reduced fees, financial risk, and interference with the doctor-patient relationship.
3. HMO patients do not differ significantly from fee-for-service patients in terms of age, dental disease, or utilization of services.
4. The quality of HMO dentistry

is perceived to be good by both patients and dentists to date.

5. Patients and most dentists are satisfied with HMO dental programs; however, dentists' concerns are increasing.

It should be emphasized that an exploratory case study such as this relies on in-depth data from a select number of sources instead of a more limited range of data from a wider sample. The in-depth interviews were conducted with relatively few well-informed people. We believe these interviews provide the basis for broader surveys that are necessary to validate some of the conclusions drawn from this case study about HMO dentistry and its future prospects. Δ

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# DENTAL HYGIENE

## The Case for the Currently Accredited Model

John W. Hein\*

An address presented at the 31st Annual Conference of Dental School Deans in Orlando, FL December 12, 1989 on the issue of Preceptorship

Before launching into a defense of the currently accredited model of dental hygiene education, I believe it will be helpful for us, as the leaders of dental education in this country, to recall some of the history of dental education during the past ninety years. At the very least these recollections can only impress us with the heavy responsibilities we share as we prepare to lead dental education twenty days from now forward into the last decade of the 20th century.

As dentistry entered this century it was still at the beginning of its transformation from what was, by and large, a mechanically oriented craft. Three years of training, post high school, often taken in proprietary schools, was the predominant norm. Accreditation of dental education was unknown. The first formal internship in dentistry did not begin until 1914. The first school for orthodontic training, a nine month program, began in 1915. Truly dentistry's evolution into a distinguished profession was off to a humble start but the situation soon underwent a radical change; thanks to the effort of one distinguished educator, scientist and non-dentist. William Gies took den-

tal education by the scruff of the neck, shook it out of its proprietary craftsman mentality and cast it bodily, often under protest, into the university family.

In the environment of higher education, dentistry has steadily evolved toward the ideals of a true profession. And as we now enter the 20th century's last decade our students come to us as well-educated college graduates. Our curriculums are solidly based in the biomedical sciences. Our faculties consist of many skilled educators, highly productive scientists, and outstanding clinicians. And today an ever larger proportion of our graduates go into general practice residencies and specialty training before entering practice. The goal of our dental schools is no longer to produce craftsmen prepared to operate a cottage industry but rather it is to graduate socially sensitive, scientifically grounded, clinically skilled doctors of dental medicine who, we would like to believe, are prepared to think and act as physicians of the oral cavity in service to the public.

Dental hygiene education also had its start in the first decades of this century. The first school was established by Dr. Alfred Fones at Bridgeport, Connecticut in 1913. Fones' school was followed by schools at Columbia University, the

Eastman Dental Dispensary and the Forsyth Dental Infirmary for Children in 1915 and 1916. The rationale for creating dental hygienists was two-fold. One purpose was to give dentistry an allied health worker who would emphasize prevention, an emphasis which was sorely lacking at the turn of the century. The other was to create for dentistry an allied health professional who would be the counterpart of the role that nurses were providing for medicine.

It is of interest to review some of the characteristics and objectives of these first dental hygiene schools. The 1917 annual report of The Forsyth Dental Infirmary provided the following information. Applicants must be 18 years old and graduates of accredited four year high schools. The course was of 12 months duration. The graduates were expected to be fairly familiar with the following subjects: theory of dental practice; sterilization and care of instruments; anesthetics and their administration; care of subjects before, during, and after administration of anesthetics; as well as basic knowledge of physiology, anatomy, histology, bacteriology, etc.

I remind you that this was the education of dental hygienists 75 years ago and at a time when the

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# EDUCATION

## The Case for the Alabama Dental Hygiene Program

**Zack D. Studstill\***

An address presented at the 31st Annual Conference of Dental School Deans in Orlando, FL December 12, 1989 on the issue of Preceptorship

Dental hygiene education in the United States, since the 1950's, has usually been located within a vocational school, junior college, or four year college system. For a period of time, the currently accredited model of dental hygiene education adequately supplied the hygienist manpower needs of the dental profession.

In the last few years, a serious shortage of available dental hygienists has developed in a significant number of states. Traditional methods of dental hygiene education have been unable to meet the rising need for additional dental hygienists to deliver preventive care for patients in dental offices. The problem seems to center on an inability to attract interested individuals into the dental hygiene field in adequate numbers and a very high attrition rate within a five year time frame.

A non-traditional method of dental hygiene education that offers a proven solution to this problem is the Alabama Dental Hygiene Program (ADHP). To objectively evaluate this method of dental hygiene education, one must be willing to focus on outcome rather than process and be open to innovative

change, laying aside prior prejudices.

To appreciate the evolutionary nature of the ADHP fully, it is necessary to understand its historical development. The ADHP evolved from a preceptor origin to the cur-

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**Traditional methods of dental hygiene education have been unable to meet the rising need for additional dental hygienists**

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rent educational program encompassing a dual tract of both clinical and didactic instruction. Clinical instruction is accomplished in a dentist's office under his or her direct supervision. Didactic instruction is presented by doctoral level faculty at the University of Alabama School of Dentistry through a contractual arrangement with the Board of Dental Examiners of Alabama.

This presentation provides a five part explanation of the five areas of critical concern in dental hygiene education that are addressed by the ADHP.

One: The quality issue—does the ADHP graduate a clinically

competent dental hygienist?

Two: The quantity demand—does the ADHP meet the growing need for dental hygiene services?

Three: The distribution need—do dentists in rural areas of our state have equal access to a trained dental hygienist as do their peers in urban areas?

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Clinical instruction is accomplished in a dentist's office under his or her direct supervision. Didactic instruction is presented by doctoral level faculty at the University of Alabama School of Dentistry

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Four: The attrition rate—do we realize long term retention within the dental hygiene profession in Alabama?

Five: The cost factor—can ADHP students afford the financial commitment required of them?

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explosion of knowledge in medicine and dentistry was just beginning.

The stated goals of the school at Forsyth were three-fold. Prepare dental hygienists to become teachers of oral health education in public schools and institutions. Prepare dental hygienists to deliver prophylactic treatment. Prepare dental hygienists to be dental nurses in private offices and institutions.

Forty years ago in 1948 the Council on Dental Education increased the requirements for accreditation of dental hygiene schools. Henceforth, the course was required to be two academic years in duration and every school was required to be affiliated with an institution of higher education. These changes were made not only in recognition of the rapid expansion of biomedical knowledge, which all health professionals must be acquainted with, but also in recognition of the rapid development in higher education of many different allied health professional schools serving the needs of medicine. If dentistry were to attract and train its share of bright young people for careers in its own allied health profession, it needed to keep pace.

Since that time dental hygiene education has expanded impressively. Today there are 198 dental hygiene schools enrolling nearly 9,000 students and graduating approximately 3800 students each year. Sixty eight of these schools are in universities and it is interesting to note that 36 of these 68 schools are in universities which have a dental school. Forty of the 198 dental hygiene schools now offer the possibility of a baccalau-

reate degree and 26 or 66% of these degree programs are associated with dental schools. Beginning two decades ago in response to increasing concerns for the comfort of patients as well as improving the delivery of periodontal care, dental hygiene schools began teaching the administration of anesthetics. As of 1988, administration of local anesthesia was being taught by schools in 18 enlightened states and the administration of nitrous oxide analgesia is also part of the training in 17 states.

Clearly dental education and dental hygiene education have made noteworthy progress over the past 90 years and this progress has given dentistry an enviable status in the eyes of the American people.

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**As of 1988, administration of local anesthesia was being taught by schools in 18 enlightened states and the administration of nitrous oxide analgesia is also part of the training in 17 states.**

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But it is well to remind ourselves that this progress did not occur by chance. It depended upon persons of vision and courage. It depended upon a persistent quest for ideals and excellence. It depended upon a constant struggle to win a respected place in higher education. It depended upon research. And although we may grumble about it when our turn comes, it very much depended upon the willingness of all dental educators to submit to the rigorous quality control of national accreditation. Finally, pro-

gress has also depended upon a willingness to face up to deficiencies and correct them when necessary.

The current interest of organized dentistry in preceptorship training has revealed one of our major deficiencies. We have failed to provide our dental students with a clinical experience which teaches them to value the services of allied health personnel in the way that medical education educates physicians. As soon as medical students enter the clinical situation, they quickly learn that their capability to render high quality health care efficiently depends upon their relying upon the services of a broad spectrum of graduates from accredited schools of the allied health professions who work under the general supervision of physicians. In short, the clinical training of physicians provides the philosophical stimulus which integrates the modern medical team. Thus, while there is much current concern in medicine about the need to increase the enrollment of students in schools of the allied health professions, it is not surprising to find that there is to my knowledge no agitation amongst physicians to downgrade the training of their paramedical personnel to a preceptorship mode.

The current agitation among some practicing dentists and dental societies for a return to preceptorship training of dental hygienists contrasts sharply with the situation in medicine. Why? Is this because practicing dentists believe there is so little content to the practice of dental medicine that there is no need for dentistry to have its own formally trained parodontal professional? I prefer not to believe this and prefer to believe the problem

lies in our failure to provide an environment which fosters the philosophical integration of the dental team. The 1989 AADS survey of graduating students confirms this opinion very clearly. Only 22% believed they knew how to utilize a hygienist very well, only 24% believed they knew how to utilize a laboratory technician very well, and only 19% felt the same about utilizing dental assistants. Considering these results it comes as no surprise that only 8% of graduating students believed they were well prepared to manage a practice. And for those deans of dental schools in universities which have a dental hygiene school, who may be thinking that these data do not apply to their situation, I have bad news. Eric Solomon of the American Association of Dental Schools staff analyzed the data and found there was no difference in the replies of dental students graduating from universities with or without dental hygiene schools. Furthermore, I recently surveyed the heads of dental hygiene schools associated with dental schools, asking them if they believed dental students received sufficient experience working with dental hygienists to gain a reasonably adequate appreciation for the knowledge, skills and services of dental hygienists. Of the 23 replies I received from the 36 schools, 15 said no and 8 said yes.

I remind you that these findings are not from dentistry's dim past. They are 1989 data. And they indicate we are failing today, as we have failed in the past, to recognize that the responsibility and concern of leaders of dental education should not stop with the clinical preparation of dentists, but more properly involves fostering the edu-

cation, development, and sensible integration of all participants in the dental health care delivery system of this country. The DAU and TEAM programs of the 1960's and '70's were an important move in this direction but, because of their preoccupation with the treatment of dental caries and four handed dentistry, few of these programs integrated dental hygiene services in a meaningful way. But, if the TEAM concept had flourished, it could have evolved into a comprehensive program which would have allowed dental schools to better prepare their graduates to conduct efficient practices. And with the awakened awareness of the importance of periodontal disease, the significant role that well-trained dental hygienists can and should play in periodontal care would now be emphasized to dental students.

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**A vast majority of dental practitioners know very little about the educational preparation of dental hygienists.**

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The failure of TEAM programs to reach their full potential must therefore be viewed as a serious setback for dental education. Hopefully the increasing numbers of general dentistry training programs will enable us to overcome this setback and allow us to make the educational experience of dental students more comparable to that of physicians in respect to their learning to appreciate the value of relying upon the services of paraprofessionals.

But that is looking to the future and we must deal with the realities of the present. These are formidable. At the top of the list I would put the fact that a vast majority of dental practitioners know very little about the educational preparation of dental hygienists. This ignorance leads to widespread lack of

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**A large majority of older dentists were educated in an era which did not emphasize periodontology and prevention.**

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appreciation for the value of dental hygiene services as well as widespread under utilization of the services which dental hygienists are educated to perform. Second on the list is, as we have already noted, the fact that few dentists were trained to utilize dental hygienists effectively while they were in dental school. Third, would be the fact that a large majority of older dentists were educated in an era which did not emphasize periodontology and prevention as important cornerstones of dental practice. These, of course, are the very areas where dental hygienists render their most valuable services. By virtue of their seniority these older practitioners control the attitudes of dental licensing boards and organized dentistry. And since fear is very often the consequence of ignorance, fear of dental hygienists has unfortunately dominated much of the action of these bodies. The inflammatory article by Dr. Dale Redig in the California Dental Association Journal entitled, "Which Side Of This

War Are You On?" is one exaggerated expression of this fear (1). A more recent example is the presentation by the American Dental Association of the 1989 Golden Apple Award to the Massachusetts Dental Society for its successful lobbying activity which frustrated an effort by the Forsyth Dental Center to introduce the principle of academic freedom into the only licensing act in Massachusetts where it does not exist.

By virtue of their seniority these older practitioners control the attitudes of dental licensing boards and organized dentistry. And since fear is very often the consequence of ignorance, fear of dental hygienists has unfortunately dominated much of the action of these bodies.

These are the realities and they do much to explain why several state dental societies are flirting with the idea of preceptorship training of dental hygienists, why Florida has moved to offer licensure to the sublevel auxiliaries produced in Alabama, and why Alabama dentists think they have been producing fully qualified dental hygienists when they have not. But understanding why people are acting in a certain way does not provide justification for their activities. This will become apparent as I now turn to a specific analysis of the Alabama program.

The proponents of the Alabama program would have us believe that

the education it provides is comparable to that given by accredited dental hygiene programs. They base their claim upon the comparable performance of their trainees with that of graduates from accredited programs on examinations conducted by the Alabama Board of Dental Examiners. A comparison of the educational experience of the two programs leads one to wonder about the content of those examinations. In Figure 1 the hours of instruction given during the two weeks of full-time formal education in the Alabama program are contrasted with those contained in an accredited school. The superficiality of the knowledge imparted by the Alabama program is obvious. Figure 2 presents the hours of college level course work which are contained in a typical accredited two year course but omitted from the Alabama program. By no stretch of the imagination should the Alabama program be considered adequate preparation for a dental hygienist or any other allied health professional in 1989.

In the Alabama program the clinical training is provided by a single instructor, who is any licensed den-

tist who applied for permission to become a preceptor. Since we have already seen that dentists' knowledge of the qualifications of dental hygienists is limited, it is a foregone conclusion that the quality and breadth of education provided by various Alabama dentists will be highly variable. In contrast accredited dental hygiene programs provide over 1,000 hours of clinical training under the supervision of several dentists and dental hygiene educators who are very much aware of the educational guidelines and objectives to be met if the program is to maintain its accredited status. Within this structured system, students must achieve proficiency treating a variety of patients exhibiting various levels of oral disease and learn to provide preventive services and oral health education to people of all ages. Hence, an important public benefit of formal accredited programs is that they produce a graduate who meets a national standard of competence.

But the most telling argument for formal education of dental hygienists is that it prepares them both intellectually and clinically to deal safely and effectively with patients

**Figure 1. Comparison of Hours of Formal Courses**

	ADHP	Accredited Model		Total
		Lecture	Lab	
Anatomy and Physiology	13	88	66	154
Microbiology	8	40	40	80
Oral Pathology	8	34	—	34
Radiology	12.5	27	30	57
Preventive Dentistry	12.5	36	6	42

**Figure 2. Formal Courses  
Absent from ADHP (hours)**

Chemistry 144,  
Head and Neck Anatomy 33,  
Histology 22, Periodontology 42,  
Nutrition 28, Public Health 40,  
Pharmacology 48, Pathology 10,  
Dental Materials 42,  
Law and Ethics 20,  
Sociology 44, Psychology 44,  
English 88

who may be suffering from lethal viral infections. Earlier I referred to dentistry at the beginning of the 20th century as a cottage industry. The cottage appellation is not a derogatory term because it has enabled dentistry to distribute its services widely to the public rather than concentrating them in major institutions. But at the end of the 20th century the presence of AIDS and hepatitis has changed our cottages into cottage outpatient clinics where rigorous control of infection and the handling of infectious wastes are the order of the day. The performance of dental hygiene services places dental hygienists at the forefront of exposure to AIDS and hepatitis. Therefore, for the safety of the public, the dentists who employ them, and for the dental hygienists themselves, hygienists need to be rigorously prepared both intellectually and clinically to understand and deal with infection control. This preparation cannot and should not be left to the inconsistencies of preceptorship training nor should dentists wish to assume the serious responsibilities which arise when untrained individuals

are introduced into the clinical situation.

While I do not pretend to understand the cultural and socioeconomic circumstances which have given rise to the concept of preceptorship training in Alabama, I do know that our indifference to their application of the term dental hygienist to their preceptorship trained auxiliary has been a grievous mistake. The products of their system are no more fully qualified dental hygienists than the several hundred expanded duty auxiliaries in the Province of Saskatchewan are doctors of dental medicine. The term dental aide would be more appropriate for this minimally educated, informally trained Alabama auxiliary. By turning a blind eye to this erroneous use of the title of dental hygienist in Alabama, we have encouraged the implantation of a virus in the computer of dentistry which, if not neutralized, can destroy the existing system of accredited dental hygiene education.

One has only to note the presence of only one small accredited dental hygiene program in Alabama to understand that coexistence of preceptorship training and formal education is incompatible. It is true that education of health personnel often starts in third world countries by the preceptorship mode. But even there authorities consider it only a stopgap measure to be replaced by formal educational programs as soon as possible. I do not believe that Alabama can properly consider itself part of the third world and for this reason Alabama dentistry should not represent its inferior program as an enlightened example of dental hygiene education.

There are also some legal ques-

tions to be addressed in respect to preceptorship training of health professionals. Most certainly, as part of the informed consent procedure, the patient must be informed that the person performing the service is a preceptee. Furthermore, even when the patient is so informed, if the trainee screws up, the dentist is liable. Certainly the preceptee must carry malpractice insurance as do students in accredited schools. And certainly dentists who are preceptors should notify their insurance carrier that they are acting as preceptors and have this function covered in a waiver added to their malpractice policies. Since a favorite pastime of insurance companies is to find excuses to increase premiums, any spread of preceptorship training will most likely increase insurance costs. Currently, as you well know, the malpractice insurance for dental hygienists who are graduates of accredited schools is extremely low. It is a benefit to the public that they remain so. It is doubtful that this will be the case, however, if companies become aware that their policies are covering individuals trained not only in nationally accredited schools but also by preceptorship.

One clue to the minimal level of education provided by the Alabama program is that the dental practice act in Alabama still requires dental hygienists to work under the direct supervision of dentists. This restriction is counterproductive to cost-effective delivery of dental hygiene services. General supervision of dental hygienists has been in effect in Massachusetts since the Forsyth school started in 1916. This policy has enabled well educated and well trained dental hygienists

to continue to deliver their services to patients when their dentist employers are not in their offices.

I recently surveyed 654 alumni of our school still living in Massachusetts to find out their experience with general supervision. In Figure 3 their experience in 1,837 prac-

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One clue to the minimal level of education provided by the Alabama program is that the dental practice act in Alabama still requires dental hygienists to work under the direct supervision of dentists.

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tices is summarized. It can be seen that the majority of dentists find the general supervision policy useful. And contrary to the opinion of many dentists, it is interesting to note that the existence of general supervision of dental hygienists in Massachusetts for 74 years has not

stimulated any agitation for independent practice by the hygienists in our state.

It would be a great oversight not to mention another important feature of the present accredited model of dental hygiene education not covered by preceptorship training, although it does introduce a controversial subject. Accredited dental hygiene schools must belong to a college or university or be affiliated with one. As such they are

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The existence of general supervision of dental hygienists in Massachusetts for 74 years has not stimulated any agitation for independent practice by the hygienists in our state.

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subject to all national laws which guarantee access to applicants regardless of the applicants religion, sex, sexual preference, country of

origin or race. I am unaware of any laws which would guarantee that the civil rights of applicants for preceptorship training are similarly protected. Admittedly the record of all dental schools and dental hygiene schools is nothing to be proud of in respect to the proportion of minorities in our state which we enroll but at least

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Accredited dental hygiene schools must belong to a college or university or be affiliated with one.

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there are legal guns at our backs prodding us to do better. Under preceptorship training, where the acceptance of a preceptee depends upon the whim of an individual, there is far less chance that civil rights will be protected.

The advocates of the Alabama program state that another advantage of their program is that it saves the taxpayer money by eliminating the necessity for states to support the operation of expensive dental hygiene schools. Like many of you, I am head of an institution which operates an accredited dental hygiene school, and I believe we can all agree that it costs a great deal of money to properly educate and train a dental hygienist. However, this fact does not mean that the money must come from the taxpayers' pocket. There is a model unique to our capitalistic private sector oriented society which provides an alternative. This model is a private dental hygiene school. It works, because the oldest continu-

**Figure 3. Influence of Practice Setting on General Supervision  
(All respondents combined)**

Working Under General Supervision	General Practice		Specialty Practice		Institutional
	Solo	Group	Solo	Group	
Never	20%	28%	32%	40%	20%
Few times a year	37%	32%	23%	25%	11%
Few times a month	20%	17%	17%	20%	—
Few times a week	13%	13%	19%	13%	15%
Few times a day	10%	10%	9%	2%	54%
# Practices	1136	260	190	80	171

ously operating dental hygiene school in the world is a private school. It is called The Forsyth School for Dental Hygienists and has graduated over 4,000 hygienists since 1916. True, we use income from our endowment to help operate it. True, our students take out loans to help pay their tuition bills. But it is also true that our students cost the taxpayers nothing in the Commonwealth of Massachusetts. I strongly recommend that the dentists in Alabama consider this uniquely American approach to higher education as an alternative to what they are doing.

We now come to what is probably the main reason we are discussing this subject at this late date in dentistry's history. I am referring, of course, to the shortage of dental hygienists. One of the reasons contributing to their scarcity we cannot do much about; namely, the decline in the number of young people in our population. If we are to compete for a fair share of bright young people from this shrinking population, we must do everything we can to enhance the attractiveness of careers in the profession of dental hygiene. It is very much in the public interest for us to do so. Presenting the image of preceptorship training as a viable alternative pathway to becoming a dental hygienist is not the way to increase the number of dental hygienists. It detracts from the attractiveness of careers in dental hygiene. It undermines the existing national system of accredited dental hygiene education. And not so incidentally, it diminishes the stature of dentistry. Cessation of organized dentistry's war on dental hygienists and cessation of surreptitious oppression of

dental hygienists combined with enthusiastic support for recruitment programs related to dental hygiene is a far better approach to resolving the shortage. We face a difficult time before the recruitment picture begins to improve not only for dental hygiene but for all of the health professions. But this is no reason to jeopardize the progress that the dental profession has made over the past 75 years. High purpose and expediency seldom go hand in hand and this is most certainly one of the times when they do not.

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**Oral health needs of the American public will be better met by a new ratio of dental health professionals, wherein professionally trained dental hygienists will substantially outnumber dentists.**

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One of the difficult challenges facing educators in all professional disciplines is to take knowledge currently in hand and from this to anticipate the kinds and numbers of professionals which will be needed 10 to 20 years in the future. The dramatic decline in the prevalence of dental caries, the signs that periodontal disease will soon follow suit, and the disappearance of my generation of dental cripples suggests that the oral health needs of the American public will be better met by a new ratio of dental health professionals, wherein professionally trained dental hygien-

ists will substantially outnumber dentists. This kind of ratio of health professionals already exists in medicine so there is nothing radical about the change. However, the implications of the change are clear; namely, that it is in the public interest that the existing model of accredited dental hygiene education not only be preserved but that its capacity should be expanded.

Every once in a while, circumstances arise which seriously test the mettle of each generation of leaders. Ladies and gentlemen, I believe I have clearly described the many reasons why we, who are the current leaders of dental education, must view the issue of preceptorship training as such a test. Our response to this test will have a profound effect on the future direction and quality of oral health care in this country. I hope we have the resolve to pass this test with flying colors and will stand firm in defense of the accredited model of dental hygiene education. As an expression of that resolve, I hope this Council of Deans will adopt a strong resolution stating it is our belief that, in the public interest, the title of dental hygienist should only be applied to graduates of nationally accredited dental hygiene schools. Δ

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*Continued from page 15*

### The Quality Issue

From the 1920's through the 1940's, preceptor training was the predominant method for training dental hygienists in Alabama and most of the nation. However, there continued to be indications that dentistry in this state recognized that the preceptor concept was seriously flawed. All states, including Alabama, abandoned preceptorship at approximately the same time. All states, except Alabama, replaced preceptorship with either a two, three, or four year traditional educational program, usually located in an existing institution. Alabama established a non-traditional dental hygiene school, administered by the elected Board of Dental Examiners and not physically located solely within the confines of an educational institution.

During the 1950's, several important changes occurred in Alabama, and the nation, that in retrospect can be seen to have been essential to the creation of the Alabama Dental Hygiene Program. Among these changes were the creation of the first formal dental hygiene school at the University of Alabama School of Dentistry, the beginning of the statewide junior college system, and the realization by the dental profession that preventive dentistry had to become a priority in the treatment of our patients.

Initially it was thought that concerns over the quality of the preceptor concept would be addressed by educating all dental hygienists in a traditional program located in the School of Dentistry or in the new

junior college system. However, an intriguing bit of information began to emerge from records maintained by the Alabama Board of Dental Examiners. It was observed that the preceptor trained hygienists were performing on a higher level on the clinical examination for licensure than did the college trained hygienists.

Studies in Alabama and other states confirmed that college trained hygienists tended to congregate in urban areas after graduation and had a higher attrition rate out of dental hygiene than did preceptor trained hygienists. Information from other states concerning the cost of traditional dental hygiene education indicated sufficient public funding to educate the quantity of qualified dental hygienists needed by the people of our state did not exist.

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All of these factors—quality, quantity, costs, distribution within the state, and a commitment to preventive dentistry for our patients stimulated those in leadership positions in the Alabama Dental Association and the Board of Dental Examiners to consider non-traditional programs for educating dental hygienists. Eventually the

question was broached, "is it academically and fiscally possible to design a non-traditional dental hygiene school that has the advantages of both the college and preceptor programs without the disadvantages of either?" The Alabama Dental Hygiene Program was established one decision at a time,

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**College trained hygienists tended to congregate in urban areas after graduation and had a higher attrition rate out of dental hygiene than did preceptor trained hygienists**

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one step at a time over a period of ten years. It was an evolutionary process wherein many variables that affect quality, quantity, costs, attrition rates and distribution were agonized over, experimented with, altered, and finally included or eliminated.

This process culminated in 1959 when a new Dental Practice Act was enacted. This law required candidates for licensure as dental hygienists to be a graduate of an accredited college program or a graduate of the Alabama Dental Hygiene Program, administered by the Board of Dental Examiners of Alabama. By 1960, preceptorship no longer existed as an optional route to licensure for dental hygienists in Alabama.

There were several unique features of dental hygiene education incorporated into the Alabama Dental Hygiene Program in its for-

mative years that are still present today. For example, the ADHP has never sought nor received any local, state, or federal funds or subsidies. All funds to educate students in this school come from individual tuition fees paid by sponsoring dentists and ADHP students.

Secondly, the ADHP is not accredited by the accrediting agency of the American Dental Association. In the beginning, this was of deep concern to the founders of the ADHP. It was probably the most serious "disadvantage" to justify. In retrospect, it has become clear that the absence of accreditation has been an important factor in the success of the ADHP. The absence of that restraint permitted the flexibility to make decisions that controlled the variables of quality, quantity, costs, attrition rate, and distribution. That essential flexibility would have been impossible

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**All funds to educate students in this school come from individual tuition fees paid by sponsoring dentists and ADHP students.**

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working through accreditation standards.

The ADHP is designed to educate and train clinically competent dental hygienists. Prospective students must be at least 18 years old, a high school graduate or G.E.D. equivalent, and have been a chairside dental assistant for at least one year. The instruction received by

students is divided into both clinical and didactic segments.

Clinical training, conducted in the dental office of the sponsoring dentist, is based on a series of task-oriented modules. Each module serves as a building block on which other modules are placed. For example, the first module has among other tasks the utilization of intraoral finger rests. The last module, at the other end of the spectrum, is concerned with attaining clinical competency in root planning and curettage.

It takes a typical student one year to finish all nine modules. The dentist/instructor is responsible for teaching the student each module on a one to one basis. A competency check-off form signed by both dentist and student is sent to the Board of Dental Examiners after the student's successful completion of a module. Students typically begin their training with rubber cup prophylaxes on children. Progression to hand instrumentation follows as the student's confidence and skill level grows. One must keep in mind that ADHP students have served at least one year as a chairside dental assistant and therefore possess some skills related to working intraorally as a result of legally allowable dental assistant duties.

Without question, the educational objectives of the ADHP are weighted heavily in a clinical direction. A Board of Dental Examiners survey of the 1989 ADHP class revealed that students worked as student hygienists on six patients a day. Therefore, it would not be unusual for an ADHP graduate to have performed 750-1000 prophylaxes

during her year as a student dental hygienist, assuming 200 working days in a year.

The Board of Dental Examiners and the Alabama Dental Association are very sensitive to the quality issue of ADHP graduates. The Board is in the fifth year of a ten year study in which clinical and written licensure examination scores of ADHP graduates are compared with scores of graduates of

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accredited dental hygiene schools. Through 1989, the average scores on both clinical and written examinations for both groups was not significantly different. The Board conducts its examinations using double blind techniques and thus avoids distortion of the data by knowledge of the identity or educational background of candidates.

The didactic portion of the ADHP is conducted on the campus of the University of Alabama School of Dentistry in Birmingham. The Board of Dental Examiners has negotiated a contract with the School of Dentistry to supply certain services to the ADHP. Terms of the contract call for a designated faculty member from the Dental School to be responsible for development of objectives, curriculum, and content of didactic material.

This individual also selects and assigns qualified individuals for formal course work.

Currently, the ADHP faculty consists of five doctoral level faculty members from the School of Dentistry and one bachelor's level dental hygiene educator. It should be made clear that the ADHP is not a program of the University of Alabama School of Dentistry. The School of Dentistry has its own baccalaureate degree dental hygiene program which has been in operation for many years.

Didactic instruction for ADHP students is conducted at the School of Dentistry utilizing a series of scheduled week-long and week-end sessions. The Board of Examiners is committed to maintaining the didactic hours at approximately 160-180 lecture hours. Students are tested periodically on the lecture material, and are required to complete the entire didactic portion with at least a 70 average.

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**Didactic instruction for ADHP students is conducted at the School of Dentistry utilizing a series of scheduled week-long and week-end sessions**

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Didactic curriculum includes but is not limited to the following subjects: anatomy, physiology, radiology, office emergency care, periodontal instrumentation, physiology of the periodontium, preven-

tive dentistry, classification and epidemiology of periodontal disease, phases of periodontal therapy, gingivitis, therapy for the dental hygienists for control of gingivitis, clinical asepsis, periodontitis, oral pathology, periodontal disease (local and systemic factors), periodontal charting, therapy for the dental hygienist in periodontal disease, root planing and curettage, CPR certification, degenerative and dystrophic periodontal condition, childhood and juvenile periodontal disease, occlusal trauma, periodontal dressings and suture removal, ethics, and the Alabama Dental Practice Act. Absences are not acceptable and result in dismissal from the program with the sole exception of death in the student's immediate family.

### **The Quantity Demand**

This concentrated academic workload combined with the normal pressures of working full-time in a dental office make this year in the ADHP anything but a year of ease. The ADHP class averages 150 students each year. There is about a 20% dropout rate leaving a graduation class of approximately 130 students each year. Any licensed dentist in the state may sponsor a dental assistant in the ADHP if they meet admission requirements.

Obviously, dentists without need of a dental hygienist will not have a student participating. In other words, supply of new hygienists equals demand. Each successful graduate of the ADHP who passes the hygiene licensure examination is, in a practical sense, assured of a job. The sponsoring dentist has

worked with the individual as a dental assistant and student hygienist and, thus, has every reason to desire a continued association.

### **The Distribution Need**

Dentists in rural areas of the state, far removed from universities or junior colleges, have the same opportunity to have a competent clinical hygienist for preventive care for their patients as do their peers in the larger cities.

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**Each successful graduate of the ADHP who passes the hygiene licensure examination is, in a practical sense, assured of a job.**

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In summary, any licensed dentist in Alabama may elect to enroll a student into the ADHP. Dentists in small towns have equal access to the program with their colleagues in large cities. Distribution and quantity of ADHP hygienists are determined by the need for a dental hygienist by dentists who have job openings.

### **The Attrition Rate**

The question may be asked in fairness, "if you have sufficient numbers of dental hygienists who are distributed as needed in your state this year, what assurance do you have for this same good fortune next year?" The best answer lies in information compiled by the

Board of Examiners on each year's class.

A profile of the average student is as follows: 27 years old; completed one or more years of college; is married with children; has had

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**Dentists in rural areas of the state, far removed from universities or junior colleges, have the same opportunity to have a competent clinical hygienist for preventive care for their patients as do their peers in the larger cities.**

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more than the required minimum of one year as a dental assistant (30% have been a dental assistant for more than five years); works in an office with one or more dental hygienists; and is paid a regular salary while attending classes. The ADHP student just described to you is an older, more mature individual than one might expect to find in traditional dental hygiene schools. The student has worked in a dental office for at least one year and has made a career decision based on her own experience and observation, rather than relying on the recommendation of a guidance counselor. Prior dental office experience translates directly into realistic work-place expectations for the ADHP hygienist. Consequently, one might expect the attrition rate after five years of ADHP graduates out of dental hygiene to be somewhat lower than the 50%-80% fig-

ure for some surrounding states with traditional programs. The attrition rate for ADHP hygienists after five years is about 20%, according to Board of Examiners registration figures.

### The Cost Factor

We have addressed the issues of quality, quantity, distribution, and rate of attrition as regards the ADHP. Let us consider a final variable—cost. Everyone is aware of the spiraling costs of all levels of education.

The ADHP operates without local, state, or federal funding or subsidies and is entirely self-supporting. The tuition fee per student paid to the Board of Examiners is \$205. Beyond this, the student and the sponsoring dentist have additional costs for textbooks, notebooks, meals and lodging in Birmingham during ADHP sessions, and for travel expenses. Total cost per student should not exceed \$2,000. It is significant to recall that the ADHP student is a full time employee of a dental office and as such is being paid a regular salary during the training and instructional process. Frankly, most ADHP students could not attend a traditional dental hygiene school because of their family situations and other responsibilities.

Quality, quantity, attrition rate, distribution and cost—the ADHP has an answer for the issues that concern anyone involved even peripherally in dental hygiene education today. The ADHP is an alternative, non-traditional method of educating and training dental hygienists. It represents an opportu-

nity for a move upward on the career ladder for a non-traditional student who would otherwise be unable to make such a move.

The ADHP evolved historically because of local conditions within a relatively poor, rural, southern state with no established two year junior college system. To the surprise of those who do not understand it, and in spite of its detractors, the ADHP graduates a clinically competent dental hygienist. The curriculum is composed of both didactic and clinical disciplines with an admitted and desired emphasis on clinical competency.

Dental hygienists who graduate from the ADHP and pass the licensure examination have an assured job waiting for them. The ADHP is self-supporting fiscally and, thus, clinical dental hygiene education in Alabama is accomplished without dilution of education dollars allocated for dental school education at the University of Alabama School of Dentistry.

This narrative has taken you on a journey of approximately thirty years in the historical development of the ADHP. Its purpose has been to give you some background on why Alabama chose this route to educate dental hygienists. We have also identified the variables of quality, quantity, cost, attrition rate, and distribution as being of great importance in the education of dental hygienists in Alabama. Δ

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# CHANGES IN DENTAL PRACTICE

H. Barry Waldman\*

Since 1984, the American Dental Association (ADA) Surveys of Dental Practice have provided an expanded presentation on the economics and evolving configuration of dental practice. Comparison of the information from the 1984 Survey with that from the recently published 1988 Survey (covering the years 1983 and 1987, respectively) permits a detailed review of dentistry since the economic recession during the late 1970s and early 1980s.\*

The Surveys provide a seemingly endless array of valuable information on developments in the delivery of dental services. For purposes of this presentation, attention will be directed to a comparison of solo and nonsolo general and specialist\*\* practitioner 1) gross and net incomes, 2) general expenses and payment mechanisms, 3) working and employment arrangements, 4) patient visits, 5) practitioner work

A review of the 1984 and 1988 ADA Surveys of Dental Practice indicates that the practice of dentistry in the second half of the 1980's is both changing and economically sound.

habits and 6) some general information about dentists and patients.

It should be noted that while solo dental practice continues to be the predominant modality for the dental services, there has been a continuing decrease in the percent of dentists that work in solo practice arrangements; e.g. from 73.6 percent in 1983 to 69.8 percent in 1987.

## Economics

### Gross receipts

Between 1983 and 1987, the mean current and constant dollar (i.e. removing the effects of inflation) gross income of solo and nonsolo generalists and specialists increased. Decreases in total practice constant dollar gross receipts for nonsolo practice arrangements, to some extent, were a reflection of the decreases in the number of generalists and specialists per practice arrangement. During the period, solo dentists reported increases in mean current and constant dollar gross income per hour and per visit. (Tables I and II)

### Expenses

Current and constant dollar practice expenses increased for practitioners during the years un-

der review. By 1987, practice expenses represented two thirds or more of total gross income for solo practitioners—an increase from approximately 60 percent in 1983. The ratio of nonsolo practice expenses to gross income increased at an even faster rate than that of solo practitioners. By 1987, expenses represented more than 72 percent of gross income—an increase from 59 percent for generalists and 53 percent for specialists.

For solo practitioners, the share of expenses represented by wages increased to 41 percent for generalists and 56 percent for specialists. Nonsolo general practitioners reported that wages continued to represent about one third of total expenses. However, for nonsolo specialists, the wage share of expenses decreased from approximately two thirds to one quarter. (Tables III and IV)

### Net income

Increases in the expense share of gross income resulted in decreases in net income as a percent of gross income. By 1987, reported solo practitioner net income represented approximately one third of gross receipts; less than 30 percent of nonsolo practitioner gross receipts. Nevertheless, as a result of the continued increases in gross income, between 1983 and 1987, solo and nonsolo generalists and specialists reported increases current and constant dollar net income. (Table V)

### Payment mechanisms

Direct patient payment for services continues to represent a smaller share of solo and nonsolo

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\*Unless otherwise noted, all data for this presentation were drawn from the 1984 and 1988 ADA Surveys of Dental Practice.<sup>1</sup>

\*\*Because of limited specialist response rates to Survey questionnaires, the ADA reports no longer present information by individual specialties. Data are now provided in a single composite "all specialist" category. It should be noted that despite the ADA's use of a stratified random sampling procedure in the Survey, the limited number of responses in some respondent categories could affect adversely the representativeness of the data.

**Table I. Solo Dentists—Gross income: 1983, 1987<sup>1,2</sup>**

	General Practitioners			
	Current Dollars		Constant Dollars	
	1983	1987	1983	1987
Total practice gross income	\$149,049	\$194,242	\$49,949	\$57,062
Gross income per hour	\$78.70	\$108.11	\$26.37	\$31.75
Gross income per visit	64.70	79.63	21.68	23.39
	Specialists			
	Current Dollars		Constant Dollars	
	1983	1987	1983	1987
Total practice gross income	\$210,505	\$293,631	\$70,544	\$86,260
Gross income per hour	\$111.89	\$171.50	\$37.50	\$50.38
Gross income per visit	68.78	91.33	23.05	26.83

general practice gross receipts (45 percent in 1987). However, between 1983 and 1987, direct payment by patients for services by

solo and nonsolo specialists increased to 60 percent and 57 percent, respectively.

Federal, state and local govern-

ment share of payments essentially remained constant, at approximately five percent or less.

In 1987, private dental insurance's share of payments reached almost 50 percent for solo generalists; decreased to approximately one third for solo specialists. Private insurance payments represented 47 percent and 42 percent, respectively, of nonsolo generalist and specialist practice receipts. (Table VI)

#### Patient visits

In 1983 and 1987, solo and nonsolo general practitioners both reported approximately 57 patient visits per week. In 1987, solo specialists reported 97 patient visits per week. Between 1983 and 1987, nonsolo specialists reported an increase from 82 to 102 patients visits per week. (Table VII)

#### Working arrangements

##### *Practice arrangements*

There were marginal changes in dentist practice arrangements during the intervening period. (Note: in 1987 the Survey included the category "independent contractor" which to some extent may have contributed to these variations.) In regard to nonsolo practice arrangements, in 1987, 27 percent of generalists and 13 percent of specialists were in sole proprietorship arrangements. In the same year, 28 percent of general practitioners and 55 percent of nonspecialists were involved in shareholder corporations. (In 1983, 65 percent of nonsolo specialists were in shareholder corporations.)

Over 11 percent of nonsolo generalists and 4.4 percent of nonsolo specialists were employed in various incorporated and unincorporated practices. (Table VIII)

**Table II. Nonsolo Dentists—Gross income: 1983, 1987<sup>1,2</sup>**

	General Practitioners			
	Current Dollars		Constant Dollars	
	1983	1987	1983	1987
Total practice gross income	\$335,815	\$381,695	\$112,538	\$112,131
Number of dentists	2.7	2.6	2.7	2.6
Gross income per visit	123,931	149,234	41,531	43,840
	Specialists			
	Current Dollars		Constant Dollars	
	1983	1987	1983	1987
Total practice gross income	\$542,647	\$610,552	\$181,852	\$179,363
Number of dentists	2.8	2.5	2.8	2.5
Gross income per dentists	193,214	240,641	64,750	70,693

**Table III. Solo Dentists—Expenses: 1983–1987<sup>1,2</sup>**

	General Practitioners		Specialists	
	1983	1987	1983	1987
Total practice expenses				
Current dollars	\$90,477	\$133,009	\$123,885	\$194,498
Constant dollars	\$30,320	\$39,074	\$41,516	\$57,138
Expenses as a percent of gross income	60.7%	68.5%	58.9%	66.2%
Wages as a percent of total expenses	30.6%	41.6%	36.4%	56.4%
Laboratory charges as a percent of expenses	21.4%	19.0%	4.9%	3.1%
Dental supplies as a percent of expenses	11.4%	12.0%	15.1%	15.7%

**Table IV. Nonsolo Dentists—Expenses: 1983–1987<sup>1,2</sup>**

	General Practitioners		Specialists	
	1983	1987	1983	1987
Total practice expenses per practice				
Current dollars	\$199,250	\$279,050	\$289,576	\$441,607
Constant dollars	66,772	81,977	98,042	129,731
Expenses per dentist				
Current dollars	77,988	108,212	110,419	183,804
Constant dollars	26,135	31,789	37,003	53,996
Expenses as a percent of gross income	59.3%	73.1%	53.4%	72.3%
Wages as a percent of total expenses	34.5%	67.9%	36.8%	24.3%
Laboratory charges as a percent of expenses	18.5%	16.7%	3.8%	3.7%
Dental supplies as a percent of expenses	10.3%	17.3%	12.1%	8.6%

Between 1983 and 1987, except for a decrease in the average age of female solo specialists, there were minimal changes in the average age of practitioners in the various practice arrangements. (Note: errors in the 1987 median age data presentation precludes comparisons with 1983 data.) In 1987, except for female solo specialists, nonsolo male and female practitioners were younger than their solo practitioner counterparts. (Table IX)

#### *Employees*

In 1987, approximately five percent of solo generalist and one percent of solo specialists employed no auxiliaries. Virtually all nonsolo dentists employed some auxiliaries. While 46 percent of solo generalists had four or more employees, 58 percent of solo specialists had four or more employees. Between 85 and 90 percent of nonsolo dentists had four or more employees.

Solo and nonsolo general practitioners increasingly are employing dental hygienists and dental assistants. While 22 percent of solo specialists and one third of nonsolo specialists employ dental hygienists, 92 percent and 98 percent, respectively, employ assistants. (Table X)

#### *Weeks and hours in practice*

In 1987, solo and nonsolo dentists spent between 47 and 48 weeks per year in practice. All practitioners reported spending fewer hours per week in the office in 1987 (between 37 and 38 hours) than they did in 1983 (approximately 42 hours). And all practitioners reported spending slightly more time per week treating patients in 1987 than they did in 1983. (Table XI)

#### *Patients*

Between 1983 and 1987, most solo and nonsolo general practitio-

**Table V. Solo Dentists & Nonsolo Dentists—Net income: 1983, 1987<sup>1,2</sup>**

	Solo Dentists			
	General Practitioners		Specialists	
	1983	1987	1983	1987
Current dollars	\$55,142	\$69,372	\$83,037	\$114,202
Constant dollars	\$18,479	\$20,379	27,827	33,549
	Nonsolo Dentists			
	General Practitioners		Specialists	
	1983	1987	1983	1987
Current dollars	\$59,539	\$76,957	\$100,680	\$142,371
Constant dollars	\$19,952	\$22,607	\$33,739	\$41,824

**Table VI. Solo Dentists & Nonsolo Dentists—Payment mechanisms: 1983, 1987<sup>1</sup>**

	Solo Dentists			
	General Practitioners		Specialists	
	1983	1987	1983	1987
Direct	49.3%	45.3%	58.5%	60.7%
Government	4.7	4.5	4.1	4.0
Private Insurance	45.6	49.6	37.0	34.7
	Nonsolo Dentists			
	General Practitioners		Specialists	
	1983	1987	1983	1987
Direct	46.5%	45.5%	50.8%	57.3%
Government	5.3	5.2	5.7	3.4
Private Insurance	47.3	47.6	42.5	42.2

**Table VII. Solo Dentists & Nonsolo Dentists—Patient visits per week\*: 1983, 1987<sup>1</sup>**

	General Practitioners		Specialists	
	1983	1987	1983	1987
	1983	1987	1983	1987
Solo dentists	56.2	57.2	93.3	96.8
Nonsolo dentists	57.4	57.6	82.3	102.7

\* Not including dental hygienist visits

ners and specialists reported an increasing share of services provided to patients who, 1) were 65 years of age and older, 2) had incomes of \$30,000 or more, and 3) had private dental insurance. (Tables XII and XIII)

### Overall changes

A recent report by Beazoglou et al.<sup>3</sup>, on comparisons of ADA Survey results from the 1970s through 1984, federal expenditure reports through 1985 and related data, indicated continuing improvements in the economics of dentistry.

"The evidence suggests that dentistry is doing better now than in the past, and the future looks brighter." (3)

The current review, which emphasized the period since the last recession, continues this favorable perception. Despite dramatic changes in dentistry, including "... a declining caries incidence, an increase in the number of dentists, greater competition for patients, and the spread of retail dentistry and alternative plans for financing and delivering dental services,"<sup>3</sup> solo and nonsolo general practitioners and specialists report a continuing improvement in the economics of practice.

But as ADA Survey results indicate, the practice of dentistry is undergoing dramatic changes—most notably in 1) the increasing size of practices, 2) the generation of much larger gross receipts to ensure the continued increases in net income, 3) the attraction of younger dentists to nonsolo practice modalities, 4) the increasing impact private insurance, and 5) the increasing significance of dental services for older patients.

Single year to year changes in the economics of dental practice may indicate that "income figures (are

'bouncing around.'"<sup>4</sup> And it may be distressing to dentists in regions of the country that are having economic difficulties, that their colleagues in other regions are enjoying high earnings and full employment.<sup>3</sup> Nevertheless, the results from the ADA Surveys continue to indicate that the practice of dentistry in the second half of the 1980s is both changing and economically sound. △

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4. GPs keeping up with inflation. ADA NEWS, July 3, 1989.

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**Table VIII. Nonsolo Dentists—Practice arrangement: 1983, 1987<sup>1</sup>**

	General Practitioners		Specialists	
	1983	1987	1983	1987
Sole proprietor	28.2%	27.1%	10.3%	13.1%
Partner	22.7	24.7	20.0	23.1
Shareholder, Inc.	31.2	28.5	65.4	55.0
Nonshareholder, Inc.	10.9	8.0	4.3	3.8
Nonshareholder, Uninc.	6.9	3.5	0.0	0.6
Independent contractor	*	8.2	*	4.4
Total	100.0%	100.0%	100.0%	100.0%

\* Category not included

**Table IX. Nonsolo and Solo Dentist—Age: 1983, 1987<sup>1</sup>**

	General Practitioners		Specialists	
	1983	1987	1983	1987
Male				
Solo	47.6	47.3	47.4	47.1
Nonsolo	43.9	43.8	46.4	46.5
Female				
Solo	38.8	37.0	43.3	35.2
Nonsolo	34.4	36.3	na	42.0

**Table X. Solo Dentists & Nonsolo Dentists—Employees: 1983, 1987<sup>1</sup>**

	Solo Dentists			
	General Practitioners		Specialists	
	1983	1987	1983	1987
Employees				
None	5.1%	5.3%	2.2%	1.4%
1-3	57.5	48.9	45.3	40.5
4 or more	37.4	45.8	52.5	58.1
Dental Hygienists				
1 or more	53.1	56.8	24.8	22.5
Dental Assistants				
1 or more	84.7	87.9	92.0	92.5
	Nonsolo Dentists			
Employees				
None	0.4%	0.0%	0.0%	0.7%
1-3	23.0	15.1	9.6	9.7
4 or more	76.6	84.9	90.4	89.6
Dental Hygienists				
1 or more	77.3	80.3	36.4	33.8
Dental Assistants				
1 or more	97.7	97.4	98.9	97.9

**Table XI. Solo Dentists & Nonsolo Dentists—Weeks and hours spent in practice: 1983, 1987<sup>1,2</sup>**

	Solo Dentists			
	General Practitioners		Specialists	
	1983	1987	1983	1987
Weeks per year	47.4	48.1	46.7	47.6
Hours per week in the office	42.3	37.6	41.4	37.3
Hours per week treating patients	32.8	33.7	30.8	32.6
	Nonsolo Dentists			
	General Practitioners		Specialists	
	1983	1987	1983	1987
Weeks per year	47.6	47.7	46.6	46.9
Hours per week in the office	42.0	37.5	42.1	38.4
Hours per week treating patients	32.7	33.5	32.6	33.0

**Table XII. Solo Dentists—Patients: 1983, 1987<sup>1</sup>**

	General Practitioners		Specialists	
	1983	1987	1983	1987
Age				
< 15 yrs.	17.9%	18.3%	42.3%	43.2%
15-64 yrs.	66.3	62.6	49.6	49.2
65 + yrs.	15.8	19.1	8.1	7.6
Income				
< \$10,000	10.8%	10.2%	7.5%	4.8%
\$10-\$29,999	57.3	45.5	52.3	41.1
\$30,000 +	31.9	44.3	40.1	54.1
Insurance				
Private insurance	57.1%	61.2%	57.4%	56.6%
Government payment	4.9	5.3	4.4	4.2

**Table XIII. Nonsolo Dentists—Patients: 1983, 1987<sup>1</sup>**

	General Practitioners		Specialists	
	1983	1987	1983	1987
Age				
< 15 yrs.	18.8%	18.4%	30.9%	31.8%
15-64 yrs.	65.4	63.6	58.1	55.4
65 + yrs.	15.8	18.0	11.1	12.8
Income				
< \$10,000	10.9%	9.7%	8.8%	6.8%
\$10-\$29,999	54.3	41.5	45.9	34.5
\$30,000 +	34.8	48.8	45.3	58.7
Insurance				
Private insurance	57.6%	62.2%	58.9%	63.3%
Government payment	6.3	6.0	6.1	3.4

# Campaign for the 90's

## A Progress Report By Sections



The Kentucky Section of the American College of Dentists voted to give \$300 to the "Campaign for the 90's" of the American College of Dentists Foundation. Dr. Juliann S. Bluit, Regent for Regency IV, is shown presenting this check to Dr. James A. Harrell, Sr., Chairman of the Campaign.

To date over \$600,000 has been pledged to the "CAMPAIGN FOR THE 90'S." Our goal of \$750,000 is reachable if we have "100%" participation from members of the College. Section participation is increasing and we are most happy to report that many Sections across the country are enthusiastically carrying out a "Campaign" of personal contact to each Fellow. We are excited with the number of letters coming in naming the Section Campaign Chairman. Soon you will be receiving a call or letter from this Chairman asking for your help in obtaining our goal. Please join the others by participating in this important project.

Through the success of the "CAMPAIGN FOR THE 90'S," the College will benefit from owning its own facility and will continue to uphold its standards of professionalism and ethics in dentistry well into the 21st Century.

The Steering Committee takes great pride in reporting to you, on the following pages, the latest list of contributors, by Section, to the CAMPAIGN FOR THE 90'S! The total number of Fellows who have contributed from each Section as of May 15, 1990, appears at the end of each Section listing, together with the percentage of participation from that Section.

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 Strife, Peter H., II  
 Tauber, Robert  
 Torrese, Dante M.  
 Turet, Stanley E.  
 Weinstock, Stanley M.

Yarosh, Morris  
 Yudkoff, Irving  
 54 (12.7%)

**NORTHERN CALIFORNIA**

Ambrose, James A.  
 Bewley, Ross E.  
 Bitter, Norman C.  
 Boero, Edward P.  
 Bridges, James I.  
 Campbell, James A.  
 Coleman, Russell D.  
 Cusenza, Anthony J.  
 Danzig, William N.  
 Dietz, Bernard  
 Dugoni, Arthur A.  
 Fairchild, James M.  
 Greene, John C.  
 Hanson, Kerry D.  
 Holmes, John B.  
 Hover, Richard L.  
 Jendresen, Malcolm D.  
 Kinney, Barry D.  
 Krajewski, Joseph J.  
 Lawrence, C. S.  
 Leggett, Richard H.  
 Locke, Franklin H., Jr.  
 Loveridge, Larry N.  
 Ludwigsen, Lawrence R., Jr.  
 Moser, Ernest H.  
 Nakashima, Yoshio  
 Nielsen, Harold W.  
 Pablos, Tomas C.  
 Parke, Gerald L.  
 Reuter, Walter J.  
 Rudolph, C. E., Jr.  
 Ryge, Gunnar  
 Schraft, Robert O.  
 Schulz, Joseph H.  
 Seymour, Jack G.  
 Sheets, George Rutledge  
 Shimoff, Marcus  
 Swimmer, Alan J.  
 Wallace, Donald C.  
 Wasserman, Albert  
 Yamamoto, George M.  
 Yent, Donald R.  
 Yuen, Stephen S.  
 43 (12.4%)

**OHIO**

Buchsieb, Walter C.  
 Cavalaris, C. J.  
 Claypool, James F.  
 DiSantis, Theodore A.  
 Felix, James E.  
 Frumker, Sanford C.  
 Gardner, Robert P.  
 Gould, Joseph R.  
 Hiatt, N. Wayne  
 Indresano A. Thomas  
 Kaplan, Irvin N.  
 Krouse, Charles D.  
 Lytle, James D.  
 McKinley, Theodore E.  
 Nichols, Stanbery J.  
 Parrish, Jack R.  
 Phillips, Robert N.  
 Shaffer, C. David  
 Valentine, Richard E.  
 Weiner, Irwin R.  
 Williams, Roger D.  
 Yapple, Newell H.  
 22 (14.7%)

**OKLAHOMA**

Glass, Neil M.  
 Greer, E. Vann  
 Hahn, Eitel H.  
 Hess, Robert E.  
 Johnson, Dean L.  
 Krizer, John C.  
 Lockard, Myers W., Jr.  
 Murtaugh, James N.  
 Rowan, Robert J.  
 Stratton, Russell J.  
 Torchia, James S.  
 Winder, Ronald L.  
 12 (23%)

**OREGON**

Collings, George J.  
 Cooper, Ralph G.  
 Fixott, Henry C., Jr.  
 Fixott, Rupert E.  
 Neely, Arnol R.  
 Osterlind, Thomas R.  
 Say, John N.  
 Sheridan, Robert J.  
 Terkla, Louis G.  
 Wold, Charles R.  
 10 (13.9%)

**PHILADELPHIA**

Abrams, Leonard  
 Balkin, Burton E.  
 Balshi, Thomas J.  
 Chillemi, Richard R.  
 Dougherty, Harry H.  
 Freeman, Norman C.  
 Jacobs, Donald W.  
 Kaplowitz, Bernard M.  
 Kreshtool, Louis  
 McKechnie, Alex J., Jr.  
 Saccone, Nicholas D.  
 Tronstad, Leif  
 Truono, Eugene J.  
 Ziegler, John T.  
 14 (8.7%)

**PUERTO RICO**

Donate, Domingo  
 Korchin, Leo  
 Suarez, Carlos L.  
 3 (33.3%)

**ST. LOUIS**

Gaston, Lawrence G.  
 Grana, Joseph M.  
 Haffner, Richard J.  
 Holt, Jarrell D.  
 Johnston, Lysle E., Jr.  
 Kies, Vinyard L.  
 Mastorakos, Leo W.  
 McCabe, Eugene J.  
 Parsons, Patricia A.  
 Purcell, John J.  
 Ringenberg, Quentin  
 Roller, Neal W.  
 Uelk, Joseph B.  
 13 (15.3%)

**SOUTHERN CALIFORNIA**

Arnett, G. William  
 Ashjian, Leon H.  
 Bailey, Shirley Jordan  
 Bakland, Leif K.  
 Barber, Thomas K.  
 Bens, Foster W.  
 Berry, John W.  
 Blair, Frank C., Jr.  
 Blair, Keith P.

Bongard, Donald W.  
 Casares, Ernest L.  
 Christensen, Leslie E.  
 Cowan, Edward B.  
 Deeb, Edward  
 Dummett, Clifton O.  
 Dybowski, Eugene L.  
 Furstman, Edward F.  
 Gabriel, Herbert F.  
 Galey, Virgil L.  
 Gamboa, George C.  
 Geyer, Richard J.  
 Gildone, Mario E.  
 Glover, Joel F.  
 Golec, Thomas S.  
 Grossman, Frank D.  
 Grudin, Leo  
 Hallberg, Richard W.  
 Hancock, Richard B.  
 Hendrix, William E.  
 Howell, Francis V.  
 Hubbert, Robert J.  
 Huntington, Robert E.  
 James, Robert A.  
 Kishi, Shigeo R.  
 Kopel, Hugh M.  
 Kornblau, Donald J.  
 Lehman, John P.  
 Newman, Michael G.  
 Pebley, Harry C.  
 Polachek, Richard S.  
 Potter, Dalzell J.  
 Ross, Thurston H., Jr.  
 Simms, Richard Arthur  
 Sjoren, Hans S.  
 Strimling, Stanley J.  
 Stringer, Dale E.  
 Tanner, William W.  
 Taylor, John R.  
 Turner, Myron G.  
 Tylicki, John F.  
 Vernetti, James P.  
 Wagner, Eugene P.  
 Walquist, Paul D.  
 Warner, Lawrence J.  
 Yanase, Roy T.  
 Young, Leo E.  
 Zumsteg, Jon M.  
 57 (12.9%)

**TENNESSEE**

Anderson, Frank H.  
 Armstrong, Robert K.

Bowles, Richard M.  
 Bowyer, Frank P., Jr.  
 Bush, Gerald A.  
 Caffey, Albert E., Jr.  
 Carney, Robert B.  
 Coleman, Edwin T.  
 Denney, Robert P.  
 Edington, Ernest M., Jr.  
 Fielder, Fred C.  
 Ford, Russell O.  
 Garner, Stacey A.  
 Hale, Jerre R.  
 Hewitt, Robert W.  
 Mann, N. Horace, Jr.  
 McKinney, Sewell R.  
 Miller, H. Franklin  
 Miller, Preston D., Jr.  
 Petrovsky, Maurice E.  
 Pryse, Thomas D.  
 Reynolds, Richard J.  
 Ross, James Robert  
 Rowe, David K.  
 Sawrie, Stephen M.  
 Sigman, Ernest H., Jr.  
 Stiefel, Carl M.  
 Walker, Joe T.  
 Watson, William H.  
 Weber, Faustin N.  
 Ziehm, Harold W.  
 31 (20.4%)

**TEXAS**

Addison, James P.  
 Auvenshine, Ronald C.  
 Bell, Welden E.  
 Binnie, William H.  
 Boelsche, Ralph A.  
 Brown, Pearson W.  
 Coulson, Billy Don  
 Croft, Lloyd  
 D'Anton, Erbert W.  
 Eggleston, Franklin K.  
 Fowler, James A., Jr.  
 Frome, William J.  
 Hawkins, Darrell V.  
 Heinrich, David L.  
 Horne, Robert K.  
 Jensen, Vernon L.  
 Kuebker, William A.  
 Lamb, Robert E.  
 Lambert, Joseph P.  
 Langlais, Robert Paul

Little, Robert W.  
 Lyon, Douglas M.  
 McFarland, Paul H., Jr.  
 Minatra, Randolph D.  
 Parker, Warren A.  
 Peavy, Dan C.  
 Pelton, Walter J.  
 Phillips, Ronald H.  
 Presswood, Ronald G.  
 Reed, Arthur C.  
 Ritchey, William H.  
 Roberts, William J.  
 Rogers, Sam W., Jr.  
 Schwartz, Stephen F.  
 Stewart, Kenneth L.  
 Stumpf, Arthur J., Jr.  
 Tietz, Ronald G.  
 Vaughan, Olin B.  
 Wade, Herbert L.  
 Walker, Robert V.  
 Wheatcroft, Merrill G.  
 Wilbanks, David S.  
 Wilbanks, John D.  
 Willard, Fred B.  
 Williams, Craig E.  
 Williams, Quinton E.  
 Willis, Reuben L., Jr.  
 Woolweaver, David A.  
 Zimmerman, Eugene R.  
 49 (11.3%)

### UPPER MIDWEST

Bandt, Carl L.  
 Bevis, Richard R.  
 Dumke, Melvin P.  
 Garland, Raymond O.  
 Hills, Dale A.  
 Langsjoen, Odin M.  
 Little, James R.  
 Ludwick, William E.  
 Morlock, Wallace J.  
 Nelson, Douglas A.  
 Peterson, Howard C.  
 Rossi, Richard E.  
 Swannstrom, Robert L.  
 Till, Michael J.  
 Tolman, Dan E.  
 15 (11%)

### VIRGINIA

Anderson, Arthur R., Jr.  
 Barnes, Richard D.

Bissell, Stephen L.  
 Bonnie, Herbert H.  
 Hartwell, Gary R.  
 Howell, S. Robert  
 Kline, Joseph M.  
 Lawrence, Robert M., Jr.  
 Loving, Robert H.  
 Malbon, Bennett A.  
 McCasland, John P.  
 Moore, French H., Jr.  
 Mowbray, Perry D., Jr.  
 Ormes, Walter M., Jr.  
 Price, Madison R.  
 Rubin, Robert M.  
 Samaha, Francis J.  
 Smith, Edwin H., Jr.  
 Stoll, Kenneth H.  
 Upshur, Thomas T.  
 Wall, John G.  
 Watson, Raleigh H., Jr.  
 Webb, Jr., Leslie S.  
 Wendt, Douglas C.  
 Whiston, David A.  
 Woolridge, Edward D., Jr.  
 26 (17.9%)

### WASHINGTON—BRITISH COLUMBIA

Beamish, Ludlow W.  
 Deines, John M.  
 Dubois, Rodney C.  
 Farrell, Charles V.  
 Gordon, Glenn E.  
 Heston, Alfred C.  
 Morrow, Geraldine T.  
 Smith, Dale E.  
 Stenberg, Ralph G.  
 Suhadolnik, E. L.  
 Tucker, Richard V.  
 11 (10.3%)

### WESTERN NEW YORK

Bash, Percy W.  
 Carrillo, Peter A.  
 Impaglia, Michael A.  
 Isaacson, Bernard  
 Kaley, Robert H.  
 Keenan, Hugh A. T.  
 Kerr, I. Lawrence

Lacy, Justin E., Jr.  
 Mulcahy, Lawrence L.  
 Ortman, Harold R.  
 Powell, Richard A.  
 Shaddock, Warren M.  
 Slavin, Sidney  
 Smith, Clare J.  
 Springer, Wilfred A.  
 Sweet, Thomas O.  
 Tofany, Bernard E.  
 Triftshauser, Roger W.  
 Watts, J. Glezen  
 Weig, James C.  
 Wentworth, Edward T., Jr.  
 Wright, Laurence C.  
 22 (21.4%)

### WESTERN PENNSYLVANIA

Booth, William A.  
 Ehrlich, David H.  
 Finder, Moses J.  
 Foreman, Thomas A.  
 Fridley, John Samuel  
 Friedman, Ruth S.  
 Gannon, Norbert O.  
 George, W. Arthur  
 Greenwald, Saul W.  
 Hoffman, Roy Donald  
 McClelland, William D., Jr.  
 McDermott, Charles E.  
 McDermott, Charles F.  
 Miller, Charles J.  
 Runzo, Robert S.  
 Smith, Robert J.  
 Stoner, Donald A.  
 Trice, William B.  
 Verklin, Robert M.  
 19 (19.3%)

### WEST VIRGINIA

Adams, John D.  
 Biddington, W. Robert  
 Colombo, Dino S.  
 Fleckenstein, Leo J.  
 Kincaid, Hunter C.  
 Lake, Charles L.  
 Peters, Phillip J.  
 Poindexter, J. B., Jr.

Sausen, Robert E.  
 Spadafore, Anthony J.  
 Stevens, Frank H.  
 11 (31.4%)

### WISCONSIN

Blumenfeld, Harry J.  
 Dahl, Eva C.  
 English, Leon J.  
 Gloudeman, Eugene A.  
 Haasch, Eugene A.  
 Karczewski, Robert J.  
 Kittleson, Russell T.  
 Leone, Edward F.  
 Maihofer, Glenn T.  
 Rogers, Edward W.  
 Rooney, George E., Jr.  
 Sharma, Prem S.  
 Sime, Claude I.  
 Thanos, Andrew John  
 Wick, Ashton E.  
 Ziebert, Gerald J.  
 16 (25.4%)

### CONTRIBUTIONS BY SECTIONS

Carolina  
 Florida  
 Indiana  
 Kentucky  
 Metro-Washington  
 Michigan  
 Southern California  
 Virginia  
 8 (19.5%)

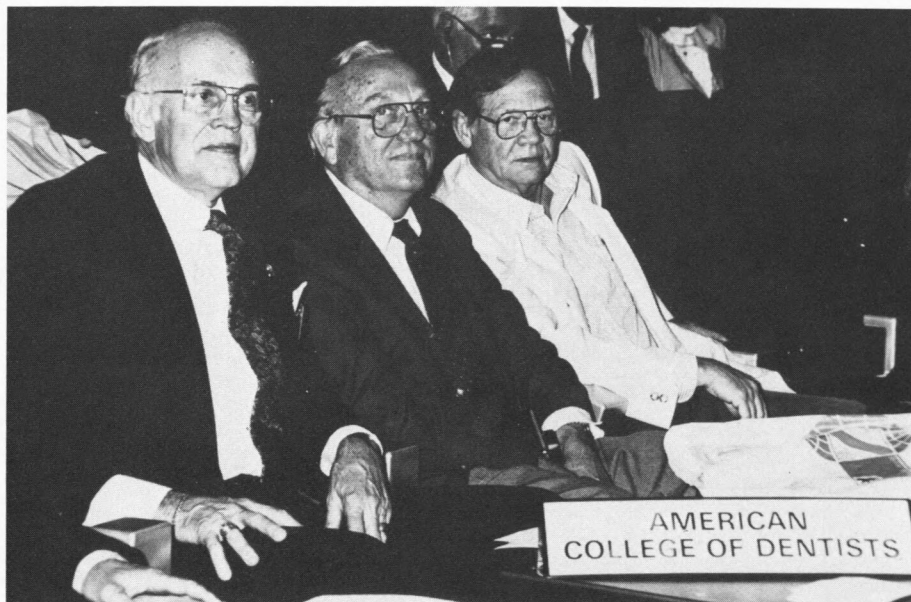
### OTHER CONTRIBUTORS

Academy of Cont. Education  
 Alpha Omega Foundation  
 Am Assn Oral & Max Surg.  
 France Stone Foundation  
 Gies Foundation, W. J.  
 Ostrow, Barbara S.  
 Tarrson, Linda C.  
 7

## The American College of Dentists becomes an Affiliate Member of the Federation Dentaire Internationale

The American College of Dentists became an affiliate member of the Federation Dentaire Internationale (FDI) at the 77th Annual World Dental Congress in Amsterdam, the Netherlands. A Delegation from the College was brought forward to a special meeting seating during the opening ceremonies and the College installed an affiliate member.

The American College of Dentists, as an affiliate member, does not have a vote in the FDI, but is there to provide support and to encourage world dentistry. As an affiliate member, the College is entitled to two delegates and three observers. Dr. James A. Harrell, Sr. represented the College as a Delegate and was accompanied to the meeting by Dr. J. Harry Spillman and Dr. Charles W. Horton of the Carolinas Section.



Photographed at the 77th Annual World Dental Congress of the Federation Dentaire Internationale in Amsterdam, the Netherlands, are from the left Dr. James A. Harrell, Sr., Dr. J. Harry Spillman and Dr. Charles W. Horton.

## Executives for Several Dental Organizations Meet Quarterly



This photo was taken in Alexandria, Virginia, on December 20th during the quarterly luncheon meeting of executives of several dental associations in the Metropolitan Washington Area. Included in the photo from left to right are: Dr. Richard Shaffer, Secretary General, International College of Dentists; Dr. Richard D. Mumma, Jr., Executive Director, American Association of Dental Schools; Mr. Nikolaj M. Petrovic, CAE, President and Chief Executive Officer, American Dental Trade Association; Dr. Gordon H. Rovelstad, Executive Director, American College of Dentists; Mr. Roy Bredder, Interim Director, Washington, D.C. Office, American Dental Association; and Dr. John A. Gray, Executive Director, International Association of Dental Research and the American Association for Dental Research. This group has been meeting informally since 1981 for the expressed purpose of sharing management experiences and fellowship.

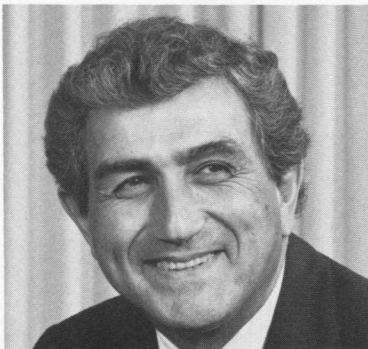
# NEWS OF FELLOWS

**Phillip M. Campbell** was recently elected to serve on the Baylor College of Dentistry Board of Trustees. Dr. Campbell is in the private practice of Orthodontics in Huntsville, Texas.



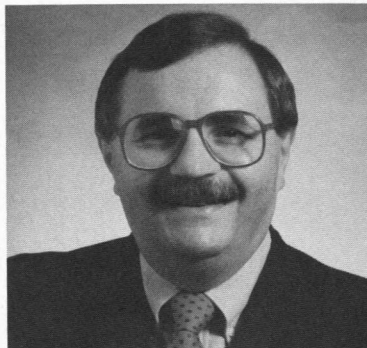
Phillip M. Campbell

**John DiBiaggio**, President of Michigan State University, was the recipient of the Fauchard Gold Medal at the Pierre Fauchard Academy's Annual Meeting in Honolulu. Dr. DiBiaggio, who has served as Dean of Dentistry at the Virginia Commonwealth University, Vice President of Health Affairs at the University of Connecticut and President of University of Connecticut, was recognized for his outstanding contributions to dentistry and allied sciences.



John DiBiaggio

**Dominick P. DePaola** has been appointed President and Dean of Baylor College of Dentistry, Dallas. Dr. DePaola, who is the current President of the American Association of Dental Schools and is presently the Dean of the Dental School at the University of Medicine and Dentistry of New Jersey, has also served as Dean of the Dental School at the University of Texas Health Science Center at San Antonio.



Dominick DePaola

**Aida A. Chohayeb** was elected President of the Edward Pennick Endodontics Study Club. Dr. Chohayeb, who is a Professor of Endodontics at Howard University, is the Vice Chairman of the Metropolitan Washington Section.



Aida A. Chohayeb

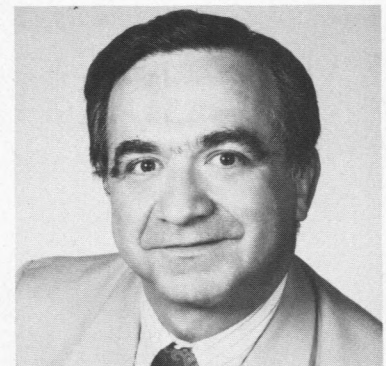
**T. M. Graber** was recently honored by being awarded an honorary doctorate (Dr. Odont.) from the University of Göteborg. Dr. Graber, who is editor-in-chief of the American Journal of Orthodontics and Dentofacial Orthopedics, was recognized for his many research contributions, and a life-time of teaching and writing.

**Robert W. Elliott, Jr.** has been elected to a two year term as Vice President of Finance of the Academy of Dentistry International. Dr. Elliott is a Past President of the American College of Dentists.

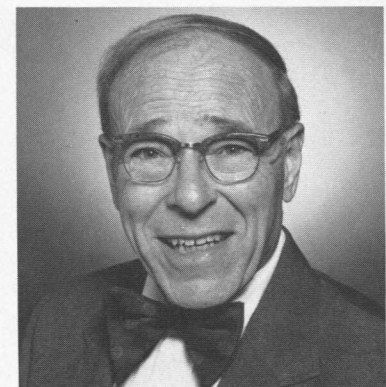


Robert W. Elliott, Jr.

**Daniel D. Epstein** was recently awarded the University of Columbia's Alumni Medal for Conspicuous Alumni Service. Dr. Epstein is in general practice in Brooklyn, New York and is also Associate Clinical Professor of Prosthodontics at Columbia University School of Dental and Oral Surgery.



Daniel D. Epstein



T. M. Graber

**J. David Allen** has helped establish a dental clinic for geriatric patients at the Wesley Woods Health Center in Atlanta, Georgia. The Ina T. Allen Dental Clinic, named in memory of Dr. Allen's late mother, will also provide post-graduate dental students from Emory University opportunities to receive training in geriatric care. Dr. Allen is the President Elect of the Georgia Dental Association and is in the private practice of Oral and Maxillofacial Surgery.

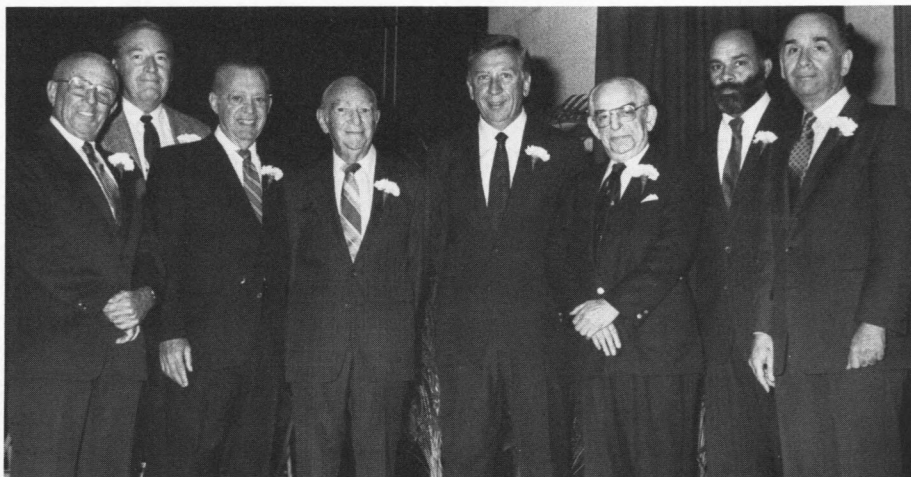


Paul D. Eleazer, President of the Georgia Dental Association, on the left, photographed with J. David Allen in the Ina T. Allen Dental Clinic.



Raul G. Caffesse, left, and Dr. John C. Helfrick with their William J. Gies Foundation Awards.

**Raul G. Caffesse**, Professor and Chairman of the Department of Periodontics and **John C. Helfrick**, Professor and Chairman of the Department of Oral and Maxillofacial Surgery at the University of Texas Health Science Center at Houston were the recipients of the 1989 William J. Gies Foundation Awards in their specialties.



Photographed at the dedication ceremony are from the left Maxwell S. Fogel, D. Walter Cohen, President Medical College of Pennsylvania, Jack Magill, Phillip S. Kanev, Martin Tansy, Dean, Temple University School of Dentistry, I. B. Bender, Raymond Fonseca, Dean, University of Pennsylvania School of Dental Medicine, and Alan J. Borislow.

**Maxwell S. Fogel**, **Phillip S. Kanev** and **Jack Magill** were recently recognized by the Albert Einstein Medical Center where three departments were named in their honor. The Department of Dental Medicine was dedicated in honor of Dr. Fogel, who is Chairman Emeritus of the Department. The Division of Restorative Dentistry was dedicated in honor of Dr. Kanev who joined the Medical Center Staff in 1958. The Orthodontic Clinical Facility was dedicated in honor of Dr. Magill, a senior faculty member at Einstein.

**Ralph S. Kaslick** was recently elected Vice President of the Medical Staff of Goldwater Memorial Hospital, New York University Medical and Dental Centers and a representative to the Council of Medical Staffs of the New York City Health and Hospitals Corporation. Dr. Kaslick is presently the Director of Dentistry at Goldwater Memorial Hospital and had previously served as Dean of the College of Dental Medicine at Fairleigh Dickinson University until 1987.



Ralph S. Kaslick

**Max D. Largent** recently retired from the Baylor College of Dentistry where he has served as Associate Dean for Academic Affairs since 1976. Prior to that he served as Chairman of the Department of Pediatric Dentistry at Virginia Commonwealth University and joined the administrative staff at Baylor College of Dentistry as an Assistant Dean in 1972.



Max D. Largent

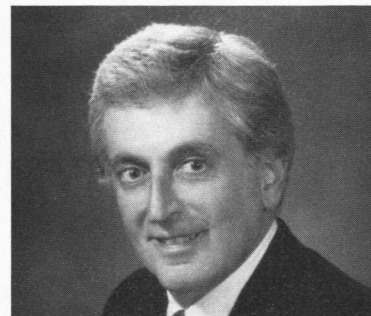
**Gene Sargent** of Burlington, Washington was honored by the Washington State Dental Association by being named the 1989 Dentist Citizen of the Year. Dr. Sargent, who is in the General Practice of dentistry, was recognized for his extensive service to the profession and the community.

**Ralph W. Phillips** was honored by the Dental Society of the State of New York by being presented the Jarvie-Burkhard Award "for outstanding service rendered to mankind in the field of dentistry." Dr. Phillips is professor of Dental Materials at the Indiana University School of Dentistry and is the author of several textbooks as well as many scientific papers.



Daniel E. Waite

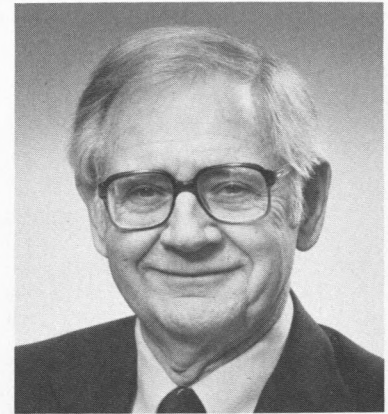
**Arnold S. Weisgold** was recently installed President of the Greater New York Academy of Prosthodontics. Dr. Weisgold is the Director of Post Doctoral Periodontal Prosthesis at the University of Pennsylvania School of Dental Medicine.



Arnold S. Weisgold



Gene Sargent



Ralph W. Phillips

**Daniel E. Waite** recently retired from Baylor College of Dentistry where he served as Chairman of Oral and Maxillofacial Surgery and Assistant Dean for Hospital Affairs. For the past 25 years, Dr. Waite has also provided service to Project Hope as a teaching specialist in numerous countries including Egypt, India, Sri Lanka, China, Peru and Australia.

**George J. Witkin** was honored by the New York University College of Dentistry with the presentation of the 1990 Alumni Achievement Award. Dr. Witkin is Professor Emeritus of Periodontics at New York University College of Dentistry, where he served as both Associate Dean and Interim Dean.



George J. Witkin



Manuel I. Weisman

**Manuel I. Weisman** recently presented a paper at the First World Endodontic Conference in Mexico City. Dr. Weisman is in the private practice of Endodontics and Professor of Endodontics at the Medical College of Georgia School of Dentistry.

**William E. Harris** was honored by the Georgia Northern District Dental Society by being named Man of the Year in Dentistry for 1989. Dr. Harris, who is in the private practice of Endodontics in Atlanta was recognized for his significant contributions to dentistry and to the community. Dr. Harris is a Diplomate of the American Board of Endodontics and is a Clinical Professor of Endodontics at the Medical College of Georgia School of Dentistry.



William E. Harris photographed receiving his Dental Society's Man of the Year Award for 1989.

## SECTION ACTIVITIES

### Larger Role for Sections?



Photographed at the meeting of the Committee on Local Leadership and Effective Governance Enhancement are, from the left, Prem S. Sharma, Roger W. Triftshauser, Varoujan A. Chalian, Juliann S. Bluit, Charles V. Farrell, Chris C. Scures, Gordon H. Rovelstad and W. Robert Biddington.

### National Committee Looks at Enhancing the Role of Sections

Dr. W. Robert Biddington, President of the American College of Dentists recently appointed a special ad hoc committee to study and recommend methods of strengthening Section participation in College affairs, placing special emphasis on increased participation of Section Representatives in college governance. The Committee on Local Leadership Effective Governance Enhancement (C.O.L.L.E.G.E.) consists of the following members: John W. Berry, Juliann S. Bluit, Don-Nil Brotman, Charles V. Farrell, Rene E. Holt, Chris C. Scures, Prem S. Sharma, Roger W. Triftshauser, Varoujan A. Chalian, Chairman.

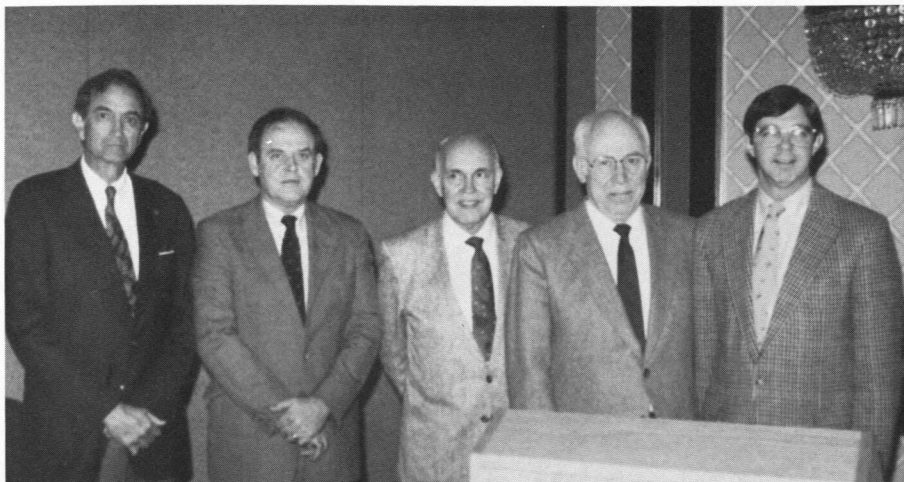
Committee members prepared reports on a variety of topics relating to the history, goals, objectives and projects of the College and held

an all-day meeting in Chicago to discuss these matters. Recommendations were developed and were submitted at the Board of Regents Spring meeting.

The Board of Regents unanimously agreed that, commencing with the 1991 Annual Meeting of the American College of Dentists, the format of the Section Representatives Meeting will be modified so that a Regency Caucus will be held to be followed by a Section Representatives Assembly. In addition, the Board of Regents also agreed that a Leadership Conference for Section Officers will be held at the Annual Meeting of the College, commencing in 1991, with the President Elect given the charge of organizing and conducting the meeting.

## Carolinas

The Carolinas Section held its annual meeting recently in Raleigh, North Carolina. The three day event attended by 124 Fellows and guests, consisted of six hours of Continuing Education, tours of the University of North Carolina and Duke University and a banquet.



Photographed at the Carolina's Section Meeting are from the left William R. Chapman, the incoming Chairman, James H. Gaines, ADA 16th District Trustee, James A. Harrell, Sr., Immediate Past President of the ACD, John B. Sowter, Chairman of the Section, and Dudley C. Chandler, Jr., the new Vice Chairman of the Section.



Seven Fellows of the Carolina's Section received 25 year pins. Photographed from the left are William R. Stanmeyer, John B. Sowter, Clifford M. Sturdevant, Edgar D. Baker, Thomas G. Collins, ACD Past President William C. Draffin, Colin P. Osborne, Jr., and James A. Harrell, Sr., ACD Immediate Past President.

Photographed at the Carolinas meeting are, from the left, James H. Gaines, Garland H. Hershey, Jr., Vice Chancellor of Health Affairs, University of North Carolina, and Baxter B. Sapp, Jr.



## Kansas City-Mid West

The Kansas City-Mid West Section held its annual meeting recently in conjunction with the University of Missouri Kansas City Alumni Reunion. The luncheon meeting was also the occasion for the installation of the new Section Officers by Regent Prem S. Sharma of Regency 5.



Photographed at the Kansas City-Mid West Section are, from the left, Donald M. Williams, Section Chairman, Jack L. Haden, Immediate Past Chairman, Ray E. Parsons, Secretary/Treasurer, Haler E. Kennedy, and Vernon E. Osborn.

## Philadelphia

The Philadelphia Section held its meeting recently in conjunction with the Liberty Bell Dental Conference.

Photographed at the Philadelphia's Section Meeting are, from the left, Richard R. Chillemi, Secretary-Treasurer, Eugene J. Truono, Chairman, Ruth S. Friedman, Regent, Regency 2, and Arthur B. Hattler, Chairman-Elect of the Section.



## Puerto Rico

The Puerto Rico Section held a Breakfast Meeting in San Juan and discussed further activities for the Section to promote the purposes and objectives of the College.

Photographed at the Puerto Rico Section meeting are, seated, from the left Bienvenido Perez, Leo Korchin, Carlos L. Suarez, Chairman, and Domingo Donate, Secretary-Treasurer. Standing from the left are Arturo Santiago, Joseph P. Cappuccio, George Minervini, Jorge Fernandez-Pabon, and Carlos J. Noya, Immediate Past Chairman of the Section.



## Maryland

The Maryland Section held its Annual Meeting recently in conjunction with the Annual Chesapeake Conference of the Maryland Dental Association.

The Section presented a Certificate of Appreciation to Maryland State Governor W. Donald Schaefer for his activities contributing to Dentistry. Seventy senior dental students from the Baltimore College of Dental Surgery, University of Maryland, also attended the luncheon and the business meeting where new Section Officers were installed.



Gordon H. Rovelstad, Executive Director of the College, left, installed the new officers of the Maryland Section. Photographed from the left are W. Michael Kenney, Secretary, Frank J. Romeo, Treasurer, Laurence E. Johns, Vice Chairman, Don-Nil Brotman, Chairman and Harry W. F. Tressel, Editor.

Seventy Baltimore College senior dental students attended the luncheon, as well as the table discussion sessions, conducted by Fellows of the College at the Maryland Section Meeting.



The 1989 Maryland Section Chairman J. Richard Crouse, left, presented a Certificate of Appreciation to Maryland Governor W. Donald Schaefer.



## Metropolitan-Washington

The Metropolitan-Washington Section held its Annual Meeting recently and installed its new officers for 1990.

Gordon H. Rovelstad, Executive Director of the College, installed the new Officers of the Metropolitan-Washington Section who, from the left, are William H. Lady, Chairman, Pasquale Tigani, Board Member, Aida A. Chohayeb, Vice Chairman, Jeanne A. Sinkford, Secretary-Treasurer, Stanley A. Milobsky, Board Member, Goerge W. Young, Board Member, and James T. Jackson, Immediate Past Chairman.



## New Jersey

The New Jersey Section held its meeting recently with Allan J. Formicola, Dean of the Columbia University School of Dental and Oral Surgery, as the featured speaker.

Photographed at the New Jersey Section Meeting are from the left Rocco J. Di Paolo, Dean, Fairleigh Dickinson University College of Dental Medicine, Allan J. Formicola, Dean, Columbia University School of Dental and Oral Surgery, Section Chairman Daniel E. McIntyre and Dominick P. De Paola, Dean of the University of Medicine and Dentistry of New Jersey Dental School.



## Washington-British Columbia

The Washington-British Columbia Section held its Annual Continuing Education Day recently in Seattle. Richard V. Tucker was recognized by the Section with the presentation of the 1989 Outstanding Service Award. Dr. Tucker was honored for his many years of contributions that have supported the profession and the objectives of the College.



Photographed at the Continuing Education Day of the Washington-British Columbia Section are from the left Gerald D. Stibbs, the 1984 recipient of the William John Gies Award; Richard V. Tucker, the recipient of the 1989 Washington-British Columbia Outstanding Service Award and Frank B. Guthrie, Washington-British Columbia Section Chairman.

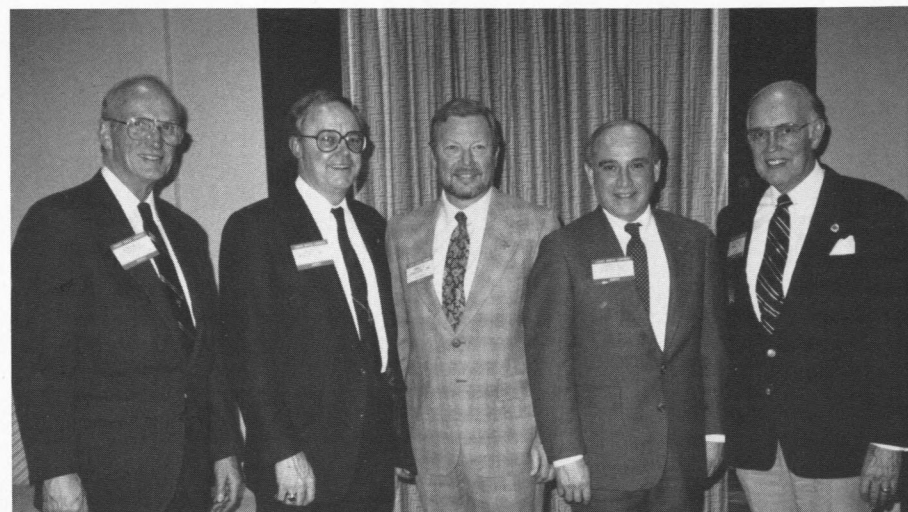
## New England

The New England Section held a luncheon meeting recently in Boston in conjunction with the Yankee Dental Congress. Each year the Section presents a certificate and monetary award to a student from each of the four New England Dental Schools. The students are selected for qualities which represent the ideals of the American College of Dentists.



Photographed at the New England Section Meeting are from the left Gordon H. Rovelstad, Howard L. Bailit, Arthur A. Weiner, Robert Hunter, James W. Skillings and Clark A. Sammartino.

Photographed at the New England Section's meeting are from the left Gordon H. Rovelstad, Executive Director of the College, Edward C. McNulty, Regent, Regency 1, Donald B. Stackhouse, Section Secretary-Treasurer, Robert E. Hunter, Section Chairman and James A. Harrell, Sr. Immediate Past President of the College.



Photographed at the New England Section Meeting from the left are Paul Goldhaber, Dean, Harvard School of Dental Medicine, with Student Award recipients Ms. Susan Camacho, Boston University, Ms. Amy Zuker, Harvard School of Dental Medicine, Ms. Sandra McDonald, Tufts University School of Dental Medicine, Erling Johansen, Dean, Tufts University School of Dental Medicine, Award Recipient Ms. Rebecca Woodward, University of Connecticut School of Dental Medicine, Howard A. McLaughlin and Robert E. Hunter, Chairman, New England Section.



**NOMINATION FORM REQUEST**

Name \_\_\_\_\_ F.A.C.D.

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Signature \_\_\_\_\_

A nomination portfolio to be used in nominating to Fellowship is obtained from the Executive Office upon the signed request of any Fellow in good standing.

February 1, — Closing Date for Nominations. Send the form to the American College of Dentists, Suite 352N, 7315 Wisconsin Ave., Bethesda, MD 20814-3202.

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The Journal of the American College of Dentists is published quarterly in order to promote the highest ideals in health care, advance the standards and efficiency of dentistry, develop good human relations and understanding, and extend the benefits of dental health to the greatest number. It is the official publication of the American College of Dentists which invites submission of essays, editorials, reports of original research, new ideas, advances and statements of opinion pertinent to dentistry. Papers do not necessarily represent the view of the Editors, Editorial Staff or the American College of Dentists.

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Papers should be in English, typed double space on white 8-1/2 × 11 paper. Left hand margins should be at least 1-1/2 inches to allow for editing.

All pages, including Title Page, Tables and Figure legends, should be numbered consecutively in the top right-hand corner. The first page should list title of manuscript with the first letters of the main words capitalized (do not use Part I, etc.), author's (or authors') initials and name(s) in capitals (no titles or degrees), complete professional address(es) (including ZIP or Postal Code), a short title of NOT more than 45 characters in block capitals, and, as a footnote, any change in corresponding author's address since the paper was submitted. With multiple authors, relate them to their respective institutions by superscript numbers. The first author is assumed to be the one to whom correspondence and reprint requests should be directed unless otherwise stated.

The second page should be an abstract of 250 words or less summarizing the information contained in the manuscript.

Authors should submit an original and four copies of the manuscript and three original sets of illustrations to: Dr. Keith P. Blair, Editor.

Dorland's Illustrated Dictionary will be used as the authority for anatomical nomenclature. The American Heritage Dictionary will

be used as the authority for spelling nonmedical terms. The American English form of plurals will be used where two are provided. The Index Medicus and Index to Dental Literature serve as authorities for standard abbreviations.

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Address all manuscripts and related correspondence to: The Editor, JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS, Suite 352N, 7315 Wisconsin Ave., Bethesda, MD 20814-3202.

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A list of references should appear chronologically at the end of the paper consisting of those references cited in the body of the text. This list should be typed double space and follow the form of these examples:

1. Smith, J.M., Perspectives on Dental Education, Journal of Dental Education, 45:741-5, November 1981.
2. White, E.M., Sometimes an A is Really an F. The Chronical of Higher Education, 9:24, February 3, 1975.

Each reference should be checked for accuracy and completeness before the manuscript is submitted. The accuracy and completeness of references are major considerations in determining the suitability of a manuscript for publication. Reference lists that do not follow the illustrated format and punctuation or which are not typed double spaced will be returned for retyping.

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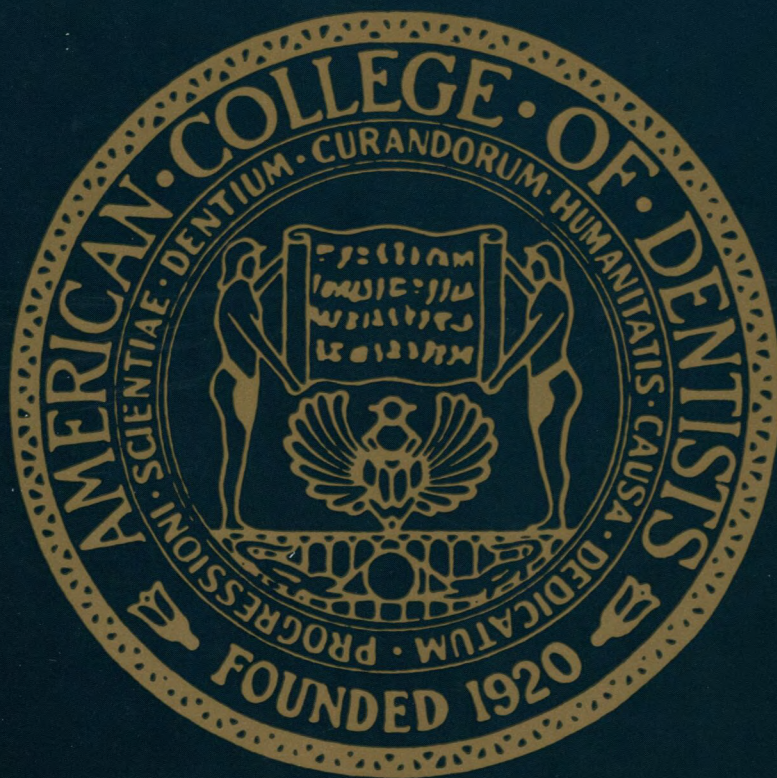
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