

# The JOURNAL of the AMERICAN COLLEGE of DENTISTS

Dental Care Market

Crisis in the Health Professions?

Bridging the Gap

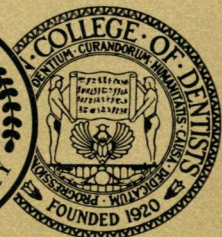
The Vanishing Minority Dentist

Women Dentists

Dental Education 1970

OCTOBER 1970

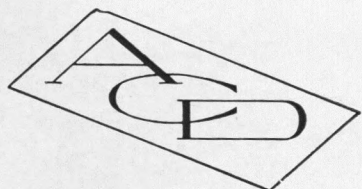
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## NEWS AND COMMENT

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*Section news, announcements and items of interest should be sent to the Editor, Dr. Robert I. Kaplan, One South Forge Lane, Cherry Hill, New Jersey 08034.*

### **FIFTIETH ANNIVERSARY PROGRAM HIGHLIGHTS**

A symposium on "The Challenge for the Future," will be among highlights of the 50th anniversary program of the American College of Dentists, meeting November 7-8 in Las Vegas. All dentists are invited to attend the symposium on November 7, and other anniversary functions during the College's session.

Participants in the symposium will be Drs. Harold Hillenbrand, executive director emeritus of the American Dental Association; Robert J. Nelsen, executive secretary of the College; Otto L. Brandhorst, College president-elect; I. Lawrence Kerr, president of the Dental Society of the State of New York; Gordon R. Rovelstad, president of the International Association for Dental Research, and Edward J. Forrest, dean of the University of Pittsburgh dental school. Dr. Henry A. Swanson, anniversary committee chairman, will moderate the discussion.

The symposium will explore new directions for the dental profession in the remaining decades of the 20th century.

Additional features on November 7 include presentation of the history of the College, "Conception, Birth and Growth of the College," a luncheon and a special fellowship hour for all dentists. The College's annual Convocation, including the induction of new Fellows, takes place November 8.

## SECTION NEWS

### Ohio Section Presents Awards

The Ohio Section American College of Dentists presented awards to two graduating Seniors, one from Case Western Reserve and one from Ohio State University. The candidates were selected by their classmates for outstanding scholarship and professional promise.

Dennis Brent Iverson of the School of Dentistry, Case Western Reserve University, received his award at his commencement in June.

Bryant David Denk of the College of Dentistry, Ohio State University, received his award on Senior Awards Day, June 5.

JOHN P. BECKWITH  
*Secretary, Ohio Section*

### Marquette University Pedodontic Department Given American College of Dentists Award

The Wisconsin Fellows of the American College of Dentists gave their first table clinic award to the Department of Pedodontics, Marquette University, School of Dentistry. The award is an engraved plaque with the names of the Pedodontic faculty and graduate students who participated in the table clinic.

The clinic was presented at the Wisconsin State Dental Society Centennial Meeting in May. The award was based upon originality, application to clinical dentistry, presentation and audience interest.

The American College of Dentists is interested in encouraging outstanding clinical and scientific presentations. It realizes the importance of recognizing individuals who have contributed to the betterment of our profession. The award will be presented on an annual basis for table clinics presented during the Wisconsin State Dental Society State Meeting.



### New York Section

The Fall Meeting of the New York Section of the American College of Dentistry was held Tuesday, September 15, 1970, at the New York University Club, New York City, with Section Chairman Alex N. Lifschutz presiding. The speaker was Dr. Irwin D. Mandel, Professor of Dentistry, School of Dental and Oral Surgery, Columbia University. His subject was "The Nature and Prevention of the Plaque Diseases."

The next meeting will take place during the Greater New York Dental Meeting week on Sunday, December 6, 1970 at the Statler-Hilton Hotel, New York City. The New York Section meets four times a year. The other meetings are in March and at the annual meeting of the Dental Society of the State of New York in May.

The Section has several projects that it supports. They are as follows:

1. Operation Bookshelf—Chairman, Neal Riesner.
2. Project Tooth Bank—Chairman, Stephen Goodman. This collects sound extracted teeth for the use of Freshman students at the dental schools of Columbia and New York University.
3. The Section contributes financially to the Dental Clinic of the Boy's Club of New York.
4. Each year it presents a one hundred (\$100) dollar U.S. Government bond and a certificate to the outstanding senior dental student at Columbia and New York University.
5. Each year at the March meeting our Old Timer's (those holding membership in the Section for thirty years) are honored.

IRVING NAIDORF  
*Section Reporter*

### NEWS OF FELLOWS

Dr. James P. Hollers, past president of the ADA, has been appointed executive director of the San Antonio Medical Foundation.

Dr. C. Gordon Watson, ADA executive director, has been appointed counsellor and expert advisor to a special panel of the United States Chamber of Commerce.

Dr. Lynden M. Kennedy has been appointed to the ADA Task Force on National Health Programs by President Harry M. Klen-da.

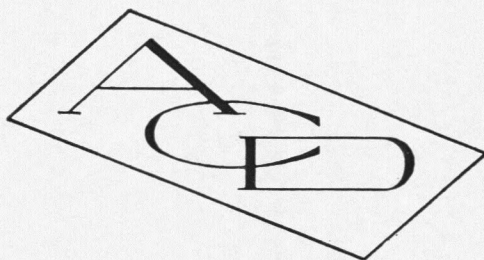
Dr. David Tanchester has retired as Chief of the Dental Department of Montefiore Hospital and Medical Center after forty-nine years of service. A testimonial dinner was given him in recognition of his pioneering achievements in hospital dentistry and his contributions to the dental profession.

Dr. W. Harry Archer, Professor and Chairman of the Department of Oral Surgery, University of Pittsburgh Dental School, has been appointed a University Professor, a rare honor bestowed on faculty who have achieved eminence in their field.

Dr. David B. Ast has been promoted to Assistant Commissioner in charge of the New York State Health Department Division of Medical Care Services and Evaluation.

#### **DENTIST-TO-DENTIST PROGRAM**

If you would like to send this and future issues of *THE JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS* to a colleague overseas under the Dentist-to-Dentist program of the American Dental Association, please write to the following for details: Council on International Relations, American Dental Association, 211 East Chicago Avenue, Chicago, Illinois 60611.





# The JOURNAL of the AMERICAN COLLEGE of DENTISTS

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A QUARTERLY PRESENTING IDEAS IN DENTISTRY

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*Editorial Board*—HOMER N. HAKE, *Chairman*  
WILLIAM E. BROWN      ELWOOD F. MACRURY

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# Distinguished Past—Dynamic Future

“THE HERITAGE OF THE PAST IS THE SEED THAT  
BRINGS FORTH THE HARVEST OF THE FUTURE”

The American College of Dentists did not achieve its high position of prestige and respect in this nation and throughout the world merely by chance or by the routine passage of time. It was earned by virtue of the many outstanding contributions made by the College to the advancement of dentistry during the past 50 years. Truly the American College of Dentists has an enviable history and a great and wonderful heritage.

A Golden Anniversary celebration commemorating 50 years of service to the profession is most desirable. In addition to reviewing the history and heritage of the College, it also serves to make each individual Fellow aware of his responsibilities to the College and to the profession. It is most appropriate at this time for us to reflect with pride on our distinguished past and plan for a dynamic future.

Our distinguished past will be complimented by the presentation of a paper, “Beacon Light for 50 Years” and a historical review depicting the organization and activities of the College over the last half century. An exhibit of historical documents, records, publications and memorabilia which will be on display will be a visual reminder of our illustrious history.

“The Future Is a Challenge” is the title of our program. Position papers presented by highly qualified individuals challenge the profession, the individual dentist, dental research and education to the necessary renewal of professional concepts and methods as dentistry adjusts to the changing socio-economic environment. Society is also challenged to its responsibilities in support of oral health programs in education, research, prevention and treatment.

The Convocation address on Sunday “The Challenge to the College” will basically chart the course for our future development. Another most significant event at the Convocation will be the presentation of the “American College of Dentists Award for Excellence.” This award will be presented for the first time to the individual who has best displayed outstanding contributions to the

Science and Art of Dentistry and service to his community and country.

To the Officers, Regents, all Committees and Section officers; to our Executive Director and Executive Office Staff and to individual Fellows who have contributed so much during this year, I express my deepest appreciation.

I approach the end of my administration with mixed emotions. Quite naturally, there is a feeling of gratitude for the high honor of having the privilege to serve as your president this historic year. Yet superseding this is a feeling of deep humility as I realize how inadequate my efforts have been in relation to the manifold problems and challenges that confront the College, our profession and each of us as individuals today and in the future.

I leave you with the thought that we are embarking on the period that will be reviewed in the year 2020 at our Centennial Meeting. Let us proceed with vision equal to our founders, with dedication equal to our predecessors and with wisdom and courage equal to the task that lies ahead.

FRANK P. BOWYER  
*President*

## Dentistry in Crisis

At no time in its history has the dental profession been faced with as many enormous challenges as it does today. The prospects for change in the traditional methods of practice are so great that prophecies for the future are at best only educated guesses. Yet the indications that are presently seen in the efforts underway to establish a national health program lead to the assumption that in the foreseeable future dental practice will be conducted under different rules than exist today.

The entrance of the "third party"—be it government, welfare programs, labor unions, insurance programs or dental service corporations—is adding a new dimension to professional practice. No



longer is the dentist responsible to the patient alone. The third party, who is charged with payment for services, is seeking a larger part by asking that quality control and peer review—factors missing in the old traditional relationships—be included in the programs.

The manpower shortage, considered acute by many authorities, cannot be alleviated overnight. Modification of admissions procedures to permit entrance of more students from minority groups is advocated by some. The recruitment of more women into dental education is another proposal. Expanding the duties of auxiliaries is presently being given careful study. The proposal to create an entirely new auxiliary, possibly male, who will be trained to perform some of the duties previously reserved for the dentist has been suggested. Improving the curricula in dental schools and perhaps shortening or condensing the pre-dental and dental years is under consideration. Group practice is being strongly advocated as a possible solution.

All of these things point up the fact that the leaders in the profession are aware of the challenges and are taking steps to meet them, rather than sitting idly by and waiting for the flood to engulf them.

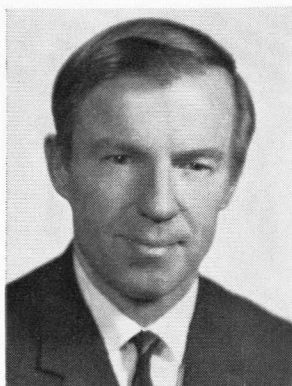
The profession accepts the fact that dental health care is the right of all the people, not the luxury of the few. It seeks the right to guide the development of those programs which will make this possible, and trusts that those responsible for such plans will listen when it speaks.

In this issue we present a series of papers on various aspects of the crisis. Each author examines the problems from a different viewpoint, based upon his own expertise. All of the papers have one thing in common. They offer solutions to the questions they raise. Readers may not agree with everything written, but the constructive suggestions are worthy of consideration.

R.I.K.

# Regents of the College

## WILLIAM E. BROWN



Regent William E. Brown is dean of the newly established School of Dentistry at the University of Oklahoma Medical Center in Oklahoma City. A former professor of dentistry and chairman of the department of pedodontics at the University of Michigan, he is a past president of the Michigan State Dental Association. He was a member of the ADA Task Force which developed a national children's dental health program, and serves as a consultant to the ADA Council on Dental Education.

Dr. Brown is the author of numerous articles on pedodontic subjects, and was editor of the *Journal of the Michigan State Dental Association* for nine years. On two occasions he was the recipient of the William F. Gies Editorial Award.

He was formerly associate director of the W. K. Kellogg Foundation Institute, and served as president of the Michigan Society of Dentistry for Children in 1954, the American Society of Dentistry for Children in 1959 and the American Academy of Pedodontics in 1963-64.

## ELWOOD F. MACRURY



Regent Elwood F. MacRury is a general practitioner in Manchester, New Hampshire. He was educated at the University of New Hampshire and received his dental degree from the Medical College of Virginia.

Active in a number of organizations, he is a former president of the Manchester District Dental Society. He is also a past president and treasurer of the New Hampshire Dental Society and currently editor of its *Journal*. He is a director of the Northeastern Dental Society and holds membership in the New England Dental Society, the American Association of Dental Editors, the American Association for the Advancement of Science and the American Association of Military Surgeons. During World War II he saw service as an officer in the U.S. Navy.

Dr. MacRury is chairman of the executive committee of the Health Manpower Committee of New Hampshire and chairman of the advisory board on technical services in the area of health, created by the New Hampshire legislature to advise the state board of education on health career education in vocational and technical schools, and junior colleges. He is also a member of the New Hampshire Health Careers Council.

He is a former Vestryman and Senior Warden of the Grace Episcopal Church of Manchester, and a member of the Masonic order.

## ROBERT L. HEINZE

Regent Robert L. Heinze has had a long career of service to many dental organizations. A graduate of the University of Pennsylvania Dental School, he has practiced general dentistry in Brooklyn for nearly a half a century. He is a past president of the Second District Dental Society of New York, the Brooklyn Dental Society, and the New York State Society of Dentistry for Children. He is a former member of the Board of Governors of the Dental Society of the State of New York, a past president of the New York State Board of Dental Examiners and for many years was a delegate to the American Dental Association.

Dr. Heinze was dental director of Kings County Hospital and member of its Medical Board and is an honorary member of the Metropolitan Conference of Hospital Dental Chiefs. He is a past president of the New York Academy of Dentistry, a founder of the New York Academy of General Dentistry, and a fellow of the American Academy of General Dentistry. He is an associate editor of the *New York State Dental Journal*, and a fifty year member of Psi Omega fraternity.

He is president of the Advisory Commission on Dental Hygiene of the New York City Community College and a member of the Technical Advisory Committee to the New York City Director of Medicaid.

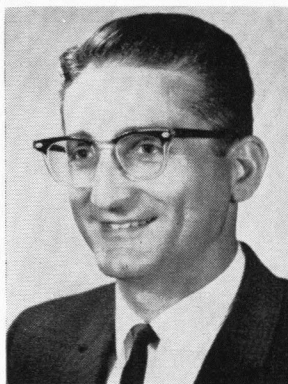


## LOUIS G. TERKLA

Regent Louis G. Terkla is dean of the University of Oregon. His career as an educator was prefaced by service as a combat infantryman with the 10th Mountain Division in Italy during World War II. After the war he studied at Montana State University and took his dental degree at the University of Oregon. Joining the teaching staff upon graduation, he advanced from instructor to full professor, and in 1967 was named dean.

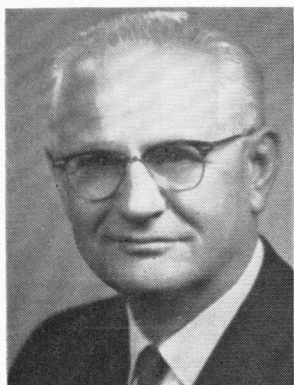
Dr. Terkla is the co-author of a textbook on partial dentures, and has had numerous papers published on various aspects of restorative dentistry. He has lectured widely and presented papers before dental groups in all parts of the country.

He is a member of the International Association for Dental Research, Sigma Xi, and Omicron Kappa Upsilon Honorary Dental Society, and former chairman of the curriculum committee of the American Association of Dental Schools. He has been honored by the American Academy of Dental Medicine, and holds an honorary fellowship in the Academy of General Dentistry. He has served also as a member of the House of Delegates of the Oregon Dental Association, and as secretary to the Oregon Health Careers Council.





## HOMER N. HAKE



Regent Homer N. Hake is best known for his long services as secretary of the Iowa Dental Association and editor of its Journal. He was an honor graduate of the University of Iowa College of Dentistry, and was in general practice in Reinbeck for thirty years.

He is a past president of the Waterloo District Dental Society, former trustee of the Iowa Dental Association, and a past president of the Iowa Dental Alumni Association. He currently serves as president of the ADA State Officers' Conference, and is a member of the executive committee of the Iowa Health Council.

Dr. Hake holds membership in the American Association of Dental Editors, the Federation Dentaire Internationale, Omicron Kappa Upsilon Honorary Dental Society, and Delta Sigma Delta Fraternity.

He served for ten years as a member of the City

Council of Reinbeck, was a member of the Park Board, and helped organize the first Boy Scout troop in that city. He is a past master of his Masonic lodge.

Dr. Hake was honored by the Iowa Dental Association at its 1970 annual session, for his many years of service and dedication to the organization.

## SEYMOUR J. KRESHOVER



Regent Seymour J. Kreshover is Assistant Surgeon General and Director of the National Institute of Dental Research in Bethesda, Maryland. He is a graduate of the University of Pennsylvania Dental School and earned a Ph.D. at Yale and an M.D. degree from New York University School of Medicine.

He is a former professor of oral pathology and director of dental research and graduate and postgraduate studies at the Medical College of Virginia, a fellow and former secretary of the dental section of the American Association for the Advancement of Science, and a fellow of the American Public Health Association.

Dr. Kreshover is a diplomate of the American Board of Oral Medicine, former chairman of the Commission on Dental Research of the Federation Dentaire Internationale and a past president of the International

Association for Dental Research. He is the author of some fifty publications. He holds honorary Doctor of Science degrees from the University of Buffalo, the University of Pennsylvania and Boston University and was the recipient of the U.S. Public Health Service Meritorious Service Medal and the Alumni Research Award Medal from Columbia University.

## RALPH A. BOELSCHÉ

Regent Ralph A. Boelsche is recognized in Texas as the dean of gold foil operators. Educated at Blinn College and Texas A. and M., he graduated from Texas Dental School as valedictorian of his class. He served as a clinical instructor of operative dentistry at his alma mater and has been in general practice in Houston for the past forty-three years.

He is a charter member and past president of the American Academy of Gold Foil Operators, charter member and past president of the Southwestern Academy of Dental Medicine, and past president of the Southwestern Academy of Restorative Dentistry. He is a member of the American Academy of Restorative Dentistry, and director of the Houston Gold Foil Club.

Dr. Boelsche is a past president of the Houston District Dental Society and is active in the Texas State Dental Society. He has presented numerous clinics and lectures on gold foil, the latest this year at the state meeting in Fort Worth. In 1969 he was awarded the Cooley Trophy for the outstanding clinic at the Texas meeting.

He is a member of Psi Omega dental fraternity, Omicron Kappa Upsilon Honorary Dental Society and the Masonic Order. He is chairman of the board of directors of the Industry State Bank, Industry, Texas.



## JAMES P. VERNETTI

Regent James P. Vernetti is a general practitioner and teacher who has been largely responsible for the success of the College's Operation Bookshelf, whereby dental literature is collected for distribution throughout the world. A graduate of the University of Southern California School of Dentistry, he is past president of the San Diego County Dental Society, former councillor of the Southern California Dental Association and was chairman of the operative dentistry section of the ADA.

He is a past president of the American Academy of Gold Foil Operators and a member of the American Academy of Restorative Dentistry and the Federation Dentaire Internationale. He teaches operative dentistry at U.C.L.A. School of Dentistry, and has presented lectures and clinical demonstrations before a large number of local, state, national and overseas dental groups.

He is a member of the board of the Coronado Hospital, and first chief of its dental staff. He has a strong interest in youth activities, particularly the Boy Scouts and Little League baseball, and has received the Silver Beaver Award for his leadership in scouting as well as a number of other awards for community service.



# The Dental Care Market in America\*

VIRON L. DIEFENBACH, D.D.S.†

THE advent of the new decade brings unprecedented challenges to all of us in the health professions. If we listen, we will hear the people trying to tell us that something is basically wrong with the system for the delivery of health services in the United States; that we in the professions have one more chance to exercise leadership in reshaping it. Because the public is right, because the methods being employed today are not solving the care problems of this country, I have absolutely no doubt that we will listen, not only to the public's voice but to our own reason and conscience, and that we will do what can and should be done to change the system for delivering health services.

## INDICATORS OF CHANGE

Already the priorities for health are being reordered; the social forces now building will force monumental changes in the health industry even if such changes are not initiated by health professionals themselves. Because the demands for health care have increased faster than the supply of services, the pressure on health industry in the United States is nearly at the bursting point. And since dentistry is tied inextricably to the general health system, the dental profession must begin immediately to prepare for self-directed institutional change in the production and delivery of services.

There are at least five major factors which contribute to the dilemma of the health industry today:.

1. Levels of education and family incomes have risen rapidly;
2. Urbanization has located more people closer to the providers of health services;
3. Health care as a fringe benefit of employment, health insurance, pre-

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\* Delivered at HOMECOMING, School of Dentistry, Virginia Commonwealth University, January 27, 1970.

† Former Assistant Surgeon General U.S. Public Health Service, presently Assistant Executive Director for Dental Health Service, American Dental Association.



payment plans and new Federal and State programs guarantee payment for services and therefore more money is available to purchase care;

4. The supply of health manpower and treatment facilities has not kept pace with the growth and redistribution of the population; and
5. The organization and delivery of health services have remained essentially unchanged since the end of World War II.

Thus, the basis of our health care crisis is that we in the professions have not yet responded to social change with sufficient changes of our own. We cannot deliver the care the public now expects from us because we have been unwilling or unable to adapt our traditional patterns of practice, our traditional thinking about the health of people, or our traditional systems for providing care to a changing socio-economic environment.

Mr. Walter Reuther, in his usual colorful way, said what we have is a "disorganized, disjointed, antiquated, obsolete, non-system of health care." Last year *Time Magazine* dubbed the present systems of service "the bewildering health care maze" and averred, also, that it is "the only big business in which the ultimate consumer has no control over what he buys." And *Fortune Magazine* in its first issue of the new decade (January 1970) editorializes that "doctors will have to reform their ancient ways." *Fortune* goes on, "The financial distortions, the inequities, the managerial redundancies in the system are of the kind that no competent executive could fail to see, or would be willing to tolerate for long."

Most of the critics of the health system are concerned because they consider it both costly and wasteful, and there is certainly something to be said for their point of view. For the health care they received last year, the American public spent 63 billion dollars, of which 4 billion was spent for family dental services. Yet in comparing our measurements of health and disease with statistics of other countries, the United States is behind on several counts. Looking back on the past 25 years, I think we must now acknowledge that money alone does not produce a nation of healthy people; neither does it automatically ensure good care for people when they become sick.

Later in this paper I shall suggest some changes the dental profession should entertain regarding the delivery of dental care. But before that, I ask you to think along with me about the market for dental care in this country today and factors which bear on it.

### PRESENT DENTAL MARKET

In the free market for dental care in the United States, families or groups of purchasers who wish to buy dental care constitute the demand. Practicing dentists who offer their services constitute the supply. The exchange of purchaser's goods for dentists' services is made through a counterflow of money. The balance between supply and demand determines what dental care will be provided for whom, how it will be delivered, and at what price.

There are definite advantages in the present dental care marketing system. All other things being equal, those dentists who are the most productive and efficient, and who best satisfy their patients, usually have the highest annual incomes. And patients who can better afford the price usually receive excellent dental care. There are other advantages too, but since they are as well known as they are numerous, I need not list them here.

We should keep in mind that there is no health system in any society where everybody gets everything he wants. Nonetheless, the dental profession in the United States is committed to the proposition that there should be equal opportunity for good dental health for all who want it. In that regard, the present dental care market has some disadvantages. Differences in economic status among parents often mean that children are denied equal access to many basic services, and among those which the poor child is likely to go without is dental care. In other words, individual access to dental service is too often a factor of economics rather than need. So, too, is a community's access to care, since dentists and most other health professionals tend to be located in higher income areas. Finally, there is the fact that the current dental market sets premium values on replacement and reparative piece work and comparatively low values on preventive dentistry.

### FUTURE DENTAL MARKET

Dental treatment has always been a minority service. In any given year, we treat fewer than half the population and most of those receive only minimum care. Dental insurance is a minority benefit, available primarily on the West Coast, and covering only a very small portion of the total population. But—and this is an important but—good dental prepayment coverages have been shown to be an effective lever in raising demands for care. Consider,

then, what the impact on dentistry would be if nationwide health insurance programs, bringing with them a high velocity demand for services, were suddenly to make their appearance. Will that happen? Many dentists complacently say "no." But students of health insurance trends forecast otherwise. On January 12, for example, *The National Observer* reported that dental coverage may be ready for a great leap forward. By 1975, enrollment could be up to 30 million—nearly five times today's enrollment.

The reason? Primarily because the unions are including dental coverage. A fifth of the million members of the International Association of Machinists and Aerospace Workers have some dental coverage; the rest are expected to get it. The United Auto Workers will bargain for dental insurance for its 685,000 workers at Ford, Chrysler and General Motors next fall. District 50 of the United Mine Workers represents some 200,000 workers under 2,500 contracts. Today only a handful of the contracts provide for dental coverage. But the union officials intend to change that. According to an officer quoted by *The National Observer*, they "lay it down to our workers that dental care is a must for every contract."

What matters most, perhaps, is a fact that I mentioned earlier—dental insurance encourages people to go to the dentist. To refer again to *The National Observer*, it reports that after one group insurance plan went into effect, utilization of dental services by that group went up from 45 percent to 75 percent in one year—a 30 percent increase in patient load in one localized plan. If a national dental insurance program brought only an additional 10 percent of the population into dental offices, that would mean 20 million more patients per year.

To take another example, consider what it would mean in terms of effective demand, in terms of facilities and manpower if a progressive dental care program for school children were to begin next year, or if the Blues should seriously enter the dental field, or if our dental service corporations accelerated their activities. The professional had better consider such a market. Others seem to be.

The Federal Government has already taken the first step toward funding a few pilot dental programs for school children which, though somewhat narrower in concept, are similar to the program



proposed by the American Dental Association in 1966. The Blues, which handle about half the country's medical coverages, are now in what they call "the developmental stage" of the dental insurance field. They have delayed their entry until interest in dental coverage was great enough to provide what they considered "a broad enough base." Now, evidently, the interest is there. For the Blues are moving, and that is of no small significance in itself.

Dental service corporations are also growing at a very respectable rate. There are 28 active corporations now. Their dental plans cover some 2 million people, and, in 1968, they paid more than \$35 million to dentists for services delivered.

Dentistry must not ignore these trends. The demand for a full-scale national program for children undoubtedly exists even now; its *effective expansion in the market place* is only a matter of time. (It's worth noting that every advanced major country in the world, except the United States, already has such organized dental health programs for school children.) Also, we know that medicare must inevitably be expanded to include dental care. Yet, tell me—who will there be to treat all these people?

#### CHANGES AHEAD: THE BASIC QUESTION OF MANPOWER

If dentists are to meet people's demands, they will have to produce and deliver 90 percent more services by 1980 than they provide today. What will that take? If, for the baseline, we start with today's level of productivity with the current force of 93,000 active clinicians and 140,000 auxiliaries, we could double productivity levels by 1980 by any one of three combinations:

*Combination One:* Increase the manpower supply to 168,000 dentists and 250,000 auxiliaries. With that much gross strength, we wouldn't have to worry about raising productivity levels. Today's levels of efficiency would be adequate. We would simply produce more services through greatly increased manpower.

*Combination Two:* Increase our manpower supply to 132,000 dentists and 290,000 auxiliaries and continue throughout the coming decade to increase productivity levels at a rate equal to that which the profession (as a result of wider employment of auxiliaries) has achieved over the preceding ten years.

*Combination Three:* Increase the supply of manpower to 121,000 dentists and 350,000 auxiliaries. A dental force of this size will

suffice if—and only if—we increase dentist productivity to the maximum achievable level.

Now there is one essential fact to be added. This being 1970, the total number of dentists who can be trained and in practice by 1980 has already been determined. There will be 113,000, provided ALL expansion and construction plans of dental schools are met. Note that word *all*. It means that even the 113,000 is an optimistic figure.

It also means the only one of the combinations we can even come close to achieving is the third, with its very high ratio of auxiliaries and its dependence upon large increases in the productivity of the dental force. Obviously, even this goal is ambitious, and we are already at a great disadvantage in trying to meet it. Although we have foreseen a greater use of auxiliaries in dental health, most of us continue, nonetheless, to underestimate their importance. We are not only training too few auxiliaries, we are assigning them roles that are much too conservative. If, in this time of critical manpower shortages, we persist in utilizing new auxiliary troops in the same old way, we will only defeat ourselves as a profession.

#### INCREASED UTILIZATION OF AUXILIARIES

Far too many dentists routinely waste a large part of their time performing tasks which do not require their knowledge and advanced skills. Such functions should be assigned to specially trained auxiliaries. The concept of four-handed dentistry has been demonstrated to save the dentist many hours of valuable time, to increase his efficiency, to increase the number of patients he is able to treat and to increase his income. Every dentist should be utilizing the services of several well-trained dental auxiliaries. Every dental school in the country has established teaching programs in the latest techniques of utilizing chairside assistants. Thus, we can hardly say any longer that four-handed dentistry is a new concept in dental practice.

#### EXPANDED FUNCTIONS OF AUXILIARIES AND MODERNIZED PRACTICE ACTS

What we need to do as rapidly as possible is to expand the functions of certain auxiliaries, especially the dental assistant and the

dental hygienist. Research that we are conducting at Louisville, Kentucky Dental Manpower Development Center is just the beginning. But application of those findings to private practice undoubtedly will show that the productivity of dentists can be at least doubled by applying new principles in the training, utilization and management of dental auxiliaries. We must design new courses to train both dentists and auxiliaries, and we shall have to modernize practice Acts in many States to accommodate progress. But that will be part of the changes of the seventies. Certainly the use of these so-called "expanded function" auxiliaries will be a part of dental students' training in every dental school with a few years.

#### DIVERSIFIED PATTERNS OF PRACTICE

Today the great majority of dentists are solo practitioners. Undoubtedly there will always be situations in which solo practice is the most practical arrangement for delivering services. But the efficiency and benefits of solo practice need to be compared to group practice through studies. Experimentation with all kinds of group practices—combinations of dentists with dentists, combinations of dentists with other health professions and group experiments in small and large practices in both urban and rural areas—should be high on our list of priorities. We must find out qualitatively and quantitatively what group practice offers for both dentists and patients.

#### PREVENTIVE DENTISTRY EMPHASIZED

Earlier in my remarks, I made reference to preventive services and the low value placed upon them in today's dental market. I venture to repeat myself, to say bluntly that the application of preventive dental measures today is embarrassingly low and that the results of such underemphasis, as reflected in the dental health status of the people, are appalling. To support that statement, I refer to the dental findings of the National Health Survey and the examination records of recruits into the Armed Forces. For every 100 inductees, the Armed Forces must provide 500 fillings, 80 extractions, 25 bridges, and 20 dentures. More than half of our young adult population has pyorrhea, 20 million people have lost one-half of their natural teeth, and another 25 million have lost all



of theirs. Oral cancer will claim 23,000 new victims this year. In too many instances, the malignancy will not be diagnosed early enough, and 5,000 people will die in consequence.

#### UNIVERSAL FLUORIDATION

Community and rural school fluoridation programs are making progress but it is pitifully slow. We should be using Federal and State health funds to help initiate new fluoridation programs, especially in small communities with meager local resources. Because we have not done so in the past, we are spending Federal and State tax funds and using scarce dental manpower to fill, extract and replace teeth which never should have been diseased. If we are to make real progress in the seventies, universal fluoridation must be our first order of business. No other single action would have as great a long-term effect on the dental care market.

#### RESOLVE

In concluding my remarks, it must be said that dentistry begins the decade of the seventies facing monumental problems, but the dental profession has always had great resolve. We have demonstrated leadership in the past. We have understood our strengths, we have worked diligently to build and maintain a profession that is dedicated to the public interest. The people have always trusted in our professional judgment.

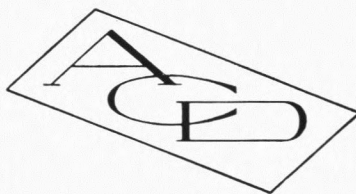
Consider, for example, that in each of the fifty States and four territories, the public has by law entrusted to the profession very special and unusual privileges. The public has given to us the responsibility of regulating who shall practice dentistry and where, of setting standards of practice and fees, of adjudicating differences that arise between dentists and between the profession and the public. They have left it to us to evaluate our own work, and they have always accepted our rationale for self-determination in all professional matters.

Dentistry has been generously complimented in the past. We have been praised for our research accomplishments. In caring for the dentally indigent, we have been applauded, especially in regard to children. In building a dental and allied system of education and postgraduate training, we have achieved notable success. We

have led many fights in Washington for national health legislation, and dentistry is regarded on the Hill as one of the more enlightened of the health professions. All these things are evidence of a remarkable degree of trust but it is trust we must not take for granted.

For now, and quite properly, dentistry, like the other health professions, is under critical fire. The people are asking, with dollars, for the care we told them they should have. Unfortunately, our current delivery system is not producing and delivering that care. Inasmuch as the dental profession governs the market, the public is pointing the finger of blame squarely at us.

Therefore, the greatest tests of our innovativeness, wisdom and courage lie directly ahead. I have full confidence that the dental profession, as it always has, will exercise the leadership necessary to be responsive to reality. There is no place for professional self-indulgence. We need toughness, resilience and perseverance to forge an entirely new care system and market that will balance dental supply and demand for all Americans.



# Crisis in the Health Professions?

NEWTON WACHHORST, D.D.S.\*

ONE of the principal inducements to a young man seeking a career in medicine or dentistry is the concept of being independent and navigating his own ship through the economic seas of professional life. This is most laudatory and reflects our traditions of self-reliance and individualism that molded this country out of a barren wilderness. We take pride in thinking that these characteristics are our heritage and strength, so much so that we blindly delude ourselves into believing that the seas of social unrest sweeping over the bow are but a passing storm. They are not, and this has become an era of change, of tension, of skepticism and disillusionment with the established order. It is not a voyage that will end in the quiet waters of past beliefs nor will its problems be suddenly and miraculously solved as in the last five minutes of the classic television drama.

The health professions are becoming more and more engulfed in the quickening tempo of changing environment. Prepayment plans, contractual agreements, bureaucratic and governmental interference will now be in the third persons standing in the operatory between the patient and the practitioner. Soon the professional man will not be evaluated on the basis of his own skill and experience but must assume the level of that which is usual, customary and reasonable for all his contemporaries. The pressures in the name of the general public welfare are growing stronger and it is inevitable that regimentation cannot be far away. In fact, regimentation in the forms of Medicare, Medicaid, welfare programs and union demands is already knocking at the door and now trumpets for a national health system are beginning to sound from Washington. It has been pretty generally conceded that the administration of these programs is faulty and that they are in deep trouble physically and financially. A recent article in *Fortune* magazine cites the fact that the costs of Medicaid alone more than

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doubled to 6 billion dollars in the last three years and it estimates that the figure may well reach 24 billion by the mid-seventies. There will be more and more millions of people clamoring for medical care and, unfortunately, not near enough doctors to service them. The Health Manpower Commission says that though we may optimistically expect a 17% increase in M.D. personnel by 1975, this will not even begin to alleviate the crisis. Bureaucratic controls, excessive paperwork, administrative mazes—all are piling up to further complicate the picture. The sad experiences of many other national health insurance systems in manpower, finances and quality care are being disregarded in the frantic chase after the rainbow of subsidized medicine and dentistry.

#### GOVERNMENTAL PROGRAMS AND POLICIES

Now the government, in its politically inspired generosity, has found that it is a fairly easy step to vote in tax funded health programs but quite another thing to maintain them and control the hue and cry for more and more benefits. For, like Pandora's box, open it and out fly the benefits and the recipients, each one breeding another and another. Some more people are needed to administer them, more doctors to service them, more hospitals and more, much more money to keep them functioning. Since somebody has to pay for all this, voices are raised in protest and government must justify its original premise and shift the blame for the unhappy result to someone else. What more likely group and convenient too, than the doctors themselves! So it digs around and finds some case of exorbitant fees and redundant care, which is not too difficult among some 400,000 physicians and dentists, blows it up out of all proportions and, suddenly the roles are changed. The government has become the white knight, and the physicians and dentists have been magically transformed into mercenary Shylocks. Now from its heights it is in a position to talk about imposing fee schedules and bureaucratic clinics on the professions, making them don their cloaks of shame and run for cover.

This, then, is thinly disguised wage and price control and the government cannot justifiably impose it on one class without imposing it on all. In the case of the professions, should rigid fee

schedules be put into effect, then controls must be placed on the wages paid to medical and dental auxiliary help, on the price of the doctor's education, on his equipment, rentals, his everyday costs. This, of course, is not practical because it would soon spread over into other groups and make the placing of general controls a mandatory thing. For, if you are going to establish a basis and regulate fees, then how about regulating the income of the people in the sporting world—football and baseball players, and in the entertainment world—movie stars, singers? If all doctors are going to be paid the same then let Willie Mays get the same salary as the rookie from Podunk.

This is not to build a case against subsidized health care or to exonerate the professions from any impropriety. Certainly there have been improper practices sired by selfish motives which have led many doctors to impose excessive fees, *but these factors can and must be controlled by the professions themselves*. Yet if the professions are to close ranks and discipline their actions then the government must do likewise. In our present day life Washington pretty much manipulates the environment in which health personnel and all of us move and have our being. It cannot initiate ill thought out programs, justifiable though they may be, or foster inflation through spending sprees and political expediency and hope to have that environment produce the desired results. Too many programs have been initiated by the Congress without sufficient thought and planning as to their costs, personnel availability, functional management, and limitations. Too long have we felt that money would get us out of any difficulty that arose—it hasn't, in many cases the problems have worsened, inviting corruption, mismanagement, distress, and a general feeling of distrust for the instigators. If the government elects to take the responsibility of imposing programs upon the people of this country that will affect their welfare, well-being, and social consciousness, then it must thoroughly chart the road to be taken, fix the limitations, and have the courage to stand by them. Certainly it need not set itself a rigid regime, but if it finds need to alter course then let it be through rational, experienced, and advisory judgment, and not by mobs demanding more free handouts or by protesting, militant groups throwing up fearsome threats and images.

## UNIONS AND THE HEALTH PROFESSIONS

Now come the unions, who want to impose their working rules and demands on the health professions as they have on industry and commerce. They, too, would like to control the fees of those physicians and dentists who serve their members yet they themselves continue to foster increases in their own wage and benefit programs. In other words, they would like inflationary policies for themselves but deflationary policies for the health professions. Further, they seem to have willfully deluded themselves into thinking that the standards which apply to them can also be applied to the medical fellowship. Yet can they? Can the concept of a man working over an inanimate machine with inanimate objects be compared with that of a doctor presiding over the care of a flesh and blood human being? Each living person is different, in his attitudes, habits, physical makeup, psychology, personal needs and in the degree of his willingness to accept the world he lives in. You may standardize drugs and technic but you cannot truly standardize the treatment of people. For the human being is a complicated creation with many uncontrollable factors and diversified patterns, yet the physician and the dentist are expected to pull them all together and somehow set this unpredictable, this sensitive, this sometime chaotic, this all time wonderful organism back into normal function. It cannot be done by production line standards. The patient does not want to be treated with the same insensitive, impersonal manner as a product coming off the assembly line. No, he wants understanding, kindness, comfort, friendliness, patience, and paternalism. He wants all these and he also wants the physician or dentist to be more skillful, more experienced than all others, plus being a protector and confidant. . . . These things can not be catalogued and bought at so much an hour. Labor and the government must realize that there are certain attitudes, certain inviolable human relationships which are inherent in the doctor-patient association and cannot be put on the bargain table to be knocked down to the lowest cost or regimented out of existence.

We may well and rightfully decry all this and shake our big stick at its implications but the fact remains that we are the only major country in the world without a national health system. *The trend is unmistakable and we cannot deny it; we may only hope to guide it.*



The main factors which seem to be impeding the effective working balance of all these health plans are: (1) a shortage of physicians and dentists, (2) high costs, (3) misuse and overuse of facilities, (4) the claim that present fee for service (piecework) is cumbersome and wasteful.

#### MANPOWER SHORTAGE

There is no question as to the shortage of MDs to service these systems and the dentist shortage would be even more acute should full dental benefits be covered. Since the educational process of producing these professional men is a long, tedious and expensive one, the prospect of increasing their numbers to any great extent is not very promising. In any case it is highly dubious if there would be enough people with the required personal requisites or the willingness to enter the field in sufficient numbers to solve the predicament. So the suggestion has been made to allow medical auxiliaries to perform some of the tasks of the professionals, thus freeing more time for more patients. This is a rational and practical approach and no doubt might help solve the problem. However, this immediately creates a whole new class of medi-professionals, somewhere between the doctor and the auxiliary, subservient to one and a step above the other. Would there be enough persons willing to fit themselves into this category, in which advancement would be nil plus having the frustration of doing the doctor's work without the satisfaction of the doctor-patient relationship? Further, such personnel would have to be trained and would demand pay commensurate with their near professional status, necessitating higher costs. No doubt an attempt would be made to alleviate these costs by pressuring the physician/dentist to share his fees in return for the opportunity of treating more patients. This could be a qualitative and quantitative decision which the doctor might be loath to make. The groups he would be most likely to start with and whose duties could be easily expanded into the medi-professional area would be the dental hygienists and the nurses. The hygienists are primarily concerned with oral hygiene and most of their time is taken up with it. Their educational curriculum at present is two years and to qualify as dental medi-professionals this would have to be increased. Certainly under any expanded dental health coverage there would not be enough

of them to handle even the oral hygiene phase. We find also an acute shortage of nurses, even to staff the hospitals, yet there are upwards of 500,000 inactive. Would a medi-professional career be stimulating enough to relieve this shortage? These are practical problems which would have to be given serious thought by the instituting agencies before they could hope for any degree of success in projected health coverage.

#### HIGH COSTS OF HEALTH CARE

Let us consider the second factor, high costs. Health, Education and Welfare Secretary, John Veneman, said that the price of health care is rising rapidly, for Medicare 3 billion and for Medicaid 800 million more than estimated. However, the medical and dental professions did not create inflation nor are they immune from its effects. Medicare and Medicaid generated more than 9 billion dollars worth of additional demand for medical services with no provision to expand the physical plant or increase the personnel to staff it. This is inflation. Union labor strikes for higher wages and increased fringe benefits whenever it feels the need with little or no opposition from Washington. This is inflation. The government pours money into wasteful programs that remedy nothing and benefit few. This is inflation. The average doctor may work from 40 to 60 hours a week and has to spend \$10,000 a year on his education. In 1969 the nation spent 69 billion dollars for health care of which the MDs took 20% and the dentists 6%—one-fourth of the whole care package to the key men who provided it. This is inconsistent. A medical career involves many years of college with no pay and an internship with little more. From there the embryonic medico must fend for himself with none of the little niceties that industry and labor provide for its members—no pensions, no paid vacations, no fringe benefits, no profit-sharing opportunities—plus being burdened with the initial cost of equipment, wages, rent and the need to keep up a good front and build a practice. Yes, the doctor/dentist should be adequately paid; he has given many years, risked much, worked hard with little help from other than himself. Admittedly fees are rising; so are the costs of housing, plumbing, transportation, food and taxes. Criticism of medical expenses is certainly valid but if you are going to create inflation you must be prepared to take the consequences.

## MISUSE OF FACILITIES

It is a common, human failing to overutilize or misuse those facilities which seem to be free or paid for by someone else. Whether by misconception, ignorance, or just plain intent, it is an attitude that appears to be fairly widespread. So if we are going to talk about the high cost of medical/dental care and point the finger at doctor's fees and hospital expenses we must not forget to save a finger to point at the patient also. There is a feeling abroad today and it is spreading that medical and dental care is no longer a privilege but a God-given right and the public is overreacting to that assumption, particularly, as we are seeing, in Medicare and Medicaid. The only solution to misuse and over-utilization is by some measure of monetary participation by the patient, even though small. Fortunately, the government is finally coming to realize this fact and hopefully, the system will be shored up before it collapses of its own weight.

## FEE FOR SERVICE PRINCIPLE

The traditional fee for service principle which has governed medical care in the past is now coming under increasingly general criticism as being outmoded, cumbersome and wasteful. It is said that since medical and dental care is paid for on a piecework basis, the temptation is for doctors to prescribe more than is really necessary. This leads to a laxity in cost consciousness and efficiency, even though the doctor's motives may be sound. Then, too, the patient becomes perplexed and discouraged at the maze he must go through to obtain some knowledge of what is wrong with him. Separate billings, separate visits for specialists, laboratory tests, x-rays, surgery—each involving another round of paper work and identifications and all probably at different locations and at times which must be arranged for and spaced over periods of weeks or even months. Further, the piecework system tends to encourage specialization and discourage the unglamorous family doctor, and unfortunate trend. If the physician or dentist is away or sick the patient is forced to put himself in another man's hands who may be quite unfamiliar with his case. All in all, a rather discouraging picture that they would have us believe is provoked by cupidity, inefficiency, indifference and waste. Yet these characteristics could not



have developed what is unquestionably the best medical and dental care in the world. However, the socio-economic thinking of today says that though it may be the best care in the world it is a commodity denied to a great mass of the people because of its price and unavailability.

#### POSSIBLE SOLUTIONS

What, then, is the answer? We must find a method of providing quality care for more people with increased personnel at a reasonable cost, while controlling over-utilization of the facilities. The first and most serious task, of course, is to curb inflation, for no fledgling program can hope to succeed under the debilitating impacts of a wage and price spiral.

Secondly, if people are to be attracted to a medical career in sufficient numbers then certain actions must be taken. Even though it is not the complete answer, the government should at least partially subsidize the education of those qualified according to their intelligence, aptitude, and financial needs. This would include not only the MDs and the dentists but also the medi-professionals, the doctor's co-workers, who would form a new class of health providers and be given a distinction and appropriate status in the medical world. In return for subsidization these people, during their initial years of practice, would be asked to devote a definite amount of their time to such programs as Medicare and Medicaid.

Over-utilization and misuse of the medical facilities can be curbed by the government ceasing to play its all out paternalistic role and giving some financial responsibility back to the beneficiaries. Let the health programs be run on a business basis, similar to the insurance companies, where overuse accrues higher premiums to the users. It is in our social thinking not to let sickness go unattended or become a financial burden and government and prepaid plans are trying to make this possible. However, it should be the obligation of the citizen to contribute a proportionately determined share based on his use of the facility.

Education of the public would also be a factor in lightening the burden on the professionals. People should be told how to eat and keep themselves healthy, both dentally and medically, not through

television commercials, but through unbiased sources working in conjunction with the programs.

#### GROUP PRACTICE

What method of rendering service can replace the piecework fee concept that now exists? One alternative, the prepaid group, practice plan, is assuming more and more prominence in the thinking of health care proponents. In this plan, a certain number of physicians and specialists merge themselves into a group and practice as a partnership under one roof. In the larger plans, a hospital is adjacent or nearby and becomes part of the setup. The group is run as one organization with a central business office, reception areas, laboratories, surgery, etc. Under this plan it is prepared to offer the public full medical care including hospitalization, for a set monthly fee. New physicians entering the group are paid a salary for a certain number of years, after which they are eligible to become partners. Partners receive a monthly drawing account and the profits are distributed equally among them every quarter. The advantages are obvious—the patient has a centralized record which covers his whole medical history, making for better diagnostic and treatment procedures. He also has more convenient access to medical facilities and the assurance that he is placing himself in the hands of a knowledgeable team and not a scattered number of individual practitioners. He knows what his costs will be and can plan for them without any sudden catastrophic financial shocks. On the medico's side, he has a stake in keeping the patient well, for the less services that are needed the more profit for the organization. He can practice pure medicine without being bothered with the business side. Space, equipment, and certain personnel need not be duplicated, leading to more economical administration. The doctor can be away from the office without inconvenience to patients or himself as his partners will be there and ready to cover for him.

Of course there may be some disadvantages also in that the patient may feel himself to be on an assembly line—automatic, compassionless and impersonal; particularly so if the influx of patients becomes overwhelming and the temptation to hurry and render superficial care too intense to resist. However, if the group has an

efficient management and its members are wisely chosen and understanding enough to subordinate themselves to the functions of the organization, this is probably not much of a threat. The real apprehension and fear is that if the concept is accepted as a solution and expands to a point where governmental lay control becomes a threatening factor, then these qualities might become evident enough to weaken the structure and the public would suffer.

Group practice is not a new idea but it is only in the last six or seven years that its practical significance has gained true acceptance. There are a number of different types, from the simple sharing of a reception room to the partnership corporation and the prepaid group plans such as Kaiser Permanente in the West. Only the large organizations have the facilities to offer a prepaid plan on their own and the great majority still operate under a fee for service basis. Even under this method most of the advantages are still inherent—centralized patient's histories, better implementation of space and facilities, qualified personnel, pure medicine and dentistry.

It is an easy and pat solution to say that the specter of ill health can be effectively alleviated by more physicians and dentists, more hospitals and more patient education. I do not think so. I think that there is an atmosphere of dissatisfaction and disillusionment enveloping the nation today. The problems and worries of overpopulation, crime, pollution, welfare, and unpopular war and burdensome taxes are spreading a psychological smog that is creeping into the mental and physical pores of the people. Solve some of these problems or even look as though you are solving them and you would have a more optimistic citizenry—independent instead of dependent, tolerant instead of vicious, cheerful instead of depressed, hopeful instead of fearful. Yes, and maybe, just maybe—well instead of sick.

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(Continued on page 255)



# Bridging the Gap\*

JOSEPH L. HENRY, D.D.S., PH.D.†

THERE is a crisis in the health manpower needs of this country. The dearth of health manpower is even more acute in terms of dental health manpower and it is incredibly inadequate in terms of black dental health manpower (1). The black and shaded minorities constitute a vast relatively untapped resource for dental manpower and for most other occupations requiring extended periods of study in and beyond college (2).

We are gathered at this workshop to share and pool our knowledge and experiences in an effort to "Bridge the Gap" of misunderstanding and misuse of standard testing procedures to assess the educability and achievement potential of disadvantaged minority groups (3, 4). Equally important to this workshop is the need for discussing and hopefully identifying the supplemental and supportive programs required to assure successful completion of the dental curriculum once a culturally or educationally disadvantaged student has been admitted. These two objectives must be met simultaneously if we are to prevent the current "altered" admissions standards from becoming an "I told you so" backlash in which the "open door" will become a "revolving door out" for those currently admitted and a "closed door" for all future applicants who do not satisfy standard tests or admission criteria. Standard achievement and intelligence tests should not be used to evaluate human potential for minority groups. At best they should serve as guide posts only and not stop signs in the evaluation of human potential. The overriding influences of cultural and educational exposure mask the true and often easily developed potential of human capability (5).

The keynote speaker is charged with igniting a fire of cerebral interreaction among the participants and not with providing the substance and results of such a calculated risk. Nevertheless, I

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have taken the liberty of passing out several pieces of background literature dealing with our purpose of being here with the hope that it will facilitate your discussions (5, 6, 7).

It is not my task to define and dunk your heads in the *well-spring* of knowledge concerning reinforcement, development of self-esteem, positive attitudes, etc. Rather, my role is to make you thirsty for such knowledge. In order to do this, permit me to emphasize the transferability of the knowledge programs and results related to the educational experiments with the disadvantaged in the innovative programs which you will learn about and discuss in the next three days.

The dental curriculum is merely one of the media in which such programs are being tried. The concepts, methodology, processes, and results are applicable to education generally with little or no modifications.

Let us now focus on the predominant disadvantage minority—the American Negro. The remarks related to Negroes are applicable to other minorities and to the disadvantaged generally.

Many ask, “Why can’t the black man uplift himself by his boot straps?” as so many other people of different ethnic, racial, religious or other origins have done. My answer to this question is that in view of the recent opportunities available to the black man following long-standing suppression, malignant oppression and more recently benign neglect that I believe he is advancing at a phenomenal rate.

Every other group which came to this country came of their own volition as free men and with ties to the motherland including religion, family and friendship ties, traditions and in many cases resources for carrying on. On the contrary the black man came here against his will and in chains as a slave. He came without hope. He was forbidden to be African and not permitted to be American. Yes, all others came out of their own desire for new frontiers, opportunities and challenges. The black man came by force and without his consent. Fortunately, he is equipped with an amazing constitution, both mental and physical; an indomitable will, great adaptability, unbelievable patience, high moral fortitude and an insuperable belief and trust in God. These facts are attested to by the survival of the black man in spite of the

inhuman conditions and barbarism to which he was subjugated for some three hundred years.

These things are not being said to cast arrows or to castigate. They are being said to remind us of *why* we are taking extra steps to help the black man to catch up, maintain and keep abreast with the society which is now committed to accepting him as a "partner." At this point in history, in order for black men to become equal partners, it is obvious that "more than equal" measures are necessary. These measures must be achieved together (8, 9, 10). This is essentially why we are here today.

Let us take a look at a profile of the composition of black students in American dental schools and relate these facts to human needs.

Table one summarizes the number of Negro dental students in American Dental Schools. It can be noted that in 1966 90 percent of the 324 black dental students were enrolled at Howard and Meharry—the two predominantly black dental schools and more than half of all dental schools had no black students. Three years later in 1969 there were 356 black students in all American dental schools (11). These figures do not appear remarkable but a real success story in recruitment, sensitization, favorable response and cooperation is more apparent in table 2.

A precipitous drop in enrollment of black students of almost 50 percent in 1967 can be noted by comparing the total third

TABLE 1  
NEGRO DENTAL STUDENTS IN AMERICAN DENTAL SCHOOLS\*  
SUMMARY OF TOTALS

	<i>Number and Percentage 1969-70</i>	<i>Number and Percentage 1966-67</i>
Howard .....	165 ( 46.3%)	213 ( 65.7%)
Meharry .....	111 ( 31.2%)	76 ( 23.5%)
All Other Schools .....	80 ( 22.5%)	35 ( 10.8%)
Total .....	356 (100.0%)	324 (100.0%)

\* Based on Surveys by the American Association of Dental Schools, October, 1966 and October, 1969.



TABLE 2  
BLACK STUDENTS IN AMERICAN DENTAL SCHOOLS\*

	<i>All Dental Schools</i>		<i>Howard</i>		<i>Meharry</i>		<i>All Other Dental Schools†</i>	
	1966-67	1969-70	1966-67	1969-70	1966-67	1969-70	1966-67	1969-70
1st Year	110	136	71	53	30	36	9	47
2nd Year	75	78	54	36	14	26	7	16
3rd Year	81	58	58	26	16	26	7	6
4th Year	58	84	30	50	16	23	12	11
Total	324	356	213	165	76	111	35	80

\* Includes results of 1966 and 1969 surveys of all operating dental schools made by the American Association of Dental Schools.

† Does not include Puerto Rico.

year black enrollment of 58 students in the 1969-70 chart with the first year class of 110 students in 1966. Some improvement can be noted in 1968 by looking at the second year class in the 1969-70 chart. A dramatic increase is observable in the 136 students in the 1969-70 first year class. Of special note is that almost three fourths of all dental schools had Negro students at this time.

The 53 students in Howard's 1969-70 freshman class and the 47 students in all other dental schools for the same year are of primary interest to this workshop. The Howard students are of special interest because 21 of them did not meet our flexible and enlightened standards of admission (5, 6, 9, 12). These 21 students are participating in an academic reinforcement program which began months before they were admitted to the freshman class. The majority of the 45 students in the first year classes of all other dental schools were admitted using flexible admission standards.

The programs needed for both of these groups to bridge the gaps in their educational and cultural exposure are challenging, exciting and absolutely essential if these students are to succeed. The philosophical and practical bases of these programs constitute the major substance of the workshop.

The reversal of the decline in the number of black students entering dentistry is overshadowed by the startling fact that black dental students comprise less than 3 percent of all dental students. Of even greater significance is the painful truth that the

TABLE 3  
 ESSENTIAL CONSIDERATIONS FOR SPECIAL HEALTH  
 EDUCATIONAL PROGRAMS FOR DISADVANTAGED

Availability	What	} WHETHER } COMMITMENT	Priority
Accessibility	When		Desirable
Continuity	Why		Necessary
Acceptability	Who		Critical
Efficiency	Where		
Responsiveness	How		
	How Much		
OBJECTIVES AND GOALS			
1. Improve the Quality of Life for All—IQLA 2. Provide Health Care as a Right for All Now—PHCRAN (Quality health care where it is needed <i>now!</i> ) 3. Save Our Society—SOS (A better society—survival)			

ratio of dentist to population among blacks (1:12,500) is more than 600 percent worse than it is among the population generally (1:2,000).

It, therefore, seems appropriate to focus on the essential considerations for special health educational programs which can lead to resolution of the great disparities between need, demand and availability of health care. These essential considerations are presented in outline form in Table 3 and are applicable to dentistry, medicine, health care centers, etc. The need for availability, accessibility, continuity, *acceptability*, efficiency, and *responsiveness* are elements which you should discuss at length. Special attention should be given to *acceptability* and *responsiveness* since these two must be discussed and appreciated by feedback from the participants in the program.

The what, when, how, why, who, where, and how much constitute the “nuts and bolts” of the programs. Each of these deserve your attention.

The most important aspect to be considered is *whether* a thing is to be done. Determination of whether it is paramount to all essentials previously enumerated. A determination *whether or not* to have a program makes the difference between a paper plan to be filed and a COMMITMENT to a viable entity. The *commitment* of America to do *anything* is tantamount to its achieve-

ment. The decisions to split the atom and to place a man on the moon are eloquent sagas illustrating this point.

The speed with which a commitment will be realized depends upon the priority assigned. It would be a serious mistake to assign anything less than a *critical* priority to resolving health manpower needs generally and dental health manpower needs for minorities specifically.

If commitment is made and the highest priority is assigned then the objectives and goals will be realized. These goals should include:

1. Improve the Quality of Life for All—IQLA
2. Provide Health Care as a Right for All Now—PHCRAN (Quality health care where it is needed *now!*)
3. Save Our Society—SOS  
(A better society—survival)

It takes a special kind of health professional to meaningfully relate to the above goals. Howard University is committed to graduating such professionals. In dentistry we call them the five fingered dental graduates.

The first finger stands for a man who is *socially conscious*, the second finger stands for a man who is *community-oriented*, the third finger stands for a man who is *politically informed*, the fourth finger stands for a man who is *civically active*, the fifth finger stands for a man who is dedicated and *professionally competent*.

The significant important meanings of these terms have been extolled in numerous publications (2, 6, 9, 12) and will not be repeated here.

May I close with three final admonitions and/or charges.

1. What comes out of this or any workshop is directly proportional to the input of the participants.
2. Make IQLA, PHCRAN and SOS realities by the answers you provide at the workshop and your commitment to these answers with the highest priority.
3. Remember that the fate of thousands of disadvantaged minority student seeking careers in the health sciences is "in your hands" and dependent on your impact on policies and programs of health education in the seventies (13).

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## CRISIS IN THE HEALTH PROFESSIONS?

(Continued from page 248)

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# The Vanishing Minority Dentist\*

CLIFTON O. DUMMETT, D.D.S.†

THE major health crisis in the United States today results from the ever-increasing demands for health services despite the limited supply and uneven distribution of currently available health manpower. In view of these facts, the vanishing minority dentist compounds a serious predicament. Rays of hope for its solution shall become manifest when professional manpower wholeheartedly supports the notion of a more intelligent utilization of greatly increased numbers of dental auxiliaries. This represents one of the many proposals designed to remedy manpower shortages, and it is an excellent opportunity for every minority group to make a significant contribution to a problem that can and must be solved if we are to prevent the pending panic which portends a period of pernicious psychopathology.

We have been reviewing the statistics on black dentists and discussing problems incidental to their recruitment, reinforcement, admission and graduation. As a result of these deliberations, I have little doubt that there will be a steady increase in the numbers of minority students who will enter dental schools and join our professional ranks.

Exactly 20 years ago in an article entitled "Mental Health Principles in Dental Education," I discussed the growing realization of the importance of more adequate mental health knowledge in dental education, and reported on my survey of the inclusion of this topic in the curricula of the nation's dental schools.

## STUDENT PROBLEMS

One of the matters to which I called attention at that time was the fact that there are many problems which students encounter on first entering dental school. Basically, these problems are no

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different from others they meet on first entering college. These problems have to be met successfully and adjustments made, if the student is to make the most of his opportunities in dentistry. The change in environment usually requires new procedures in adaptation. The more impersonal atmosphere of professional school life, the relatively different type of instruction, the change in living habits necessitated by varying rooming and boarding accommodations, these are all problems that are either minimized or overlooked by "busy" administrators, but are often the true reasons behind a student's apparent inability to measure up to academic expectations.

There is another consideration worthy of note, and that is the fact that the student senses a difference in the importance of success in the professional school. This is the time when he is actually preparing himself to be an adult, to be trained in a profession to which society accords an enviable measure of respectability, and to be possessed with a skill that contributes to the relief of suffering humanity. Most important of all, he will be working at a vocation that affords an excellent means of livelihood. As a consequence, the importance of success minimizes all other considerations and the mere thought of failure becomes mentally upsetting. Very often brutal, short-sighted, unsympathetic attitudes of some of our professional teachers contribute a great deal to increasing rather than alleviating these anxieties.

If dental schools are as interested in the mental growth and preparation of future dentists as they are in the acquisition of technical proficiency, mental hygiene would be in the advantageous position of preventing a considerable number of the actual tragedies that result when emotionally unfit students enter dental school. It is true that there have been and still are in dental schools, some students who lack the mental capacity to cope successfully with professional school life, and others who have embarked upon a career for which they have not had the proper preparation and insight.

#### ADVERSE INFLUENCE OF SOME DENTAL TEACHERS

It would appear that the most logical persons with whom a mental hygiene program should be initiated are the dental teachers



who have problems as many, as important, and as upsetting as those of the students. In the matter of degree, many of these problems are peculiar to dental faculties alone.

Just as many students should not be in professional school because of nervous or mental illnesses, many dental teachers should not be on the faculty for similar reasons. As a matter of fact, many of these people should not even have been allowed to enter professional school much less to be responsible for the professional and academic preparation of students. Cases in which dental teachers are completely aloof to students' problems are just as frequent as cases in which teachers are so concerned about students that they meddle and pry into and even attempt to direct the dental, social and familial lives of the professional wards. Then there are cases in which teachers are so keen on acquiring the reputation of being severe, that actually there is derived a particular delight in failing students or awarding extremely low grades quite out of proportion to the work done and grade deserved. Common in every dental school is the ostentatious teacher, intent not in teaching or assisting students in the learning process, but rather on impressing the student with his own profound wisdom and ability.

Many of these conditions still exist although there have been a large number of changes which have been instituted to better prepare teachers and administrators for their exacting roles in pedagogy. It is precisely because their roles are exacting that the dental teachers of today must view themselves and their teaching methods in relation to the needs of the students for whom they are responsible. Faculty members must subject themselves to ruthless self-scrutiny and self-evaluation, for only in this way can the necessary changes come about. Teachers must view themselves as catalysts in the learning process rather than funnels through which stored material flows at whim or will. Pettiness, temperamental outbursts, ego protection, and vanity sustenance are all detrimental to the dynamics of dental education. We who teach must put the student first on our list of priorities, and it is urgent that we take swift steps to improve the mental health of all parties concerned.

#### STUDENT UNREST

But there is also an added dimension associated with the many attitudinal changes which have been forced upon the contem-

porary scene by youthful, forthright, often impetuous, sometimes foolhardy groups dedicated to the immediate solutions of most, if not all of the world's problems.

It is both interesting and disturbing to note some of the changes which have occurred through actions by students who have become fed up with the excesses and insensitivities of teachers of bygone eras, and have wrested control of educational institutions and their various schools from the tight grasps of their traditional guardians. Intoxicated by a seemingly immediate success, and propelled by the latter's irresistible momentum, the young leaders along with their student supporters have engaged in some excesses of their own.

So now we are amazed at the incredible situation in which a number of incumbents in top professional and administrative posts in the nation's schools are reluctant to continue in their endeavors. Colleges and universities are experiencing the rare phenomenon in which there are many vacancies but few qualified takers, for positions of president, chancellor, vice president, provost, dean, director and department head. Talented persons for these positions are fully and painfully aware of the occupational hazards and vacillating tenure now associated with once hallowed, profoundly respected and highly competitive appointments. Such people are understandably unwilling to endure the emotional confrontations, the inevitable impasses, the blatant racial predicaments, the vilification, the violence, the possible riots and ever present physical dangers now inherent in these pursuits.

These genuine phenomena have spread and even though most of the nation's dental schools have been relatively free from confrontation, conflict and change, the situation is not likely to remain this way. As a matter of fact, we are aware of burgeoning minority student problems in predominantly white and black dental schools, and it seems to me that students and dental administrators should be taking the initiative now, not tomorrow, and employing the processes of reexamination, reflection, revision and reformation to offset many of the harrowing experiences which polarizations often create.

A most regrettable occurrence is the fear manifested by teachers and administrators who are reluctant to express their opinions or their true feelings about many of the problems with which they

are faced. They are actually so intimidated by threatened student reprisals, that immediate capitulation in the name of peace and harmony seems to be the order of the day. All of us need to recognize that such situations are as untenable as were the formerly manifested students' fears of teachers. Somewhere between these two objectionable extremes lies a traversable road, often difficult to locate, but easy of access and sturdy enough to withstand the severe buffetings of the traffic of doctrinal disputes. In dentistry we must find this road and use it.

#### BLACK DENTAL STUDENT RECRUITMENT

We do need such an approach on the matter of black dental student recruitment. In the area of recruitment there must be an honest recognition of the requirements of dental education in both pedagogy and mental health. It is unfair to give the impression that "anybody" can become a dentist if only that person is admitted to an accredited dental school. In promoting such a misconception, we do the profession a disservice, we handicap the dental school in achieving its educational goals, and of perhaps greater importance is the fact that we deliberately mislead the very individuals we are attempting to recruit! We who have the responsibility for maintaining quality as well as quantity in the dental profession must analyze and decide how the needs of quality and quantity may be achieved in the production of dentists. Only in this way can we hope to institute a recruitment program which will yield visible results. A palliative program based on a flurry of activity which gives the appearance of recruiting is as hypocritical and productive of negative violent attitudes as is the present system of tokenism. There is no room for fear in education. If we believe that truth will set man free, then we should not fear truth, but embrace it willingly and stand upon it. The truths of dentistry deserve our loyalty, our support, and our guardianship.

There is no doubt that problems in recruiting minority group students for education in previously avoided professions can be overcome. There also can be no doubt that attention to this matter is long overdue. It is, therefore, of utmost importance that there be no further extravagance in the expenditure of time, because time is the commodity of which we have the least. What is



needed in the present situation is greater emphasis on imaginative, innovative and intensive planning. We should look to the other professional disciplines for help and guidance in truly understanding the complex individuals we are seeking to attract to our profession. If we know, or rather, if we can define him whom we seek, then we should be better able to formulate that which will motivate and attract him. The quest, after all, is not just for "a student," but for *that* student who has the *potential* to successfully complete a dental education. At the present time, there are a variety of programs aimed at recruiting dental students. Some of these are on high school and college levels. All of these are laudable and more than likely have produced some positive responses. Groups of students have been taken on tours of dental schools with some benefit to both. Nevertheless, there has yet to be devised a 100 percent effective comprehensive community-wide recruitment program.

It has become self-evident that recruiting cannot be a part-time, hit-or-miss, or one-shot endeavor. There will have to be steady, continuing and coordinated activity in this area that will involve more than just the student population. The school boards, the school principals and counselors, the churches, the community organizations, PTAs, Ladies Auxiliaries, dental societies—all these must be incorporated into the effort in order that the maximum intensity of the drive will permeate all levels of the population. Dentistry will have to be more forceful in the pursuit of its goals of increased manpower. This problem of manpower is not a dental problem alone but a community problem, and the minority communities have to be brought to the realization that it is *their* problem too and that *they* have a real stake in the solution.

#### THE ROLE OF DENTAL HEALTH EDUCATION

Thus it would seem that dental health education would be a necessary adjunct to a recruitment program. A community in which there would exist an increased level of dental health consciousness would most likely produce dentally motivated students. In addition, a dynamic program of dental health education would enhance the image of dentists and of dentistry, and more importantly, would lend positive support to preventive dentistry

practices. The recruitment of minority students cannot take place in a vacuum. The ghettos of this land are separate, yes, but they are a part of the whole and do not exist in absolute isolation.

The minority student has to be encouraged to recognize that he is a part of the whole. Similarly, in dentistry, the viewpoint of wholeness needs to be maintained if the minority student is not to suffer additional fragmentation. It is imperative that the minority student look upon himself as a dental student with special needs rather than a "special" dental student. Thus his recruitment should appear in the context of the wholeness of dental manpower needs. Dentistry needs more manpower, and students, whether from affluence or poverty, are a part of that manpower.

#### REMEDIAL PROGRAMS NEEDED

The immediate function of the predominantly black dental professional school, and this is equally applicable to the predominantly white dental professional school, is to take black students as they are with many of their disadvantages and prepare them for effective professional roles in American society. It must be understood that this formidable task involves considerable remedial education and financial support. Many a disadvantaged student brings to his new educational experience all of the handicaps imposed upon him by a system which has deliberately and consistently fostered a program which would give the appearance of providing educational opportunities sufficient to his needs, but which in fact, stunted, thwarted and too often, actually obliterated the academic potential of the disadvantaged student regardless of race, color or national origin. Many of these students bring to their educational experience all of the deficiencies—physical and emotional—which are part of the poverty syndrome: namely inadequate health care beginning from the prenatal period; deficient nutrition; crowded and dilapidated housing; unstable family relationships; constant exposure to illicit activities; and a shattered self-image.

It must not be overlooked that there are many capable black students who are not poverty-stricken, but still do not have the necessary funds to match their academic ambitions, and these too, must look outside of the resources of their families if they are to achieve professional status. Therefore, recruitment is a multifaceted objective. There is the desire to (1) encourage those who

in the past have been denied admittance solely on account of race; (2) provide opportunities for those who have never believed that such opportunities could be available; and (3) discover and develop hitherto unrecognized potential in unexpected places.

Insofar as the so-called "white" dental institutions are concerned, there is the important need to convince many black students that those schools are ready and anxious to spread open doors that not too long ago were not even ajar. These schools do have the responsibility to help prepare disadvantaged students for effective professional roles.

### THE QUOTA SYSTEM

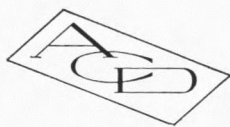
It is obvious that the academically deprived student cannot immediately compete on a level with the academically non-deprived. Therefore, if the former is to achieve the goal of a profession, he must have admittance in spite of somewhat lower credentials, and tutorial assistance in addition. It cannot be assumed that his performance scores are completely representative of his potential inasmuch as these scores reflect the system which brought him to this level as well as his performance within it. Thus, a special place needs to be created for this student in order to give him that extra boost which he has earned through desperate years of second-class, second-rate and second-best status. It thus becomes apparent that only by setting aside a stipulated number of openings to be available to this category of student can some form of "inequitable equity" be established to begin to compensate in a small way for the long years of neglect. No matter how much one may disagree with a quota system per se, it does serve a useful purpose in allowing disadvantaged students to hurdle the handicap of academic weakness. It goes without saying however, that these students must understand from the very beginning that preparation for dentistry is a formidable task, and that there are no substitutes for study, industry and concentration. Moreover, dentistry should not be expected to lower hard-fought-for standards, just to make it "easier" for members of minority groups. The effort should be directed towards trying to attract as many academically qualified persons as possible who are interested in the dental profession.

The vehemence of reactions against the steps recently taken by



some of our nation's most illustrious institutions is surprising, but not unpredictable. These schools have announced that they will accept persons who are socio-economically different from the majority of the school population and that such persons will comprise 25 percent of each class. This accommodation was made on the basis that these persons would find it difficult to attend dental and medical schools. In the procedure, qualifying test score requirements were lowered. Many students had grades and test scores that were not as high as normally considered essential in the past. However, many honest dental educators would attest to some lack of correlation between the grades and test scores at the time of entrance and the subsequent performances of the students. Several schools feel it is of utmost importance to interview minority students as an additional aid in considering their test scores and grades. In this way they are better able to evaluate how the students would perform and then weigh the academic considerations in relation to what the committee feels these students could contribute to dentistry, as well as to the communities from which they come.

I believe that even though they have been slow and deliberate in their progress towards consideration of dental education's urgent issues, our professional schools have heeded storm warnings and have started down the road towards correcting many of the educational ills and long-standing inequities which have plagued the profession. Undeniably, there is still a long way to go, and there is the need to accelerate the pace of consideration, but the essential point is that many of our mature educators are now alert to the issues.



# Women Dentists— An Untapped Resource

JEAN E. CAMPBELL, D.D.S.\*

“MANY of the dangers of Big Science are illustrated by the induced manpower shortage in medicine. We divert our attention from the important to the glamorous; from the man on earth to the man in space. We set in motion surges of manpower away from the necessary task toward the fashionable tasks; we try to eat cake when it is bread that we need for nourishment.”

This statement, made by Alvin M. Weinberg in *Science Magazine* in 1962, applies more today than it did eight years ago. No effort will be made in this discussion to emphasize the many reasons more physicians, dentists, and all paramedical personnel are needed at present, and that the demand will become critical in the years to come. This has been well documented in scientific and lay journals for many months. This discussion will be limited to one aspect of the overall problem. We are all aware of the declining dentist-population ratio, the need for more highly qualified applicants to dental school, and the shortage of dentists who are interested in dentistry for children.

Several solutions have been put forth. We are told to increase our output by extended use of auxiliary personnel, better equipment, and higher efficiency. We are also becoming aware of the intense competition among the professions and business to attract the top students into their fields. I would like to suggest that an increase in the number of women dentists would benefit both the profession and the public. Qualified young women are an almost untapped resource that we need to draw upon to keep our dental schools filled and to help meet the number of dentists needed to fulfill the increasing demands for dental care (1).

As noted in Table 1, most of the professions in the United States

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TABLE 1  
PERCENTAGE OF WOMEN IN PROFESSIONS IN THE U.S.A.

Dentistry	<i>Per Cent</i>
1920 .....	3.0
1968 .....	1.2
Law .....	2.0
Medicine .....	5.0
Pharmacy .....	6.0

have not really utilized women. Pharmacy has approximately 6.0% women in its ranks. However, dentistry is at the bottom with only 1.2%. This is even more significant when compared with the 1920 statistic of 3.0%. This is also reflected in a numerical drop from 1,900 women dentists to only 1,250 (2).

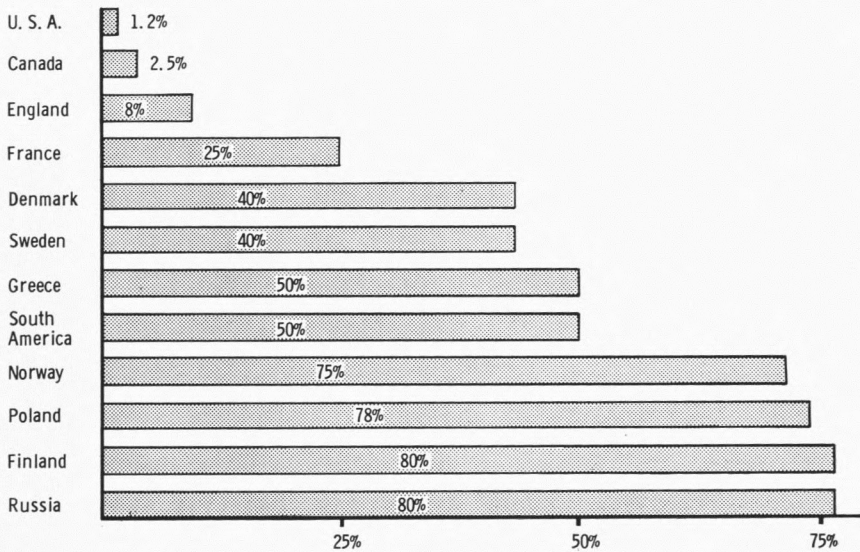
When we compare the number of women dentists in this country with other countries throughout the world, we find a very different picture (Table 2). In France 25% of the dentists are women. Denmark and Sweden have about 40% among their dental practitioners. South American countries average about 50% women dentists. In Poland, Finland, and Russia 78 to 80% of the dentists are women (1-3). In fact, in these countries you could almost call dentistry a woman's profession. Certainly the large percentage of women dentists in many other countries would seem to indicate that dentistry is a field that is not uncongenial to women.

Perhaps the next question is, what is there about dentistry to attract a woman? As emphasized recently by Major General Robert B. Shira, Assistant Surgeon General and Chief of the U.S. Army Dental Corps, "There are over 21,000 professions and occupations by which individuals earn their living in this country. Fewer than ten grant the right and privilege of operating on living tissues, prescribing treatment, or relieving human suffering. For this reason, members of the dental profession and the other health services are a group apart." In addition to giving her prestige in her community and a feeling of providing an humanitarian service, dentistry also permits a woman to set her own hours. This allows her to combine her career with marriage and a family, and 75% of women dentists do marry (2). Night calls and emergencies are usu-



TABLE 2

PERCENTAGE OF WOMEN DENTISTS IN FOREIGN COUNTRIES



ally infrequent. She can expect a good income, and the odds today are that a wife and mother will spend 25 years or more working outside of the home. Women's inherent gentleness, patience, and sympathy are certainly attributes ideally suited to dentistry. Most women have a natural aptitude for treating children, and young children are usually much more at ease with a new unfamiliar woman than a man. And finally, dentistry offers a woman several choices of practice.

The woman dentist can choose private practice, either in general dentistry or a specialty; and 31% of women dentists do limit their practices to a specialty compared to 10% of men dentists (4). Or she may choose to work in a Government Hospital, either with the Veterans Administration, Public Health Service, or a branch of the military. This offers her certain advantages not found in a private practice. Here she can cooperate with the physician in providing total health care to the patient. A hospital can provide many facilities and services not found in a private office. A third area open to a woman dentist is the field of dental research.

This can be done in conjunction with either a dental school, hospital, or commercial firm. There is a growing need for more, well trained dental researchers. "Approximately one-third of the research effort in dentistry, at least in the United States, is concerned with the development of improved dental materials and instrumentation" (5). There are also the areas of oral cancer, periodontal disease, and many more covering every dental specialty. Although an individual's contribution may be small, it may be a building block to a major breakthrough in a larger problem. She may also choose to go into dental education. Here she can work with the dental students in the classroom or on the clinic floor supervising their work on patients. Other duties would include overseeing the students' work in the laboratory and even making educational films for use in demonstrating procedures to dental students. This illustrates the wide variety of possibilities available to a woman dentist.

I am often asked why more young women don't go into dentistry since there are so many obvious advantages for them. One of the main reasons is that they are not told about dentistry as a possible career choice at the high school level. Too many are in college before they consider it and would need to take many additional courses to satisfy their pre-dental requirements. Secondly, there is a lack of interest in dentistry among many girls. Others consider it too strenuous. They are told they would have to make too many "sacrifices." Some consider it to be unladylike; and many are told that they will probably marry and never practice, thus taking the place of a man in dental school who would have practiced for many years. This is a fallacy, however, in that 85 to 90% of all women dentists under the age of 65, married or single, are in active practice even after children are born (2). Others find the educational requirements are too difficult or feel that it is a man's profession. Some feel that it is apt to prevent their getting married, which again is false since 75% of women dentists do marry which is about the same for all college educated women. Another reason for not going into dentistry as a career is the opposition and discouragement many girls receive from friends, parents, or teachers. Finances play a large part in the decision as a dental education is one of the most expensive. Many parents feel they should put

their sons first—that their education is more important than their daughter's. Finally, early marriages among girls are often responsible for fewer and fewer going into any profession or occupation that requires four or more years of college. Today more girls marry at 18 years of age than at any other. At this time they have just completed high school or perhaps one year of college, and after marriage few girls seem to continue their education. Instead, many go to work in order to put a husband through college.

We must now ask, how can we attract qualified young women to dentistry? First, we must make high school and college counselors more aware of dentistry as a profession for women. Few girls ever have dentistry suggested to them as a possible future career choice. The earlier in their education they begin thinking about dentistry, the easier it is for them to prepare for it by taking the necessary courses. Secondly, the dental profession on the national, state, and local levels should educate the public and parents to the fact that dentistry needs women. This could help remove the resistance some young women encounter from their parents and friends when they consider dentistry as a vocation. There should also be information available in brochure form on dentistry as a career for women. The Association of American Women Dentists, in cooperation with the American Dental Association, has recently published a pamphlet on dentistry as a career. This pamphlet is geared toward the advantages that dentistry offers to women in particular. These have been distributed as widely as possible to junior high school, high school, and college counselors throughout the United States. They are available upon request from the American Dental Association, 211 E. Chicago Avenue, Chicago, Illinois 60611. Finally, women dentists should talk to groups of high school and college girls, pointing out the advantages of dentistry as a career for women and emphasizing that the profession and homemaking are compatible.

In conclusion, it is hoped that sincere efforts will be made to promote and stimulate the interest of young women in choosing dentistry as a career. The entire dental profession, as well as high school and college counselors, should make every effort to recruit future dentists from this untapped resource.

*(Continued on page 275)*



# Dental Education 1970: An Analysis in Retrospect

DAVID P. ROSSITER, III, B.A., D.M.D.\*

*Having graduated recently from dental school, the author offers some perceptive comment and criticism of the type of education being afforded the dental student of today.*

THE aim of dental education is the development of technically capable, medically oriented, thinking, dental practitioners. This is a non-controversial statement of fact and can be considered to be the goal of both dental student and dental educator. By a technically capable dentist is meant one who has the ability, both visual and manual, to treat maladies of the teeth and oral structures in a way which is likely to remedy or ameliorate them. A medically oriented practitioner has a background in medical science which enables him to diagnose these oral ills by means of his understanding of both the interrelations of the systems of the body and man's relation to his environment. A thinking dentist is one knowledgeable in the concepts of preventive dentistry who can understand and coordinate both the technical and medical aspects of treatment and rendered the patient the service he requires. The thinking practitioner nowadays has the added task of being a liaison between the dental profession and the community it serves. This, briefly stated, is the end that both dental students and faculty strive to attain.

When one examines dental education, one must immediately consider some basic facts of education. In order for learning to ensue, there must be a productive interaction between student and instructor. This is the basis for education as we know it. Dental schools are designed to provide, philosophically as well as physically, an environment in which this interaction can occur.

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## THE DENTAL STUDENT

In exploring the simple model presented here, one may start with a consideration of the dental student. Today's dental student is a college graduate who has spent much of his college time integrating facts by writing papers. He has gauged his college achievement by means of rigorous essay examinations. He has earned his degree in a time when freedom of expression is foremost in the minds of many. The student of today is being taught to ask "why not" as well as "why." New ideas in education (e.g. pass-fail grading) coupled with new methods of teaching (e.g. programmed texts) have been a fact of life for him. Each year brings a class of graduates to dental school more capable both academically and intellectually than ever before.

By his application to dental school, a student implicitly states an interest in the fields of health and science, a concern for helping his fellow man, a willingness to work hard and to sacrifice, and a desire to be challenged intellectually. Certainly, it can not be disputed that these characteristics are consistent with those that could be posited for an ideal dental practitioner. More pragmatically, a student may harbor motives of wealth, respect and easy living. While these motives alone can get him through dental school, they bode ill for a happy existence afterwards.

Given a capable, motivated student, how does the current system of dental education in the United States meet the needs of the student and the desires of the professional?

## THE DENTAL SCHOOL

At the present time, there exists a dichotomy in dental education between the state-supported schools and the private schools. The prime distinguishing feature of this division is that the state schools have much more in the way of financial resources than do the private schools. State schools are able to offer higher salaries to their faculties, to equip their laboratories and clinics more elaborately, and to offer the student a rather idealized picture of dental education. This is not to say that the state schools offer the dental student a better quality dental education, for the quality depends largely on the philosophy of education espoused by the particular dental school. Prominent or highly-paid dental practi-

tioners at the head of a department do not insure that the education to be derived will be of high quality. Great dentists are often not cast from the same material as great teachers.

#### PHILOSOPHY OF DENTAL EDUCATION

This leads one to a consideration of the philosophy of dental education adopted by a dental school. The development and implementation of a philosophy of dental education for a particular school falls lot to the dean. It is he who will set the final course for the school and it is he who must work closely with carefully-selected department heads in order to put his philosophy into practice. Many dental schools are run with no philosophy other than a general statement about producing better dentists. Philosophies set in general terms are worthless since they admit of no practicable means to accomplish their ends. Often philosophers of dental education propose a false continuum to describe their concern. This continuum has a *laissez faire* attitude on one end and a "drag 'em through hell" attitude on the other. More practically stated, they resolve themselves into the questions of requirements vs. no requirements; many tests vs. no tests; and heavy emphasis on grades vs. pass-fail. These areas of interest are merely symptoms of a greater and more basic problem. Instead of viewing dental education in this manner, it would be exciting, rewarding, and novel to adopt a philosophy whereby the dental student is welcomed into the profession and guided through dental school by competent instructors who are interested both in teaching and in students.

Under present philosophies in many dental schools, creative, interested students are constantly harassed by picayune, poorly-constructed, multiple-choice examinations which test not the student's cognitive or deductive reasoning ability, but rather his ability to regurgitate verbatim that which has been told him in poorly-planned, unimaginative classroom sessions, and his ability to follow directions. Admittedly, many facts must be known in order to speak the language of dental medicine, but, in many cases, the pressures of national board examinations and difficulties in grading many examinations result in the adoption of a philosophy of education which requires the memorization of facts and trivia for multiple-choice exams *ad infinitum et ad nauseam et ad absurdum* throughout the four years of dental school. It is no wonder



that dental students, genuinely excited about dental medicine at the start of their education, become bored and lose much interest by the time they reach their clinical years. It is no wonder that the conversation at dental meetings often gyrates around a common interest in stocks and bonds rather than dental medicine. It is sad that such stagnancy is engendered and perpetuated by such a outdated philosophy of dental education. Perhaps in by-gone years this was an acceptable method of teaching. A philosophy of dental education such as this contradicts itself in principle by presenting education which is the antithesis of the present-day college educational system. Today and in the future, dental students must be treated more like graduate students than apprentices in tooth colleges. The dental student must not only be encouraged to think, he must be challenged to think.

#### COORDINATION

Courses in dental schools often present the student with a conflict of information. Different points of view are admissible and even welcomed on a methodological basis, for there are many ways to perform certain dental procedures to accomplish the same end. In theoretical and conceptual areas, it is also important that the student be familiar with the various extant schools of thought. In more concrete areas (e.g. drug dosages), however, it is inexcusable and demonstrates a lack of consideration of the importance of coordination of courses by dental educators. Ultimately, such an oversight renders the student ill-prepared for practice in many significant areas. Such lack of coordination would appear to demonstrate a lack of communication at the faculty level in today's dental schools.

#### INSTRUCTION

The quality of instruction in dental school varies in direct proportion to the quality of the instructor and as the square of the instructor's interest in teaching. Currently, many students would be ashamed to have their college classmates attend many of the lectures they are attending. Little relevance to dental medicine, poor course content, course overlap, poor lecture preparation are signs of a greater problem. Why do people who do not enjoy teaching become teachers? Just as the teacher can recognize the interested

student, so can the student recognize the instructor who is dedicated to dental medicine and truly interested in sharing his knowledge and skill. Schools with limited funds are somewhat restricted in their choice of faculty. Does it not seem unreasonable that a man would teach in a situation which he finds distasteful when he could easily prosper in the lucrative field of private practice? Cannot a man who professes a desire to teach be given courses in education and motivation?

#### MOTIVATION

Motivation is a concept to be dealt with philosophically yet put into practice realistically. Basically there are three principal means of motivation in dental education. The first is one where the student's interest is gained by a well-planned, interesting course. In this context, the student is challenged by the course presentation as well as the course material itself. The second way is by making the student aware of the fact that if he learns a body of material or a technique, he will be able to make a better living when he starts his practice. The third method of motivation is by grades. The first method has been demonstrated to be the most effective in terms of motivating a student to learn. The third method has been shown to be the least effective yet it is often the most prevalent in the dental educational situation.

#### SOLUTION

In order to solve the current dental education dilemma, it is incumbent on a dean that he and his advisors develop a forward-thinking educational philosophy. The dean must be farsighted enough to anticipate the needs of dental education in the late 1970's and early 1980's and plan his course of action now. Having developed his philosophy of education, the dean must present it to his faculty and gain their support. This, no doubt, will be his most difficult step and will separate the famous dean from the infamous. When this has been done, teachers must orient their courses in the direction of the dean's philosophy. Within the delicate limits of academic freedom, course content, development of the curriculum, and overlap of courses must be overseen and dealt with by a committee whose function it is to review the

curriculum. After the four years of dental education have been mapped out to the finest detail, the whole frame of reference must be presented to the entire faculty, a qualified educational consultant, and esteemed educators from other dental schools for their constructive criticism. Admittedly, this is a long and arduous task, but it is the only way the system of dental education can be upgraded to meet the needs of both the students and the public whom they will be serving. This method of revision has the relative advantage of being adaptable to any dental school since, in large measure, faculty, budget, and facilities are constants in the equation for each particular school. The changes that will raise the quality of dental education are largely intangibles. The result will be as good as the dean and the curriculum committee are.

#### CONCLUSION

In large part, dental school today is a place where conformity to ideologies of the past and unworkable philosophies are perpetuating stagnation. Students are being exposed to the same unimaginative teaching methods year in and year out. Curriculum change is not the entire answer. A deep-seated philosophical change permeating all components of the dental educational system is urgently needed. If these changes are not brought about soon, it is the fear of many that the quality of the dental profession, as a whole, may suffer.

#### WOMEN DENTISTS

(Continued from page 269)

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# Conceptual Basis of Behavioral Science in Dentistry\*

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SINCE the first dental school was established well over 100 years ago, dental education has been necessarily preoccupied with the pathology of disease and with the therapeutic and restorative procedures useful in the clinical treatment of pathology. Today, it may be justifiably assumed that the dentist is adequately trained in both the biologic and technical aspects of treatment. In recent decades, numerous scientific advances in health-related fields have made apparent the need for an increased understanding of the relationships of psychological and social factors which influence patterns of health behavior.

The purpose of this paper then is to provide behavioral scientists and members of the dental profession with a conceptual basis for the role of the behavioral scientist in dentistry.

To begin, let us define behavioral science in its broadest terms. Though not semantically precise, some will refer to the entire field as social science. The inappropriateness of the term social as an all-inclusive generic term for public health, behavioral science, etc., has previously been noted (1). For convenience, let us adopt English and English's rather inclusive definition of behavioral science as,

"Any science that studies the behavior of man and the lower animals in their physical and social environment by experimental and observational methods similar to those of other natural sciences. The recognized behavioral sciences include psychology, sociology, social anthropology, and those parts of other social sciences similar to these in outlook and method" (2).

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Rather than attempting to peruse all the problems in dentistry to which behavioral scientists have addressed themselves, let me, with minimum reference to the literature, provide the conceptual framework into which most relevant research activity, training efforts, and clinical service can be incorporated.

Let us start with the premise that all dental diseases, patients, dentists, and behavioral scientists evolve as a result of particular forces within our social system. The behavioral scientist then addresses himself to consideration of the four major facets of this evolution:

1. The psycho-social factors in the etiology and prevention of dental disease; that is, the development of dental need, or who develops dental disease.

2. The psychological, social, and economic factors involved in the translation of the dental need into demand; that is, the factors determining who becomes the dental patient or who seeks dental care.

3. The factors involved in the dental treatment situation itself including patient management and interaction among members of the dental health team.

4. The psycho-social factors involved in the evolution of the dentist and other members of the dental health team, how they are trained, by whom, and why.

Let us look at each of these facets in greater detail starting with "who develops dental disease."

#### DEVELOPMENT OF DENTAL NEED

There is little question that psychological and social factors have been implicated in the pathogenesis of hard and soft tissue lesions (3) and dentofacial deformities such as cleft palate (4). As pointed out previously, the mouth has actual or prototypical functions of all body systems; that is, blood vessels, excretory, respiratory, secretory, bones, joints, and muscles and even the reproductive system according to the psychiatrists (3). To the extent that all other body tissues, organs, and systems may be affected by psychological factors, so too, must be the oral cavity.

From this reasonable assumption three basic questions have previously been derived which concern the behavioral scientist (5):

1. What are the psychological and social factors which are stressful for a particular individual?

2. Given that there are such stressful factors, what are the psychophysiological pathways; autonomic, neuroendocrine and/or somatic which are involved in translating situational disturbances into tissue damage?

3. Why does a particular pathway and/or organ or tissue become the target of these stress responses, that is, the interaction of conditioning or other psychological and social factors with constitutional factors to produce a particular somatic disease. Of related interest is the problem of prevention of dental disease through control of psychological and socio-economic factors. Included is the control of pernicious oral habits relating to oral hygiene, diet, and mastication, and the highly charged political, social, and psychological factors related to the acceptance or rejection of public water fluoridation.

#### TRANSLATION TO DENTAL DEMAND

Let us now examine the role the behavioral scientist plays in providing answers to the question, "Who of those people with dental disease seeks dental care and why?" Here the behavioral scientist has been concerned with the study of forces motivating the person with dental disease (need) to seek the dentist (demand). The dentist of today cannot help but be aware of the great discrepancy between need and demand. Over 95 per cent of the population has dental caries, yet only about 40 per cent receive adequate dental care (6). In fact, the period of greatest need for dental care begins at age 14 and peaks at age 24 (7), while the median age of individuals demanding dental care is approximately 28 years (8). This apparent disparity is in great part influenced by the approach-avoidance nature of pain.

Also interesting to the behavioral scientist is the importance of esthetic motivation in seeking dental care. Some psychophysical efforts have been directed at perception of dental esthetics and quantifying the importance of esthetics in motivation, attractiveness, and mental health.

Additional negative deterrents to demand for dental care include the low salience of dental problems in the medico-economic hierarchy and fear of pain which may explain the frequent failure of



reduced cost third party payment programs to increase the utilization of dental services. It is hoped that behavioral science research will ultimately provide methods for minimizing psychological and economical barriers to dental care.

#### DENTAL TREATMENT SITUATION

Let us now take a closer look at the behavioral scientist's contribution to the dental treatment situation. The effects of the anticipation of actual and simulated dental operations on various physiological and biochemical measures have been demonstrated. Some attempt has also been made to measure the importance of the doctor-patient relationship. For example, it has been shown that a preoperative visit by the anesthetist or surgeon significantly reduces the amount of postoperative medication necessary (9).

The psychophysiological aspects of pain and various non-pharmacological methods of pain control, such as audioanalgesia and hypnosis, have obviously been a most important concern of the behavioral scientist. One of the basic problems for psychology is pain measurement which distinguishes between thresholds of sensation, pain, and suffering. The suffering or tolerance threshold is of particular concern to the clinician in that it is most related to the context of the pain producing situation, hence to the attitudes and feelings of the doctor toward the patient and patient toward his illness and the doctor. Although often overlooked or forgotten, the doctor and the patient bring their own psychological and socio-economic background into the treatment situation.

On the other end of the continuum are the problems associated with the possible depersonalizing of the doctor-patient situation as a result of third party payment and increased use of auxiliaries. Also under consideration is the interaction and compatibility among personnel involved in the dental treatment situation (10). Behavioral scientists in the area of human engineering have focused on modifying the physical environment including the operation of equipment, to conform with psychological and physiological limits of the patient and the members of the health team.

#### EVOLUTION OF THE DENTAL HEALTH TEAM

Finally, there is the question of who becomes the dentist, dental assistant, dental hygienist and/or the dental laboratory technician.

What are the factors in our society which determine a vocational choice for science, then for the health profession in general, and for dentistry or allied health fields specifically? Behavioral science has an important task in identifying the various facets involved in career planning (5). It is hoped that such efforts will lead to better methods of recruiting a more qualified applicant pool from which those individuals who will be the most competent, socially conscious dentists may be selected. The behavioral scientist has also been developing various approaches for fostering socially oriented attitudes and behavior. In addition to the more traditional learning theory models, the use of sensitivity training groups designed to increase self-awareness is being explored.

In summary, I have attempted to provide a framework for the conceptual basis for behavioral science in dentistry from which was derived a variety of roles which the behavioral scientist plays in the dental profession today.

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## Book Reviews

DENTAL SCIENCE HANDBOOK by Lon Morrey and Robert J. Nelsen, 1970, 311 p. U.S. Government Printing office, Washington, D.C., \$2.75.

A handbook of dental science has been published jointly by the National Institute of Dental Research and the American Dental Association. The authors are Doctors Lon W. Morrey, editor emeritus of the American Dental Association and former vice president of the American College of Dentists; and Robert J. Nelsen, former chief of the Collaborative Research Office of the National Institute of Dental Research, and now College secretary.

The book, intended primarily for non-dentists, brings together for the first time, and in a concise, orderly way, a panorama of current information about developmental, biological, and physical aspects of the mouth. It also describes various ways to prevent oral diseases, treat oral problems and meet growing needs for dental care.

Increasingly, physicists, engineers, biochemists, pharmacologists, public health workers, educators, socioeconomists, and others are involved with research, educational, or administrative aspects of dental problems and programs. This book provides them with an essential understanding of the mouth. Through text treatment and a profusion of original illustrations, a special effort has been made for clarity for those who are not very familiar with a dental vocabulary. In ten short chapters, each written by an expert, the publication covers the morphology of the mouth, the structure of teeth, biological interrelationships within the mouth growth and development of the oral structure, and its physiological

functions. It touches on diseases of the mouth and teeth, reparative materials used in clinical treatment, extent and prevention of oral disease, and socioeconomic statistics of dental costs and care.

A glossary explains technical terms, and an index locates specific facts. Also useful for references are the many charts, tables, and drawings.

Because of the overview it gives of all phases of dentistry, this book could be of value to high school guidance counsellors and to young people with an interest in studying dentistry.

THE EPIDEMIOLOGY OF ORAL HEALTH by W. Pelton, J. Dunbar, R. McMillan, P. Moller and A. Wolff, 1969, Harvard University Press, Cambridge, Mass. \$5.00.

This book, published under the sponsorship of the American Public Health Association, is a collection of monographs on the epidemiological and statistical aspects of various dental problems. Specifically it covers dental caries, periodontal disease, oral cancer and dento-facial deformities, particularly malocclusion and cleft lip and palate. The origin and development of the DMF count as an index of dental caries is considered in some detail and its application in various studies is described. Russell's Periodontal Index and its significance and use in assessing incidence and prevalence of disease is explained thoroughly. An excellent reference section documents the collection and provides a source of data for those wishing to delve further into the material covered. This book should prove useful to the student of dental public health or to the interested general dentist or specialist, particularly the periodontist, orthodontist or pedodontist.



# The Journal of the American College of Dentists

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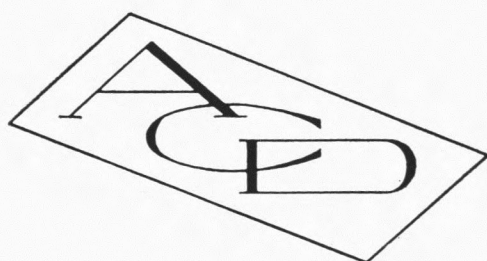
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## *The Objectives of the American College of Dentists*

The American College of Dentists, in order to promote the highest ideals in dental 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 development and use of measures for the control and prevention of oral disorders;

(b) To urge broad preparation for such a career at all educational levels;

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

(d) To encourage, stimulate, and promote research;

(e) To encourage qualified persons to consider a career in dentistry so that the public may be assured of the availability of dental health services now and in the future;

(f) To improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient through sound public dental health education;

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

(h) To cooperate with other groups for the advancement of inter-professional relationships in the interest of the public; and

(i) To urge upon the professional man the recognition of his responsibilities in the community as a citizen as well as a contributor in the field of health service;

(j) In order to give encouragement to individuals to further these objectives, and to recognize meritorious achievements and potentials for contributions in dental science, art, education, literature, human relations and other areas that contribute to the human welfare and the promotion of these objectives—by conferring Fellowship in the College on such persons properly selected to receive such honor.

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This is from the Preamble to the Constitution and Bylaws of the American College of Dentists.

