

**BLACK DENTISTRY
IN THE
21ST CENTURY**

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BLACK DENTISTRY IN THE 21ST CENTURY

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Sponsored by:
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Contents

Foreword	v
Acknowledgments	vii
Planning Committee	viii
Organization of the Workshop/Conference	ix
Contributors	xi
Opening Session	
Welcoming Addresses	xiii
Dr. Emerson Robinson	
Dr. J. Bernard Machen	
Dr. Gilbert R. Whitaker	
Dr. Charles D. Moody, Sr.	
Introduction of Speaker	xvii
Dr. Michael E. Razzoog	
Opening Address	xviii
Dr. Audrey F. Manley	

Section I: Psycho-Social Aspects of Dental Care

Section Participants	3
Focus of Section Discussions	4
Report of the Section	5
Discussion of Section Report	12
Review of the Literature (Abstracts)	27
Bibliography	45

Section II: Patient Care (Public Sector)

Section Participants	51
Focus of Section Discussions	52
Report of the Section	53
Discussion of Section Report	60
Review of the Literature (Abstracts)	70
Bibliography	107

Section III: Patient Care (Private Sector)

Section Participants	113
Focus of Section Discussions	114
Report of the Section	115
Discussion of Section Report	121
Review of the Literature (Abstracts)	140
Bibliography	160

Section IV: Human Resource Development

Section Participants	167
Focus of Section Discussions	168
Report of the Section	169
Discussion of Section Report	180
Review of the Literature (Abstracts)	191
Bibliography	206

Section V: Dental Education

Section Participants	211
Focus of Section Discussions	212
Report of the Section	213
Discussion of Section Report	223
Review of the Literature (Abstracts)	229
Bibliography	258

Section VI: Dental Research

Section Participants	265
Focus of Section Discussions	266
Report of the Section	267
Discussion of Section Report	275
Review of the Literature (Abstracts)	282
Bibliography	303

Closing Session Remarks	307
Dr. Emerson Robinson	
Dr. Marilyn Woolfolk	

Foreword

NATIONAL WORKSHOP ON “BLACK DENTISTRY IN THE 21ST CENTURY”

Much has been said and written about the future of dentistry with minimum reference regarding Black and other minority dentists. While dentistry and dental care is undergoing rapid changes, it cannot be assumed, that the same factors and variables that apply to majority dentistry automatically apply to minority dentistry. Problems facing the dental profession will without doubt have a much greater impact on the Black dental professional and the Black community. Not only must we acknowledge this, but it is imperative that we take the necessary steps to deal constructively with these problems as we move into the 1990's and into the 21st Century.

The literature is void of, and there is no clear documentation of the direction that Black dentistry can use as a road map to its future in the coming years. Black dental health professionals and the Black community face the most uncertain and challenging decade in its history. Although both parties (the dentist and the community) will face different types of adversities, they will have compounding implications for both. Certainly, a reduction in dental school enrollment, the impact of fluoridation, a perceived lack of busyness, capitation, competition, loss of independence, as well as other factors will affect Black and other minorities in dentistry. Increasing unemployment in the Black community, pro-competition in health care, cutback in established health programs that have resulted in the progressive reversal and destruction of federal priorities and programs, a lack of dental insurance, increased share of insurance cost with the option to reduce benefits, are all factors that will impact the Black community.

Dental educators, dental administrators, planners and Black health professionals; whether their responsibilities are in education, public health dentistry, professional planning organizations or in the practice of dentistry, have historically expressed concern about the lack of data regarding dentistry from a minority perspective.

This workshop/conference was needed to bring together knowledgeable individuals to provide perceptive analyses on research, education, human resources, health behavior and dental practice (private and public) for Blacks and other minorities. This workshop/conference was designed to examine factors and trends

that will have future implications and influences on the oral health of Black/minorities and how we can pursue the future to insure that a positive course direction is taken.

Information regarding education, research, the practice of dentistry, health behavior and human resources as related to dentistry for minorities in general, and Black Americans in particular, have tended to be very narrowly focused. Over the past quarter-century, revolutionary changes have occurred in the aforementioned areas and have been given extensive attention, but not so in a more specific way for Blacks and other minorities. We believe that an urgent need exists for improving the information that presently exists in these areas. General limitations in our knowledge about these areas hamper efforts to improve the status of Blacks and other minorities to insure the best possible experiences and outcomes.

This workshop/conference establishes the foundation for the continuous systematic building of information in the area of Black/minority dentistry. For without a clear understanding of the factors and relationships which combine to perpetuate a lack of Black focus in these areas, efforts to correct the experiences and outcomes will not likely occur.

The intent is not to imply that there is a need to separate Blacks and other minorities from the dental health care system in general, but to be realistic in acknowledging that Black/minority dentistry has its own special needs and concerns that have to be recognized and addressed.

Michael Razzoog

Emerson Robinson

Acknowledgments

A venture such as “Black Dentistry in the 21st Century” must involve the contributions of many. Since the participants are outstanding individuals with demanding commitments in a variety of settings, their willingness to prepare in advance and share in the deliberations of an extended meeting without honoraria is deeply appreciated. Their resolution and dedication to the task is most praiseworthy.

To conduct and direct the efforts of the Section Participants, the Co-Chairpersons, and Reviewer composed the faculty for each Section. These select individuals prepared well in advance, assured productive discussions, and provided major input to the Section report preparation. They are to be recognized for their valuable contributions of leadership and perseverance.

The University of Michigan and the School of Dentistry have hosted “Black Dentistry in the 21st Century” through financial and facility contributions. The Department of Prosthodontics represented the host institution through their active and continuing participation.

Local arrangements were planned by The Office of Dental Continuing Education, Dr. Arnold P. Morawa, Mrs. Linda Bardeleben and their staff. The Department of Prosthodontics’ Secretarial Staff rendered prompt services throughout the time leading to the Workshop. While Mrs. Mary Mullison carried the bulk of the secretarial burden, Ms. Joanie Huller and Mrs. Wanda Snyder also contributed.

The Workshop Planning Committee met and communicated regularly over the three-year period of planning. In a large part it was through their persistent and devoted efforts that this landmark event has been made possible.

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Organization of the Workshop/Conference

This National Workshop/Conference consisted of a five-day meeting.

The Workshop/Conference took place on June 23-27, 1991. Approximately sixty (60) participants from throughout the nation were invited to Ann Arbor, Michigan to participate in the Workshop. The five-day meeting was divided into three parts: 1) the Faculty Training Session, 2) the Deliberation of the Study Sections, and 3) the Plenary Session.

FACULTY TRAINING SESSION

In order to assure a successful Workshop, it was necessary to train the faculty members of the Workshop in the format of the meeting, and to prepare them for the Section Deliberations and the Plenary Session. The faculty training session took place on Sunday, June 23, 1991 for a full day's effort. This training session preceded the arrival of the other participants who, besides the faculty, were the principle participants in the Workshop.

The faculty had to be well-informed about the purpose, the specific aims, and the required activities of each person for a successful and productive meeting. During the training session, the faculty planned their specific strategies for addressing the several pertinent questions that they worked on as a pre-meeting faculty assignment. The originators of the questions were the faculty, who were the experts in their respective fields, and best qualified to develop questions addressed by the assembled participants. The questions developed were directly related to the purpose of the Workshop, and responsive to the specific aims. The questions were reviewed by the Co-Chairpersons in advance of the Workshop to assure that they were within the spirit of the meeting. The remaining thirty-six invited participants to the Workshop participated during the ensuing four days of the Workshop/Conference.

SECTION DELIBERATIONS

The second part of the Workshop, the Section Deliberations began on Monday, June 24, and continued through Tuesday, June 25. It was during these two days that the faculty and other participants were divided into sections, and each addressed specific questions pertinent to their area of expertise. The number of sections and their specific topic areas were decided by the Planning Committee. The evening of Tuesday was devoted to preparation of the Section's Deliberations by the Co-Chairpersons and Reviewer of each section, for presentation at the Plenary Session.

THE PLENARY SESSION

The final two days of the Workshop/Conference, June 26-27, 1991, constituted the Plenary Sessions of the Workshop. It was during these sessions that the Co-Chairpersons of each section presented their reports for discussion by all participants. The Plenary Sessions were open to any individual who was interested in attending this portion of the Workshop. These observers were given the opportunity to comment from the floor on each of the section reports.

Contributors

The conference organizers are deeply indebted to the following agencies, foundations and manufacturers for their contributions:

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OPENING SESSION:

June 26, 1991

DR. EMERSON ROBINSON:

Good morning. I would like to welcome you to the Black Dentistry in the 21st Century Conference here at the University of Michigan, School of Dentistry.

I'd like to say that without the initial support of the Delta Dental Fund of Michigan this project probably would not have been feasible today. The seed money that Delta Dental Fund of Michigan provided to us to explore the possibility of putting on this conference in many ways make the conference possible. Also we have a number of sponsors that are listed out in the lobby identifying them as financial supporters of this conference.

Dr. Razzoog and myself, some two-and-a-half years ago, brought together a planning committee that explored the probability of developing a plan that would address some of the issues that we felt critical to the future of Black dentistry in this country, and so the program that we have today addresses six issues—six areas that we felt were critical for the future of Black dentistry.

I want to say that I'm very pleased that you're all here today, and I believe that you're here because you have a tremendous interest in what this conference is about and what we'd like to accomplish today.

This conference, from my perspective, is quite unique in that it will allow you to interact with the people that have worked so diligently over the past three days to put these presentations together. There has been some tremendously hard work done up until midnight last night to prepare the papers that will be presented today.

One of the primary missions of this conference is to ensure that we will have a say in the future of Black dentistry in this country. By taking advantage of the knowledge and expertise that you bring to this conference today, I think we can realistically expect to bring about an improvement in the six areas that we will be dealing with.

I think that you will be playing a tremendous role in transforming these six areas into making the future of Black dentistry what it should be and make it as good as dentistry may be anywhere in the world.

A conference can provide new directions for attitudes to grow in. These attitudes may be toward personal growth, toward acquisition of content and toward approaches in dealing with others. The indications for this conference are that we will

be dealing with a number of others as we venture into the future with the endeavors that we will look into today.

A conference that does not produce lasting changes are generally inane and ineffective. They simply provide comfort for those unwilling to seek change and frequently stimulate bitterness on the part of those who do seek change.

As a result, this conference will take us to places that we have not been before. We will be challenging new ideals and, certainly, there will be some growth motivation in this conference, and, also, we hope that this conference will produce lasting results that we all can take with us.

We hope that this conference will take all of us to places that we have not been and that we will all be challenged by the experiences that we will have here today. And certainly this will bring about, and hopefully provide, growth and motivation for all of us to produce lasting changes as we progress into the 21st Century. Thank you.

DR. J. BERNARD MACHEN:

Good morning. For some of you, this is a welcome to Ann Arbor for the first day of the Conference. For others who have been working out in the outskirts of town for two days, welcome to the School of Dentistry.

It's a real pleasure for me to welcome this group into the School of Dentistry. We are quite proud of our building and our Education complex, and we hope that during the next two days when you have breaks, you can tour our building. Please feel free to access any part of the building. We are quite proud of it and we would like you to go away with a better feeling for what our School is like.

I do note that we have a number of graduate students, dental students and members of the Class of 1991, our young dentists who are awaiting the results of the NERB examination before they can go out and practice their new profession.

Would those of you who are students or recent graduates, please stand up so that those in the audience can see who you are? These are the real future of Black dentistry. It's a pleasure to introduce Dr. Gilbert Whitaker, the Provost and Vice President for Academic Affairs of the University. Gil has a Bachelor's degree from Rice University, a Master's and a Ph.D. degree from the University of Wisconsin. He was Dean of the School of Business here at Michigan for twelve years before assuming the Office of Provost last September. During his time in the School of Business, they developed sixteen joint degree programs; he increased the faculty size from 71 to over 120 and they added three new buildings.

Pertinent to today's meeting, the MBA class at the University of Michigan has a 29 percent minority enrollment. This is the largest minority enrollment of any of the major business schools in this country. Of that 29 percent, 20 percent are Black.

It's a pleasure for me to introduce you to Dr. Whitaker.

DR. GILBERT R. WITAKER:

It's a privilege to welcome you on behalf of the University of Michigan. This wonderful opportunity was passed on to me by our President who is suffering in

Hawaii today. Seriously though, it is a pleasure to be here.

Our dental school has a proud history and future in the education of Black professionals in dentistry, and I'm genuinely pleased to be a part, although a brief part, of this program today.

I applaud the vision of the sponsors of this conference, "Black Dentistry in the 21st Century," and the School of Dentistry for putting on this series of workshops and a conference.

We, at the University of Michigan, are committed to the full participation of all of our citizens, both our educational programs and, indeed, in all of society. And I believe this joint exploration of Black dentistry will be useful to all of us, and I know it will be to you. It is clear to me, from the volume of materials, that much thought has gone into the preparation of this conference. I have to confess I didn't read all of the material, but I was certainly impressed by the obvious hard work that's gone into this. This promises to be a very successful two days, and I congratulate the people who pulled it all together.

I would like to take this opportunity to extend Bernie's invitation a bit. During your visit, I hope you will find time to wander outside of the Dental School and take a look around campus.

If you have young people who are thinking about college, visit the Admissions Office. We're always looking for good students. If you're a graduate of the University, visit the Development Office. We're always looking for additional support.

In any case, I'm glad you're here. Welcome and have a great two days. Thank you very much.

DR. J. BERNARD MACHEN:

I'd now like to introduce, for some remarks, Dr. Charles D. Moody, Sr., the Vice Provost for Minority Affairs.

Dr. Moody is a native of Louisiana. He earned his Bachelor's degree from Central State College in Ohio. He received his Ph.D. in Education from Northwestern University.

He came to Michigan in 1970 as Director of the University of Michigan Program for Educational Opportunity, and he assumed his present post in 1987.

He is responsible for developing programs dealing with minority student recruitment and retention and minority faculty recruitment and development and retention. These are topics we have been talking about in great depth during the past two days.

If Gil is the University official responsible for overseeing University programs and directing them towards achieving the diverse culture that we so desire, Chuck is the University's innovator, motivator and, when necessary, he's our critic about things we're not doing well enough in the area of diversity.

Some people on this campus say he's the conscience of the University in terms of our effort to achieve diversity. It's a real pleasure to introduce to you—Chuck Moody.

DR. CHARLES D. MOODY, Sr.:

Thank you very much. The first thing I want to say, Emerson, is “you’re right on time!” You started exactly at 9 o’clock. Now, anybody who comes in thinking you wouldn’t start until 9:05 will have missed something; that indicates the seriousness of your purpose.

As I look at the audience, I see some people who used to be my students and some who worked for me—now I work for them! For instance, I see Dr. Julius Franks, with whom I had a good time down at the Gator Bowl a couple of years ago and where we talked about his days at Michigan when he was a student in the 1930’s—when the thought of a conference such as this would not have been tolerated.

What we are trying to do—the proposal that Emerson and Mike brought to me—is not only to increase the number of Black students and faculty in the School of Dentistry, but also to change the corporate culture of this institution so that a conference such as this would be the norm; not just some anomaly—a conference like this one would be what is expected at the School of Dentistry and that this conference would make a contribution to dentistry, particularly Black dentistry, in the 21st century.

It’s really a pleasure to be the Vice Provost for Minority Affairs, because I believe I have some people here who understand the scope of the work that must be done—I, alone, cannot do all of the things necessary to make this University the kind of institution it should be—if I do everybody’s work, they should give me everybody’s salary. As I look at the young professionals who just graduated in June, I think the School of Dentistry has a tremendous record. Not only do Black students come here, but they also achieve and they are able to transfer those achievements into additional educational opportunities, and eventually into jobs that will give them equal pay, power, privilege and prestige.

So, I hope that part of this conference’s agenda will be not only to look at the technical and substantive areas of dentistry, but also to look at networking and becoming mentors and sponsors to the young students who are coming along so they will not fall into the same traps and pits we fell into. I believe that every generation should not have to start from scratch where Julius Franks started at the University of Michigan in the 1930’s, but that each of us will be a mentor and sponsor to somebody else.

In order to be a mentor and a sponsor, a certain kind of person is required—one who enters into that relationship with the hope, desire and expectation that the person you mentor will some day surpass you; I believe this is critical.

We can meet at this conference for two days and learn all the technical things, but if we do not understand that these young dentists who have just graduated will be spending the majority of their professional lives in the 21st century, then all of this will go for naught.

I want to commend you, Emerson and Mike, and everyone who has pulled this conference together. A couple of years ago when Mike and Emerson came up with the idea for this conference, they didn’t know and I didn’t know if it would or could take place, but the committee was sure in their hearts that they were going to give it their best shot, and they did.

Also, I was pleased to see the keynote speaker, Audrey Forbes Manley, because, years ago in Chicago, she did something special for my wife and me. Our oldest son was ill and we took him to Cook County Hospital, where the line waiting for assistance looked 20 miles long. Dr. Manley recognized my wife as someone she had grown up with and gave my son immediate attention, and I want to thank you again, Dr. Manley, for that special kindness.

I wish all of you at this special conference, Black Dentistry in the 21st Century, the best. If there is anything I can do while you are here, please let me know. If you have children who are interested in attending the University of Michigan, send me their names and addresses and I will write to them and forward the request to the Admissions Office.

Have a good conference and, please, enjoy yourselves. Mike and Emerson, thanks a million for having the vision to bring this conference about.

DR. MICHAEL E. RAZZOOG:

Good morning.

This is a most unique occasion for the School of Dentistry, to have the opportunity to host this conference. And the conference is fortunate to have with us, as our keynote speaker, one of the most accomplished women in the history of the health care profession.

Dr. Audrey Manley is a native of Mississippi. She was awarded an AB degree from Spelman College in Atlanta and her medical degree from Meharry Medical College in Nashville, Tennessee.

After receiving her medical degree, she took her residency in pediatrics at Cook County Childrens Hospital in Chicago and pursued additional training at the Abraham Lincoln School of Medicine at the University of Illinois. In addition, she has a Masters of Public Health Degree from John Hopkins University.

Dr. Manley has served on the faculty of three medical schools: The University of Illinois, The University of Chicago and Emory University in Atlanta.

She has held adjunct or associate positions at the University of California and San Francisco, Howard University in Washington D.C., and the Uniformed Services University of the Health Sciences in Bethesda, Maryland.

She is a member of numerous professional and community organizations, including the American Academy of Pediatrics, the American Public Health Association and the Institute of Medicine of the National Academy of Sciences.

In 1962, Dr. Manley was the first African American woman to be named chief resident of Cook County's 500 bed childrens hospital, and in 1988 was the first to achieve the rank of Assistant Surgeon General in the U.S. Public Health Service.

Dr. Manley was appointed Deputy Assistant Secretary for Health, Department of Health and Human Services on May 5, 1989 by Health and Human Services Secretary Louis W. Sullivan.

As Deputy Assistant Secretary for Health, Dr. Manley is the principle advisor and assistant to Dr. James D. Mason, the Assistant Secretary for Health, and shares with him the responsibility of directing the U.S. Public Health Service, which includes

alcohol, drug abuse and mental health administration, the Centers for Disease Control, the Food and Drug Administration, the Health Resources and Services Administration, the Indian Health Service, the National Institutes of Health and the Agency for Toxic Substances and Disease Registry.

Before assuming her present duties, Dr. Manley was Director of the National Health Service Core, a health resources and services administration component that delivers primary care to medically underserved communities throughout the country. Prior to that she was Health Resources and Services Administration's Chief Medical Officer and Deputy Associate Administrator for planning, evaluation and legislation.

Dr. Manley joined the Public Health Service in 1976. She is the first woman to be named to the post that she now holds. It is truly my honor and pleasure to introduce, Dr. Audrey Manley.

DR. AUDREY F. MANLEY:

To the distinguished platform guests, Dr. Robinson, Dr. Moody, Dr. Razzoog, to my many friends that I see in the audience, I am delighted to be with you this morning and I am delighted that I have with me in the audience also my special assistant, a professional colleague of yours, and especially am I happy to share this occasion with my niece and nephew-in-law, Drs. Kimberly and Dexter Barber, whom I'm very happy to have in the audience this morning.

I'm also delighted that the Public Health Service can proudly say that we are in full support of what you're doing here at the University of Michigan. As I note that our Office of Minority Health, the NIDR, the National Institutes of Health and the Centers for Disease Control are in support of your conference.

I am pleased to join you on this occasion because the work that you have undertaken, to explore the areas that will have profound impact on the future directions of Black dentistry, is indeed important. And it is indeed an honor to address such a distinguished audience.

You know, I'm sure, that I bring you greetings and best wishes from the Secretary of the Department of Health and Human Services, the Honorable Louis W. Sullivan, as well as the Assistant Secretary, Dr. James Mason.

As you may know, the Department is giving the highest priority to the issues of minority health and minorities in health and research professions. Most of you know, I'm sure, that the Secretary is no stranger to the barriers that face the Department in this area, and his strategic goals for the Department emphasize the need to strengthen the family, to promote personal responsibility for health and social fitness and to improve access to care, especially for our minority and disadvantaged populations.

I really think that we can all be encouraged by the appointment of Dr. Sullivan to the Secretary of the Department of Health and Human Services, for it is truly the people's department. It contains all of the programs that impact on the lives of all Americans daily, but especially does it impact upon the lives of the poor, the indigent, and the underrepresented.

There are four major operating units in the Department that you are familiar with: Social Security Administration, which we all know; the Health Care Financing Administration, which is responsible for Medicare and Medicaid; a new agency, the Agency for Children and Families, recently created by the Secretary and the U.S. Public Health Service.

Contrary to popular belief, the Department of Health and Human Services is, indeed, the largest department in the Federal Government. It has the fourth largest budget in the world.

Its FY '91 budget was 567 billion dollars. Its budget is exceeded only by the budgets of the U.S. Government, the Government of the Soviet Union and the Government of Japan.

It has 121,000 employees, and we are responsible for more than 200 health and welfare programs that range everywhere from Head Start to Healthy Start and from AIDS research to Aid to Dependent Children.

And I am deeply honored to have been selected by Dr. Mason and confirmed by Dr. Sullivan to serve in the capacity of the Deputy Assistant Secretary, or we call it the DASH.

It is truly a historic appointment, as you have heard, as the position has never before been held by a woman nor a minority, male or female. And so when I say, gentlemen, that we have invaded the inner sanctum, I truly mean it.

However, I do not consider this a singular or an individual achievement, but I would rather like to view it as an achievement for all women, for all African American women and for all African Americans everywhere.

You have already heard what my job is. The Public Health Service is the world's largest public health service in the world. Our budget this year is 17 billion dollars, and we administer some 44,000 professionals throughout the country.

The eight agencies, scattered throughout the country, provide care to all of you every day. And there are some 18 program and staff offices that report to the Assistant Secretary for Health, among them the National AIDS Program Office, the Office of Minority Health, an International Health Office and the Office of the Surgeon General.

It is both an enormous and a challenging task that lies before us today, because we come to these positions and at this time at a time of crisis both in the health care delivery system and in public health.

As you know, there is growing concern in many sectors of society of the cost of health care. We are currently spending 600 billion dollars annually, more than 12 percent of our gross national product, on health care. 27 billion of that was expended on dental care alone in 1988, and a recent study by the Institute of Medicine of the National Academy of Science entitled "The Future of Public Health," describes a deterioration of our public health infrastructure in desperate need of reform and revitalization.

On the whole, however, over the past generation Americans have enjoyed a great improvement in their health status, and for this we can be and we are proud. However, there is an unacceptable and an inexcusable disparity in the number of

premature deaths and preventable illnesses experienced by the racial and ethnic minority populations in our society.

In the words of a famous poet, Robert Frost, when it comes to our nation's most disadvantaged, we have miles to go and promises to keep. You know the statistics as well as I, that one-third of all African Americans live in poverty, one-half of Blacks live in inner-cities with high incidences of disruptive families, poor schools, crowded substandard housing, unemployment and pervasive drug use.

African American life expectancy is declining, and some 60,000 excess deaths are counted each year. Death rates from all of the major diseases; heart disease, stroke, diabetes, cancer, AIDS, are higher among African Americans.

The health status gap in America has many dimensions. I'd like to mention just a few.

This month the AIDS epidemic entered its tenth year. This global pandemic is no longer a disease of gay white males in some far off distant cities, such as San Francisco, New York or Los Angeles.

It is increasingly a disease affecting minority women and their children. It is a disease increasingly affecting our small towns and our rural communities. The epidemic is moving almost unchecked across the continent of Africa, leaving in many countries thousands upon thousands of AIDS orphans.

In a most recent report coming out of the seventh International AIDS Conference in Florence, Italy, it indicated that the epicenter of the epidemic will move to Asia in the decade of the '90s.

Most Americans would agree that the drug epidemic is America's most important and number one health problem of today, but the pervasive use of drugs and addictive substances, including alcohol, is particularly devastating in the Black community threatening the life and health of newborn infants; our elderly, who are increasingly the victims of crime; and feeling the epidemic of violence among our youth.

Violence has enveloped too many precious lives of minority youth, both men and women. Black male teens are 11 times more likely to be killed by a gun than their White counterparts, and in one year, in 1988, the homicide rate from firearms for Black teens jumped 38 percent.

Injuries are the number one killer among children and the rate of homicide is increasing faster among teenagers than any other age group, and a disproportionate and unacceptable amount of the violence is committed by Blacks against Blacks.

And finally, too many Black infants enter the world and die before they have a chance to live. In spite of our best efforts over the past two decades, the infant mortality rate for Black infants has remained twice that of white, and the disheartening fact is that the rate threatens to go higher fueled by the twin epidemics of AIDS and drug use.

In the domain of health care, disease and premature death the walls of inequality have grown to new heights and our nation's health care system is walling out too many of the people who need help the most.

The manpower shortage area for minorities continues, an issue you're addressing today. Whereas Blacks account for 12 percent of the U.S. population, we only

account for five percent of the nation's physicians and four percent of the nation's dentists.

Department studies show that minority practitioners are more likely to locate and practice in medically underserved areas and to serve low income individuals.

The fact is that minority America is sorely in need of practicing physicians, dentists, researchers, academicians, scientists who are sensitive to cultural and ethnic distinctions and who can serve as mentors and role models for our youth.

Equality in health and health care is as important as political, economic and social equality for which our forbearers fought and gave their lives.

Last year Secretary Sullivan released a landmark national plan designed to gain some of the miles and keep some of the promises by the year 2000. The plan is called Healthy People 2000.

The word national in the title doesn't mean that this is a statement of federal standards or requirements. It means healthy people is a product of a national effort that states our national opportunities for health.

The Healthy People 2000 is the centerpiece of the Department's national agenda for the '90s and all health is permanently featured on this agenda. It is priority area number 13 in a list of 22 priority areas.

Soon a companion document entitled "Model Standards Healthy Communities 2000" will be released in the month of July. This will offer strategies for implementing "Healthy People 2000." This is but one project that represents the Department's commitment to the entire spectrum of our nation's health care needs, including the commitment to oral health and the commitment to health care professionals that serve the needs of those most in need.

It is no secret to this audience in particular that oral disease is concentrated in low income, poorly educated, minority and disadvantaged populations. As you know, oral diseases are among the most prevalent health problems in the U.S.

While the presence of dental carries among children declined significantly over the past half century, we are still faced with major problems, whether that be permanent or complete tooth loss, periodontal disease and gingival infection, or the lack of optimally fluoridated water supplies or the lack of access to dental health care services, or the fact that 100 million Americans lack dental insurance, or whether that be oral cancer.

The situation is further complicated by the unique oral disease treatment needs of HIV infected people and the oral health needs of our aging adult population and the shortage of dental care providers.

There is no doubt that the problem facing the dental profession as a whole will have a much greater impact on the Black dental professional and the Black community as a whole.

Oral cancer I believe is but one example, for although the incidents of oral cancer among Blacks is 30 percent higher than for the white race, the mortality rate from this disease is twice that as it is for whites. And while 47 percent of whites with oral

cancer die within five years of diagnosis, 67 percent of Blacks die in the same period. And while the overall mortality rates from this disease have been decreasing, the mortality rates for Black men and women have increased.

There are 16 specific objectives in the oral health priority area. This includes, among others, dental caries, gingivitis, periodontal disease, oral cancer and water fluoridation, of which five of these objectives specifically address the rates of disease in African Americans and other minorities.

Now, we feel that these objectives are achievable by the year 2000, if not surpassable. They are obtainable because of the knowledge that we have available to us today. And I think that you are to be commended for undertaking this important conference and workshops to address these issues that are of vital concern to the Black health professional and to the nation; issues such as the health care policies relevant to minority oral health, or increasing the number of dental and Black dental representation on public health advisory committees, or the role of the Black dental community in developing a school curriculum and improving the environment for research in minority institutions, or the assurance that oral health and Black oral health concerns are included in overall health care policy and implementation plans, and I could go on.

These and all of the issues must be addressed and they must be resolved if we are to move forward and if we are to achieve these objectives by the year 2000. The Public Health Service is already in the process of addressing many of these issues in many parts of the agency. They include the National Institute of Dental Research, which is broadening its scope of research targeting towards minority concerns in the areas of periodontal disease, oral cancer, AIDS, trauma and keloid formation.

The Health Resources and Services Administration, in our Bureau for Health Care, Delivery and Assistance or BEDA and the National Health Service Corps, I am pleased to state that the National Health Service Corps is undergoing major revitalizations.

The Secretary has lead the effort to increase the funding for the Corps from eight million dollars in 1989 to 48 million dollars in 1990. This is over a 400 percent increase.

Importantly, though, up to 50 scholarships will be set aside this year for dental students alone. The Secretary has supported and introduced legislation that resulted in the passage of the Minority Disadvantaged Improvement Act of 1990. This landmark legislation provides for an office of minority health; it creates a position, the Deputy Assistant Secretary for Minority Health; it creates scholarships for the disadvantaged minorities; a loan program for minority faculty in certain health professional schools; it supports community scholarship programs and it provides for the expansion of the centers for excellence to not only include those for Blacks, but for Hispanics, native Americans and for other underrepresented minorities.

Dr. Sullivan has created a department—an inter-departmental coordinating committee on minority health science careers. This committee is charged with developing collaborative strategies among all federal agencies; including

Labor, Environmental Protection Agency, National Air and Space Administration, Education and United States Department of Agriculture, to enhance career opportunities for minorities in health and science.

The committee is in the process of compiling a directory of all of the more than 30 major Department of Health and Human Services minority target programs, sponsored by the Centers for Disease Control in the Atlanta University system.

The Department's programs also include summer work and research opportunities for high school students, for undergraduate students and programs aimed at strengthening the institutional capability of minority schools.

The largest number of earmarked minority initiatives are related to research, training, undergraduate, graduate and postdoctoral levels, the research and the research capability of minority colleges and institutions.

I could not fail to mention the historically Black college initiative. Instituted in 1980 by executive order of President Reagan and renewed under the administration of President Bush, the Public Health Service alone increased its funding of the historically Black college initiative from 60 million dollars in 1989 to 80 million in 1990, a 38 percent increase, and we project spending 95 million in '91 and 125 million in '92.

Sixty percent of these funds are directed towards research and development, thirty percent towards fellowships, traineeships and recruitment and IPAs and ten percent towards student tuition facilities and equipment. This is still not enough, we know, but our plans call for a minimum of 15 percent increase per agency to the year 1993.

The range of the Department's efforts is broad. It includes major increases in programs like Head Start and the Secretary's special initiative on the minority male.

Secretary Sullivan, Assistant Secretary Mason and I are all committed to making a difference. All of the operating divisions have been directed to explore all options and all programs and all program authorities available to support the Secretary's program directions, which includes the minority health initiative.

And as you know, what they say about EF Hutton, well, when the Secretary speaks, we do listen. But the Department cannot do this alone. We need your help; we need your advice; we need your assistance.

Black health professionals have answered the call in the past and we will do it again in the future. We have been called to and we have answered the call for service throughout the nation: from our rural communities, from the Mississippi Delta, to the hills of Arkansas and Alabama and Georgia, from our inner-cities, from Harlem to Watts and from Chicago's south side to Liberty City.

There has been no time in our history that it has been easy, and it is no less so today. Our challenge has always been to treat disease and to look beyond the diagnosis and to address the human needs of our brothers and our sisters. Our challenge has been to be the voice for the poor and underserved in America. Our challenge has been to put service to others and the good of our community and to humanity above lucrative careers and materialistic lifestyles.

Our challenge has always been to live up to the legacy of the African American pioneers, the men and women who broke down the walls of racial discrimination on their way to distinction, and our challenge has been to live up to the legacy of Black men and women who gave their lives for freedom.

It is the African American legacy, a legacy that must be preserved and passed on to our children and our children's children or our cultural institutions and we as a people will surely perish.

The challenge is great, but so too are we. There is an expression that says, when the time gets tough, the tough get going. Well, we are tough, and I would like to remind you that in spite of often difficult dispiriting circumstances, in spite of what we read in the papers and in spite of what we see on television, and in spite of the statistics, most Black Americans have built solid, loving families; we are hardworking; we have decent jobs and we are leaders in our communities and in our states and in our nation.

The plain truth can be seen here in this room this morning, that African American stories are the stories of success.

We have a long lineage, and so do you, the stories of our colleagues, of Daniel Collins and Elijah Robinson, and of Reuben Warren. These symbols of achievement must be celebrated. They must be celebrated in our meetings, our media, our schools and our church so that our youth can see the abundance of positive role models that grace our community and so that our children can develop a can-do mentality, that they too can make a difference.

And our people—our young people must understand most of all that they do have a choice and that it is choice, not chance, that determines their future. I am reminded of a verse: "Somebody said it couldn't be done, but he with a chuckle replied that maybe it couldn't, but he would be one who wouldn't say so until he tried. So he buckled right in with a bit of a grin without any doubting acquitted. He started to sing as he tackled the things that couldn't be done and he did it."

I must say, it has been a long way for me personally from rural Mississippi to the third ranking medical post in the largest department of our Federal Government in Washington DC, with its 567 billion dollar budget and its 121,000 employees. And along the way, there were many who said it couldn't be done, and I'm sure that all of you have heard that too.

Conferees, you represent a significant part of the dental health leadership in America. We have much work to do and we must move with tenacious resolve. We await your report; we await your plan of action; we await your leadership; we await your organizations and those organizations that you represent to join us in this struggle to improve minority health in America.

And I ask you, quite seriously: If not you, then who will? I ask you to remember as you deliberate for the rest of your conference these simple words: "He started to sing as he tackled the thing that couldn't be done and he did it."

Thank you very much.

DR. MICHAEL E. RAZZOOG:

I know we all want to thank Dr. Manley for taking time out of her busy schedule to come here and spend some time with us.

The challenge that she has given to us not just for the two days of this conference or the three days of a workshop that we have, but really for the rest of our lives is very important, and I hope we can all keep her words in mind as we proceed for the next two days.

DR. EMERSON ROBINSON:

Very briefly, I would like to set the stage for this conference.

As I stated earlier, some two-and-a-half years ago Mike and I got together and worked towards putting this conference into a format with the hopes of it coming to fruition.

What will be reported over the next two days is the results of a workshop held here on Sunday, Monday and Tuesday. There were 65 people involved in six different sections, who have done a tremendous job in putting together the reports that will be presented today and tomorrow. Some of the groups worked until midnight last night.

It is very difficult to do what has been accomplished, from my perspective, and hopefully what we put together can be of importance to you and also will be a success as far as this conference is concerned.

What we did was identify six areas: research, education, the private sector of dentistry, the public sector of dentistry, human resource development and the psychosocial aspects of dentistry.

And we dealt with these six areas by defining a focal statement for each one of these six areas. As it relates to these focal areas or focal statements, we came up with various concerns directed at the focal statement. And so the six groups or six sections were charged with working through these concerns and coming up with how to resolve these particular concerns, how we can develop strategies to correct these concerns and, also, how we can pursue, from a futuristic standpoint, these concerns so that they may be resolved.

I think that from the past and what has happened, a lot of reports have been generated and once they have been generated they go, virtually nowhere, because there seemingly has not been any follow-up with them. I assure you that I am committed to and think that the groups that we worked with on Sunday, Monday and Tuesday are committed also to making certain that we pursue the outcome of this conference very diligently.

I know that, as I said, a tremendous amount of effort has gone into this. Your role here today—and as I said earlier, I believe that this conference is going to be unique because you will have the opportunity to be involved. It is not that some one is going to get up here and present a report and that's it. We expect some feedback; we expect some challenges; we expect some criticism and comments, applauses or whatever you feel may be the appropriate response.

When these reports are presented, we expect your interaction with us in terms of making and refining these reports. I think it's very important that you understand that.

This is a conference for participation. We expect you to participate and we want you to participate, and I think that to have the support of all of you certainly will make this a better than worthwhile conference. So I'm appealing to you now that when these reports are presented that you make certain that you mentally record some of the things that you might have a question about or either you might want to challenge or whatever the case may be, but that's certainly open for you to do.

When you do get up and speak, please state your name. This whole conference is being recorded and will be a part of the proceedings when they're published, so we need your name, and certainly I would ask you to do that.

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Focus of Section Discussions: Psycho-Social Aspects of Dental Care

The following is a representative listing of questions each section has been asked to focus on during their deliberations. This list has been expanded upon by the section's faculty in the period of time leading up to the Workshop. While not specifically requesting the sections to develop proposals, all of the questions have an underlying component relevant to a research and action agenda for the future. Each of the discussion sections has been charged to: **make recommendations for future action related to proposals that evolve from discussions of their specific topics.**

PSYCHO-SOCIAL ASPECTS OF DENTAL CARE FOR BLACKS

FOCUS STATEMENT: What are the psycho-social parameters that influence dental health in the Black community? Do socio-cultural values affect the utilization of dental health services by Blacks?

Is there accurate data available regarding the perceived need for various forms of dental care in the Black community? Are there alternative (non-traditional) methods of reaching the population via media and public relations?

Does governmental policy influence the Black communities' values on dental health? How can the country escalate the Black communities perception of dental health as a priority?

Report of the Section: Psycho-Social Aspects of Dental Care

What are the psycho-social parameters that influence dental care in Black communities?

The future of Black dentistry hinges on many factors. Examples include: involvement in and direction of health care legislation; assurance of adequate and continuous funding of health care programs; successful incorporation of dental care into comprehensive care; and leadership in developing an appreciation for cultural and ethnic diversity within the African American population. Focusing attention on these factors will add immeasurably to the maintenance and viability of oral health care.

Psychosocial factors include substantive issues related to heterogeneity, economic conditions, discriminatory practices, and cultural and health belief systems.

Psychosocial factors are at the very basis of oral health care provision to African Americans and the training and provision of care by African American dental care providers. These psychosocial factors are important to the understanding and enhancement of the provision of dental care. The discussions within this working group included the full range of psychosocial factors at the population level as well as for the various subgroups of the African American population, focusing on those psychosocial factors which create a greater burden for African Americans in the lower socioeconomic classes. A basic assumption was that in order to improve oral health and delivery of oral health care services, attention must be given to the provision of very basic conditions of living such as adequate housing, nutrition, and other health care services. Factors addressed by the group included demographics, attitudes, motivations, cultural, organizational, structural, economic, societal, and policy. The report is organized to describe these factors at the individual, practitioner, organizational (delivery system), and society (policy) levels.

FOCUS: What are the psychosocial parameters that influence dental care in Black communities?

FACTORS AFFECTING THIS CONCERN

Individual Factors

Individuals have characteristics which may influence their position in society and participation in the dental care system. These are either general demographic or predisposing factors such as: age, gender, level of formal education, level of knowledge (reflected by formal or informal education), marital status, parental status, family composition, language, ethnicity, geographic location and stability (e.g. migrant status), and disabilities/medically compromised status.

Individual attitudes are very basic factors influencing dental care. At the most basic level, an individual has a level of perceived need and a definition of oral health which will influence whether care is sought. This may relate to the function of the oral cavity, but it may just as well relate to aesthetics, other social needs, or pain. Similarly, attitudes such as orientation toward ability to control events (locus of control), and fatalism affect orientation toward use of dental services, and whether health and health care are seen as rights or privileges is critical. Individual attitudes may well be carried over into the organizational level where an individual administrator organizes a program or administers a reimbursement system based on his or her own beliefs, rather than the needs of the community or the person receiving care.

Socioeconomic barriers are key factors affecting this concern. At the individual level the direct cost of specific treatments (and repeat visits), as well as indirect costs including transportation, child care, and time, are critical influences on the receipt of dental care. These barriers are compounded by cost sharing in any insurance or public reimbursement program in which the individual is enrolled. The 'red tape' of eligibility criteria often creates another barrier. Quality of care is also a key factor at the individual level.

Practitioner Factors

Providers who deliver services to African Americans may have attitudes which affect their delivery of care. Attitudes might include their perception of the needs of the patient, both in actual clinical conditions and treatment needs, and in terms of expected outcomes or ability to pay. These perceptions are influenced by the broader expectations the practitioners hold about the appropriateness of care for that patient or group based on the patient's culture, race, socioeconomic class or stated need. Practitioners have their own levels of fatalism, locus of control and views on health as a right or privilege which affect the care provided to the patient.

The African American dentist may be viewed as representing middle class values in the community, and some question may be raised about the acceptability of services to the lower socioeconomic community by these individuals.

African American dentists may not be adequately involved in social networks (community/civic, political and professional) such as dental societies, state boards, positions as insurance consultants, medicaid boards, health center boards, city councils, etc., which could increase their influence. If they are involved, all too often

it is unknown to the public, so the value of any role model is lost. Some of the involvement in the social structure of health care delivery systems, (e.g. hospital privileges, university/college affiliation) may require more assertive efforts, since such appointments may be based on existing social networks.

The socioeconomic factors at the practitioner level include the cost of dental education and the resultant loan repayments, the costs of beginning and maintaining the practice, and bad debts associated with lack of payment for services. Bad debts are a particular problem for a practitioner who treats working poor with no financial assistance or patients in reimbursement programs which have very low copayments. Beyond financial concerns, the 'red tape' associated with prior authorization, private insurance and medicaid reimbursement, eligibility forms and post-treatment quality assurance review are social barriers to the provision of appropriate care. In addition, providers who are not sensitive to ethnic characteristics may form faulty impressions of health behaviors.

Organizational/Practice Setting Factors

System/Policy Factor

Oral health can maintain visibility at the national level as part of general health if there is a focus on the desire of the U.S. to retain leadership in the international community, e.g. exemplary health care delivery system with adequate health outcomes.

Attitudes of individuals and norms (attitudes) of society are reflected in systems' which are devised to respond to perceived and actual needs of populations. Any current policy or regulation is based on legislators'/administrators' attitudes and motivations regarding perceived need. These may be motivated by political pressure, a mission to serve or to educate, and may be based on expectations of what is appropriate for particular cultural, racial or socioeconomic groups. Yet again, policies and regulations reflect attitudes about whether health and health care is a right or privilege.

Government policy affects the nature, quality and dimensions of oral health care programs, particularly in the public sector, but also in the private sector. Headstart, EPSDT, and the OBRA legislation have impacted dental health care significantly. However, legislation and regulations which have been established in public programs have resulted in extensive 'red tape' in establishing eligibility and receipt of payment. Most government programs do not mandate appropriate oral health services, nor are adequate funds allocated to meet the standards outlined in the legislation. Policies of third party payors often discourage provision of some preventive services that may be most appropriate and permit lower reimbursement rates for other services as well. Quality assurance expectations often result in more administrative work rather than improved quality of care.

Licensing, legislation, and program management at the state and local level often result in a fragmented care and payment system, and reduction in mobility for qualified dental care providers.

Pre-formed attitudes about appointment process create additional stresses on the system and influence how individuals are received by it.

STRATEGIES TO TAKE IN BRINGING ABOUT RESOLUTION OF THIS CONCERN

Individual Level

Efforts could be made to address the family composition within the practice of dentistry. For example, acknowledging that there are many single parents with multiple children who need assistance with child care if appropriate dental services are to be provided to family members. Child care or accommodations for children at the practice site might be one solution.

Any strategy developed, planned and tested should build on the known existing resources of the individuals being targeted. For example, the presence of a television in most homes makes the television a major route of communication.

Investigate education in other areas of health to see if a more innovative approach could be used successfully in oral health to address appreciation of oral health, ways to achieve oral health, and beliefs that the individual can participate in the control of health.

Build oral health education, and oral health screening and prevention into comprehensive health education and screening programs (e.g. diabetes, hypertension, AIDS).

Place more focus on the development of culturally sensitive television messages for use in programs, advertisements, news, etc. Emphasize ways to attract African Americans to care for their oral cavity. Such approaches should be developed and tested in research demonstration programs.

Publicize the occurrence of this conference and its outcomes and expectations using both traditional press release and innovative mechanisms (e.g. develop networks, use cable television, etc.). An example would be cable television programming, e.g. develop a series of reports based on this conference to be used in this format. A 'network' of participants at this conference should be involved in selecting, developing and transmitting these sessions. Example topics include: 1) description of the conference—who, why, what African American dentists are doing, how the issue relates to the consumer; 2) recognition of oral health needs which can be addressed by dentists with particular emphasis on the young, old, medically compromised, and denture patients in the African American community; 3) a description of who and where dentists are with a focus on gender, minorities, rural/urban, etc., 4) training on preventive self care, etc.

Develop educational material on pain and methods of pain reduction for use on television or other media; train providers on pain reduction.

There are numerous strategies which have been used to overcome socioeconomic barriers at the individual level, including private dental prepayment, medicaid and other public funding and care-provision programs. Resolution of this concern could be addressed by assuring that funds are actually available in these programs for dental care, and that appropriate services are covered at reasonable fees.

Professional Level

Develop and utilize cultural sensitivity training for dental school faculty and dental students to improve the response of the provider to African American patients.

Computer technology exists to improve efficiency of practice management and reduce burdens. These technologies assist in streamlining payment and reimbursement as well as with documentation for audits and legal investigations. Dental providers need to be encouraged to upgrade administrative and computer skills, so that increased efficiency will lead to more time for appropriate care.

In order to keep up with the multiplicity of African American patients and their various and diverse oral problems, to assure continued high quality of care, to utilize computer technology for Medicaid and other third party reimbursements, and to maintain and improve their function as role models, African American dental care providers should invest in a program of continuing education. Areas of obvious emphasis include clinical skills, cultural sensitivity training, oral health education methods, use of computers for efficient office management and diagnosis.

Training opportunities in computer use and software should be developed and broadly encouraged.

Establish and build a program for role models in oral health, e.g. parents, teachers, peers, 'stars', dentists, and various other identified community leaders. A particular focus in this program should emphasize the African American male dentist as a role model for Afro-American male youth (a typically low utilizer of oral health services).

Increase broad professional involvement of African American dentists to help effect "change." This will improve citizenship, role models, etc.

Take steps to ensure that oral health is part of planning for general social and physical health at the community level.

Develop programs (dental associations, etc.) to improve the social involvement of African American dentists as recognized health care and civic leaders.

Develop an African American telecommunication network on information, activities, programs to facilitate follow-up of this conference as well as implementation of other African American initiatives.

Social/Policy Level

Investigate existing health and social services (e.g. Headstart, Community Health Centers) as resources for providing oral health education, screening and care.

Organize a conference (forum) among dental insurance carriers and major purchasers of dental insurance (corporations) to re-evaluate the distribution of dollars for specific services.

Establish government programs which have basic standards for adequate oral health care which are matched with sufficient funds to provide this level of care.

Enhance (continue) program for loan forgiveness for health professionals who provide services to underserved and under-insured groups.

Improve the use of Medicaid funds by introducing efficiencies. For example, institute computer fund transfer which can save administrative costs so that the money could be put into screening, prevention, etc.

The establishment of comprehensive health care delivery systems of which dentistry is an integral part is essential to problem resolution. Such facilities could contribute enormously to the continuity of care as well as improving care accessibility.

Public/Private Partnership: Develop and institute cost sharing (or salary supplement) programs to encourage health care professionals to return to critical service areas following education (e.g. co-funding by state, community, dental society, Federal government and individual).

Public/Private Partnership: Develop programs from shared resources for persons with access problems, e.g. nursing homes.

POTENTIAL BENEFITS IF RESOLUTION OF THIS CONCERN CAN BE ACCOMPLISHED

The strategies suggested would provide more culturally-relevant oral hygiene education and consequently more appropriate oral health care.

Training and continuing education recommended would improve the orientation of dental school faculty, students, and current providers, and result in improved delivery of care for African American patients.

Action on recommendations made would facilitate the design of comprehensive health care programs including oral health education, preventive services and care.

Attention to efficiencies in transfer of funds in public programs and private insurance, as well as within the practice of dentistry, would result in the transfer of funds from overhead expenses to the provisions of more appropriate oral health care.

Action on recommendations would result in more appropriate distribution of dental care providers into areas of critical need.

Course of action needed to ensure continuous pursuit of this concern

Develop networks to increase involvement of African American dentists in community and professional organizations (i.e., extension of dent-forum on the Confer telecommunication system).

Develop media routes to expose African American dentists to the public as role models and transmitters of information.

Assure the presence of dentistry at all levels of government to increase funding for African Americans with specific attention directed to research efforts and programs.

Build-in methods of compliance with legal mandates.

Develop continuing commitment of funding from the private sector.

Form public and private partnerships to advance the oral health of African Americans.

Establish a level of responsibility within the African American community to 'oversee' funding and research efforts.

Increase active involvement of all components of dentistry including the education of oral health care, the profession, and the delivery of care in an effort to address oral health problems of African Americans. This would be achieved best through professional dental organizations such as the National Dental Association, American Dental Association and American Association of Dental Schools, among others.

Discussion of Section Report: Psycho-Social Aspects of Dental Care

DR. EMERSON ROBINSON:

A number of issues and concerns have been raised, and I'm sure that you must have some pointed questions, criticisms, or comments to make regarding this report.

On page four, the report spoke of the African American dentist being viewed as representing the middle class values in the community and some questions may be raised about the acceptability of the services from that point of view.

Two questions: Do you see this as being a major problem among Black dentists and how wide spread do you think this condition exists among Black dentists?

DR. ANNA M. JACKSON:

What the group members had in mind is that the initial impressions that an individual might have in coming to a Black dentist would be centered around acceptance of them as an individual and an active interest in their care.

I think this is the result of experiences with discrimination through a broad spectrum. And I think there is a natural testing out that might go on within that context.

However, I feel that this would be short lived, as I'm sure that the other panel members might agree, if they disagree, they may say so. Once the interrelationship, the interaction begins and the relationship is established, this becomes a moot or minor point.

DR. EMERSON ROBINSON:

Do you think that going to a majority school versus going to Meharry or Howard would impart a different attitude on the Black dentist as it relates to the way they deal with patients in the Black community?

DR. ANNA M. JACKSON:

We like to feel that at Meharry we select students with their interest in the community in mind, so that the sensitization of them to the factors experienced by African American people is not as necessary.

We feel that, attitudes can be developed in majority or historically white schools, but this development might require some additional sensitization of faculty about

the possible interactions and attitudes that they would have that would adversely affect continuation and their provision of quality care.

DR. ALJERON BOLDEN:

To continue for two purposes: putting on the role of a dental student once who went to a predominantly majority or a White institution both for undergrad training and for other degrees and now as a faculty member at a predominantly White institution, I can answer it by, first of all, saying I spent 15 years in neighborhood health centers in a Black community, serving our Blacks and SES circumstances, including the homeless.

I also think it's predicated and dependant upon still having an African American who is very sensitive to the cultural issues, and I think we relate that as far as the obligation that African Americans feel about their social obligations.

In addition, I think you aren't losing that sensitivity, because the services utilized at any dental school have a large percentage of your population—I can't give any percentages—are going to be people of African American, unless you're in the extremely exceptional school. Even in Iowa we have African Americans.

So if your question is directed to the population pool that you're treating, will you be sensitized to those, that particular population, yes. But I think additional safeguards by having African American faculty and role models, if you will, at those institutions will greatly enhance those experiences, and I think that's why it's very important that African Americans are in all forms of education, not only at Howard or Meharry.

DR. JOSEPH FENWICK:

I was interested in your first sentence, the topic sentence or the first paragraph when it uses the phrase, "The future of Black dentistry hinges on several factors . . ." And my question is: If that is the case, particularly since one of those factors is the assurance of adequate and continuous funding of health care programs, where do you see the funding coming from? What source do you see the funding coming from, if, indeed, the future of Black dentistry depends upon that?

DR. ANNA M. JACKSON:

What the committee was addressing here was the fact that we need to try and stabilize funding that is acquired. And the innovative methods that were described in the paper, including the development of private/public partnership areas, as well as the traditional funding routes through the federal government, can be channelled and finalized so that there might be mandated regulations included to assure the funding.

One of the problems that we have been facing is discontinuity of care or funding once programs have been started, and the interest of the group was to try, both through innovative methods and also through existing methods, to assure continuity of funding. I think that was the major thrust of that program.

And I think that when we're looking into the future and we want programs to be viable, we can no longer accept the discontinuity and the disruption of programs. So that was the major aspect.

Does anyone else want to add to that?

DR. CLAUDE R. WILLIAMS:

We talked about the level of diversity within the Afro-American community, which means that not all people are on a program that receive dental care from Black providers, such that we are addressing their ability to learn to appreciate the levels of diversity within the Black community, such that in my community we don't treat the middle class Black family. They go to White practitioners, such that we need to raise the level of acceptability and appreciation among all levels and the culture diversified Afro-American community as well.

And so we were trying to approach it from two different levels, one, from the economically advantaged as well as the economically disadvantaged.

DR. JOSEPH FENWICK:

Do you see as part of your funding source a part of the U.S. tax dollar for dental care?

DR. ANNA M. JACKSON:

Now that you raised the point, yes, very much so.

DR. HARVEY WEBB:

I want to commend the committee for such a comprehensive and in-depth study of the matter.

My concerns reflect a component of what was just discussed. Did the group consider a universal health system of some nature as a mechanism for achieving parity and equity and did they also consider the Medicaid program.

Realizing that except for children there's no dentistry in it and the need for political legislative and participatory democracy among African Americans to assure that there is not only a comprehensive system, but comprehensive dentistry within the health system to assure that African Americans, as well as all other Americans, would receive these services.

DR. ANNA M. JACKSON:

You stated it very well. Yes, we did.

DR. S.W. GORDON:

I would like to really commend your group on this paper that you put together. It has helped answer the big question which I came here with, and that is: As a private practitioner, how do I retain or get patients of a higher income level to come to my practice?

It seems a lot of, especially in the inner-city, in Black practices we seem to maintain or get people who can't go other places, but the people who can afford to pay a little higher price tend to go elsewhere.

I think one person used the expression "one way racism" where white people could go to white practitioners, Black people can go to white practitioners, but white people wouldn't come to Black practitioners.

You've answered a lot. You've given me some tools to put in my pocket to go back to try to increase my client pool of people who can afford to pay instead of just doing low income type of services. It's really beneficial. I commend you.

One other point I'd like to ask: Information dealing with Afro-American in dentistry is very hard to find sometimes. Now you're talking about dental research, but the current information which is scattered in other periodicals, is it possible to get some type of publication or find some of the information that's already available, condense it and maybe make it available to some kind of a data base of some sort.

DR. ANNA M. JACKSON:

Yes, that was one of the intents of what we had in mind to continue the communication.

DR. JOHN BOYD:

I have been through two days of conferences and workshops on the private sector which I hope we're going to report on, and I've listened to all of these reports and I think they have been very fine.

The recommendations that have come out of all of the reports are very good and they seem to be succinct and address certain problems that we have here in America and with the minority populations.

I think, though, that as a group we would be missing a very golden opportunity—Harvey Webb said it yesterday and we still skirt the issue, but all of our problems would be solved if the United States Congress and the Senate and the President address what is the primary need and the critical right of every American citizen, and that is the ability to access good medical care and dental health care and education and if money is voted to put into a national medical and dental health care program as a right of citizenship of this country and for education from kindergarten through postgraduate training, if necessary, then we would have a literate population who would know what their abilities to access care are and the funding would be there for every American citizen to be able to go to any practitioner in any location and pay for their medical and dental health care.

I think that if we don't say that as a major recommendation from this session, coming out of a prestigious university like the University of Michigan, we will miss a golden opportunity. Thank you.

DR. BILL HOSKINS:

I, too, would like to commend the sub-committee for doing just an outstanding job in coming up with a document that I'm sure will have a major impact in the future.

I have two comments, and they're predicated by the fact that this document, as a whole, is going to get wide dissemination and I don't think it's wise to leave anything up for interpretation.

My first comment has to do with "Increasing active involvement of all aspects of dentistry in an effort to address oral health problems of African Americans; for example, American Association of Dental Schools, and American Dental Association."

DR. ANNA M. JACKSON:

And National Dental Association.

DR. BILL HOSKINS:

And I felt that it's very important that the National Dental Association be included.

DR. ANNA M. JACKSON:

The National Dental Association was added.

DR. BILL HOSKINS:

The other area, I think it's the second section, it says, "The information and data would be disseminated to dentists, health policy makers, lawmakers, the media, the public and corporate and commercial sectors." And I think it's very important that we include academic institutions—academic professional institutions, because they are very involved and have an impact on a number of the other groups that are mentioned here.

The last comment has to do with the first sentence again, where it says, "The future of Black dentistry hinges on several factors. . .," and I was wondering again for those that might be interpreting this that have not had the opportunity to interact with anyone here that we might not want to avoid giving the impression that what we outlined here are the only factors—several factors. Instead of saying several factors we might state; "the future of Black dentistry hinges on many factors, the most important of which are . . ."

DR. ANNA M. JACKSON:

Thank you.

DR. JOAN MCGOWAN:

I want to address the reference to Head Start in this document. Black, white, red and yellow dentists are refusing to treat Head Start children because they are Medicaid eligible and the low level of reimbursement does not cover the overhead cost of the practice of dentistry in their office.

For those of you in this room that reside in Michigan, please write a letter to Representative John Dingle addressing this factor.

For those of you that reside in Region 5, contact your State Dental Coordinator at the State Health Department.

For those of you that reside in other regions, I put Head Start brochures out at the desk, because at the present time the—legislation is under consideration for amendment. And what they are looking at is the amendment to include dentists, as well as physicians, for usual and customary fee reimbursement.

And if, in fact, this would pass, then that would be a terrific help to the practice of dentistry in treating Head Start children at usual and customary reimbursement instead of being dependant upon the Medicaid eligible fund in your state.

MR. VINCENT SHUCK:

Good morning. Vincent Shuck, American Dental Association staff. I, too, would like to compliment the committee on its work, and particularly being able to put the psycho-social aspects into an understandable and readable manner. Some of us have a difficult time getting a grip on some of that. Your committee and your consultants have certainly done a valuable service to help us in that regard.

There are a number of examples of leadership opportunities referenced in your report, as well as the reports that we listened to yesterday.

I would like to report to this group that president elect Morrow of the American Dental Association is keenly interested in the role of minority dentists in leadership positions. And I met with Dr. Morrow at the American Dental Association office on Wednesday before coming here. She is considering, and none of these plans are final, a task force, a steering committee, program activities and even a national conference to support the efforts of today's conference.

So I would encourage those of you who are recommending to be in leadership positions and acting as role models that you assume that responsibility yourselves and direct your comments to Dr. Morrow and suggest to her that you are supportive of her overall efforts. I know that your input would be very appreciative.

I would suggest, also, that we watch the use of pronouns when we say we or they, that names have to go with those pronouns, that someone has to assume responsibility. I think this is a great opportunity, when Dr. Morrow assumes her leadership role in October, to assist her in her effort. And if we are willing to work together to try to achieve and implement some of these recommendations, that everyone will be better off, so I encourage all of us to do that.

Thank you.

DR. ANNA M. JACKSON:

Thank you for bringing that to our attention.

DR. JOSEPH FENWICK:

Since we have a representative of the American Dental Association here, what is your reaction to a one-tier health care system? You notice that at least five people have spoken to that issue, if, indeed, you think the conference is a worthwhile one.

MR. VINCENT SHUCK:

I am a staff member of American Dental Association, and in that regard I have several caveats.

The Association does have policies, and we work through our Washington office. It would be my suggestion that we place that question before them and ask for their official response, and that would be the best way to handle that.

And if I could be helpful in getting that response before we conclude today, I will call the Washington office and give you a specific American Dental Association policy.

DR. ANNA M. JACKSON:

Thank you.

DR. ROBERT ELLISON:

I'd like to commend the committee for such a very excellent committee report. It's very interesting and well received by all of us.

There's something you mentioned in the report—I don't remember the exact page or what have you—but it's been mentioned by several others, which I think is very critical.

We talk about a way—how we can manage health care among the patients and the fees and so on and so forth and what a problem this is, but the question that always comes up in my mind: When students go through school and these tremendously large fees they have to pay, tuition and so forth, and once they've got large debts, which we all know, we're thinking of a system of saying that these individuals, obviously, have to charge fees commensurate with their education, experience and overhead, and then again we start talking about programs that are going to be governmental regulated. That is going to be a Catch 22, from the standpoint of how are these individuals going to recapture all this money they spent.

Of course, we haven't had much conversation on that, but I think it may be germane to start governmental agencies or somebody start thinking about ways that tuitions and all these other things can be paid and these people can go to school free and then fees don't make any difference, because in countries like England and other countries where students don't have to have worries about tuition and things like that because most of them are paid by the community which they come from.

This to me would be a very innovative thing as a long-range goal that all of us should think about, because there's no question in my mind, we can't have people graduating from school with debts of \$180,000 dollars or whatever and expect these people to charge low fees or whatever and not be upset about it.

DR. ANNA M. JACKSON:

Thank you for elaborating on that point. We attempted to address that, but not nearly as sensibly as you did.

DR. ARDELL A. WILSON:

I think it has been addressed several times, and I know it's a point of contention here, because a lot of us have gone through it already and we've been trying to make that statement over and over again. That is a very significant problem, and we did mention it in the paper as one of socioeconomic barriers for the profession.

I think Audrey Manley had mentioned the National Health Service Corps and the efforts that they're trying to make for National Health Service Corps slots for dentists. We also talked about low repayment, which is also a federal and a state program.

I don't know whether many of you know that the Feds actually give money to practitioners for low repayment, but there's another aspect, a state loan repayment program where states actually have to give, I think, this year—or this new Federal fiscal year, 50 percent into the pot in order to have a state loan repayment program.

We talked about public/private partnerships, and I think some other people had mentioned that yesterday, about their institution sponsoring or individuals sponsoring students so that they can be loan free at the end of their tenure in school.

So I think many types of activities to alleviate this problem have been mentioned. What we need to do now is to actually act on them.

I don't know whether the State of Michigan has a state loan repayment program, but if they're willing, what they need to do is put up 50 percent no matter what it is. I don't think there's any basic expenditure for the state, but they have to put up 50 percent of that loan repayment money and 50 percent will come from the Federal Government.

So in your respective states there is a federal register legislation that they can respond to make sure that this state loan repayment program can become a reality in their states.

So that's just some of the things that we can offer as alternatives to this predicament that we're in in terms of loans.

DR. DENISE POLK:

What specific state agency or federal agency repays loans, because what I ran into was I went into an area where I took care of a lot of low socioeconomic—the low-income patients and patients in the Medicaid program. And when I tried to obtain loan repayment, they told me that the area that I was in was not considered a loan income area, so I was rejected from having all my loans repaid.

DR. ARDELL A. WILSON:

There are criteria to identify different areas of the United States as health manpower shortage areas. They are called medically underserved areas, and I think your State Department of Health—and it might vary in different states—can identify these areas.

In Connecticut, it's the State Department of Health that can provide you with information about whether your area where you're practicing is a health manpower shortage area. And if it is, then you are eligible for your state loan repayment or a federal loan repayment program.

The state has to work with the communities to get that designation. A lot of cities and towns are health manpower shortage areas, but it takes a lot of red tape, as we all know, to identify that.

We have to talk about the number of practitioners, whether they're retired, what type of practitioners they are, whether they're in private practice, whether they're pediatric or any kind of specialty to find out whether or not there are enough people in there that are serving the population.

But the health manpower designation is important and if you feel that you are in a manpower shortage area, you have to work with your state governments and maybe even local governments to get that designation.

DR. HENRY YOUNG:

One thing that I think needs to continue to be looked at, as far as socioeconomic problems in reference to student debts, being one of the dentists in that category, is that there are loan repayment programs in place, but I don't know if it has been looked at at the percentage of African Americans that are being plugged into that program, and that's something that maybe this group, along with the National Dental Association, need to take a look at.

DR. MARILYN WOOLFOLK:

One of the things that hasn't come up in discussions yesterday or today regarding a positive action that could be taken in terms of the loan burden that students experience, is the fact that educational loans are not deductible. The interest that you pay on them is not deductible.

I think everyone should be trying to lobby all organizations and all federal government agencies to get that reinstated as a deduction in terms of the interest level that you pay. We said yesterday that some of those are astronomical, and the interest that you have to incur should be deductible. If you could take it off your yacht, you could take it off of education.

DR. ARDELL A. WILSON:

One other comment about the minorities in the state loan repayment program. I know for the State of Connecticut I do administer that program, and in order for us to report back on a quarterly basis about our activities, the two things they're looking for is the number of dentists in rural areas, because they think that's a shortage area, and the number of minorities.

We stand a better chance of continuing our grant if we have a larger number of minority practitioners being disseminated in areas where there are health manpower shortage areas.

So just to let you know, when we, justify our need for continuing support for the state loan repayment program, they look specifically at the rural dentist and also about minorities that we try to recruit and retain.

DR. JOAN LANIER:

What we might try and do is contact, corporations and particularly dental companies to utilize Blacks in more of their ads both printed and television.

One other suggestion is that under promotional event, photo studios might be a good place for us to put information about oral health, because if people are going in to have their photos, certainly that would be a good time to impress upon them the need to have a beautiful smile.

DR. ANNA M. JACKSON:

Thank you.

MS. CAROLYN GRAY:

Carolyn Gray, with the American Association of Dental Schools. I have two comments in response to several of the previous speakers.

One is that the American Association of Dental Schools, in conjunction with the American Student Dental Association, sponsors a loan program for students and I wanted to make the group aware of that, that any student sitting in the room should work through their financial aid officers to see if they can take advantage of that program.

I can take the concerns of this group back to our loan sponsors to see if your needs are being met.

Secondly, the reinstatement of tax deduction for tuition is one of our top legislative priorities, and we lobbied very hard to get that tax deduction reinstated. Any faculty member or any student in the audience can check with the dean's office to make sure that you're kept aware of our legislative alerts on that initiative.

And you're welcome to call our Government Affairs Department back in Washington to see if you can offer any help. We'll be very grateful for any assistance.

DR. EMERSON ROBINSON:

I consider continuing dental education to be quite important, and it's certainly developed into an area that will be something that most dentists will be highly involved in in the future.

You indicated on page nine of your report that with the multiplicity of African American patients and their diverse oral problems, Medicaid and other things, African American dentists should invest in a continuing education program.

Does this mean we should think in terms of developing continuing education programs that have a slant—a Black slant, so to speak, and if so, could you expand on that?

DR. CLAUDE R. WILLIAMS:

The majority of our patients—In order to have a Black slant on continued education, we must have available data as to what the needs are, and we addressed that in our report. Before we can devise programs of treatment and care, we have to know what are the priorities.

We establish priorities, we define what the dental care—the minimum acceptable level of care is, and then we devise programs of education to solve the problems, rather than solve a problem that we have not defined.

And we need the available data first and from there on, and I think that was a primary mission that we wanted to accomplish, that we have no available data yet that would allow us to devise programs of education of health care and the like.

DR. MARK ROBINSON:

I have a suggestion about African American dentists as role models—African American dentists and physicians of all races are role models in the community.

One suggestion to promote yourselves—or promote ourselves as practitioners as role models in the community would be bulletin boards in the offices. This is just a suggestion.

I know that our office has a bulletin board and deaths, weddings, Homecoming Queens, meetings that we attend, all these things are placed on the board. In fact, it's not a board as such; it's the whole wall right by the reception desk.

You'd be surprised at the knowledge that the patient receives. Before I left, there was the brochure on Black Dentistry In The 21st Century on there and the patients had questions that they came up with and wanted to know about it. I couldn't talk too much until I got here, but I gave my own version of what it would probably be concerned with.

These are methods or means we have to toot our own horns. We do it in other respects, and they do take note of it. So that would be one way of letting them know what we're doing.

We've become so diverse and so large—the city has become so large and as practitioners might not be as visible sometimes. So with these little methods you can let them know what you're doing, and the Black males need to know what some of the Black males and females are doing.

DR. ANNA M. JACKSON:

That was in keeping with the spirit.

DR. JAMES SPIVEY:

I have a question regarding the question you raise: Are there alternative or non-traditional methods of providing care to the Black population?

It seems to be inherent and this assumption that many—or all Blacks are in the indigent categories and we know that's not true, because most of us here, perhaps, are not that case.

If we locate practices, however, in underserved areas where there are indigent Blacks, what do you think we can do to affect the attitude of us in this room towards the willingness to go into those areas and support the businesses? For example, as a periodontist, if I open in an area or practice in an area that provides care to the indigent, how many people would be willing to drive down and support my business in this room and what can we do to affect those attitudes?

Because I feel that, we talk about providing care to people who really need it. That's why we're really here, trying to find out some ideas along that line. But somehow I don't really feel where the rubber meets the road, you know, our reality or our friends are not congruent with that idea, because you can admit that the patients are there and they need to be treated, but would we go in these areas as well and drive our beamers, and park it there and go in and take your children to an orthodontist who was located in these areas.

I'm just wondering how people feel about that.

DR. ANNA M. JACKSON:

We talked about the tremendous diversity within the African American community in that regard so we were not limiting it to lower socioeconomic level individuals.

Also, we talked about the fact that there are some programs that are already located within the lower socioeconomic level areas and that those programs, certainly, need to be expanded.

What you are suggesting offers another alternative or a way to expand what is being done already and welcome any response from others who may have ideas on that.

DR. ALJERON BOLDEN:

Jim, it's a very dynamic question, but I think a little bit of it has been covered, but it's not going to take an activity or an action of one particular if you have a public partnership that can be done. But the basic thing is, is it a privilege? If it's a privilege and economics are not involved, I think Dr. Harvey Webb had said, then those issues, economic accessibility and availability, will not be the problem—practice setting will not be a problem in that type of case.

But other dynamics can be happening with the dynamics of a public/private partnership which as a specialist you can be bought into such programs as they mentioned. Head Start for instance. If the quality of care is maintained at a certain level, then there's a consultant or a person to refer to, those dynamics of identifying what are African American resources that are available in those areas.

So there would be many ways of trying to address this issue, and I think that's the dynamics and what's so nice about the conference is, there is no one quick fix solution. It's going to take coordinated efforts on all of these realms to do what you're saying, both from the educator and education. That's why we structured it from the individual level, from the practitioner, from the system-wide level and for the policy-making level. It's going to take all of those to impact and affect a change that you'd like to see.

DR. ELISHA RICHARDSON:

I, too, would like to congratulate you for doing such an excellent and outstanding job in your report, because, obviously, it is a missing factor in our dealing with health care in the Black community.

But I need to make a statement, really, to the continuing education programs aimed at Black community, and I believe we would be remiss if we do not recommend that continuing education programs be designed to treat Black patients.

We know we don't have as much information as we should have, but we know that there are some secondary ethnic differences. And you only have to open a magazine and what you'll see is the Whites are trying to make their lips thicker, the Blacks are trying to make theirs thinner.

No, these are the dynamic factors. The Whites are trying to get suntans and the Blacks are trying to get bleach jobs. But these are the factors and when we start talking about cosmetic dentistry, nature is a wonderful thing.

You know, most people come up and say you've got such white teeth and so forth, you know. My teeth are not as white as the teeth of white people, but the reason they look white is because of the blends in the difference in terms of the texture of the color of my teeth and the color of my skin.

Nature's a wonderful thing. It blends in colors, and if you're talking about cosmetic dentistry, you got to look at the fact that a Black person—the dark skinned Black person would look peculiar if you're putting in extremely light colors.

When you look at orthodontics—And I look at many of the show people and I can tell which Black show people were treated by Black orthodontists and which ones were treated by white orthodontists. You look at the rabbit effect when they're treated by the white orthodontist, because they treat within a Black face the standard of the white.

And we've got to recognize these minor differences and the continuing education programs should teach us that.

I just wanted to say that we would be remiss if we didn't say that there should be continuing education programs designed for the Black community, including the economic management of the practice. Thank you.

DR. ANNA M. JACKSON:

Duly noted.

DR. FRANK SHUFORD:

I'd like to congratulate the committee, as usual, for coming up with a very provocative and interesting report.

I stand here, as I see it in the room, one of three past presidents of the National Dental Association. The individual from the American Dental Association held out a hand of friendship and one that we have never been able to cultivate or jump over in—since 1950.

At different times they've offered a hand, but never in an open forum such as this have I heard that there should be cooperation and that there would be the formation of committees and the chance to discuss exactly where Afro-Americans stands in terms of participating in organized dentistry, and I say that this is a landmark.

And I think that since there have been so many charges, and I raise again, for leadership to the National Dental Association, the American Dental Association and all of the other organizations, it's time that the National Dental Association—I see few here, other than the Secretary at this point in time, of the leadership.

I think that the National Dental Association should reconsider and think what is their mission, because you've given them a charge that I think is too much for them to carry. And somehow they should form a coalition with someone that has a mechanism in place and to work to accomplish that.

And I say this as a messenger, and I hope to leave as a messenger and not be knocked off. I know that this runs contrary to the thinking of people at the leadership role, because as President of the National Dental Association you do get some publicity that people seem to want to get deserve.

And usually when you go to the meetings the people who think and attend such meetings as this are for playing golf or socializing and I think that we should relook at, but not lose our identity, but be some sort of force that could work within the framework of the American Dental Association and get representation across the board throughout the local, the state and the Federal Government.

DR. LYNN WILSON:

I work for the State Department of Corrections, and this is a population I think we are forgetting about, unfortunately. There's a large population of Afro-Americans in the correction facilities, and I think this is a population that we can address in terms of raising their I.Q. level on oral health care.

Many of them do not seek oral health care until they get into the correctional facility, unfortunately, and once they get out, they may not be seeking any kind of dental care at all, and I think this is a population we might want to take a look at or target as one, to raise that I.Q. in oral health.

DR. MICHAEL RAZZOOG:

The point came up regarding American Dental Association policy and Mr. Vincent Shuck has obtained that policy statement.

MR. VINCENT SHUCK:

Thank you. I made that call to our Washington office, and the issue was the American Dental Association's position on a one-tier national system.

The Association policy is supportive of everyone having the same access to care. The Association is supportive of the current private practice system in providing that care, as opposed to a system being placed on top of the private practice system.

The dilemma comes in trying to fund the delivery of that care. There was an expansion of the policy that gave additional direction to the Washington office in lobbying for the expansion of Medicare coverage for adults and also the funding of that coverage.

So I think we're on the same track. However, when you get into a debate on whether you're going to spend national tax dollars on bombs or butter or a health

care program, you can see where sometimes the Association's effort and other health care providers' efforts in lobbying for those funds sometimes comes out on the losing end.

Again, we are supportive of the general system. As a reminder, I ask for your input to contact Dr. Morrow directly or the Association's Washington office if you have legislative agendas that would be helpful to us. Thank you.

Review of the Literature: Psycho-Social Aspects of Dental Care

DR. MARILYN WOOLFOLK
Director of Student Services
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Kelly, James E, and Harvey, Clair. U.S. Department of Health, Education, and Welfare, Public Health Service-Health Resources Administration. Decayed, Missing and Filled Teeth Among Youths 12-17 Years. Vital and Health Statistics, Series 11-Number 144, 1-34. Government Printing Office, 1974.

This survey of youths 12-17 was conducted from 1966-70 and was the third of the Health Examination Surveys. The two preceding surveys included adults aged 18-79 and children aged 6-11. The data from this survey have been used as the benchmark against which to compare trends in dental disease over the years. With respect to age, sex, race, geographic region, population density and population growth in area of residence, the examined sample may be regarded as closely representative of the population which it was drawn. This report contains national estimates of the number of decayed, missing and filled (DMF) teeth among youths by age, sex, race and other selected demographic characteristics. The average number of DMF teeth increased with advancing age, rising from 4.0 for 12 year olds to 8.7 for 17 year olds. Both white and Negro males of every given age have lower indexes than females of the same race and age. Of most interest is the relation of DMF score to race. Differences in the average number of DMF teeth per youth are consistently associated with race. Average DMF counts for white males, except those aged 12, and for white females of every given age are slightly higher than the corresponding counts for Negro youths of the same sex and age. Differences between estimates of the DMF components for white and Negro youths occur consistently and are statistically significant. Whites have about four times as many filled teeth per person as Negro youths, 4.2 compared with 1.1, but only about half as many D teeth and M teeth, 1.5 and 0.6, respectively, compared with 3.2 and 1.3. The demographic variable of family income or parent's education was examined.

The number of DMF teeth is not associated with either, but the components of the index are strongly associated with both variables. The associations of filled teeth with increasing income and education and decayed and extracted teeth with decreasing income and education can be used to define levels of dental care throughout the population regardless of race.

Baird Jr, James T, and Kelly, James E. Need for Dental Care Among Adults-United States-1960-62. Vital and Health Statistics, Data from the National Health Survey. U.S. Department of Health, Education and Welfare. Series 11, no. 36: p 1-22, 1970.

A national study of adults from 18-79 was conducted to assess dental health status. An effort was made to relate the dental condition of each person in the sample to their relative need for dental care. Need for dental care was based on presence of decayed teeth among dentate individuals and oral hygiene and periodontal condition. The proportions of males in need of dental care were significantly higher than those of females. Need for immediate dental care was strongly associated with the demographic variable of race with 61.5 percent of Negro adults needing early care versus 37.6 percent of white adults. This association held for all of the clinical, demographic and social variables studied in the analysis. The association between need for dental care and race is largely accounted for by differences in income and education. The proportion of people of all races needing early care increased almost linearly with decreased levels of education. The only exception to the trend associated with education occurred among Negro men where need for immediate care tended to increase with rising levels of education. The association was not statistically significant, however. When marital status was considered, the lowest proportions needing immediate care among Negro adults were in the divorced and separated groups. In contrast, separated people among white adults had the highest proportion needing care. Never married white adults had the lowest proportion needing care while the corresponding group in the Negro population had the highest proportion needing care. No large differences in the proportions of people in need of dental care were observed among the three geographic regions specially defined for this survey. Differences in the proportions of people needing early varied with usual activity and occupation.

Kiyak, H Asuman, and Miller, Rosalie R. Age Differences in Oral Health Attitudes and Dental Service Utilization. *J of Public Health Dentistry*, 42:29-41, Winter 1982.

The purpose of this retrospective study was to examine components of dental attitudes as possible determinants of different patterns of dental service utilization among low income population groups. The subjects, 61 elderly and 58 young, were

enrolled in a program that provided free dental care and consisted of Blacks, whites, and Pacific-Asians. Since the care was free, it appeared that the traditional barriers to care such as cost, knowledge, availability and physical access did not apply. Assessing oral health attitudes and behaviors of elderly versus young persons, those over 50 were compared as a group to those under fifty. The aged respondents held significantly more negative attitudes toward oral health than did young persons. By varying the structure of their questionnaire, the authors were able to identify the specific element of attitudes which distinguish elderly from young persons. They determined that the elderly attribute less importance to dental care regardless of utilization behavior. The dental status of each respondent was recorded as well. It was found that elderly respondents in this sample recognized their objective health status and rated appropriately their oral health as poor. This finding differed from previous research which alleged low perceived need to be the reason for low utilization of dental services among the elderly. The elderly realized that they need dental care, but did not give it high priority relative to their other health needs. Further study is needed to determine whether there are attitudinal differences among elderly with varying socioeconomic status which may affect utilization rates.

Graves, Richard C., and Stamm, John W. Oral Health Status in the United States: Prevalence of Dental Caries, *J. of Public Health Dent.*, 49:341-351, 1985.

This article gives a historical presentation of the caries status among U.S. children and a discussion of tooth decay experience among adults. It suggests that the pattern of high caries prevalence may have shifted from higher SES and white population groups to lower SES and Black population groups in the United States.

Historically Black populations have had significantly lower caries prevalence than white populations. The differences determined from recent studies including the NHES of 1963-65, the North Carolina studies and the 1979-80 National Dental Caries Prevalence Survey seem to be getting smaller as greater caries experience among Black children is being reported.

More children are caries free and the majority of those who develop some decay experience a reduced and simpler pattern of disease than in the past. The geographical pattern of decreasing caries prevalence from the northeastern to the southwestern region of the country appears to persist. Caries experience is falling in fluoride and fluoride deficient communities but a smaller proportion of the population has a disproportionate share of the total disease occurrence. The article predicts that further decline in caries prevalence is possible considering greater utilization of preventive procedures such as fluoride containing products and sealants, improved restorative materials, growth in coverage by dental benefit plans and increased health-oriented behavior. The prevalence of caries among older adults seems to be declining although the evidence is not as solid. Because of high past caries experience, the reduction in caries rate is less remarkable.

Bagramian, R. A., and Russell, A. L. Epidemiologic Study of Dental Caries Experience and Between-Meal Eating Patterns. *J. Dent. Res.*, 51:342-347, March-April 1973.

This study was conducted for the purpose of testing the hypothesis that dental caries is related to the consumption of sucrose-containing between-meal snacks. A questionnaire on snacking patterns was completed by 1487 white and Black high school students in Detroit, Michigan and Columbia, South Carolina. The students were then examined for caries experience. The mean DMF teeth of each group were calculated according to age, sex, race, and geographic location. DMF scores that were greater than a half standard deviation were designated as high caries experience, those a half less were designated as low and those within a half standard deviation were designated as medium. No consistent relationship could be found between the consumption of sucrose-containing between-meal snacks and low, medium, and high caries experience. Differences or lack of differences between racial and geographic groups was not related to the frequency of sucrose-containing between-meal snacks caries experience in Columbia was similar for whites and Blacks (10.74 DMF teeth vs. 11.14 DMF teeth). This lack of difference in caries experience could not be related to similar patterns of sugar consumption among Blacks and whites. Twenty-four out of 25 chi-squares that were calculated for Columbia indicated considerable differences in snacking habits between white and Black children. Blacks in Detroit and Columbia consumed more snacks of all kinds than whites. Caries experience in Detroit was somewhat higher for whites than Blacks (11.22 DMF teeth vs. 9.31 DMF teeth) and the difference was statistically significant. This difference, however, could not be accounted for by greater consumption of sucrose-containing between meal snacks by whites or lesser consumption by Blacks. (The difference was not shown to be related to the frequency of sucrose containing between meal snacks.)

Everhart, Donald L., Grigsby, William R., and Carter, Jr., Walter H.: Human Dental Caries Experience Related to Age, Sex, Race and Certain Salivary Properties. *J. Dental Research*, 52:242-247, March-April 1973.

Saliva flow, protein concentration and blood group substance concentration in whole saliva of 106 persons were determined and compared with variables of age, sex, race, decayed surfaces, DMF surfaces and concentration of immunoglobulin A and G. It was determined that the Black sample had more decayed surfaces than the white sample and a higher rate of IgG secretion than the white sample as well. The Black sample had a positive correlation for age-IgA secretion rate, whereas the white sample did not. The significance of these differences is unexplained.

Whitehurst, Virgil E., Stookey, George K., and Muhler, Joseph C.: Caries Prevalence in Children of Low Income Families. *J. Dent. Children*, pp. 305-308, July 1968.

These authors focus attention on the backlog of untreated dental disease that existed in Indiana in the mid-1960s. Based on a previous survey conducted by the authors which showed that 73 percent of a three county area in southern Indiana had never been to a dentist, children of low income families were examined more specifically for dental caries prevalence. These data, gathered and analyzed from two cities, South Bend (non-fluoridated) and Ft. Wayne (fluoridated) were used to compare prevalence of dental disease among Negro and Caucasian children of low income families in Indiana in order to determine unmet need. Data were gathered for primary and permanent dentition including missing teeth, fractured anterior teeth, carious teeth, carious surfaces and restored teeth. Mean numbers of DMF teeth, DMF surfaces and a mean combined surface index were computed for both cities by race. Of the four different groups studied, based on mean DMF, the Negro children from the fluoridated area (Ft. Wayne) had a lower DMF which could suggest a better state of dental health. However, closer scrutiny of the components of the DMF index revealed the Negro children from Ft. Wayne had very little restorative work and hence, the most need for dental attention. The authors used these data to issue a plea for the development of practical and efficient preventive techniques for controlling dental caries in children.

Randolph, Linda A., Rivers, Sylvia: A Comparison of Selected Health Indicators for Black and White Children in New York State. *New York State Journal of Medicine*, 85:131-134, April 1985.

The article helps document the fact that although the health status of American children has improved dramatically over the past two decades, not all children have shared equally in the progress.

A number of health indicators known for New York State, including low birth weight, infant and neonatal mortality rates, and the incidences of late or no neonatal care, teenage live births, single parent families, families with income below the poverty level, families with income below the poverty level with female head-of-household, no husband present, and children under 18 years are compared between whites and Blacks. The comparison reveals large differences between Blacks and whites in these critical elements that are known to influence the status. The statistics support the premise that the Black population still suffers excessive health problems as compared to the white population and is a national problem. In a discussion of dental concerns, the article states that there is a large unmet dental need in the Black community without citing supporting data. They cite rational reasons for this unmet demand based on assumptions of:

1. few dentists practice in the minority community
2. few Blacks and Hispanics are being trained as dentists
3. financial barriers to receiving dental care to elderly and indigent have not been overcome

The authors call for new health programs and the expansion of an existing testing are targeted to address high risk populations. This approach is likely to facilitate progress toward eliminating the barriers that create unequal chances for Black children to grow, to develop, and to succeed.

Dummett, Clifton O. *The Environment of Minorities: The Negro in Watts*. Q. Natl. Dent. Assn., 26:104-115, 1968.

Dummett describes the environment of Watts which, at that time was 85.7% Negro, for its uniqueness of community conditions which adversely affect health. He focused on family income, male unemployment, education, family status, housing, the rates to youth and aged to productive adults, and the status of youth in terms of neglect and delinquency. He compared these parameters for Watts with those of South Central Los Angeles which was 48.5% white and 39.9% Negro. Generally speaking, the scores of these parameters reflected disadvantageously on Watts. The implications of the particular environment are further related to health service availability which is described as inadequate in quantity, of uncertain quality, and totally uncoordinated. The fact that few physicians and dentists tended to locate in the poorer urban areas prompted University Medical Centers to begin to plan and establish quality medical and health services for local poverty areas. Neighborhood Health Centers were set up as an outgrowth of this effort. The University of Southern California proposed one for the Watts area and Dummett highlighted the salient features of the Center. As conceived, the Center would allow for provision of comprehensive, unified, personalized and continuous health care of high quality to persons living in neighborhoods having high concentrations of poverty. Other features that were mentioned included employment and participation from area residents in the operation of the Center with the assistance of a Professional Advisory Board.

Creighton, William E. *Dental Caries Experience of Negro and Caucasian Children in Portland, Oregon*. J. Dent for Children, 36: 65-69, March-April 1969.

The author reports on a comparison of the dental caries experience of permanent teeth for Negro and Caucasian children in Portland, Oregon. One study group included 103 Caucasian and 161 Negro males and 65 Caucasians and 164 Negro females in grade 1. Another group of fifth graders included 52 Caucasian

and 113 Negro males and 70 Caucasian and 146 Negro female students. Baseline examinations were performed in October 1967 as the first phase of a preventive initiative. The designation of carious surface or tooth was reserved for evidence of undermining and softening of tissue. Mean caries experience scores (DMF teeth and surfaces) were consistently higher for Negro children than for Caucasian children when grade and sex were held constant except that the mean DMF tooth scores for Negro and Caucasian male first-graders were the same. DMF surface scores were significantly higher for the Negro girls than for the Negro boys as compared to Caucasian boys in the fifth grade. These results did not support the previous theory that racial differences in dental caries experience existed. The author suggested that environmental rather than racial determinants of dental caries were operational and called for additional research into the comparative dental caries susceptibility of Negro and Caucasian children in various geographic areas.

Horton, John E. and Sumnicht, Russell W. Relationships of Educational Levels to Periodontal Disease and Oral Hygiene: II. *Journal of Periodontology* 39: 27-29, 1968

Horton and Sumnicht conducted an investigation of 1,284 male subjects (Caucasian and Negro) aged 17-52 to study the relationship of individual levels of formal education with periodontal and oral hygiene conditions among enlisted men. The variables tested were age and geographic region. Periodontal and oral hygiene conditions were assessed using the Simplified Oral Hygiene Index (OHI-S) with its components and the Periodontal Index (PI). The socioeconomic factor of increased individual educational levels indicates improved oral hygiene status and less severe periodontal condition. There was no separate analysis of the subjects to determine any racial difference. The 22-29 year age group had the most reliable relation between education level and periodontal-oral hygiene conditions. The Northcentral region of the United States consistently indicates a relation between education level and periodontal-oral hygiene conditions. Findings offer additional support to other studies that relate socioeconomic factors and periodontal disease and oral hygiene.

Leverett, Dennis H., and Jong, Anthony. Variations in Use of Dental Care Facilities by Low-Income White and Black Populations. *J. American Dental Assoc.* 80: 137-140, January, 1970.

Leverett and Jong examine changes in the patterns of dental care use in a low income population since the inception of the Medicaid Program in Massachusetts. Data on whether or not people had a regular course of care indicated that in a one-

year period since the inception of Medicaid coverage of dental services, more low income families, especially Black, reported a source of dental care. The study population consisted of 457 families. With income essentially at the same level, there were racial differences in the source of dental care reported. Of whites reporting a regular source of care, 91.4% named a private practice dentist whereas only 63.5% of Blacks with a regular source reported going to private practitioners. If there was a private practice identified as source of care, Blacks reported travelling farther than whites to seek treatment. Additionally, more Black families use public transportation than white families which is interpreted as an additional hardship on Blacks seeking care. Among whites, there was a shift from clinic use to private practice but the shift was not as marked for Blacks. There was, however, a considerable decrease in the percentage who had no regular source of care. The findings tend to support reports of a disparity in the distribution of dentists in urban areas which therefore, imposes a greater hardship on those with low income.

Milone, Charles L., Stacey, Dennis C., and Schonfeld, Hyman K., *The Social Sciences and Dentistry-Patterns of Utilization of Dental Services in an Urban Neighborhood Health Center*, *J. of Public Health Dent.*, 33:194-196, Summer 1973.

A study of patterns of utilization of dental services in a health center in Connecticut was conducted to determine the age of children who, in some capacity, contacted the clinic and the family's size and ethnic classification. Children who contacted the clinic tended not to be under 5 or over 15. Proportionally, more children in the range of 10-14 years of age were found in these families relative to other families in the community. Children from families with fewer children represented a greater share of the contact during the one year period than those from families of 6-10. The rate of completion of treatment for all Black children in families studied was 19 percent; for Spanish-speaking children, it was 27 percent and for White and other children, it was 31 percent. The rates of completion for those children contacting the Dental Department was similar regardless of family size. The rates of completion of treatment for those who had received complete examinations were highest for whites (52 percent), lowest for Blacks and intermediate for the Spanish-speaking children. Blacks contacted the clinic in a similar percentage as they are represented in the community. The clinic was under utilized by whites. Yet the White child exhibited a distinct advantage in terms of completion of treatment.

Kaplan, Gary and Shapiro, Stewart, *Comparison of DMF Teeth Scores Between Caucasian and Negro Male Alcoholics*, *J. Dental Research.* 51:876, May-June, 1972.

This article investigates the variable of race in relation to the oral health profile of alcoholics. The dental findings for the total sample were similar to the averages presented in the National Health Survey. These findings were in contrast to a previous study which reported that alcoholics have greater DMF teeth scores than nonalcoholics and that the missing tooth factor is in excess of expected scores. The sample included 28 Caucasian males and 29 Negro males. The total mean DMF teeth scores increased and the filled and decayed components decreased slightly with age. This study demonstrates that although the total sample DMF teeth profile is similar to national trends, there is a statistically significant difference between the DMF teeth score and its component score for alcoholics by race. The Caucasian male alcoholic had significantly higher scores for the missing and filled component; the Negro alcoholics had significantly higher scores for the decayed tooth components.

Picozzi, Anthony, Dworkin, Samuel F., Leeds, Jeffrey G., and Nash, Jonathan, *Dental and Associated Attitudinal Aspects of Heroin Addiction: A Pilot Study*, J. Dent. Research. 51: 869, May-June, 1972.

The authors assessed the status of oral health in two groups of heroin addicts and compared the data to a non-addicted reference group. The subjects ranged from 18-44 and mean DMFT, F, and PI were compared by race for addict and reference groups. The overall level of dental disease, caries and periodontal disease, was not significantly higher than a non-addicted reference group. The usual racial differences observed in dental indices were not apparent among the addicts examined. Eight-four percent reported a decided increase in consumption of sweets while addicted. In the general population, Black people experience significantly more periodontal disease than whites.

Mobley, Eugenia and Smith, Stanley: *Some Social and Economic Factors Relating to Periodontal Disease Among Negroes. II Observations in Personality Traits*, American Dental Association Journal, 75: 104-110, July 1967.

This article explores the relation of periodontal disease to social psychological factors rather than to socio-economic factors. Among 897 Negro high school students ages 13-19, PI index scores were compared to scores which measured personality variables. Major characteristics of personality that influence social and personal adjustments were assessed including hypochondriacs, depression, hysteria, psychopathic deviation, masculinity and femininity, paranoia, psychasthenia, schizophrenia, and hypomania. There was a significant relation between periodontal disease and schizophrenia. Other personality traits found to be slightly related to periodontal status were hypomania, psychosthenia, social introversion, and depression. The findings are presented as being indicative of a tendency toward an

interrelationship between elements in personality disorders and early manifestation of periodontal disease.

Moosbroker, Jane and Jong, Anthony, Racial Similarities and Differences in Family Dental Care Patterns, Public Health Reports, 84; 721-727, August 1969.

This paper focuses on health and illness behavior of 647 low income families in Boston. All families in the study had a child enrolled in a Headstart Program. Data were collected from interview questionnaires. There were also a number of similarities between racial groups for variables such as recency of last visit, current perceived need for dental treatment, making an appointment when in need of care, and attitudes toward visiting a dentist. Differences were found between the Negro and white families with respect to the variables of regular source of dental care, type of treatment received at last visit, one or a series of visits, replacement of missing teeth, and dental health knowledge. Whites were more likely to report a regular source of care and to go for a series of visits. Negroes were more likely to seek care at a public clinic rather than private dentist. Once an adult patient entered the dental care arena, the kind of treatment received differed with race. Negroes were less likely to have restorations, more likely to have extractions, and less likely to have dentures. Explanations for these differences are presented in terms of non-economic considerations. The role and attitude of the provider in determining the treatment rendered is examined. The environment in which health professionals train contributes to perceptions of care that is appropriate for low-income groups and may perpetuate a pattern of care that is contradictory to good dental health and habits.

Public Health Reports, Vol. 84: 240-246, March 1969, Differences in Use Persist Despite Dental Prepayment

This article focuses on utilization of dental services by comparing dental health practices among a group who joined prepayment programs voluntarily to those who obtained membership as a fringe benefit. Regular periodic dental care was reported by Niakias and others to be a low priority in spite of high socio-economic status and high readiness. Those who voluntarily enrolled did not have greater unmet need than those who obtained membership as a fringe benefit.

Patterns of care among only those persons who received some prepaid dental care indicated that the two groups as defined previously did not differ in amount or type of dental care received. However, the members of the voluntary group were more likely to use dental care than persons who obtained coverage as a fringe benefit of their work group membership. These data do not support the view that voluntary dental prepayment appeals to those persons requiring more than the average amount of dental care.

Public Health Reports, Vol. 84: 240-246, March 1969, Medicaid Dental Services Fall Short of Goals

Shortly after Medicaid benefits for dental services were introduced in New York, an analysis of 1. services provided, 2. people who received service and 3. the cost of services delivered was undertaken. It was reported that only 1/4 of persons eligible for dental care in a county in New York actually received any care. There was a great range in the amount of the dental bills but the median bill was about \$39.00 and 2/3 of all bills were under \$50.00. There was a clear relationship of age with cost. More than 50 percent of the youngest patients had dental bills less than \$20. The group of elderly patients was small relative to the rest of the Medicaid sample. Each person received approximately seven services. The distribution of services according to welfare status showed that Medicaid had not provided the lower socio-economic group the dental care that was originally hoped. The implication is that if legislation providing dental care is going to work, efforts must also be focused on changing dental attitudes and the low priority that dentistry has on the scale of patient values.

Public Health Reports, Vol. 84: 240-246, March 1969, Dental Health Services Have Bright Future

This article, published in 1969, mentions growing federal support to dental health programs and vigorous leadership of the dental and allied professions as forces in place to assure a substantial future for the nation's dental health. It predicted that optional dental services would become mandatory for Medicaid programs by 1975. Dental programs within Head Start were being established and requested. The Children's Bureau was increasing emphasis on including dental treatment in health coverage for children and pregnant women. Further signs of encouragement were linked to the emergence of other federally supported programs such as education and manpower programs to provide more dentists and auxiliaries, applied research efforts to increase the practitioner's skill and productivity, and preventive programs like community fluoridation.

Public Health Reports, Vol. 84: 240-246, March 1969, Occlusal Relations Differ in White, Negro Children

Occlusal relations were looked at for a population of 718 children to compare Black and white children. The variables measured were dental age, molar relation, buccal and lingual crossbite, overjet, overbite, maxillary midline diastema. Midline deviation, frenum attachment, tooth displacement, and anterior spacing. The study was done in Chattanooga, Tennessee. Negro children were of a more

advanced dental age than the white children and, within each race, girls were more advanced than boys. A greater percentage of Negro children had bilaterally normal molar relations than did white children. Negro children tended to have lower overjet scores, lower overbite scores, maxillary midline diastemas more often, fewer and smaller midline deviations, greater distances from the point of attachment of the upper labial frenum on the alveolar ridge to the tip of the gingival papilla between the central incisors, fewer anterior displaced teeth, and more available space in each arch for their permanent teeth than their white counterparts.

Littleton, Norman, Kakehashi Samuel, and Fitzgerald, Robert J. Study of Differences in the Occurrence of Dental Caries in Caucasian and Negro Children, *J. Dental Research*. 49:742-757, July-August 1970.

Dental caries prevalence was recorded for 106 Caucasian boys and 109 Negro boys, aged 13-14 years, with similar histories of exposure to drinking water that was optimally fluoridated at 1 ppm. Results revealed that Caucasian boys had about twice as many decayed, missing, and filled teeth as the Negro boys, and DMF means were 3.5 and 1.7 respectively. Only 22 percent of the Caucasian boys, compared to 41 percent of the Negro boys were caries-free. Filled teeth accounted for 55% of the DMF for Caucasian boys to 49 percent of the DMF for Negro boys which suggested that levels of dental care for the two groups were the same. Efforts were made to identify differences in other selected variables related to bacterial composition of plaque, acidogenic potential of plaque and dietary characteristics that might be associated with differences in dental caries experience between the two groups. Specific caries-inducing streptococci were recovered from 30 percent of the cultures of plaque material from Caucasian boys compared to 17% of the cultures of plaque obtained from Negro boys. The two groups showed no differences in the relative percentage of extra-cellular polysaccharide-producing streptococci in samples of dental plaque. Additionally, the mean pH of plaque samples before and after addition of sucrose was similar for both groups. Consumption of sugar was reported to be more frequent and greater among Negro boys and thus does not give further insight into the lower caries prevalence observed for Negro boys.

Kelly, James E., and Sanchez, Marcus J., Periodontal Disease and Oral Hygiene among Children, U.S. Department of Health, Education, and Welfare, Public Health Service, Vital and Health Statistics Series 11-No. 117, p. 1-28. 1972

This article describes the prevalence of periodontal disease and oral hygiene among children aged 6-11. The sample included 7,119 children. Russell's PI was used to assess periodontal disease and the OHI-S index was used to assess oral hygiene. The mean PI for all children was 0.13.

Destructive disease with obvious pocket formation was rarely found. The variables of race, age, geographic region and family income and education were analyzed with respect to prevalence of disease. The mean PI score for children of all races increased slightly with age. The increase with age was more consistent among white children than among Negro children. As measured by PI score, no association between disease levels and sex or race were observed. There was an inverse relation of PI scores and family income among white and Negro children. Education level has a similar inverse relation of PI scores but the association with income is more consistent among white children than Negro children. Among Negro children, those living in the South had higher mean scores than those living in the West.

Oral hygiene measurements showed a decrease with age mostly affected by the debris component. White children had slightly better levels of oral hygiene than did Negro children. There was no significant association of OHI-S score and gender. Family income totals were inversely related to OHI-S scores among both white boys and girls and less consistently among Negro boys and girls. Significant differences in mean periodontal scores found among four geographic regions did not coincide with regional differences in oral hygiene status. Mean oral hygiene scores for all children did not vary significantly by geographic region. Both age and oral hygiene are significant factors associated with the occurrence of periodontal disease among children.

Bachand, R. G., Gangerosa, L. P., and Bragassa, C. A Study of Dental Needs, DMF, def, and Tooth Eruption in Migrant Negro Children. *J. of Dent for Children*. 28(5):399-403, Nov.-Dec. 1971.

This article assessed the dental conditions and needs of 61 Negro migrant children in New York and compared the findings to a sample of urban Negro children. The dental problems of migrants had not been studied extensively before. It was determined that migrant children showed almost a complete absence of restorative dental treatment among both primary and permanent dentition. Need for dental treatment was measured by determining the percentage of decayed primary and permanent teeth. The migrant children had a higher percentage of decayed primary teeth

Dummett, Clifton O. The Vanishing Minority Dentist. *J. American College of Dentists*. 37:256-264, Oct. 1970.

Dummett uses this article to focus on a problem that has plagued health care continuously—that is, the under-representation of minority practitioners. He identifies the problem as a community problem, not just a dental problem and suggests some approaches to addressing the situation. He challenges dental

educators to put the student first and adjust their teaching methods to accommodate the needs of the student. Student unrest on campuses was mentioned as a concern and the need to formulate a response should this unrest spread among the nation's dental schools. He suggests recruitment efforts of Black students in dentistry be structured to attract students who have the potential to successfully complete a dental education, not just to attract any student. Efforts must be steady, continuing and coordinated, he asserts. He indicates the need to improve dental health education in the community as a means of enhancing the image of dentists and dentistry and bringing more minorities into the profession. He acknowledges that some minority students have disadvantaged educational backgrounds and highlights their need for considerable remedial education, financial support and even special consideration for admission by majority schools.

Infante, Peter F. and Owen, George M., Dental Caries and Levels of Treatment for School Children by Geographical Region, Socio-economic Status, Race and Size of Community. *J. Public Health Dentistry*, 35:19-27, 1975.

This article reports the dental caries activity and levels of treatment for 1,155 Black and white preschool children ages 1-6 years. The first description pertains to geographical region. The percentages of children with caries experience as measured by deft and defs in the North, South, Central and Western Region were identical in all four regions. The average percentage of deft treated per child (28.7%) and the percentage of subjects with carious lesions (34.4%) manifesting treatment were significantly greater in the Western region than in the other three regions. Children of low socio-economic status had greater mean numbers of deft and defs, at all ages compared with children of middle socioeconomic status. Children of low socio-economic status had a significantly lower percent of their decayed teeth filled and children in the low socio-economic status who had lower levels of treatment had more teeth extracted than those in the middle status. The rural children had a lower percentage of children with caries-experience exhibiting dental treatment. Rural children also had a lower percentage of total treated carious teeth that was significant. The findings support the conclusion that the children experiencing the greatest attack by caries had the least amount of services rendered. When dental caries-experience and levels of treatment were compared by race, Black children generally had greater numbers of decayed teeth and surfaces than white children and a significantly lower level of treatment. Percentages of Black and white subjects showing treatment were 10.5 and 24.8 respectively. The finding that Black children had a less favorable caries-experience than white children was not compatible with most other reports and the authors interpreted these findings as though there might be increased level of caries activity in the Black population. Differences in caries experience between rural and urban subjects were considered to be related to fluoride content of water.

Fielding, Jon E. and Nelson, Scott H., Health Care for the Economically Disadvantaged Adolescent. *Pediatric Clinics of North America*, 20(4):975-988, Nov. 1973.

Fielding and Nelson describe the health care for the economically disadvantaged adolescent which included a small proportion of white teenagers and a much greater proportion of teenagers from minority groups—especially Blacks, Puerto Ricans, Mexican-Americans and American Indians as being deficient and rendered in an insensitive manner. Individuals from these groups have been shown to have a higher prevalence of many health conditions including TB, venereal disease, other infectious diseases, orthopedic and visual impairments, mental illness, and untreated dental caries. There is generally little emphasis on preventive care and health maintenance. Minority health care workers were scarce and poor adolescents could rarely find providers who understood their background, their health attitude and their cultural mores. Their backgrounds and previous inadequate access to health care put them at a higher risk for many health conditions. They needed basically the same types of services as did others but often needed more of these services.

Health education programs which involve poor adolescents are especially important and the article describes the Job Corps program as one approach. The emphasis is directed at human sexuality, genetic conditions which affect minority groups, first aid, drug education, preventive dental concepts, getting along with others, importance of immunizations, and how to interact with the health care system. One of the greatest health needs found in Job Corps adolescents was dental care. Dental conditions impacted on abstentism and employability. Few poor adolescents have the opportunity to establish continuing and confident relationships with health care providers. Negative experiences with health care institutions often reduce the initiative of poor adolescents to seek health care. Barriers such as low priority attached to health care, lack of factual information, and fear continue to keep poor adolescents from demanding the health care available and meaningful health education is promulgated as a way to address the recognized problem.

Gift HC. Utilization of Professional Dental Services. In: Cohen LK, Bryant PS eds. *Social sciences and dentistry: a critical bibliography*. The Hague: Federation Dentair International, 1984, 202-65.

This book chapter reviewed the body of literature related to utilization of dental services with major emphasis upon how variables interact to explain differences in utilization. The chapter maintains that utilization is at least partially a function of social and psychological variables characterizing both potential patients and providers who serve them. International studies are described and then USA studies are discussed according to the twenty-year period between 1950 and 1970 and the period since 1970. From 1950-1970, the data consistently reported 1)

females utilizing the dentist more than males, 2) the very young and the very old were not as likely as youths and middle-aged adults to visit the dentist, 3) greater utilization among those with higher socio-economic status, and 4) greater utilization by urban residents in comparison to rural residents.

Research since the 1970s has given estimates of visits per year and proportion of persons visiting a dentist. While there have been slight increases in number of visits and proportion of visits in all subgroups, utilization among females was still higher than among males and whites had more visits than non-whites. The low utilization early and late in life continued. Insurance benefits increased utilization especially among professional and clericals ages 45-64. Another explanation for this increase could have been increased knowledge and attitude about the importance of dental care. Thus the important variables that affect and explain utilization were listed as family resources, perceived need, demographic variables such as age, sex, race, social structure variables (family size), community variables (e.g. size of community, availability of services and providers), parental influence, dentist/patient relationship, previous personal experience with a dentist, having a regular source of care, attitudes and values of the dentist, cultural values preventive knowledge and behavior, fear of pain, low priority given to treatment, concern for personal appearance, recognition of symptoms, and actual level of dental disease. With regard to race, the most consistent finding was that a larger proportion of whites than non-whites use dental services. The purpose of the dental visit and the services received, as well as the use of available systems, did vary between white and non-white groups. The article ended with a series of recommendations for future research and potential intervention to improve dental services utilization in the 1980s.

Nikias, Matak, Fink, Raymond, and Sollecito, William. Oral Health Status in Relation to Socio-economic and Ethnic Characteristics of Urban Adults in the U.S.A. *Community Dent. Oral Epidemiol.*, 5: 200-206, 1977.

This study determined the relation of oral health status to socio-economic and ethnic characteristics among 1,300 adults enrolled in a health plan in New York City. The oral health status indicators used were number of missing teeth, signs and extent of gingival and periodontal disease, OHI-S scores, and ratios of decayed teeth. The level of restorative care was measured by the ratio of filled teeth to those filled plus decayed. Economic status was based on family size and reported family income using categories similar to Bureau of Labor Statistics in classifying family economic situation according to low, medium, and high status. Education level was categorized by completion of grammar school, high school or college. Comparing different ethnic groups (whites, Blacks and Puerto Ricans), it was determined that whites had a more favorable level of restorative care and the smallest percentage of persons with some decay. Puerto Ricans were more likely to have high levels of periodontal disease compared with whites and Blacks but fewer teeth lost. Tooth

loss, periodontal conditions and oral hygiene status were more strongly associated with education than economic status. In contrast, decayed teeth ratios and restorative care levels were more strongly associated with economic status than education. The influence of ethnic and culture may affect oral health status when education and economic status are controlled but there were no consistent patterns in differences observed among ethnic groups.

Mixson, James M., Eplee, Harvey G., Fell, Phillip H., Jones, Jay J., Rico, Miguel. Oral Health Status of a Federal Prison Population. *J. Public Health Dentistry* 50:257-261, Summer 1990.

The purpose of this study was to describe the prevalence of decayed, missing and filled teeth among federal inmates. The study allowed a comparison of 95 white and 86 Black inmates according to oral health status. It was determined that Black inmates tended to have a greater number of decayed teeth than whites especially for ages 20-34. Whites in the same age group had significantly more filled teeth, mean of 8.4 versus 5.5 but the reason for the difference is difficult to ascertain from this study as utilization rates were the same. Mean difference in missing teeth between Blacks and whites was not significant. Among ages 35-44, there were no statistically significant differences between races for mean number of decayed, filled and missing teeth. Utilization rate was calculated based on number of visits to the dental facility divided by number of years in prison. When the utilization rate was compared to the number of decayed teeth, the level of decay was significantly lower for those inmates with higher utilization rates. The article suggests that there is a greater percent of unmet dental needs among prisoner groups and efforts should be focused on preventive efforts to decrease the high levels of decay.

Jack, Susan S. Use of Dental Services: United States, 1983, Advance Data from Vital and Health Statistics No. 122, DHHS, Pub. No. (PHS) 86-1250. Public Health Service, Hyattsville, Md., August 8, 1986.

This report presents data from the National Health Interview Survey of 1983 which addressed the issues of the interval since last visit, the number of dental visits made in the year prior to the interview, the dental services provided, and the type of dentist seen. Overall, 45 percent of the population (or 100 million persons) had not seen a dentist in over a year and were, by current standards of dental practice, a medically under-served population. In all age groups, white people were more likely than Black people to have had a recent dental visit. Overall, 57.0 percent of white persons and 41.8 percent of Black persons visited dentists within the previous year. The greatest difference in utilization was observed in persons 12-17 years and 55 years and older. Of interest was the fact that 70.2 percent of whites aged 12-17 had recent visits as opposed to 48.4 percent of Blacks. The author attributes this

difference in part to the greater percent of white adolescents receiving orthodontic treatment. In addition, Black persons were more likely to report never having seen a dentist. When the number of dental visits is considered, not all subgroups of adolescents had an equally high rate of visits. About 25 percent of whites age 12-17 had three or more dental visits and about half as many Blacks of corresponding age had three or more visits. There were significant differences between racial groups in the rates of dental visits. Among Black persons, the highest average rate of dental visits occurred not in the 12-17 year age group as was true for adolescents as a whole, but in the 45-54 year age group.

Linn, Erwin L.: Professional Activities of Black Dentists. American Dental Association Journal. 85:118-122, 1972.

This article reports the survey results of 2,688 Black dentists who were asked about professional status, practice activities and practice characteristics. Black dentists were more likely than white dentists to be employed by public agencies. The age of patients and the number of patients treated weekly were noted. Black dentists reported seeing few preschool age children. There was an emerging trend that more Black dentists were associating right out of school. A large percentage of their practice was drawn from the minority population. The dentists surveyed treated an average of 65 patients a week. Most dentists reported that the demand for their services was more than or as much as they wished. The productivity of Black dentists as measured by the number of patients per week, followed a similar pattern to that reported for all dentists at the time. Black dentists tend to work to an old age which could be related to the economics of practice.

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PATIENT CARE (PUBLIC SECTOR)

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Focus of Section Discussions: Patient Care (Public Sector)

The following is a representative listing of questions each section has been asked to focus on during their deliberations. This list has been expanded upon by the section's faculty in the period of time leading up to the Workshop. While not specifically requesting the sections to develop proposals, all of the questions have an underlying component relevant to a research and action agenda for the future. Each of the discussion sections has been charged to: make recommendations for future action related to proposals that evolve from discussions of their specific topics.

PATIENT CARE (PUBLIC SECTOR)

FOCUS STATEMENT: What have been and will be the issues that impact on the practice of dentistry in the Black community?

What are the current demographics with regards to demonstrated need and/or demand for dental services among the U.S. Black population? How will the general reduction in dental graduates affect this profession's ability to meet that need and/or demand?

Modern medicine has proven successful in increasing life span expectancy and an improved quality of life. What are the socioeconomic factors which continue to impact oral health and the delivery of dental services to the Black communities? The dimensions of dental care for the elderly now encompass the broad areas of medicinal therapy and systemic health. What are the facts pertaining to nutritional and/or holistic therapy?

How will anticipated changes in technology impact the clinical practice?

Report of the Section: Patient Care (Public Sector)

This section is preceded by a preamble considered necessary for understanding the charge the section was given. The charge was “to outline the issues that impact on the practice of public sector dentistry in the Black community.”

The analyses, recommendations and action strategies put forth by this committee are predicated upon certain assumptions and presuppositions necessary to the successful remedy of the gaps/disparities identified in the public practice of public health dentistry. Specifically:

- that health care is a right entitled to all Americans.
- that oral health care and dental disease prevention services are components of total health care.
- when a recommendation is made on behalf of the African American community regarding oral health, it should not be construed to be at the expense of other population groups or communities, but should be viewed as improving the health care of all Americans.

In fact, the objectives outlined in Healthy People 2000 can only be achieved through major gains in the oral health status for all members of American society. This document does not comprehensively address or represent the entire spectrum of oral health needs of the African American community, nor does it outline outcome assessments for the African American populations as a whole.

- Just as institutional racism has adversely impacted all aspects of African American life, it has also impacted the delivery and receipt of public oral health care in the African American community.
- Many issues and oral health concerns facing the African American community were addressed in the 1972 Charet, sponsored by the National Dental Association on the status of Dental Health in the Black Community. The failure of the recommendations contained in the Charet to have been successfully integrated within the national dental information base, as well as into general knowledge base, may be attributed to inadequate funding and the absence of African American professors and administrators on the

various academic faculties and in health institutions. There is no other adequate explanation for the material not being required reading for undergraduate and graduate health educational programs, regardless of color.

The committee began with 7 issues that are considered to severely impact on the practice of public sector dentistry in the African American community:

Data	Access
Economics	Public Policy
Human Resources	Sensitivity
Control	

The committee was interdisciplinary, represented by federal, state and local health officials in medicine and dentistry.

Data

Research and data can be expected to define concepts and parameters of dentistry as they pertain to African American, or Black Dentistry. Based on our review of the literature, there is an inadequate base of data both quantitatively and qualitatively—to describe the oral health status of the African American community. Even though there is a body of research that has attempted to describe the oral health status of the African American, it is dated and was produced by a limited number of researchers, few of whom are African American.

There is a need for oral epidemiologic indicators, which must be a priority. Data from current research on oral disease status severely underestimates the problems, needs and demands for care among African Americans. Previous national and regional surveys are plagued with inadequate sampling pools and data for all subgroups of the African American community, especially the no income, lower income, adolescent and elderly African Americans.

There is a clear need and recommendation to study health status, treatment needs, utilization rates (especially for the Black male), the role of oral health in nutrition, studies on knowledge, attitudes and behavior, growth and development, the impact socioeconomic factors and of cultural patterns in oral health behavior of African Americans.

Not only is research critical to defining the oral needs of the African American, but the influences and direction of the research by African Americans is vital to this contribution.

Data that may be available in Black institutions should be in demand, and funding provided as necessary to analyze, publish and utilize these data in treatment designs and policy implementation.

The underrepresentation of Blacks in census data has the greatest implication on funding patterns and policy development pertaining to public oral health care in the African American community. Full participation by Blacks in census data is critical to determining the current demographics regarding need/demand for dental services in the U.S. African American population.

Meanwhile present information derived from Census Data or other studied regarding practice patterns and locations of the African American dental provider should be readily available and widely disseminated.

Practitioner issues for the African American provider pertaining to income, marketing, insurance, behavior toward patients and relationships between colleagues and etc. require further study. These issues are significant with respect to assessing barriers/enhancers to dental care in the African American community. Epidemiological problems and issues affecting access to care for African Americans should be appropriately addressed in national strategic planning and projection reports. The strategy for achieving and maintaining incorporation into the national data and resource bases should be developed and monitored by a strategic planning group.

Furthermore, traditional methods of data collection are inadequate for the study of the African American community. This has resulted in an improper translation of data referable to the African American community.

Future guidelines for federal funding of research must be sensitive to the need to resolve the dearth of studies on African American oral health status.

ECONOMICS

1. Public sector dental services in the African American community are severely underfunded.
2. Public dental programs at the state and local level have closed and others are in the process of downsizing.
3. While these programs may have evolved as isolated or separate services to achieve appropriate emphasis and survival, now dental programs must be woven into the fabric of general medical services especially preventive dental services and emergency dental services, therefore expanding the dental envelope for total integration.
4. Public dental programs in large urban areas affect a significant number of the population and are essential to the total health and well being in the African American community.
5. The perception of the dental public health career tract as one of lower scale salaries, as compared to the private sector, is one that requires examination.
6. Public-Private Partnerships. Clearly the needs of approximately 125 million Americans without any dental insurance (in addition to those who are underinsured) should initiate discussions that may possibly culminate in a health care policy for the nation. Reduced state budgets have severely impacted Medicaid and in particular, dental services.

ACCESS

Since the inception of Medicaid in 1965, it was believed that the Medicaid dental component would provide access for indigent African Americans. However, the issue of access to oral health care for the African American has never been addressed at the level of state and federal funding, nor in the major federal working documents such as the Department of Health and Human Services (DHHS) "Secretary's Task Force Report on Black and Minority Health, 1986." The lack of state and federal funding represents failure of governmental entities to recognize access as an integral component of the Medicaid program. Instead, the African American practitioner in the African American community has rendered uncompensated care in the name of Title 19. In addition, these practitioners have become surrogate financiers of the Title 19 program, while at the same time being discredited for participating in the program. This form of financial exploitation of the African American oral health practitioner is no longer acceptable.

Future trends will be greatly impacted by computerization of the health care management system in conjunction with new techniques for controlling health care utilization. We are concerned that oral health care must be included in the concept of "One Stop Shopping" of coordinated services at one site and an integral part of new control techniques.

PRIVATIZATION

The use of the private sector in a public/private partnership is an acceptable means of providing coordinated services, if it results in a healthy, integrated delivery system of high quality dentistry, delivered according to prescribed standards, and measurable according to quality assurance guidelines. Such public/private partnerships, regardless of the type, must be adequately funded if quality assurance is to be maintained.

Access of African Americans who have tested positive in Human Insufficiency Virus test to the oral health care system is an item of special concern requiring further attention.

HUMAN RESOURCES

A critical shortage of health professionals in the public sector has resulted in more than 700 Federally Designated Dental Shortage Areas, requiring over 1,700 dental health providers. In addition to a provider shortage, the greatest shortage in the public sector is the lack of African American administrators influencing federal, state and local policy.

Resolution: A recommendation for clear modification of current spending patterns must include:

- support for training at African American dental institutions with specific emphasis on Personnel, research and data.
- support for African American dental students, regardless of institution attended.
- support for program development for training dentists and dental auxiliaries as providers/administrators of dental services in the African American community.
- loan repayment programs tied to local community service.

The target groups for such funding should begin with governmental sources (federal, state and local), private industry, dental institutions, the American Association of Dental Schools (AADS), the American Dental Association (ADA), philanthropic foundations and others.

A need exists for an African American advisory group to monitor further needs assessment, training, funding and program development. This will further the objectives for adequate African American human resources in public sector oral health in the 1990's and the 21st century. Such monitoring should include the representation of African Americans in all provider and policy setting arenas within the alternative services—i.e., The Veterans Administration, prisons, military, dental education, Public Health Service and other such state and federal entities.

While the absolute number of African American dentists may show a yearly increase, the relative or overall percentage of African American dentists is without appreciable change for the past twenty (20) years. This is due to a serious dilution factor imposed on the African American gains, not only by increases in "other" minorities and women dentists, but by overall increases in the number of "baby boomer" dentists produced between 1970 and 1990.

Though African Americans comprise 12% of the US population, 1988 statistics estimate the number of African American dental providers to be 3,800 or 2.6% of 142,000 total dentists in the United States. In 1970 and 1980 African American dentists comprised 2.6% or 2,363 dentists and 2.5% or 3,134 dentists respectively of all US dentists. The Seventh Report of the President and Congress on the Status of Health Personnel in the United States (March, 1990) projected 6,300 African American providers by the year 2,000, virtually a 100% increase. With the current static enrollment of 5.2%, and a graduation rate of 4.2%, plus tenuous support for the dental research institutions of Howard and Meharry which train approximately 67% of African American dentists this figure of 6,300 African American dentists is simply not attainable.

Therefore failure to significantly increase the number of African American dentists decreases opportunities for upward mobility. It also represents a deficit in the oral health care of a significant number of African American citizens.

PUBLIC POLICY

National and political philosophy in this country is expressed in public policy. The section therefore identified additional issues for discussion in this regard.

1. The U.S. Public Health Service (PHS), charged with improving the health status of the Nation, particularly the medically/dentally underserved, has a cadre of over 600 commissioned corp dentists. Of the 600 officers, only 30 (5%) are African American. A strong, active recruitment effort is necessary to improve the representation and participation of African American officers at the upper grade level in leadership roles, in policy making and clinical positions.
2. All public sector health services, particularly dental services, must be tied to attaining the year 2000 health objectives for the Nation; they must be demonstrably directed towards closing health disparities and gaps which affect African American people.
3. Government and private programs should be more effectively utilized to address the needs and requirements of the African American public, especially in unserved and underserved areas. Current federal policies must be made relevant to the priority recruitment, training and use of African American students in financial need. These students should be integrated into the Public Health Commissioned Officers Student Training Extern Program. They should be recruited into the National Health Service Corps (NHSC) and encouraged to provide service in local communities through employment in the community health centers, Early and Periodic Screening, Diagnosis and Treatment Centers and other similar federally sponsored programs, for compensation and as reimbursement for dental education costs. African American students should be a primary focus of PHS recruiting for career development as practitioners, educators, administrators and researchers.
4. Since this Committee views health care as a right of all Americans, it would follow that we favor a single tiered health care system which shall include oral health services. The oral health services in such a program shall be comprehensive with the same treatment components as those available to individuals currently in the federal service. Multiple national opinion polls of the American public indicate that U.S. citizens would be willing to finance such services through new taxes.
5. All African American dental health leaders, policy makers and administrators must work to develop mentoring relationships with future leaders in order to ensure succession planning. All emerging African American leaders should expect to have such a mentoring relationship offered to them by current leaders.

6. There is a dearth of African Americans in dental leadership and policy level positions. Political and legislative advocacy for the concerns of the African American patient and population in the 21st century must be given priority.

All federal boards, commissions and advisory groups must have African American representation. When it is determined that a major dental problem exists in the African American community, an African American should be in control and held accountable for the dental problems in that community. He/she should be afforded the resources and authority to accomplish the task of improving the oral health of that community.

Membership on State Boards of Dental Examiners, which have unchallenged control of dental practice in the fifty states, must reflect the racial composition of the State.

CONCLUSION

By ending poverty, unemployment, and providing fair wages, job training and employment opportunities for African Americans, many of the oral health problems suffered by that community would be resolved or substantially reduced.

The American health system has failed and is in a serious state of despair. It is apparent that within the next 30 months there will be real developments emerging from the political camps of both major parties to address this crisis. It is in the best interest of the African American community that it define those elements of the health care menu that are most important for the well being of the African American family. Regardless of what form or process emerges—be that process or form a National Health System, National Health Care Program, Voucher Benefit Process or a Federal Insurance Intermediary—the African American community must define for itself what its interests, policies, implementation, and accountability must be! The African American community shall be advocate and final arbiter of its needs and requirements.

At minimum, the benefits must be comprehensive in nature and shall be holistic in application and concept. There must be uniformity and standardization, with quality controls and assurances to ensure cost effective and beneficial outcomes.

Accountability shall be with the African American community and its advocates. These guidelines are applicable regardless of corporate, union, public health organizations or federal, state and local government.

Discussion of Section Report: Patient Care (Public Sector)

DR EMERSON ROBINSON:

In reading this it appears that you place primarily the blame on the academic factors and the academic administration for the failure to implement ideas appearing in "Charet," and I would like to hear your thoughts as to why. In fact, this was a document that was produced by the National Dental Association, and I would think that they had the responsibility of more or less implementing the recommendations coming out of that report.

DR. CASWELL EVANS, JR.:

The intent, certainly, was not meant at any particular slight or criticism of academicians. However, I think the comment was intended to imply criticisms of institutions for not having sufficient number of African American faculty or faculty sensitive to the issue who could have picked up this document, read through it, understood the significance of it, incorporated it into their thinking, incorporated it consequently into discussion in the classroom so that the information contained in the "Charet" might have been more broadly reviewed.

In discussing this matter of the distribution, it was our understanding that the "Charet," in fact, was very widely distributed by the NDA. Our conclusion, consequently, was that it was not picked up outside of the African American community, not enough significance was put on it and we, therefore, were wanting to hold accountable the institutions for not having, perhaps, enough faculty and administrators who are sensitive to that issue so that it—"Charet" failed to get into the general literature. It failed to stimulate the kind of discussion and reaction and thoughtful consideration that had been expected in 1972.

However, our committee found the "Charet" to be an extremely valuable document that proved to us that much of what we are saying is, not new but had been written in 1972. And we wanted the "Charet" be particularly referenced in the proceedings that would come out of this conference so that we have some strong reference citations back to that seminal document. Hopefully, others will be inclined to go to the library to study that document, look at its recommendations and conclusions and coupled with the recommendations and the findings of the

present conference have a body of knowledge and a literature that, in fact, will be much more stronger and more pervasive on common points.

Member of Audience:

I'd like to ask a question on the perception of dental public health career tract as one of the lowest scale salaries as compared to private sector. How did you compare it with the private sector career tract?

DR. CASWELL EVANS, JR.:

I'm glad that you asked that question. Our section spent some time on that issue, and while the words may not reflect the careful consideration that went into the discussion we did want to raise the point

We said that because it was felt that a career in the public sector is, a relatively low paying career, and there may be some basis for that assumption.

On the other hand, it was also pointed out that the individual enters into a career in the public sector with a guaranteed income, and with a set of fringe benefits. Those fringe benefits in today's market probably ranges anywhere from 26 to maybe as high as 33 percent. So when the total compensation package is compared, it was felt that in the early phase of a public career it may be more lucrative than the private sector, yet there was a crossover point several years out.

Where that crossover point is can't be said, but it was also felt that since there are some level of warranted expectation for cost of living and raises and other things in the public sector, that the difference, especially in today's economic climate, between a life-long career in the public sector of service compared to a life-long career in private practice on the private sector and its related cost, the difference, in fact, may not be very great and there may not be much of a difference at all.

Speaking for myself and not the committee, I'm of the opinion that a salaried career in the public sector, in fact, is quite competitive with the remuneration of a private practitioner in dentistry at this point.

Member of Audience:

This morning Dr. Manley indicated four percent of the nation's dentists are African Americans and you have 2.6 percent. I think Dr. Manley said about 43 percent of the African Americans are training at Meharry and Howard.

When I look at the difference in these numbers, my concern is that we need to resolve these differences before we use them to make any conclusions.

DR. CASWELL EVANS, JR.:

I think it's an excellent point, and I can only say that you need to appreciate how these section reports were pulled together under a very tight time constraint using the best information that we had at the time and our collective expertise. I think that the statements are within an acceptable range of acceptability as to their accuracy.

The question of the numbers being internally consistent when looked at the report horizontally, I think is an excellent one, and I would assume that the

conference staff and faculty, once they get all the reports in, will make those modifications necessary to have those points consistent throughout.

So at this point in time I wouldn't want to defend any of our data or conclusion, and certainly would not raise any issue with any data or conclusions raised by a previous speaker in this format.

DR. MICHAEL E. RAZOOG:

I think one of the things that you're pointing out is that—and we have heard it in nearly all of the section reports—there is no good, hard data on Blacks in various areas of the dental profession. We all appear to be working from different data sets, and as the Research Section said earlier, it's important to have one data set.

DR. BILL HOSKINS:

I'd like to commend the section for doing an outstanding job and presenting a wonderful document.

My question has to do with the section titled Economics, where you say, "...Clearly the needs of approximately 125 million Americans without any dental insurance (and in addition, those who are underinsured) and certainly within that population a tremendous or a disproportionate number of Black Americans are, certainly, in this group. . ."

My question is only—because of the criticalness of concern, should this not be a stronger statement?

DR. CASWELL EVANS, JR.:

I would agree. I think we can accept that as constructive criticism and move to make it a stronger statement.

Member of Audience:

Just to add on to the economic statements, could the report possibly include something on the administration and program management and flexibility and the freedom to be able to manage budgets in public health programs which often are under the jurisdictions or control of those who are responsible for dental programs?

The second point is maybe coming up with some economic advantages to utilizing alternative dental care. For example, to make attractive the new rates on nursing homes and make it more affordable to African American elders and find incentives to make it economically feasible for practitioners to provide services in those settings.

DR. S.W. GORDON:

I was interested that in the City of Detroit the number of the available dental care opportunities through the City has been decreased. The alternatives that people have, therefore, is Medicaid through private practitioners, and basically that's it.

I was wondering, has any thought regarding community based dental health care programs, and if so, how can you find out more information about studies or maybe

some test projects of that nature where the financial support comes primarily from the community?

DR HAZEL P. HAYNES:

I think your question is probably one of research. In the State of Texas, the Black population there is about 12 percent, and the Hispanic population is upwards of 30 percent.

In our local and state level care facilities, we know that there's a disproportionately low amount of care for the African American communities, while research, resources and equipment has been devoted to the Hispanic community.

So I think that as far as our recommendations for research and epidemiological data, it's going to be quite necessary for African Americans sitting in positions of policy to make those types of recommendations to get the funding into the communities where you are seeing the deficit.

DR. GORDON:

What I was speaking more specifically about was not funding from external sources like the state or local government. I was speaking about financial aid from the community itself, like community recreation centers or maybe certain places that put their money together to build parks and playgrounds. Is there any track record of communities doing something like that in the area of health care?

DR. CASWELL EVANS, JR.:

The National Health Service Corps in its earliest iteration was set up on essentially that premise, that after a certain level of federal support the community receiving the service would then take on the responsibility for maintaining that service.

I believe there have been mixed experiences with the ability of communities to, in fact, maintain that financial commitment and obligation.

Some were prepared to maintain that financial obligation, but, in fact, the practitioner decided they wanted to move off elsewhere after a period. Other communities desperately wanted the service but then found that they could not maintain the financial commitment.

DR. DOLORES M. FRANKLIN:

Maybe I can give one example of a collaborative effort . We have a facility for homeless individuals that originally was staffed by members of Georgetown Dental School and funded in part by the District of Columbia government, and with the closure of Georgetown Dental School, it is now being staffed by a federal dentist in the National Health Service Corps.

That is a program which is not exactly a privately or publicly funded program. It did have the combination of Georgetown University and the District of Columbia government which made it a partnership. That's an alternative type, but that is very limited.

DR. DOUGLAS SIMMONS:

I think that we have probably good three examples of community based programs which are funded by various sources within the local community.

We have one in Brownsville, Texas which has the primary target population of Hispanics, but that clinic is funded by the State of Texas, the community of Brownsville, the community action center and a little bit from the Federal Government. They hire their own dentists and their own personnel, and it's operated and controlled by a community board.

We have one in Laredo, Texas where we send our dental students, which is funded by the same type of entity. They own the equipment; they pay the salaries of the dentists; they actually run the clinic and they determine the clinic policies. The clinic in Laredo has been operating for 15 years and the one in Brownsville has been operating for six years.

In Houston we operate a clinic in the Black community which is funded by Goodwill Industries and the State of Texas and a little bit from Harris County, which is the county in which Houston is located. The population treated in that clinic is about 72 percent African Americans and the rest Hispanic.

Member of Audience:

I would like to address the section which speaks to the under representation of Blacks in census data and how traditional methods of data collection are inadequate for the African American community.

As a resource point, this issue was addressed, approximately ten years ago, by the program for research on Black Americans at the Institute of Social Research, the University of Michigan. They utilized Black interviewers there that are experienced in survey research.

One example was the south side of Chicago where no one wanted to go in and conduct interviews. The solution was to take people indigenous to that community and train them to do the survey research. Thus, when we actually get down to doing these things, instead of starting from scratch there might be a place you can learn from so we don't get into some of the same pitfalls they might have fallen into.

DR. CASWELL EVANS, JR.:

I think that's a good point. We wanted to point out the problem, but in our discussion also we're able to point out that there have been some experience with alternative models for data collection in those communities.

DR. PAUL LANG:

For the last ten years our school has operated a local dental program for the City of Ann Arbor, and that is a unique relationship between this dental school and the City.

It is primarily funded by what is called community development block grant funds. Those are federal dollars that come through the City. Fifty percent of the

program was funded by that method with the other half coming from Medicaid and private patients.

This program is ten-years old, but funding is being drastically reduced, by shifting priorities. The homeless, older adults, those kinds of issues I think have better press than dental issues. And we're also being squeezed by the current round of Medicaid cutbacks.

What funding agencies expect, is what I call distributed funding. In other words, trying to push our clinic out into other areas in the community to obtain funds. Unfortunately, it becomes increasingly difficult to operate a local program based on funding from foundations. It's just not a stable resource.

DR. CASWELL EVANS, JR.:

One of the reasons that in this report we wanted to stress the need for African Americans to be in leadership and policy positions is that as priorities shift someone with, hopefully, some dental sensitivity and sensitivity or being an African American will sit in judgement or in control of those policies, so that the dental health needs of the community are not ignored in the process.

DR. JOHN BOYD:

For over ten years now Howard had a contract with the District of Columbia government to provide health dental services for the community.

We had the Medicaid Program up to the age of 21. That program was funded originally for \$15,000 dollars. Above the age of 21 we had a program with the Department of Health and Human Services which provided dental care for those individuals who they classified as being of specific needs, from 21 up. They funded this program at the original level of \$50,000 dollars. However, in the past two years the \$15,000 dollars has been cut to about \$12,000 and the \$50,000 dollar program is down now to \$35,000. This comes at a time when the social economics of the area of Washington, D.C., that is the public that needs this service, is growing, and they need more services and more of them.

Dr. Niles, at Howard University, through her endeavors got a contract for \$17,000 dollars with the District of Columbia government to do interceptive procedures and diagnostic procedures for children, and now that has been cut to about \$12,000.

So you see, this impacts on the college's ability to provide the services that are needed for that community. And I see that we're going still get drastic and more drastic cuts as public health initiatives drop in their priorities go to other things.

DR. WISDOM COLEMAN:

We have a health center in the City of Memphis called the Church Health Center. The original plan behind it was that a young ordained United Methodist minister went back to medical school and after med school he got the church to buy a house—a three-story house right across the street from the church and set up a full clinic—medical and dental clinic—with one chair at the time.

It is staffed purely by volunteer physicians and dentists in the City of Memphis. We operate five days a week treating the homeless. There are no public funds at all. Funding comes strictly out of the church and out of the volunteer efforts of the physicians and the dentists in the City of Memphis.

We have gone from one house to two houses now and we have three dental chairs. The head of that clinic is an African American female.

DR. HAZEL P. HAYNES:

Thank you for sharing that model with us, and hopefully that will be of some assistance to those in the Detroit area who are interested in establishing similar models and to others in other cities.

DR. LINDA TAYLOR:

I'm in the loan repayment program and I signed up for a two-year commitment and I'm getting 80 percent of my school loan paid back. So there's a lot of opportunities in the public health service and the Indian health service. Well, we're really trying to work on recruiting, getting more Blacks into the Indian Health Service, because right now we only have five in the whole entire Indian Health Service and there's 342 dentists.

I just need some ideas to take back of what we can do to help try to recruit more people. There is a lot of opportunity, especially those that are worried about paying their loans back.

DR. HAZEL P. HAYNES:

I think that those here in education will serve as your liaisons and as a conduit to get more people into the public sector, including the Indian Health Service.

Again, in the State of Texas, we have the research data to show that there is a disproportionately low level of care to the African American community which is located primarily east Texas. The data clearly shows that one region out of all of the public health regions in the State of Texas is severely lacking in care.

And when I talked to the State Dental Director, there are no Black persons in the pipeline anywhere to apply for positions in the public health sector, either at the clinical level or in the policy administrative level.

So I think that what you can do to help is to show up when we have our career programs or just volunteer, pop in anytime and ask when would it be a good time to come and talk to the students at any dental school that you are located near.

DR. DIANA ADAMS:

Dr. Manley had mentioned this morning the 1989 Disadvantaged Health Improvement Act, and I would like to suggest that everyone get a copy of the Improvement Health Act.

I had the opportunity last year, to work with Congressman Stokes on the Hill, and you should all be aware that he, along with Senator Kennedy, were responsible in

initiating this health act that addresses medical students, and dental students in terms of their repayment.

DR. ELISHA RICHARDSON:

I just wanted to indicate there is a loan repayment program for minority persons who serve on the faculty of minority schools.

There is also communication going on between the Association of Minority Health Professional Schools and Congressman Stokes to set up some kind of repayment program for persons who return to practice in the inner-city and the rural areas.

I know we at Meharry are very concerned about it because we find that roughly about 75 percent of our graduates, be they Black, White or Asian, go back into the inner-cities and to rural areas.

DR. HARVEY WEBB:

I'm a member of this section, and the depressing conversation that's going on right now is reflective of our concern for the need of a national policy regarding health in general and regarding dental health specifically. That relates to not only a policy statement but a commitment in dollars and consciousness to resolve the national crisis in health care.

African Americans too often, and for too long, have been taking piddling handouts in situations like this. I am hearing correctly, most of you who are the elite in the African American community didn't even know about most of the programs being discussed. How do you expect the dental students to know about them?

We deserve first class health care, comprehensive dental services that ought to be available for all Americans. If we don't get that message out of this conference, it's another repeat of the "Charet" in which nothing will happen, and dollars will be circulated to predominantly white institutions who will do the research on you, who will train the Black practitioners for you.

DR. NORMAN CLEMENS:

My comment deals with minority health participation within the Interim Dental Health Service Report and also the Children's Dental Services Medicaid Report.

Only the National Dental Association and Dental Survey of America represented minority groups in adding input to these reports. I see the same thing happening with the national health insurance. I had the opportunity to speak with several people in Washington and again, it appears dentistry is excluded from national health insurance.

DR. CASWELL EVANS, JR.:

I think you're right. It's a matter of changing rhetoric into appropriate action, and that's something that we all need to take some personal responsibility, an organizational responsibility where we're parts of organizations, to ensure that we

are where we need to be when we need to be there saying what needs to be said or else we'll get locked out and our thoughts will not be presented.

DR. ELBERT POWELL:

I just want to ask the committee to reconsider the word uncompensated. Might it be more appropriate and more factual if it were to read either inadequately or poorly compensated to make the document more factual?

DR. DOLORES M. FRANKLIN:

The reason we used uncompensated, with reference to Title 19, is that in the majority of states adult services are not covered under Title 19, and that means that most likely those services will be rendered to the patient in an uncompensated system. That's why we said uncompensated.

Certainly there are problems with low reimbursement levels for those services that are provided. But in the case of dentistry, unlike in the case of medicine, our providers are expected to pick up uncompensated care in the same way that hospitals do.

DR. ELBERT POWELL:

I respectfully entertain what you are saying, but I think as the document reads it's all encompassing, which states that all such services—under Medicaid receive some compensation?

DR. DOLORES M. FRANKLIN:

Yes, but I believe currently only 18 states cover any adult services at all, and only nine states covered services for adults that are comparable to those provided for children.

So for the most part the adult services are not compensated and many practitioners report that they provide these services to their patients without charging them. And we want to underscore that point, because this is not true for the medical profession. This is true for the dental profession under Title 19.

DR. BARBARA E. BRYANT:

We have a problem in the Detroit area with Medicaid dictating to doctors what treatment they can render and be compensated for. In addressing the doctor that just spoke about not being compensated from Medicaid for services rendered, sometimes a doctor feels that teeth don't need to be extracted and Medicaid says you have to extract them or we're not going to pay you.

Rather than going against what they've learned in dental school and doing things against their better judgement or their teachings, they leave the teeth there and they are not compensated.

A lot of the doctors in the Detroit area cannot continue to afford to treat Medicaid patients when they are being compensated less than half of their usual fee for the

service. It costs them the same amount of money to provide the treatment on a Medicaid patient.

Our dentists that work for the City of Detroit are being laid off; they're being cut back. We don't have anyplace for underprivileged to go for health care, and now we're getting to the point where we won't have anywhere for them to go for dental care if the private practitioners cannot afford to treat the underprivileged patient.

DR. HAZEL P. HAYNES

I believe we're running out of time, but I would just like to say that knowledge is not necessarily understanding. And as Dr. Webb commented earlier, this meeting and the information being put forth is almost a repeat of what took place historically in 1972 with the publication of the document called the "Charet."

I think that what we have heard is that we need a small, effective, powerful—you might say—network to communicate with each other in the public sector as well as the private sector and the governmental sectors in education. Without that, none of us will show up at the right time in the right places for the right occurrences.

And so, therefore, we are doomed and bound to be left out of the general knowledge base. We won't be there between the lines of research and, therefore, we'll be left out of the policy base.

So what we're putting forth today is a lot of knowledge coming together from many sectors. But until you go back to your newspapers with knowledge, an ability to communicate an understanding with them, then I don't think that we're going to get anywhere.

But I beg to differ that in these times when we are in such a crisis that we do have enough persons in this room to take a message where it needs to be and to not let this message die.

Review of the Literature: Patient Care (Public Sector)

DR. FREDERICK PEAGLER
Potomac, MD

Duncan, William K.; Silberman, Stephen L. and Trubman, Aaron: Labial hypoplasia of primary canines in Black Head Start Children Epidemiology. Journal of Dentistry for Children, pp. 423-426, November-December 1988.

During routine examinations of Mississippi Head Start Children, a substantial number of children presented with areas of hypoplasia on the labial surfaces of the mandibular primary canines. Enamel hypoplasia in the primary dentition is quite common. Two localized types of enamel hypoplasia affecting the primary teeth have been described in the literature. The first is a transverse encircling groove often referred to as linear enamel hypoplasia in maxillary primary teeth. The prevalence of this lesion in primary maxillary incisors has been recorded as 31 percent by Infante and Gillespie and 43 percent by Sweeney, et al. The second affects labial surfaces of primary canines and has a different appearance. Skinner described the defect as a roughly circular hypoplastic enamel patch approximately 1-2 mm in diameter with flat bottom extending partially or completely through the enamel (Figure 1).

Methods and Materials

The population consisted of 334 Black Head Start children with four fluoridated and six nonfluoridated communities in Mississippi who presented for needs-assessment examinations. All examinations were performed by the same examiner using a dental mouth mirror, explorer and a light, with the child in a prone position. There were 185 males and 149 females who ranged from three to five years of age.

Two assumptions were made by the authors in regard to fluoridated and nonfluoridated designations of children based on knowledge of the Head Start population in the state. Since the migrating patterns of this sociocultural group are static and residence histories were unavailable, the first assumption was the family had not moved during the child's life. The second assumption was the family did not have a water supply independent of the fluoridated community supply.

Discussion

The 37 percent prevalence of labial hypoplasia for mandibular primary canines in a sample of Black Head-Start children in Mississippi appears to be consistent with the 45 percent prevalence found by Badger and the 36 percent found by Brown and Smith. This study would also seem to confirm Badger's findings of equal distribution between males and females.

The tables indicate that the presence of communal fluoride has little effect on either the prevalence of the hypoplastic lesion or the potential for the lesion to become carious.

Nikias, Mata K., Fink, Raymond and Sollecito, William: Oral Health Status in Relation to Socioeconomic and Ethnic Characteristics of Urban Adults in the U.S.A. Community. Dent. Oral Epidemiol. Vol.5 :200-206, 1977.

Nearly 1,300 adult members of a prepaid medical group plan in New York City were screened through automated multiphasic health testing in a series of test stations including a dental station during 1971-1973. Oral status indicators were developed including number of missing teeth, scores to measure levels of gingival and periodontal disease. Simplified Oral Hygiene Index scores, and ratios of decayed teeth. Ratios of filled teeth were calculated to measure levels of restorative care. The present paper examines the interrelations of economic status, education and ethnic origin with each of the above oral status measures.

Results

A preliminary analysis of these data indicated that statistically significant relationships exist between these five measures of oral status and each of the sociodemographic characteristics (i.e., education, economic status and ethnic origin) of those examined. However, it is also known that economic status is highly correlated with education and that both of these variables are highly correlated with ethnic origin in this study population.

Discussion

These study findings revealed the widespread prevalence and great variations in extent and severity of oral health problems among adults in New York City in the early 1970's.

The relationship of ethnic factors to oral status in the urban population of adults studied was complex. In this sample, whites made up the majority of those who were in the highest economic and educational subgroups, while the majority of those in the lowest education and economic subgroups were Puerto Rican.

Apparently, ethnic and cultural background appear to be interwoven with economic and educational influences. Therefore, for effective dental health education and delivery of needed dental services these subtle differences resulting from the patients' and potential patients' socioeconomic and cultural surroundings must be understood in a given population.

Linn, Edwin L.: Professional Activities of Black Dentists. *JADA*, Vol. 85:118-122, July 1972.

Eighty-one percent of the Black dentists surveyed were in some kind of private practice, the majority working in association with other Black dentists. Ten percent were employed by a government agency; the rest were in teaching and specialized training. There was indication of a permanent choice of working for a public agency. Most Black dentists had as much demand for their services as they wished, with only 13% retiring after 40 years of service.

In total, 1,412 questionnaires were answered and returned.

The exact response rate cannot be stated because there is no way of knowing how many of the nonrespondents were deceased or non-Black. If the rate is based on the estimated total of 2,688 dentists, it is 53%.

If the respondents are representative of all Black dentists, it may be concluded that Black dentists tend to work to an old age. For Black dentists, retirement was relatively infrequent even among the oldest.

Only one-third of the professionally active dentists have a retirement age in mind. Moreover, the longer the time in practice, the less likely was the respondent to have a retirement age in mind.

Everhart, Donald L., Grigsby, William R. and Carter, Walter H., Jr.: Human Dental Caries Experience Related to Age, Sex, Race, and Certain Salivary Properties. *J. Dent. Res.*, Vol. 52, No. 2: 242-247, March-April 1973.

Saliva flow, protein concentration, and blood group substance concentration in the whole saliva of 106 persons were compared. Some of these variables then were compared with age, decayed surfaces, DMF surfaces, and immunoglobulin concentration (IgA and IgG).

Materials and Methods

Whole, unstimulated saliva was collected in a sterile 5 ml. graduated cylinder before any examination was started. The volume of saliva collected and the time elapsed for collection was recorded. The samples were heated to 56°C in a water bath for 30 minutes and centrifuged at 12,100 g for ten minutes; the clear supernatant fluids were frozen at -5°C. IgA and IgG concentrations of the samples were determined as soon as possible. The samples then were refrozen and stored for further use.

A dental examination of type 2, as reported by Dunning, was performed after the saliva sample was collected.

Conclusions

The results of this study lead to the following conclusions: blood group substance and IgA concentration are positively correlated; IgA and IgG concentrations are not correlated with age; saliva flow and IgA concentration are negatively correlated;

males secrete more saliva and more IgA than females; the Black sample has a positive correlation for age-IgA/minute and more decayed surfaces than the white sample; and in the 0-9 age group, age-decayed surfaces and age to DMF surfaces are negatively correlated. From these correlations, it would seem that the IgA is secreted actively and that it is not controlled by the same system that controls serum IgA. Also, IgA may have a protective effect, as demonstrated by the blood group substance study.

Bagramian, R.A. and Russell, A.L.: Epidemiologic Study of Dental Caries Experience and Between-Meal Eating Patterns. *J. Dent. Res.*, Vol. 52, No. 2:342-347, March-April 1973.

The relationship between dental caries and between-meal snacks was investigated in a study of 1,486 high school students. The participants completed a questionnaire on between-meal habits and then were given dental examinations. The lack of differences in dental caries between racial and geographic groups was not related to the frequency of sucrose-containing, between-meal snacks.

Materials and Methods

A total of 1,486 white and Black high school students in Detroit, Michigan and Columbia, South Carolina who were 14 to 17 years of age completed a questionnaire on between-meal eating habits. They then were examined for dental caries.

Results

The results from the analyses of questionnaire responses, in relation to caries experience, were not as expected. No significant relationship could be found between the consumption of sucrose-containing between-meal snacks and low, medium or high caries experience.

An examination of the data according to race, however, indicated that whites and Blacks consumed a great number of between-meal snacks. Blacks in Detroit and Columbia consumed more snacks of all kinds (sucrose and nonsucrose) than whites.

In this study, caries experience was not associated with between-meal eating patterns. Lack of differences between racial and geographic groups was not related to the frequency of sucrose-containing between-meal snacks.

Kaplan, Gary and Shapiro, Stewart: Comparison of DMF Teeth Scores Between Caucasian and Negro Male Alcoholics. *J. Dent. Res.*, Vol. 51, No. 3:876, May-June 1972.

Dental examinations were completed for 57 male alcoholics, who were residents of a rehabilitation center associated with Maryland University Hospital. Examinations were completed by one examiner and included 28 teeth; radiographs were

not used. The mean age for all individuals was 40.91 years. The mean age for the Caucasians was 42.5 years and the mean age for the Negroes was 39.4 years.

The results of this preliminary report indicate that alcoholics have a DMF teeth profile similar to the noninstitutionalized population reported in the National Health Survey, that alcoholics did not have excessive missing teeth component scores, and that there is a statistically significant difference between the DMF teeth score and its component scores for alcoholics by race. Data will be forthcoming from investigations of various hypotheses relative to diet, oral hygiene habits, and past dental experience.

Picozzi, Anthony, Dworkin, Samuel F., Leeds, Jeffrey G. and Nash, Jonathan. Dental and Associated Attitudinal Aspects of Heroin Addiction: A Pilot Study. *J. Dent. Res.*, Vol. 51, No. 3:869, May-June 1972.

A review of dental and medical literature revealed little information regarding the oral health status of narcotic addicts in general and heroin users in particular.

We used an experimental group of 89 male heroin addicts from two addiction treatment centers: Odyssey House and the Berstein Institute Division of Beth Israel Medical Center. The age range was 18 to 44; 50% of the addicts were in the 18 to 24 age group.

Of those interviewed, 84% reported a decided increase in consumption of sweets while addicted. By contrast, only 22% reported sweet consumption as especially important while not addicted. A unique aspect of this drug-related diet phenomenon was the intensity of craving for sweets.

Addicts denied that this phenomenon of intense craving could be accounted for by factors of convenience or economics. Sixty-six percent of those interviewed reported that they brushed their teeth considerably less, if at all, while addicted.

Graves, Richard C. and Stamm, John W. Oral Health Status in the United States: Prevalence of Dental Caries. *Journal of Dental Education*, Vol. 49, No. 6:341-351, 1985.

Therefore, one of the truly significant developments in the field of dental health has been the well-documented decline in caries during the past decade. The reduced susceptibility to dental caries, particularly among children and young adults, is altering the oral health status of the population.

Conclusions

In summary, caries prevalence in the majority of U.S. children and youths is at historically low levels. The average child experiences either simple fissure caries or none at all. Few children experience the extraction of permanent teeth or the need

to have anterior or other smooth tooth surfaces restored. About 20 percent of children continue to have relatively high caries experience and account for a majority of the total disease in the young population. With respect to adults, there is limited current information on caries experience. However, numerous nonrepresentative data provide relatively consistent findings, suggesting that at least young adults also are experiencing a decline in caries prevalence. The average adult has three or four fewer DMF teeth than 15 years ago. Older adults, because of high past disease experiences, have not yet attained appreciable reductions in caries. The restorative needs of older adults will continue to command considerable attention for years to come. However, it is predicted that the current young adult population will also have a considerably reduced caries prevalence with few teeth lost to decay and a much simpler restorative pattern than at present.

Salive, Marcel E., Carolla, Jeffrey M. and Brewer, T. Fordham. Dental Health of Male Inmates in a State Prison System. *Journal of Public Health Dentistry*, Vol. 49, No. 2:83-86, Spring 1989.

This study investigated the prevalence of decayed, missing and filled teeth (DMFT) in a state prison system, using the opening of a new institution as an opportunity to examine a cross-section of the state male inmate population routinely. A representative sample of 178 male inmates was examined by a single dentist, and the results were linked to demographic information.

This study found a mean DMFT of 10.5 for inmates aged 18-29, 71.1 for inmates aged 30-44, and 22.4 for inmates over age 44. In the 18-29 age group, white inmates had more filled teeth than Blacks ($P=.005$) and more missing teeth ($P=.06$). Missing teeth increased by 0.54 teeth/year of age ($P=.001$) and DMFT increased by 0.66 teeth/year of age ($P=.001$). The number of decayed teeth was explained using negative reciprocal time incarcerated ($-1/T$), and declined by 1.30 teeth between the sixth and 12th month of incarceration ($P=.01$). This may have been due to a treatment effect, or by selective loss of the population with poorer teeth.

Methods

An 1,800 bed, male, medium-security, long-term correctional institution was opened in October 1987 and populated from the standing population of the state prison system. Inmates were selected for transfer using the following criteria: having served at least six months of their sentence, sentence of at least five years, medium security classification, minimal security risk, and absence of medical or psychological illness that could result in emergency need for services.

Sinkford, Jeanne C.: A Look at Dental Manpower and Related Issues. *Journal of the American College of Dentists*, Vol. 52, No. 1:40-43, Spring 1985.

The 1984 report to congress from the Department of Health and Human Services (DHHS) predicted a shortage of 4,000 dentists in the U.S. by the year 2000. This figure takes into consideration the national decline in first year dental student enrollment that we have seen which went from 6,030 in 1980-81 to 5,855 in 1981-82. The DHHS projections is based on the assumption that first year dental school enrollment will continue to fall to 4,719 by 1987-88 and stabilize at that level. At the same time, the American Association of Dental Schools (AADS) estimates that there will be 240 fewer first year students by 1987-88 than the DHHS projection, and that enrollment will continue to decline until the first year class size reaches 4,300 students.

Summary

Factors have been presented that should be considered in dental manpower predictions for the future. A specific addressment has been made related to the recruitment of dental students for the future and for minority dental manpower needs. It is through a unified effort of dental educators, dental practitioners and dental researchers that we will be able to meet the challenge that lies ahead and that challenge is:

"HEALTH FOR ALL BY AND
BEYOND THE YEAR 2000"

Garner, L.D. and Butt, M.H.: Malocclusion in Black Americans and Nyeri Kenyans. An Epidemiological Study. *The Angle Orthodontist*, Vol. 55, No. 2:139-146, April 1985.

Various attempts have been made to identify characteristics which typify certain population groups on the basis of such physical features as stature, skin pigmentation, and hair texture and color. Medical science has classified population groups in terms of disease prevalence, such as the high incidence of sickle cell anemia in Blacks and thalassemia in Jews.

Epidemiologic studies of the incidence of malocclusion in particular populations date back to the early 1900s.

Materials and Methods

The Black American sample consisted of 209 males and 236 females 13-15 years of age, drawn from four Junior High schools in the Indianapolis area. All were of Black American background based on skin color and "apparent lineage." Indianapolis had a population of 730,000 inhabitants in 1980, with Black Americans representing about 38% of that total.

The Kenyan sample was taken by the second author from nine schools in Nyeri Town, a district of Central Kenya. All of the children in this study were Kikuyu, one of the predominant tribes of Kenya.

Results and Conclusions

Of the 445 Black Americans, 122 (27%) had acceptable occlusion, and 197 (44%) Class I malocclusion, for a combined Normal/Class I total of 71% (Table 1 and Figure 1). These values are close to those of Horowitz and Infante. Class II malocclusion was found in 73 (16%) and Class III in 34 (8.7%), slightly higher but close to the values reported by Altemus.

The Kenyan sample included 85 (16.8%) acceptable occlusions and 261 (51.7%) Class I malocclusion, for a combined Normal/Class I total of 78.5%. Class II was found in only 40 (7.9%) with no Class II reported. The incidence of Class III was higher in the Kenyans than in any other Black sample reported, with 85 (16.8%).

Conclusions

Black Americans and Kikuyu (Nyeri-Town children) have less crowded jaws than Caucasians and a lower incidence of Class II malocclusion. In both groups, rampant caries appears to be a disease of the past. However, in Nyeri Town, the Kikuyu children do not live in the bush as the Masai, and do occasionally present with civilized man's caries due to carbohydrates and refined sugars. National fluoride in the area seems to play a role in keeping caries incidence low.

Littleton, Norman E., Kakehashi, Samuel and Fitzgerald, Robert J.: Study of Differences in the Occurrence of Dental Caries in Caucasian and Negro Children. *J. Dent. Res.*, Vol. 49, No. 4: 742-751, July-August 1970.

A difference in dental caries experience between Caucasian and Negro children was investigated in relation to differences in recoveries of specific "caries-inducing" and extracellular polysaccharide-producing streptococci from samples of dental plaque; acidogenic potential of dental plaque; and the ingestion of sweet foods either with or in between regular meals.

Material and Methods

Participants in this study were boys, 13 to 14 years of age, who were lifelong residents of an area that used water with fluoride content increased to 1 ppm.

Results

Caucasian boys had about twice as many decayed, missing, and filled permanent teeth as Negro boys.

Caucasian boys had 165 decayed, 19 missing, and 183 filled teeth, whereas Negro boys had 92 decayed, 12 missing, and 76 filled teeth. Filled teeth accounted for 55% of the DMFT for Caucasian boys compared to 49% of the DMF for Negro boys. The small difference, 6% between these two percentages suggests that the levels of dental care in these two groups of boys were about the same.

Conclusions

Dental caries prevalence was recorded in 106 Caucasian boys and 109 Negro boys, aged 13 to 14 years. The boys were lifelong residents of an area that used water with a fluoride content increased to 1 ppm. The Caucasian boys had about twice as many decayed, missing, and filled teeth as the Negro boys, and DMF means were 3.5 and 1.7 respectively.

Garn, Stanley M., Rowe, Nathaniel H. and Cole, Patricia E.: Sibling Similarities in Dental Caries. *J. Dent. Res.*, Vol. 55, No. 5: 914, September–October 1976.

Although dental caries experience clearly follows family line, information on sibling resemblance in the DMFT is surprisingly scarce. The most extensive sibling comparisons involve a limited number of boys and girls analyzed with respect to parental DMFT (Ringleberg, Matonski and Kimball, *J. Public Health Dent.* 34:174-180, 1974).

In the present study, we have examined DMFT data from the Ten-State Survey of 1968-1970 (Rowe, et al., *Pediatr* 57:457-461, 1976). These new comparisons involved exactly 16,000 pairs of siblings, 8,674 of them were Black (American Negro, of largely African ancestry), and 7,326 white (of European derivation).

As shown in the table, sibling correlations for the DMFT are systematically positive and statistically significant overall, approximating 0.26 for white siblings and 0.40 for Black siblings.

Comparing the brother-brother, sister-sister, and brother-sister DMFT correlations, there is no evidence either for X-linkage or Y-linkage nor for like-sex correlations to exceed cross-sex correlation.

Although the sibling correlations for DMFT in the present study ($r=0.23$ to 0.41) are of an order of magnitude comparable to that for many genetically determined traits, an exclusively genetic explanation is not suggested here.

Dummett, Clifton O.: The Vanishing Minority Dentist: *Journal of the American College of Dentists*, pp. 256-264.

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.

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.

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.

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.

Whitehurst, Virgil E., Stookey, George K. and Muhler, Joseph C.: Caries Prevalence in Children of Low-Income Families. *Journal of Dentistry for Children*, pp. 305-308, July 1968.

Introduction

Commercial advertising and increased use of dental health education materials by the dental profession have caused the public to seek more dental care. There remains, nevertheless, a frightening backlog of untreated dental disease; it is frightening particularly because of the public apathy toward dental services and because of the fact that only 85,000 general practitioners practice in the United States.

The need for dental services by the indigent population is an area needing specific, and prompt, attention. A survey conducted by us in 1960 suggests that in at least three counties in Southern Indiana, as many as 73 percent of these people had never been to a dentist.

When one examines the components of the DMF surface index for the Negro children in Fort Wayne, it is found that of the 641 Negro children examined, there was a total of only 135 restorations (and these were all found in only 21 children). Some 84 percent had never been in a dentist's office.

Collectively, these data demonstrate that dentistry must find practical and efficient preventive techniques for controlling dental caries in children. Because they will not seek dental treatment, the development of such techniques becomes

of special importance to low income groups. Mass application techniques for caries control in all school children are needed very much. Laboratory and preliminary clinical data using a SnF₂ self-administered prophylactic paste should be of interest in such programs as those mentioned above.

Stamm, J.W.: Is There a Need for Dental Sealants?: Epidemiological Indications in the 1980s. *Jrnl. of Dental Education*, Vol. 48, No. 2:9-17, (Supplement 1984).

It is also due to the increasing tendency of people to retain their natural dentitions for a longer part of their lifetime. An inevitable outcome of such trends is that dentistry will have to accelerate the process of adapting dental practice to changing patterns in oral disease incidence. It will also require dentists to employ better technologies with which to prevent and treat the more resistant forms of dental caries that continue to affect their patients.

The data clearly suggest that unless dentists substitute a dental sealant-based preventive strategy for an amalgam-based restorative strategy when caring for young children, the potential for sealants will remain considerably under-exploited.

Summary

This paper has attempted to review dental caries epidemiology as it may relate to the subject of dental sealants. As such, the major emphasis has been on the epidemiology of permanent tooth caries among children and adolescents. The review touched four major areas. First, the current distribution of dental caries and its relationship to various epidemiological factors was discussed as it pertains to North America. Second, the evidence for declining caries experience was reviewed from a North American, European, and Australia/New Zealand perspective. Third, a superficial discussion of dental caries epidemiology in selected developing countries was offered and certain contrasts to caries patterns in developed countries were illustrated. Fourth, a brief attempt was made to evaluate the relative significance of pit and fissure caries in children.

Kuthy, Raymond A. and Ashton, James J.: Eruption Pattern of Permanent Molars: Implications for School-Based Dental Sealant Programs. *Jrnl. of Public Health Dentistry*, Vol. 49, No. 1: 7-14, Winter 1989.

Dental caries remains a prevalent, chronic disease of childhood. The preponderance of dental caries is located on the pit and fissure surfaces of teeth, an area where dental sealants are most effective in preventing this malady. In the school year, 1987-88, 4,879 Ohio school children participated in an assessment of dental health.

Grades chosen for this assessment included 1, 2, 3, 6, 7, 8 and 11. This study focuses on eruption of first and second permanent molars in development of a timing strategy for placement of occlusal sealants in a school-based program. An eruption score was developed for the determination of the first or second molar eruption status for each child. The data were analyzed for grades, sex, race, locale, fluoridation status, and percent of children on free or reduced-cost lunch programs. Analyses were performed on 2,215 children in grades 1-3 and 1,840 in grades 6-8. Fifty seven percent of first graders had all first permanent molars sufficiently erupted for sealant placement on the occlusal surface. Likewise, 23.6 percent of sixth graders had sufficient occlusal exposure on the second molar. Black children preceded white children only in the eruption of the second molar.

Black children are not much different from white children on the eruption of first molars; however, a difference is evident for the second molars. Thus, those institutions that are predominantly Black should be of higher priority for sealant intervention when one considers the eruption of the second molars.

While there was a statistically significant difference in the third grade between children in those communities with and without community water fluoridation, the practical significance of this finding is greatly diluted when one looks at the near-maximum eruption scores for both groups (Table 6). The inconsistent findings of urban versus rural children may be due, in part, to the definitions selected for the Ohio study. Moreover, race may be a confounding factor that warrants further investigation.

Those schools where Black children are predominant in the sixth through eighth grades should be targeted prior to the white children. Likewise, if it were possible, females should have sealants placed prior to the males due to the earlier eruption status.

Kiyak, A. Asuman and Miller, Rosalie R.: Age Differences in Oral Health Attitudes and Dental Service Utilization. *Jrnl. of Public Health Dentistry*, Vol. 42, No. 1: 29-41, Winter 1982.

During the past several years, surveys of dental service utilization have revealed differential patterns of use by elderly versus young persons. Almost one half of the aged population has not sought dental care in five years or more, as opposed to 11 percent of those under age 35. Financial limitations and physical access have been cited as the primary barriers for less frequent dental care by the elderly. In seeking other reasons for lower utilization patterns, Read, et al., Gift, and Beck, et al., have found that the majority of elderly perceived little need for dental care. Not surprisingly, Banting found low perceived need and high objective need for dental care among a sample of elderly poor.

Older persons are more likely than younger people to believe that ill health and disability are to a degree unavoidable. In examining all age groups, researchers report an increase by age in the proportion of persons agreeing with the statement.

The purpose of the present study was to examine components of dental attitudes as possible determinants of different patterns of dental service utilization. As part of a larger investigation of the factors affecting dental services, a unique opportunity presented to examine a natural population of low-income persons enrolled in a "free" dental program (the Community Health Board, or CHB program), which is sponsored by a federal grant from the Department of Health and Human Services.

Methods

A representative sample of elderly (over age 60) and young (under age 30), Blacks, whites, and Pacific Asians was selected from CHB files. These persons were categorized as maintenance users if they had been enrolled at least 12 months and had sought preventive or basic dental services during that period (n=44). The second group consisted of persons who had been enrolled at least 12 months but had sought only emergency services (n=47). The third group was comprised of persons enrolled at least 12 months who had never used the free services (n=28).

Conclusions

One may conclude that:

1. Regardless of utilization behavior, low-income elderly persons in this sample generally attributed less importance to oral health than did young persons.
2. Elderly persons in this sample, recognized their poor oral health status and may have sought professional dental care, but this knowledge and behavior were not significantly related to their attitudes or home care behaviors.
3. If dental service programs for low-income elderly are to be successful and result in more favorable attitudes toward dental self-care, they must emphasize the importance of dental care in the later years. Only in this manner can meaningful dental services for aged persons be developed.

Heifetz, Stanley B., Horowitz, Herschel A. and Korts, David C.: Prevalence of Dental Caries in White and Black Children in Nelson County, Virginia, A Rural Southern Community. *Jrnl. of Public Health Dentistry*, Vol. 36, No. 2: 79-87, Spring 1976.

Until a few years ago, the results of most surveys of the prevalence of dental caries among school-aged children in the United States, particularly those done in the south, showed that Black children had a lower prevalence of dental caries than did white children who lived in the same community. However, in several recent surveys, the formerly observed race-caries relation has not been detected. In connection with a study initiated in 1972 in Nelson County, Virginia to determine the effectiveness of a combination of self-applied procedures for the administration of fluoride, baseline data on dental caries experience were collected for 1,374 white

and 761 Black children attending the County's public schools. The availability of data for large numbers of white and Black children prompted a cross-racial comparison of prevalence of dental caries. Findings of the comparative analysis are contained in this report.

Methods

Nelson County has a population of about 11,700 people, 28 percent of whom are Black. Analyses of water samples from the various drinking water sources in the County have shown no significant levels of fluoride. Almost 50 percent of the families had incomes of less than \$3,000 and only 4.7 percent had incomes of \$10,000 or more in 1970. Dental services are not readily available to county residents: Only two dentists serve the area (dentist/population ratio of 1:5,850).

Discussion

Findings of this survey are in accord with those of several other recent surveys that have shown little or no difference in the caries experience of white and Black children. Investigators associated with some of these surveys have suggested that they may be a temporal trend of increasing caries experience among Black children.

Conclusions

1. As determined from overall dmf and DMF counts, white and Black children residing in Nelson County, Virginia, demonstrate similar dental caries experience.
2. The backlog of accumulated dental needs, however, is greater in Blacks than in whites.
3. A current similarity of diets is hypothesized to explain the lack of observed differences in dental caries prevalence between the races that have been reported in the past.

Rowe, Nathaniel H., Garn, Stanley M., Clark, Diane C. and Guire, Kenneth E.: The Effect of Age, Sex, Race and Economic Status of Dental Caries Experience of the Permanent Dentition. *American Academy of Pediatrics*, Vol. 57, No. 4: 457-461, April 1976.

Dental caries, one of the most common diseases of man, constitutes a major public health problem that begins in early childhood. Although less than one half of the population in the United States receives dental care in each 12-month period, the cost of treating dental caries exceeds \$2 billion in a single year. Untreated, dental caries cause pain, lost teeth, malocclusion, and problems of mastication and nutrition.

For these reasons, data on dental caries—derived from the Ten State Nutrition Survey (TSNS) of 1968-1970;—are of particular relevance. These data are unique: 1) With regard to sample size, including more than 10,000 individuals between the ages of 5 and 20 years; 2) In the income range considered, primarily lower income which is a socioeconomic group believed to be encumbered with a greater load of health-related problems; 3) In the wealth of data on the two largest racial groups, whites and Blacks, who differ in many important health-related respects.

RACIAL DIFFERENCE

Racial differences in dental caries experience were clearly evident. It was readily apparent that, for every tooth at every age and for both sexes, Black individuals experience less dental caries than white. The difference in caries experience between the two races is large and consistent. The difference appears shortly after tooth emergence and increases steadily thereafter.

Bagramian, R.A. and Russell, A.L.: An Epidemiologic Study of Dental Caries in Race and Geographic Area. *J. Dent. Res.*, pp. 1553-1556, November-December 1971.

It has been believed that differences in dental caries experience exist between whites and Blacks, and between persons living in southern and northern states. Blacks have been reported to have lower caries experience than whites. Caries experience of Blacks in the North is similar to that of whites in some reports, but in the South, caries experience of whites often has been reported as twice as high as that of Blacks.

Subjects for the study were 1,486 white and Black high school students in Detroit and Columbia, aged 14 to 17 years. The DMF teeth for each person, and the mean DMF teeth for each group, were tabulated by age, sex, race, and residence. Table 1 illustrates the results.

Expected racial and geographic differences were not found. White and Black students showed similar caries experiences, and Black students have a higher incidence of caries than reported in earlier studies.

Conclusions

Racial differences in the prevalence and severity of caries experience did not exist among these groups of white and Black students. Geographic differences did not exist in the prevalence and severity of caries experience between these residents of Detroit, Michigan, and Columbia, South Carolina. Southern white and Black students have a similar caries experience, as do Northern white and Black students.

Salbar, Eva; Brogan, Linda; Greene, Sandra B. and Feldman, Jacob J.: Utilization of Services for Preventable Disease: A Case Study of Dental Care in a Southern Rural Area of the United States. *International Jnl. of Epidemiology*, Vol, 7, No. 2: 163-173, Oxford University Press, 1978.

In the United States, utilization differentials among income groups have been reduced considerably during the past decade. The institution of publicly financed medical care has been associated with increased use of physician services although, in relation to morbidity, low income people still see a physician relatively less often than do upper income people. Other subgroups with less utilization are the rural farm population and the minority poor. However, improvement in access has occurred in minority groups also.

METHODOLOGY

Patterns of dental utilization were derived from answers to the following four questions:

1. About how long has it been since you went to the dentist?
2. During the past three months, did any member of the family have a toothache? If yes . . . What did she/he do about it?
3. During the past three months, did any member of the family have a dental visit for a regular checkup?
4. Do you think you and your family get as much dental care as you should?

Our expectations with regard to utilization of dental services (well below medical, below national norms and with race as the biggest differentiating factor) have on the whole been justified. Medicaid and the neighborhood health center are increasing access at least to some extent for the lowest income group. Blacks above the poverty level, however, do not appear to be faring at all well. In the words of Anderson, . . . the problem of equity may be more than distributing services according to need, independent of social and economic characteristics. It is also tied to the dignity and relative convenience of access and the amount of money paid directly when services are sought. Enforcement of dignity is difficult to legislate, but convenience and the reduction of out-of-pocket expenses can certainly be legislated.

Salber, Eva J., Greene, Sandra B., Feldman, Jacob J. and Hunter, Georgia: Access to Health Care in a Southern Rural Community. *Medical Care*, Vol. XIV, No. 12: 971-986, December 1976.

Utilization of Health Services, particularly with regard to indicators of access, has been extensively discussed by Aday and Erichborn, and Aday and Andersen. However, few studies of utilization of health services have been done in rural areas of the southern United States.

For the past three years, we have studied the behavior of two communities in northern Durham County with regard to the demographic characteristics of the population, their reported illnesses, barriers to and inequalities of access to medical care, and the populations' use of services. This first report (of an anticipated series) is in the nature of a case study and is presented in the hope that findings there may help to develop insights and propositions about utilization patterns that might be tested subsequently on a wider basis.

Conclusions

The areas we have been exploring use less medical and dental services than the norm for the nation. The rural area uses fewer services than the urban fringe area and Blacks use less services than whites.

While, in general, all groups under-utilize services according to regional and national aggregate data, certain subgroups seem to be especially low utilizers of medical care. Rural people, the elderly, Blacks, and those who lack essential amenities of living, use less health care services. A combination of two or more of these categories highlights groups with inadequate services. Low-income rural elderly whites lacking in essential amenities merit special attention. The inference is strong that Blacks, especially those living in the rural areas, experience a substantial gap between needs and services.

The need for increased dental services for all groups, but especially for Blacks is urgent.

Kaslick, Ralph S. and Chasens, Abram I.: Periodontosis with periodontitis: A study involving young adult males. O.S., O.M., and O.P., Vol. 25, No. 3: 305-326, March 1968.

The question as to whether periodontosis is a specific intrinsic noninflammatory degenerative condition beginning deep in the periodontal tissues or merely periodontitis with a particularly severe systemic component is still open to question. However, very few investigators still believe, as Box did, that periodontosis has primarily a local, exogenic etiology.

TREATMENT AND PROGNOSIS

Treatment of periodontosis is basically similar to that of periodontitis. A detailed discussion of this subject will not be presented here. Interesting variations in

possible treatment methods are presented by Tenenbaum and colleagues, Everett and Baer, and Baer and Gamble.

INCIDENCE

Systems for scoring the incidence of periodontal disease (such as the Russell Index and the Ramfjord method) merely note the prevalence and severity of periodontal disease in general. They do not diagnose specific periodontal disease (for example, periodontitis is not differentiated from periodontosis). Studies such as these, indicating the prevalence of "periodontal disease" in young adults, are quite numerous. One such study by Greene (utilizing the Russell index) noted that 6 percent of 232 17 year olds in India had obvious periodontal pockets; whereas only 2 percent of 101 American 17 year olds from Atlanta, Georgia, had pocket formation.

In each patient, six teeth were examined for mobility. These were the upper right first molar, the upper left central incisor, the upper left first premolar, the lower right first premolar, the lower right central incisor, and the lower left first molar. All subjects having more than 1 degree of mobility on any of these teeth were noted and their charts were set aside. Full-mouth radiographs were taken of these men, and those with appreciable radiographic bone loss were given appointments for a full periodontal examination with a periodontal probe.

SUMMARY OF INCIDENCE IN A MILITARY POPULATION

A study of the incidence of "periodontosis with periodontitis" was performed over a 2-month period on a group of 3,897 young adult males, 16 to 26 years of age, recently inducted into military services. An incidence of 0.15 percent was found, but this figure was considered to be somewhat low since the method of initial selection indicated only the more advanced and obvious cases. All the cases of "periodontosis with periodontitis" were found during the second month of the study, when there was an influx of men from the Southwest. There is an indication that Negroes may be more prone to the condition than Caucasians. No significant medical abnormalities were found in any of the subjects.

Horton, John E. and Sumnicht, Russell: Relations of Educational Levels to Periodontal Disease and Oral Hygiene: II. 27/333-28/334.

A previous study indicated that an increased individual educational level was indicative of a less severe periodontal disease and a better oral hygiene status, but may vary with the age and geographic residence of the individual in the continental United States.

The relationships were further analyzed in a similar group, presenting additional supportive observations on the relationships of socioeconomic factors with periodontal disease and oral hygiene.

Materials and Methods

A sample of 1,284 Caucasian and Negro male subjects, aged 17 through 52 years, was examined. The subjects were selected from company rosters of enlisted men at Fort Carson, Colorado. Edentulous subjects were not examined nor included in the analyses.

Discussion

Better oral hygiene status and less severe periodontal involvement varies inversely with the socioeconomic factor of increased individual education, as evidenced by tooth studies.

Public Health Reports, Vol. 84, No. 3: 240-246, March 1969.

MEDICAID DENTAL SERVICES FALL SHORT OF GOALS

Only one fourth of persons eligible for dental care under Medicaid in Erie County, N.Y., actually received any care during a 2-year period, declared Dr. Robert M. O'Shea and Dr. G. Donald Bissell, Erie County Department of Health and the School of Dentistry, State University of New York, Buffalo.

DENTAL HEALTH SERVICES HAVE BRIGHT FUTURE

Growing Federal support of dental health programs, coupled with the vigorous leadership of the dental and allied professions, assures a bright and substantial future for the nation's dental health, stated Dr. Viron L. Diefenbach, Assistant Surgeon General, and Director, Division of Dental Health, Public Health Service.

DENTISTS TO ALERT PATIENTS WHO SMOKE TO CANCER RISK

Smoking is a deep-rooted, highly personal habit that has become a social institution, and there are no simple solutions and no single educational manipulation that will significantly reduce the problem declared John A. Weir, Director, Smoking and Health Project, American Dental Association.

The concerned dentist should not expect that all, or even many of his patients will quit smoking because of his educational activity. Last year, Weir emphasized, more than one million Americans quit smoking. If each dentist helped only one of his patients to make a similar decision during the coming year, the number who quit smoking would be more than 10 percent greater than it was this year.

IS CHILD'S ORAL SELF-IMAGE IMPORTANT?

The preference of children for various facial appearances associated with different types of occlusion may serve as a subjective frame of reference for the dental patient and thereby influence his motivation to seek or cooperate with orthodontic treatment, stated Dr. Lois Cohen and Dr. Herschel S. Horowitz, Division of Dental Health, Public Health Service.

Dummett, Clifton O.: *The Environment of Minorities: The Negro in Watts.*
pp.104-113.

WATTS DEFINED

The community which is customarily described as Watts is located in the South Health District of Los Angeles County. The area of this rather clearly defined community is three square miles. The boundaries are approximately 92nd to Imperial Highway, Central Avenue to Alameda Street.

The Watts community is inhabited principally by households that are poverty-stricken and adversely sheltered. In their despair, many members resort to the emotional volatility which renders more likely the probability of conception and pregnancy, at the same time increasing the possibility of some future familial inconsistency. Watts has the highest concentration of Negro residents of any community in Los Angeles county. Most adults have not gone beyond the level of a ninth-grade education. Approximately 50% of the people in Watts are youthful, as is reflected in the very unfavorable productive ratio. Although, in comparison with South Central Los Angeles, there are fewer Neglect Citations per 1000 youths in Watts, there are larger percentages in the pre-delinquent citation categories.

THE HEALTH SITUATION

In the rather incisive report of the McCone Commission, findings about Watts' insufficient health services were publicly exposed. In ruthless, forth-right, unemotional fashion, the report emphasized that the services were, "inadequate in

quantity, of uncertain quality and totally uncoordinated. Certain crucial kinds of care were virtually nonexistent; neither personnel nor facilities were sufficient; a medically unsophisticated population was without safeguards against incompetence or quackery." As would be expected, this description stimulated neither endearment nor admiration for its authors in the opinions of those professional practitioners whose health practices and services were being denounced.

This is why it is such welcome news that University Medical Centers are turning from the exclusive focusing on the medical and scientific laboratory, and zeroing on in the problems of those poor persons of the community who represent generations of spiritual and physical degradation.

Conclusion

A note of caution seems appropriate. It is important to realize that health care in Watts cannot be provided by the health professions alone. There is danger to be anticipated if members of these professions succeed in creating increased demands for such care only to find that the mode of distribution has not changed. There must be strong, active, meaningful participation and association of the community members themselves. The danger of disassociation becomes understandable in terms of many of the revolts which have been experienced. We must stop wasting time in semantic discussions about plateaux of urgency, and peer relationships and life styles of the poor, and get on with the business of dispensing health care—that is preventive medicine and preventive dentistry, and medical care and dental care—WITH all Watt' poverty who need it, and especially WITH those who want it.

Swerdloff, George and Shannon, Ira L.: Feasibility of the Use of Stannous Fluoride Mouthwash in a School System. *Jrnl. Dent. for Child.*, pp. 363-368, September-October, 1969.

INTRODUCTION

Communal water fluoridation is the most effective caries preventive measure developed to date. The search continues for a procedure to supplement the 60% prevention where fluoridated water is available, and to provide an effective means of prevention to the millions of people who are denied communal water fluoridation.

The topical application of fluoride has become established as a second line of defense against dental caries. This method involves both highly motivated patients and a plentiful supply of professional manpower. Unfortunately, these factors are lacking in our present society. In a national opinion research poll, only 16% of those questioned reported that anyone in their family had received topical fluoride applications.

Summary

A 0.1% stannous fluoride mouthwash was tested on 168 Negro children divided into two balanced groups. The control group rinsed daily with a placebo mouthwash and the test group rinsed daily with 0.1% stannous fluoride mouthwash prepared fresh every day. The test period extended from January 1, 1966 to May 30, 1966. The program was administered in a public school under the supervision of classroom teachers.

The group using the stannous fluoride mouthwash had 33% less carious teeth and 30.5% less carious surfaces. This reduction statistically was not significant. Both groups had a 11% decrease in their periodontal indices and a 25% decrease in their oral hygiene indices.

A daily mouthwash can be administered in a public school setting, and supervised by non-dental professionals (classroom teachers).

Horowitz, Herschel S. and Doyle, Joe: Occlusal Relations in Children Born and Reared in an Optimally Fluoridated Community II. *Clinical Findings*, Vol. 40, No. 2: 104-111, April 1970.

This paper presents clinical findings of a study designed to describe the occlusion of children born and reared in an optimally fluoridated community, and to determine if there are differences in the prevalence of certain occlusal relations of Caucasian and Negro children who had consumed optimally fluoridated water since birth.

Discussion

The findings of this study show that there are differences in the occlusal relations of ten to twelve year-old white and Negro children who grow up in a fluoridated community. Negro children had a more advanced dental age than whites. More Negroes than whites had normal molar relationships; more whites than Negroes had Class II molar relations. White children tended to have greater overbites and overjets than Negroes. Whites had more displaced teeth and midline deviations than did Negroes, whereas Negroes had more midline diastemas, general anterior spacing and a greater distance between the point of attachment of the upper labial frenum of the gingival crest than whites. In short, Negro children had a better interarch relation between their first permanent teeth than did whites.

Leverett, Dennis H. and Jong, Anthony: Variations in Use of Dental Care Facilities by Low-Income White and Black Urban Populations. *JADA*, Vol. 80: 137-140, January 1970.

Since Massachusetts instituted its Medicaid Program, there has been a steady increase in use of dental service. A comparison of data from this 1968 study with data

obtained in 1967 shows changing patterns of dental care. More low-income families, both Black and white, are now receiving regular dental care and are going to private practitioners. However, maldistribution of dentists in urban areas imposes a greater hardship on Black families who must travel farther and spend more money on transportation.

Knowledge of the impact of these programs on available community resources seems, likewise, to be lacking, as does hard data on the effect of ethnic background and race on dental care patterns.

The study population consisted of 457 families of children enrolled in Boston's Head Start Program during the summer of 1968. Of the 336 respondents, mostly heads of families or spouses of heads of families, 150 (45%) were white, 144 (43%) were Black, 30 (9%) were Spanish speaking (mostly Puerto Rican), 8 (2%) were other (mostly Chinese) and 4 (1%) were of unknown race.

The findings of this study tend to support reports of a disparity in the distribution of dentists in urban areas. It appears that this maldistribution imposes a greater hardship on low-income families than white families since the former must travel further and spend more money on transportation than white families. In as much as the greatest increase in use of dental services is among the Black population this maldistribution of dental manpower will have an even greater obstacle in the path of low-income families seeking dental care.

Although there is some indication that dentists in private practice are responding to the acute needs of the urban ghettos, it may again be a case of too little, too late.

Creighton, William E.: Dental Caries Experience of Negro and Caucasian Children in Portland, Oregon. *Jrnl. of Dent. Child*, pp. 139-143, March-April 1969.

Methods

In October 1967, children in the first and fifth grades of nine Portland, Oregon elementary schools received baseline examinations in the first phase of a new preventive dentistry program in those schools. Since fairly large numbers of both the examiners calibrated themselves periodically.

Results

Mean caries experience scores (DMF teeth and surfaces) were consistently higher for Negro children than for Caucasian children when grade and sex were held constant except that the mean DMF tooth scores for Negro and Caucasian male first-graders were the same. DMF surface scores were significantly higher (at the 5% level) for the Negro girls than for the Caucasian girls in the first grade and for Negro boys as compared to Caucasian boys in the fifth grade.

Discussion

It can be hypothesized that diets of Caucasian and Negro children have been of have become more similar in the Portland area than in the areas in which earlier studies were carried out. Certain foods may be more or less available to Negro children in Portland than in more rural environments from which children were drawn for the studies in Tennessee and South Africa.

The National Health Survey data certainly indicate that exposure of Negro children to preventive dentistry is far short of that for Caucasian children. Educational and economic disadvantages for Negroes have resulted in their obtaining less preventive dental care and information, and this factor may be partly responsible for Negro children overtaking Caucasian children in regard to dental caries susceptibility.

Bachand, R. G., Gangarosa, L.P. and Bragassa, C.: A Study of Dental Needs, DMF, def, and Tooth Eruption in Migrant Negro Children. *Jrnl Dent. Child*, pp. 399-403, November-December 1971.

The medical and dental problems of the seasonal worker and his family stem from a complex set of socioeconomic factors. A complete discussion of these factors is beyond the scope of this report. Suffice it to say that the migrant is impoverished, mobile, remote from society and lacking in health consciousness.

NEED FOR DENTAL TREATMENT

Data for comparison of active caries rates (percentage decayed) for primary and permanent teeth within each age group are shown in Table 3. The differences in active caries rates were ranked by use of Wilcoxon's method. A summary of the data from Table 3 used for Wilcoxon's test is shown in Table 4.

Discussion

There seems to be little doubt that the migrant child lacks dental care. This is clearly shown by the low incidence of fillings in the migrant children. Other dental investigators have found a similar lack of restorations in migrant children. Coupled with this lack of care, a high active caries rate (thus an acute need for treatment) was also found in the migrant group, which about equaled the rate of active caries in the urban group. There was no attempt to evaluate the severity of caries, although the general impression of the examiner was that caries in the migrants' teeth was most severe; crown disintegration was seen.

The lack of dental care in the migrant group is probably related to low socioeconomic status and nonaccessibility of dentists. It seems that an intensive effort will be required to bring the migrant child to a level of dental care consistent with good health.

Mobley, Eugenia L. and Smith, Stanley H.: Some Social and Economic Factors Relating to Periodontal Disease Among Negroes—II. Observations on Personality Traits. *JADA*, Vol. 75 :104-111, July 1967.

In a study among Negro high school students, 13 to 19 years old, scores of the Oral Hygiene Index, Russell's Periodontal Index, and the Minnesota Multiphasic Personality Inventory indicated a significant relationship between periodontal disease and schizophrenia. Other personality traits found slightly related to periodontal status were hypomania, psychasthenia, social introversion, and depression. Apparently, then, there is a social psychological syndrome associated with periodontal disease.

The prevalence and severity of periodontal disease among a sample of Negro teenagers in Tennessee has been reported. Some of the findings reviewed previously were related to rural-urban residency, education of parents, socioeconomic level, and occupation.

Procedure

The population for this investigation consisted of 897 high school students, 13 to 19 years old, who were enrolled in 13 schools in different sections of Tennessee. The method of selection and a description of the population have been reported.

The three experimental groups were exposed to combinations of education and preventive procedures; group A had prophylaxes; group B received prophylaxes and classroom teaching; group C had prophylaxes, classroom teaching, and daily supervised toothbrushing. Group D served as the control and received a yearly dental examination.

Findings and Discussion

Periodontal disease, in some form, affected 92.6% of the total population. Only 42.7% of the population was available for oral examinations in the fourth year. The annual loss of subjects was due to a high drop-out rate, absenteeism because of personal and family illness, refusal of further participation, and graduation of a small number at the end of the third year.

Summary and Conclusions

A slight relationship has been observed between periodontal disease and personality traits as measured by the MMPI. The addition of the social introversion scale scores to the nine clinical scale scores increases this relationship, but not significantly. From the statistical analysis and graphic presentation of these data, it is evident that the hysteria, hypochondriasis, psychopathic deviation, masculinity, and femininity, and paranoia scales do not distinguish meaningfully between children with the least and those with the greatest degrees of periodontal disease.

From these findings it can be hypothesized that there is a tendency toward an interrelationship between elements in personality disorders and early manifestation of periodontal disease, calculus, and poor oral hygiene. The periodontal

picture may be enlightened further when sociocultural factors are considered. Future reports will evaluate additional personality variables, other oral environmental factors and IQ.

Silberman, Stephen, Duncan, William K., Trubman, Aaron and Meydrech, Edward F.: Primary Canine Hypoplasia in Head Start Children. *Jrnl. of Pub. Health Dent.*, Vol. 49, No. 1:15-18, Winter 1989.

ABSTRACT

Primary canine hypoplasia is an incomplete or defective development of the enamel matrix. The lesion is located on the labial surface and is seen more frequently on mandibular teeth. The purpose of this preliminary study was to determine the prevalence of this lesion among Head Start Children. During a dental needs assessment of Mississippi Head Start Children, 371 children from 11 centers were examined for this lesion. Of the centers, four were located in fluoride-deficient communities. Ages ranged from three to five years. There were 206 males and 165 females, 334 Black and 37 white children.

All examinations were performed by the same examiner using a mouth mirror, explorer, and a high-intensity portable light, with the child in a supine position.

Discussion

The prevalence rate of primary canine hypoplasia (37.1% for all Black children and 34.5% for all children) is consistent with the findings of Badger (45%) (9) and Brown and Smith (36%) (10). However, when the data from the center containing only white children were compared with other groups or studies, a striking difference was noted. This isolated finding at one site may represent an aberration or point to an important difference between races and/or cultures.

In this study, the prevalence rate of dental caries associated with primary canine hypoplasia was 26%. This figure contrasts sharply with the 10.5% caries rate on all surfaces of the maxillary and mandibular canines on the 2,393 children aged three to five years who were examined during the larger Head Start needs assessment reported by Trubman, Silberman and Meydrech (19). While these data are not definitive, they seem to indicate that the presence of primary canine hypoplasia results in an increased potential for the tooth becoming carious. It may be that if these hypoplastic lesions are followed over time, the percent becoming carious would increase.

Fielding, Jon E and Nelson, Scott H.: Health Care for the Economically Disadvantaged Adolescent. *Pediatric Clinics of North America*, Vol. 20, No. 4: 975-988, November, 1973.

The group of adolescents from economically disadvantaged backgrounds includes a small proportion of white teenagers and a much greater proportion of teenagers from minority groups, especially, Blacks, Puerto Ricans, Mexican-Americans, and American Indians. These groups have been shown to have a higher prevalence of many health conditions, including tuberculosis, venereal disease, other infectious diseases, orthopedic and visual impairments, mental illness, and untreated dental caries.

The health care needs of economically disadvantaged adolescents do not differ greatly in kind from those of their peers with access to greater financial resources. Although their backgrounds and previous inadequate access to health care put them at higher risk for many health conditions, they need basically the same types of services. However, they often need more of these services, and to have them delivered by health care personnel who are sensitive to their cultural backgrounds and beliefs.

Age, social, ethnic, and economic differences between economically disadvantaged adolescents and the health professionals evaluating them often lead to problems in trust and communication. Because their care is usually episodic and because they frequently utilize clinics rather than individual physicians for their primary care, few poor adolescents have an opportunity to establish continuing and confident relationships with physicians and other health services personnel.

Conclusion

There are very few settings where the full spectrum of adolescent health care needs is addressed in responsive ways.

Sometimes fear rather than lack of knowledge prevents an adolescent from seeking care. For example, young adults from economically disadvantaged backgrounds who have not previously visited a dentist are afraid to, even if they have easy access to care.

We have discussed the major health needs of a high risk population: low income adolescents. Currently, these needs are largely unmet by available delivery systems. To close this gap, adolescents must be encouraged by their families and by the health community to translate their health needs into effective demands for appropriate and timely services. Meaningful health education will help.

Schneider, George E. and Fox, Susan: Health Care Coverage and Out-of-Pocket Expenditures of Detroit Families. *Inquiry*, Vol. X, pp. 49-57, December 1973.

The Blue Cross and Blue Shield Plans of Michigan routinely collect certain types of information on their enrolled population and the benefits paid on behalf of this population. However, information is not routinely collected on how Blue Cross and Blue Shield subscribers compare with those having other types of insurance or no

insurance at all. Similarly, no information is gathered on how much subscribers have to spend when they use services not covered by their insurance. This study was designed to provide these types of information by gathering demographic data and health care expenditures information on families living in Detroit.

DESCRIPTION OF SURVEY

A survey of a random sample of 5,970 families living in Detroit was used to collect data about health insurance coverage and out-of-pocket expenditures.

The findings presented here suggest that both Blue Cross and Blue Shield and commercial insurances companies were insuring the middle-class and upper middle-class segments of the population. The "typical" family covered by Blue Cross and Blue shield or commercial insurance had a income of approximately \$10,000 and had a head of household who was a high school graduate.

Of families with annual incomes under \$4,000, Blue Cross and Blue Shield were covering, or helping to cover, 29 percent of these low-income families, while all commercial insurance companies combined were covering only about 7 percent of these families.

These data contain information on the demographic characteristics, insurance coverage, and out-of-pocket expenditures for Detroit families. These data will be improved, kept up to date, and will be available for conducting future studies.

Wan, Thomas T.H. and Yates, Ann Stromberg: Prediction of Dental Services Utilization: A multivariate Approach. *Inquiry*, Vol. XII, pp. 143-156, June, 1975.

Public health officials and health planners concerned with promoting dental health are faced with the fact that dental services utilization rates are generally deficient relative not only to other medical services but also to dental needs. Despite some one billion unfilled cavities and large quantities of untreated periodontal disease, Americans do not seem to give high priority to their dental problems. They are spending a decreasing proportion of their health dollar on dental care and in recent years have only maintained their average annual number of visits at 1:4 to 1:6.

Utilization rates are lowest among groups with greatest need: non-whites, rural residents, and persons with little education, low status jobs, and small incomes.

Data and Methods

In August, 1972, a community health survey using a multi-stage sampling procedure was conducted by the New York-Pennsylvania Health Planning Council, Inc. The purpose of this study was to identify the health status, health needs, and health care utilization patterns of the residents of a five-county area (Broome, Chenago, and Tioga in New York, and Bradford and Susquehanna in Pennsylvania)

in order to formulate rational health services programs and to improve the care received by community members.

Conclusions

A study of this type may be useful to a health planner by helping him to identify groups in need of care and to understand the barriers that limit their ability to obtain that care. The findings concerning income, perceived unavailability of services, and dentist population ratios suggest useful courses of action. These might include insurance plans or sliding scale schemes to ease the financial burden that adequate dental care places on low income families, publicity campaigns to make community residents more aware of the available services and facilities, public education to reinforce the value of preventive dental care, and attempts to attract more dentists to areas where they are few in number.

Butler, William J., Segreto, Vincent and Collins, Edwin: Prevalence of Dental Mottling in School-aged Lifetime Residents of 16 Texas Communities. *AJPH* Vol. 75, No. 12: 1408-1412, December, 1985.

The recognition of the protection against dental caries provided by fluoride in drinking water is considered one of the major public health advances of this century. It is also recognized, however, that dental mottling occurs at fluoride levels in excess of those that provide most of the protection against dental caries.

Methods

Sixteen Texas communities were selected to reflect a wide range of levels of fluoride in the drinking water. Emphasis was placed on selecting some communities near and beyond twice the optimal level of fluoride in the drinking water. The children who were lifetime residents of the communities and who were enrolled in grades 2-6 (ages 7-13) and grades 9-12 (ages 14-19) of the public schools were eligible to participate in the study.

Packets containing information sheets, screening questionnaires, and consent forms were distributed to 27,566 children and 5,273 (19 percent) were returned. Of these, 2,621 were lifetime residents.

In univariate analysis, children who were white or had a Spanish surname had about the same prevalence of mottling while Blacks had a higher prevalence.

The lower prevalence of mottling among children from households which had air conditioning is consistent with what is already known about the effect of air temperature on the prevalence of mottling. This association could also be attributed to socioeconomic status since families with air conditioning most likely had higher incomes.

Anderson, Ronald M., Giachello, Aida L. and Aday, Lu Ann: Access to Hispanics to Health Care and Cuts in Services: A State-of-the-Art Overview. *The Public Health Reports*, Vol. 101, No. 3: 238-252, May-June, 1986.

The most current research literature on the access of Hispanics to medical care is reviewed, and data from a 1982 national survey by Louis Harris and Associates on access to health care are presented to document current levels of access to health care of the Hispanic population. Through telephone interviews, 4,800 families were contacted, yielding a total sample of 6,610 persons.

This paper provides empirical data on the possible impact of the economic and political changes on access to health care for Hispanics relative to Blacks and whites.

Methodology

During spring and summer of 1982, Louis Harris and Associates conducted a national telephone interview survey of the total U.S. population (3,4). A total of 3,000 families were interviewed. In addition, the sample design included oversampling of low-income families, which yielded an additional 1,800 families.

Hispanics are more likely to have no health insurance coverage (16 percent) than either Blacks (11 percent) or white (7 percent). Trevino and Moss (30) reported similar relationships for a national sample from 1978-80.

Hispanics are less likely to name a particular physicians as their regular source of care (72 percent) than whites (79 percent).

Hispanics appear more likely to use an outpatient department of emergency room than whites (12 percent) than whites (79 percent).

Hispanics appear more likely to use an outpatient department of emergency room than whites (12 percent versus 8 percent) although the difference is not significant. However, Hispanics are significantly less likely to use an outpatient department of emergency room (12 percent) than Blacks (20 percent).

Summary and Implications

Hispanics in the United States have a number of predisposing characteristics that differentiate them from the rest of the U.S. population and may influence the health services they receive. They are a relatively young population. They are more likely than whites to be in families with main earners who have not completed high school. The average Hispanic family size is larger. Spanish is the preferred language in one-fourth of the interviews. Hispanics have lived in their community for a shorter period than the rest of the population. They are more likely to report fair or poor health than whites but less likely to do so than Blacks.

Conti, Anthony J, Avery, Kevin T. and Downing, Darryl: Caries-Experience of Preschool Children in Selected Day-Care Centers. *Jrnl. of Public Health Dentistry*, Vol. 34, No. 4: 235-243, Fall.

The purpose of this study, now to be reported, hence, is to measure quantitatively the caries experience of Black preschool children by age, sex, and exposure to fluoridated drinking water. The opportunity to obtain this information became available while developing a program of preventive dentistry for children in day-care centers.

The children examined were enrolled in 15 federally supported day-care centers in Alachua County, Florida. A local agency, the Alachua County Coordinated Child Care Centers, Inc., operates the centers.

Each center was visited over a two-month period by a team of one dentist from the University of Florida and two or more student dental assistants from the Santa Fe Community College. Filmstrips on dental health were shown to the children, and instruction in control of plaque and the use of a proper diet was presented to the staff at each center. Each child then had his teeth brushed by an assistant and his oral examination by the dentist.

Of the 453 children examined, a total of 385 records of Black children (ages 2, 3 and 4) were designated for the final statistical analysis. A small number of white children, one Black child, and all five-year-old Blacks were excluded in obtaining the groups studied.

Conclusions

The study just reported for Black preschool children in the day-centers surrounding Gainesville, Florida, permits three conclusions. They now will be stated:

1. Black children in the study area tend to experience a high rate of caries-activity which begins soon after the eruption of the primary teeth.
2. When fluoridated areas are compared with nonfluoridated areas, the percentage of difference in mean dft at three years of age is 64.0 percent and, at four years of age, is 56.6 percent, and the differences for mean dfs at similar ages are 68.6 and 60.4.
3. The findings confirm the value of fluoridating communities and instituting an early visit to the dentist in the preschool years.

Randolph, Linda A. and Rivers, Sylvia: A comparison of selected health indicators for Black and white children in New York State. *New York State Jnl. of Medicine*, pp. 131-134, April, 1985.

Sharp disparities persist in both health status and the use of health services according to family income, ethnic background, parental education, and geographic location, the panelist noted. Poverty is associated with less access to health care, substandard housing, poor nutrition, and lack of health information. There is a correlation between poverty and excessive rates of sickness and disability. Census data indicate that families headed by single women were twice as likely to live in poverty.

When the New York State statistics are compared with national data, the rates of several health indicators appear to be lower in New York State. Low birth weight, infant and neonatal mortality rates, and the incidence of late or no prenatal care have rates in New York State that are lower than those for the United States as a whole. However, when the rates for Blacks are compared with those of whites, for both the United States and New York State, the rates are higher for Blacks. This supports the premise that the Black population still suffers excessive health problems as compared to the white population, and this is a national problem. The development and implementation of aggressive, innovative national initiatives are needed if there is to be improvement in the health status of Black children.

Morgan, P.M., Murphy, R.F., Willis, R.A., Hubbard, D.W. and Norton, J.M.: Dental Health of Louisiana Residents Based on the Ten-State Nutrition Survey. *Public Health Report*. Vol. 90, No. 2: 173-178, March-April, 1975.

The Nutrition Section of the Tulane University School of Public Health, in cooperation with the Louisiana State Department of Health, conducted the Louisiana phase of the Ten-State Nutrition Survey during the years 1968-70. Proposed and funded by the U.S. Congress, this survey sought answers to questions regarding the nutrition and health status of populations in the lower socioeconomic strata of our nation. Determination of the dental health status of these populations was one segment of the survey.

Our purpose is to report these results of the Ten-State Nutrition Survey that pertain specifically to the dental health status of residents of Louisiana from census districts where the average per capita income was in the lowest quartile for the nation.

SYNOPSIS

The dental health status of 4,006 residents of Louisiana was analyzed, based on data in the 1968-70 Ten-State Nutrition Survey funded by the U.S. Government.

A considerable variation in the prevalence of dental diseases was found among the Louisiana residents according to age. The females examined had a slightly higher DMF (decayed, missing and filled permanent teeth) score, a lower OHI (oral hygiene index) score, and a slightly lower PI (periodontal index) score than did the males. The dental caries attack rate did not vary much by race, but the whites examined had received a much greater amount of dental care than had their Black counterparts.

The OHI scores of the Blacks were higher than those for the whites in both the debris and calculus components. The PI scores were higher for the Blacks than for the whites. More white persons than Blacks were edentulous. This result, however, tends to confirm the observation of increased dental care in white persons. The

percentages of persons with periodontal disease and periodontal pockets were considerably higher among persons with income below the poverty level, and a greater percentage of Blacks had incomes below that level.

Moosebrucker, Jane and Jong, Anthony: Racial similarities and differences in family dental care patterns. *Public Health Report* Vol. 84, No. 3: 721-727, August 1969.

The under-utilization of health care services by blue-collar workers has been attributed to a variety of factors, including lack of sophistication in dealing with bureaucratic agencies and organizations, economics, lack of orientation toward the future, and prejudice on the part of health personnel. There is evidence that not only social class but also cultural factors have an effect on illness behavior. This paper focuses on a specific type of illness behavior, the utilization of dental care services.

Subjects and Methods

The subjects of this study consisted of a respondent from each of 646 families enrolled in Boston's Summer Head Start Program of 1967. This constituted an 83 percent sample of the 778 family total enrollment.

The "other" category is not included in our analysis of the data; thus the total sample size was 621. We were mainly interested in exploring differences between the two major groups (whites and Negroes).

Results

Differences. There was a number of significant racial differences in patterns of dental care, as tables 2-4 indicate. For example, whites were more likely to have a regular source of dental care than Negroes. Of the respondents who had a regular source of care, Negroes were more likely to go to a public clinic for their care and whites to a private dentist. White parents reported having had dental care at a younger age as children than Negro parents.

Summary

Differences were found between the Negro and white families with respect to the variables of regular source of dental care, type of treatment received at least visits, one or a series of visits, replacement of missing teeth, and dental health knowledge.

Markides, Kyriakos and Coreil, Jeannine: The health of Hispanics in the Southwestern United States: An epidemiologic paradox. *Public Health Report*. Vol. 101, No. 3: 253-265, May-June, 1986.

SYNOPSIS

Recent reports in the literature on the health status of Southwestern Hispanics, most of whom are Mexican Americans, are reviewed critically. The review is organized into the following sections: Infant mortality, mortality at other ages, cardiovascular diseases, cancer, diabetes, other diseases, interview data on physical health, and mental health.

Despite methodological limitations of much of the research, it can be concluded with some certainty that the health status of Hispanics in the Southwest is much more similar to the health status of other whites than that of Blacks although socio-economically, the status of Hispanics is closer to that of Blacks. This observation is supported by evidence on such key health indicators as infant mortality, life-expectancy, mortality from cardiovascular diseases mortality from major types of cancer, and measures of functional health. On the other health indicators, such as diabetes and infectious and parasitic diseases, Hispanics appear to be clearly disadvantaged relative to other whites.

Conclusions

From the studies reviewed in this paper, it is clear that much research is needed to understand fully the health status of Hispanics in the Southwest or elsewhere.

Despite these limitations, we can draw the general conclusion that the health status of Southwestern Hispanics falls somewhere between the health status of Blacks and that of other whites.

Graves, Richard C., Bohannon, Harry M., Disney, Judith A., Stamm, John W. and Bader, James D.: Recent Dental Caries and Treatment Patterns in U.S. Children. *Jnl. of Public Health Dentistry*. Vol. 46, No. 1: 23-29, Winter, 1986.

Abstract

This report presents dental caries and treatment patterns found in a longitudinal study of U.S. children between 1978 and 1982 who were geographically dispersed across several fluoridated and nonfluoridated sites. The analyses include first and fifth-grade children examined annually for four years in the National Preventive Dentistry Demonstration Program and who did not receive effective preventive procedures.

Methods

The NPDDP, conducted between 1977 and 1982, generated an extensive set of longitudinal dental caries data. Several publications have reported the methods and findings of the study. This paper analyzes and reports on data found with regard to patterns of care and dental caries. The program involved a longitudinal group of approximately 20,000 children in grades one, two and five at selected fluoridated (F) and nonfluoridated (NF) communities throughout the country.

Conclusions and Recommendations

1. The majority of children who had experienced caries had required only simple restorative care of fissured surfaces; most of their restorative needs had been met.
2. The benefits of fluoridation continue to be apparent.
3. The dental profession should restore only obviously carious lesions, leaving defective fissures and incipient areas to be sealed or to remain for later assessment particularly at fluoridated sites because of the reduced caries attack, the remineralization phenomenon, and the effectiveness of sealants.
4. While a majority of children enjoyed low rates of decay and few extractions as well as high levels of care, a significant minority—particularly low SES Black children at NF sites—had a high caries history, but limited restorative care. Preventive and treatment programs needed to be targeted to these children to improve their oral health status and to achieve greater program efficiency.

Infante, Peter F. and Owen, George M.: Dental caries and levels of treatment for school children by geographic region, socioeconomic status, race and size of community. *Jrnl. of Public Health Dentistry*. Vol. 34, No. 1: 19-27, Winter.

Little information is available regarding the prevalence and distribution of dental caries activity and levels of treatment in the preschool children of the United States. Estimates of the numbers of carious teeth have ranged from 0.60 for the average two-year-olds to 4.75 for the five-year-olds.

Method of Study

A survey of the nutritional status of preschool children in the United States was conducted in the years 1969 and 1970. Data were collected from a cross-sectional sample of children to provide a realistic basis for comparison between the subsets of the population samples and, hopefully, to allow comparisons with children studied in the future. Seventy-four sampling areas were selected to represent a national sample. Children between the ages of one and six years were examined by one pedodontist with the aid of a mouth mirror, dental explorer, and portable dental light. No oral radiographs were utilized.

THE FINDINGS

The number of decayed, extracted, and filled primary teeth (deft) and oral number of dental surfaces (defs) were determined for each child. Inasmuch as differences for caries experience and levels of treatment were not apparent in the groups, data for boys and girls were combined for all analyses.

Some Discussion

The data reported have shown consistently that the segments of the preschool population with the most unfavorable caries-experience had the least amount of treatment. This finding maintained whether observations were based on comparisons of socioeconomic level, size of community, or race.

Conclusions

The analyses of data from 1,155 probability-selected preschool children representing 36 states and the District of Columbia indicated that four conclusions can be defended:

1. No significant differences in caries-experience exits by geographical region although children in the West had significantly larger levels of treatment.
2. Compared with children in the middle socioeconomic group, the lower status children of both urban and rural areas and within each geographical region had significantly greater caries-experience and significantly lower levels of treatment manifested by restoration of, or extraction of teeth.
3. Compared with urban children, rural children had a significantly greater caries experience and a significantly less level of treatment.
4. Compared with white children, Black children had significantly greater caries-experience and significantly less level of treatment.

Clancy, Katherine L., Goldberg, Hyman J.V. and Ritz, Angeline: Snack Food Consumption of 12 Year Old Inner-City Children and Its Relationship to Oral Health. *Jrnl. of Public Health Dentistry*. Vol. 38, No. 3: 227-234, Summer, 1978.

INTRODUCTION

While there is general agreement that consumption of sucrose-containing foods is related to caries experience, the complexities of food-caries relations have yet to be unraveled. Research has demonstrated that consumption-frequency, food-consistency and retentive qualities, effect of food on the buffering action of saliva, socioeconomic variables, racial differences, age and sex are all variables in caries prevalence. The study reported here was undertaken to compare some of these variables in a group of inner-city school children and to assess their needs for dental care.

Methods

Dental examinations were conducted in three inner-city schools in Rochester, New York on 92 12-year-old children (48 females, 44 males). Characteristics of the three schools were similar except that the ratio of Black and Spanish-surname children varied.

Results

The dental examinations established that Black females had the greatest number of decayed as well as DMF teeth. For females, the greater amount of total debris, gingivitis and decayed teeth in Blacks as compared to Spanish-surname children was statistically significant as measured by t-tests. In males, significance was only established for the difference in gingivitis. As shown by t-tests, both male and female Black children were taller than the Spanish-surname children, a finding which corresponds with the higher incidence of unerupted teeth among the Spanish-surname children. Although the Spanish surname children had resided in Rochester a shorter time, the partial correlation of caries with ethnic group, holding length of residence constant, caused almost no change in the relation.

As expected, the total oral debris and gingivitis scores were strongly correlated.

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PATIENT CARE (PRIVATE SECTOR)

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Focus of Section Discussions: Patient Care (Private Sector)

The following is a representative listing of questions each section has been asked to focus on during their deliberations. This list has been expanded upon by the section's faculty in the period of time leading up to the Workshop. While not specifically requesting the sections to develop proposals, all of the questions have an underlying component relevant to a research and action agenda for the future. Each of the discussion sections has been charged to: **make recommendations for future action related to proposals that evolve from discussions of their specific topics.**

PATIENT CARE (PRIVATE SECTOR)

FOCUS STATEMENT: What have been and will be the issues that impact on the private practice of dentistry in the Black community?

What are the critical factors influencing minority dental professionals to adopt and integrate appropriate preventative procedures into practice? Are these factors important to dentist-patient (auxiliary-patient) interactions which influence patient satisfaction, continuity of care, and patient response to dental treatment within the minority community?

Are there sound data as to the predictors and determinants of utilization of dental services within the minority community? If determinants of utilization are available what are the strategies they suggest to the delivery of dental care and their effect on the Black and minority communities?

Do government programs impact more heavily on the Black dental provider than on dentistry as a whole? If so, what are they and how can they be used to benefit the Black community, and does this impact place a burden on the Black provider?

How will anticipated changes in technology impact the clinical practice?

Report of the Section: Patient Care (Private Sector)

The Section on Patient Care in the Private Sector convened on Monday June 24, and Tuesday June 25, 1991 to consider the problems and concerns associated with the delivery of dental care to the Black community by private practitioners.

Our charge was to identify those factors which impact on the delivery of dental health services to patients in the Black community. There was unanimous agreement that the ability of Black dentists to deliver quality dental service within the community was most dramatically affected by the depressed economic conditions which prevail in many Black communities throughout the country. We also feel that a very real problem that still persists to the detriment of dental health care delivery is racism in all its forms. Racism adversely affects every aspect of dental care delivery from education and training of dental professionals to the establishment of dental practices within the Black community. Accessibility of the provider to those needing dental treatment and the dental IQ of the consumer continue to be a problem. Further, there is a great need for provision of counseling to young mothers about the importance of nutrition, prenatal care and oral health. We are especially concerned about the unborn having the advantage of good nutrition and fluoride during the period of pregnancy.

Focus Statement: What have been the issues that impact on the private practice of dentistry in the Black community?

Concern Statement: What are critical factors influencing the private practice of dentistry in the Black community?

- A. Economics
- B. Education (Provider and Consumer)
- C. Social Factors
- D. Health Status
- E. Government Regulations (Occupational Safety and Health Administration, etc.)
- F. Human Resources
- G. Geographic

If all of these factors are addressed, the potential benefits would revolutionize private practice in the Black community. Since economic factors such as indebtedness, loan repayment, payment mechanisms, dental fees, staff salaries, provider income, patient's ability to pay and many other issues termed economic factors seem to be extremely important problem for the Black community, much energy should be directed to resolving these factors. How government programs, insurance plans, HMO's and other payment mechanisms accommodate Black patients in the future is critical to the resolution of many of these problems.

The improvement of our educational system should involve all aspects of the Black community, from preschools to graduate schools. Included in the educational process is the material contained in daily publications and that which is disseminated through radio and television, all of which will have a great impact on the private practice of dentistry.

The benefits of improving the social factors cannot be overstated. The fostering of ethical behavior and improvement of morality among both consumers and providers would enrich the Black community.

All of these factors will have to be addressed to improve the health status of the Black citizens of this country. Federally mandated medical and dental health care including provisions for funding must be a goal in the near future.

Government regulations regarding all Occupational Safety and Health Administration requirements, Medicaid reimbursement, licensure, insurance requirements and Center for Disease Control mandated practices must be fair and equitable for Black providers and patients.

The question of the availability of sufficient numbers of providers and their staffs must be addressed in all necessary ways.

The resolution of problems of geographic circumstance is extremely complex. Improved housing, new industry and training programs for poorer members of the Black community, unemployed and homeless would begin to improve access to care in the Black community, and would also affect the community's ability to attract private practitioners.

Recommendations to bring about resolution of this concern are complex and numerous, but can be condensed as follows:

1. Federally mandated Dental Health Care, to include funding.
2. Remove barriers to capitalization for providers using government guaranteed loans.
3. Elimination of discriminatory practices in the insurance industry.
4. The encouragement and establishment of innovative dental care delivery systems, possibly by the use of tax incentives in the Black community.

A course of action needed to ensure continuous pursuit of this concern requires support of all citizens of the Black community. It would require complicated strategies to address individual concerns such as neighborhood action committee participation, local government policy changes, state legislature actions as well as federal involvement in the many problems faced by the Black provider. It is the

responsibility of the Black community to use its potential to improve many of the problems facing Black Dentistry.

Concern Statement: What problems are unique in the private practice of dentistry for Blacks that are not problems for majority dentists?

Factors affecting this concern:

Since Black dental practitioners make up less than 3% of the practicing dentists in the United States, the committee felt that this fact alone makes their major concerns unique.

Black practitioners are forced by economic, social and cultural factors to practice, for the most part, in some of the least desirable locations. Almost all of these factors are not within the ability of the Black provider to change, correct or modify. Many of these factors, such as poverty, unemployment, poor housing and homelessness have to be resolved with the help of the greater community at large.

Issues of neglect, politics and failure of the average citizen to participate in the election process has a great effect on private practice in many Black communities. Ignorance and physical abuse are rampant in Black communities where lawlessness persists and property values continue to decline.

Legislation that effects health care excludes dentistry or gives oral health care such a low priority, that many of the concerns of the minority community do not receive attention or adequate funding.

In order to resolve these concerns, the committee recommends:

1. That local and state authorities insist that educational institutions, primary and secondary fulfill their responsibilities to properly educate students in basic health care habits and methods. They should emphasize all aspects of prevention, from accidents to prevention of oral diseases.
2. Require continuing education for all dental practitioners and encourage training of auxiliaries to improve their knowledge of preventive aspects of dentistry, disease transmission, waste management and accident prevention.
3. Encourage the continued dissemination of health information by the Public Health Service, and state and local health departments.
4. Since health care and education are more important than the current agenda of this administration, work for the future by encouraging and passing legislation for Federally mandated insurance programs of health care for all Americans.
5. Encourage the dissemination of information in the Black community on reimbursement programs, health care options and the real value of employment based benefit programs.
6. Insist on the enforcement of antidiscriminatory laws as they apply to the practice of dentistry (Federal and State).

Most of the action needed to follow-up on these recommendations requires attention by individual practitioners, local politicians and informed congresspersons.

Concern Statement: What are the critical factors influencing Black dental professionals to adopt and integrate appropriate preventive procedures into practice? Are these factors important to dentist-patient (auxiliary-patient) interactions which influence patient satisfaction, continuity of care, patient expectation, and patient response to dental treatment within the Black community?

Factors affecting this concern:

The committee felt that the reimbursement of the practitioner and the problems therein was the most critical factor affecting this concern. The lack of health (dental health care) education in many Black communities is a critical factor. Promotion of personal hygiene, pregnancy prevention, pre-natal counseling, childcare procedures and the lack of nutritional counseling affect this concern.

Through education alone, much can be done to improve the health status in many Black communities. Dental health education in the schools, community centers and the individual practitioners offices would raise patient expectations, improve desire for treatment, foster communication between patient and dental staff, as well as encourage patients to continue their treatment as needed. By increasing public understanding of prevention, patients will ask that those benefits be made available to them by dental providers.

The committee recommends:

1. The removal of barriers to preventive practice by insisting on inclusion of preventive procedures in all health plans that provide dental benefits. This task falls on the practitioner and the organizations that support him/her.
2. Continue to encourage different forms of dental care and innovative technologies.
3. Encourage continuing education courses for providers and auxiliaries in the teaching of preventive technologies to patients.

The promotion of all aspects of prevention can only be successful if a total effort by the dental profession is continued for the future. The Black professional must use whatever influences they have available to make industry recognize the importance of prevention in the Black community.

Concern Statement: Is there sound data as to the predictors and determinants of utilization of dental services within the Black community?

Factors affecting this concern:

The committee felt that there is no sound data on the predictors and determinants of utilization of dental services within the Black community. There have been

some small studies done in various towns and cities around the country, but no organized or comprehensive studies have been completed.

This kind of study is difficult and possibly expensive because of locational differences (ie., urban vs. rural, small town vs. large town, intra-urban variation, accessibility problems etc.) but a properly designed study might be valuable to health planners around the country.

Utilization is affected by many variables, but economics and social patterns seem to be the most important. Housing patterns and previous health behaviors have an effect on this concern.

Committee recommendations:

1. Encourage National Institutes for Dental Research to fund a proposal to sample the Black population of the United States; or some pilot regions to study the feasibility of doing a utilization survey around the country.
2. Interested parties should encourage an analysis of the National Health Survey or other surveys that include Blacks.

The committee hopes that the National Dental Association will pursue these action plans to add to, and develop further their data base of Black dental professionals.

Concern Statement: If determinants of utilization are available, what are the strategies they suggest for the delivery of dental care and their effect on the Black and minority communities?

The committee expressed hope that this conference would encourage research in the utilization patterns of patients in the Black community. All of the variables that would have an influence on this study could be compiled by the investigator and would add to the knowledge base of the profession.

Concern Statement: Do government programs impact more heavily on the Black dental provider than on dentistry as a whole? If so, what are these programs and how can they be used to benefit the Black community? Does this impact place a burden on the Black provider?

Factors affecting these concerns:

The work group felt that proportionally, the Black provider was impacted on more heavily by government programs than dentistry as a whole. Some of the factors involved are:

1. Low reimbursement.
2. Slow reimbursement.
3. Capitation rates not set for high utilization of some services.
4. Limited number of practioners in community.

5. Referral sources unavailable.
6. Government supported clinics take patients away from private practitioners.

Low and slow reimbursements impact heavily on the Black provider because his/her overhead tends to be higher than predicted as he/she pays the same materials, lab bills, and staff fees as doctors in high income practices. Populations that need a lot of services find little available. When they do receive care, it is heavily weighted to episodic care which does not favor the provider receiving fixed fees from programs not controlled by the practitioner.

Committee recommendations:

1. Reevaluation of Occupational Safety and Health Administration policies, improved availability of inspection teams, and formulation of policies that are more realistic rather than costly.
2. Government must authorize adequate funds for programs and procedures that they portend to support.
3. Encourage the states to set their reimbursement to a proper level to increase access for eligible patients.
4. Urge Congress to pass legislation that will require universal fluoridation of water supplies.
5. Encourage the equitable funding, administration and distribution of federal and state programs.
6. Eliminate discriminatory licensure practices by promotion of national licensures, national exams and reciprocity.

The Black dental provider must continually bombard his local, state and national legislators with information, suggestions for legislation and facts about the needs of the dental provider and patient in the Black community. We must reach past the Black Caucuses and reach as many legislators as possible.

Discussion of Section Report: Patient Care (Private Sector)

ADELE DOHERTY:

Dr. Ellison, I want to commend your group for its excellent work. It's very inspiring.

One of the concerns I have is that the socioeconomic factor is a surrogate of a host of problems, and one of those problems is dental I.Q. You did say the dental I.Q. of the population that we deal with is low.

I went through your chart. I didn't find some kind of solution or suggestions on how we could address this particular issue. I thought it was a very important issue and I would like you to comment on that.

DR. ROBERT ELLISON:

I specifically did mention in the beginning that this particular item was covered in a number of instances in other reports and we felt that we didn't want a lot of redundancy.

There's no question that improving the patient's dental I.Q. is going to have to be a multifactorial approach.

In your office you can have pamphlets that will describe various dental services. In fact, I think that's a very critical issue, because what happens is if you have a pamphlet, the patient can take it home, read it over, try to digest it and, come back and have questions for you.

I find that that's a very effective way to disseminate information. We call that internal marketing, which I think is excellent, and, patient I.Q. can be increased in other ways, such as radio programs, items in the paper, and every society should have some sort of, shall I say, public relations program which involves patient education.

All of these things we can see on television, and many times we see the National Dental Association here in Michigan will have various patient education type programs on television. All of these various methodologies could be used to disseminate information, pamphlets, t.v., radio, personal discussions. Also, dealing with patients, for example, we can have our practitioners going to local school systems and disseminate information in that way.

So all of these ways have some affect, and I think they're all good and certainly does not limit it to the ones that I've mentioned. Other people have talked about using sweatshirts with messages on them—that was mentioned in the last report—that's one way of doing it.

Many times in your office you can have an assistant wearing some kind of sweatshirt with a message on it. We see students here at school buying sweatshirts with dental messages on them.

So all these kinds of things can have an affect, but by no means are they the only ones. I hope that helped you.

DR. EVEROD COLEMAN:

That was a basic concern of the committee, but we did not necessarily address that area until we could address the relative illiteracy in the Black community. It's nice to say that we're going to have pamphlets and whatever there, but a lot of our population cannot read. One of our recommendations was to have the local and state authorities insist that educational institutions, primary and secondary, fulfill their responsibilities to properly educate students in basic health care habits and methods. This also includes reading, writing and whatever.

So we have to get a base line or get the Black community to a base line level of education and then we can, in fact, increase the dental IQ. So it's a two-pronged problem here: one, basic education and then we can get to the dental IQ portion of it also.

So, really, we addressed the basic education problem more than we did dental IQ, and then once we're to that point, we can use the suggestions that Dr. Ellison made.

DR. LYNN WILSON:

In one of your concerns, you mentioned Black practitioners being forced to work in the least desirable areas and many of the problems that we face are poverty, homelessness, unemployment.

One of the things that I thought we should probably broach is the question of the unhealthy patient, more specifically those patients that are HIV positive, which we know are becoming more and more prevalent in the Black community. And I will play the Devil's advocate and ask: How has the committee addressed the issue? Will we be treating this population and, if so, how will we be handling that population?

DR. ROBERT ELLISON:

Good question. That particular question was tossed around, but you have to remember that many states do have laws that say that you have to treat these patients as they present themselves. But the most important thing is, as long as you handle them in the same ways you handle other patients, you don't have discriminatory practices towards HIV patients, chances are you're okay.

But the important thing is we feel that barrier techniques should be practiced if you're going to handle these patients in your office. But if you intend to refer these

patients, you must keep in mind that if you don't want to violate state laws, the mechanism has to be the same for all patients.

You just can't take an HIV patient and say, well, I'm not going to treat you because I'm not equipped to handle those kind of patients. The minute you do that you're in big trouble, because it will be a violation of many state laws. These people are considered in many states as handicapped patients and you cannot just refuse them *de novo*. You have to use the same kinds of referral procedures for all patients so you won't have any difficulty.

But there's no question about the fact, the minute you start having HIV patients come into your office and the word gets out there's no doubt in my mind, right or wrong, I'm not being judgmental about this, but other patients tend to become reluctant, because they start to feel that they don't want to go into that environment because they don't want to be in a situation where they might catch something.

Now we all know that's not true. That's ridiculous, but there is no question about the fact patients do take that attitude in many cases. And of course, if you treat the patients, you always run that risk. As I said before, that's conversational.

DR. MARK A. ROBINSON:

Mark Robinson. We did mention, also, that you should treat each patient as if the patient is a HIV patient. You may not know who is an HIV patient. The patient may not be designated when he comes into the office as a sick patient or so, but we also stated that you should be careful in treating patients and treat every patient as if the patient is an HIV patient, with proper gloves, mask, eye wear and what have you.

DR. ROBERT ELLISON:

Mark is absolutely correct, but those are laws you're supposed to follow anyway. Those are OSHA requirements. You don't really have a choice in that. You must do that. That's mandated by OSHA, so he's absolutely correct.

DR. ALJERON BOLDEN:

Aljeron Bolden. On the section under recommendations your point four—it's on the very last part before we go to the next section.

Just to elaborate a little bit, point four was to encourage and establish—innovative dental care delivery systems possibly with the use of tax incentives in the Black community.

I'd like to elaborate a little bit on that particular endeavor and suggest two possible target populations or target groups, if you will, and I'll take them in a reverse order. We've been focussing pretty much on the lower economic arena. I'd like to focus for a moment on the affordable arenas and potential other sites.

And I put in here for cooperative partnerships, where private and corporation partnerships to establish components such as HMO or franchised dentistry and catch them in sites where a lot of employees—African American employees may exist for profit that can be utilized, such as in Detroit in your auto industry.

There's no reason why there can't be a corporate/private partnership that can be investigated in that and other types of areas that specifically deal with African American patients by African American providers.

DR. ROBERT ELLISON:

In other words, you're offering a suggestion. I want to make sure.

DR. ALJERON BOLDEN:

Yes, a suggestion for other innovative ways and both of these fall into that as additional suggestions and under the other arena which we've been mentioning, as far as those less economically advantaged, maybe financial on two grounds: financial incentives to establish or maintain practices, and that could be, as you mentioned before, a private/public partnership to do that. Maybe it's two young dentist practices or initiatives such as that.

And the second component maybe a financial incentive to utilize private practitioners in less desirable settings. Your practice may not have to be there, but maybe you would be employed in a particular setting as a private practitioner to provide the services if the facilities are established.

So there's other ways that maybe private practice can be utilized.

DR. ROBERT ELLISON:

There's no question that those are very excellent recommendations. But one thing that we emphasize very strongly, that the economic constraints so often limit what you can do. We felt that if any kind of innovative mechanism whereby you can get, for example, the Federal Government give you tax reductions for setting up a practice in a disadvantaged community or anything of that sort that would make it easier for you to deliver care as an innovative mechanism, other than going into the community and just setting up the office. That would make it a lot easier for people to go into the community and do what they had to do without having to compromise care.

Because we all know that capitation programs and HMO programs are really not good mechanisms to deliver care, the only incentive is to not treat anybody, because if you don't, then your profit margin is higher, and we know that the people who own these HMOs and capitation programs are the only ones that make any money and the more care you deliver then your profit margin just disappears.

DR. ALJERON BOLDEN:

I would like for my children to go to a Black dentist and if we focus solely on that, I want to find ways of making it attractive if I'm practicing that way.

DR. ROBERT ELLISON:

I agree. I agree. Very good. Very good.

DR. BARBARA BRYANT:

My name is Barbara Bryant, and I'm a dental practice consultant, and I'd like to go back to the section of critical factors that influence the Black practitioner.

One of the things that I find in my consulting is in the way of education of the auxiliaries that work for the doctors or for the Black offices. A lot of times they are not educated in how to attract patients and collect your fees and bill insurance companies and things like that. And if you are putting this much weight in the area of collecting your money and treating patients in the Black areas, you have to train or make sure your staff is able to collect the money that you are trying to charge the patients for dental services.

The other thing is in the way of the providers being educated more in management of a business, because they do not look at—a lot of times, their practice as it is a small business. And in that way they end up losing. They become discouraged and disappointed in the field of dentistry.

One other thing that I'd like to say before I step back is that I would suggest that more Black doctors get together, as far as support groups go, in order to keep your motivational levels to a degree that you can be role models. If you are not motivated because you're not collecting your money, insurance companies aren't paying you, you can't handle your staff, people don't show up for work, then you need the support of your colleagues in order to continue to be a good role model or be positive in the practice of dentistry.

DR. ROBERT ELLISON:

I'd like to thank Barbara for that comment. I'm going to let Ron say something. I'm going to say one thing for a moment here.

We did spend a commensurate amount of time on that concern under the title of education, because there's no question about the fact any practitioner who goes in and practices, especially nowadays with so much third party and he's not really conversant with many of the mechanisms of collecting money and so forth, that person is not going to be in practice very long. Keep in mind you're paid on cycles, and if you don't handle your money properly, you will not be in practice because you won't be able to pay your bills and you'll be in deep trouble.

That part of education, keep in mind, is really the responsibility of the institutions, such as the educational institutions, mainly because when a student is going through school, we feel that an adequate practice management course should be given, not some cursory thing whereby the person will not be properly inculcated with the ideals that he should be aware of. That we feel is very critical; no question about that.

In auxiliaries, we do know that many of these programs and training are very inadequate. We made a big issue of that, that these programs have to be strengthened. The spectrum and parameters of the educational aspects have to be strengthened, because when you get these people in your office as employees, they want high salaries but they can't do anything, and that to me is a very critical issue.

So I found, in my practice, I had to stop hiring people from dental assistant programs because they couldn't function. So I ended up having to hire my own people and train them. That was the only way I could get what I needed.

DR. RONALD MALLET:

Just to elaborate on that, and we did discuss that, but you must realize something. A lot of these things are being underscored. The availability of these programs in the institutional environment are limited. Most educational institutions used to have a lot of these programs. Now people need jobs, so they avail themselves to these programs that will train you to become a dental assistant in three weeks and they will charge you, in these vocational institutions, with this insurmountable loan. That does not mean that they are adequately trained. And so often it becomes cumbersome to the practitioner because you have to retrain them. So that is a major, major issue. It really is.

But there was another point that you were bringing up and all of a sudden has lapsed besides the . . .

DR. ROBERT ELLISON:

That's working on practitioners getting together.

DR. RONALD MALLET:

It's not just the networking. It's the responsibility of each and every person involved in dentistry not to discourage young people, not to tell young people that my wallet is not as fat as it used to be.

There is an element of the career of dentistry that goes beyond that spectrum, and that is enjoying what you do and providing a service. And we as Black dentists must not shoot ourselves in the foot by discouraging young people coming through the ranks.

We must tell them dentistry is a great career, is enjoyable, is great. And I met several enthusiastic people at lunch yesterday from Michigan who graduated from here and said, hey, it's so much fun to do a service. It looks good and you know you're going to get paid something for it.

But where the problem comes in, and which we did address, you want to be paid at an equitable rate. And again, we want to reemphasize this as our theme, if you mandate a health care system that includes dental oral health, a majority of these problems will disappear.

DR. BARBARA BRYANT:

You were saying that the doctors want to be paid and they feel good about the dentistry that they do. Yes, at the chance, but when you have the third party involvement and the people that you have sitting there processing your work, your forms, waiting on the checks and they don't come, it's because they were not properly trained.

DR. RONALD MALLET:

Well, that's not the only element and that is something else we did discuss. There is also a word and it's called bureaucracy, and in a lot of states they are addressing that issue by regulating the number of days of turnaround in which you are to be paid.

Because so often so many states are getting interest on your money and that's delaying the payment. That was addressed as far as slow payment, low payment and things of that nature.

DR. BARBARA BRYANT:

Oh, I agree totally with the insurance companies holding up monies and drawing interest on your money, but I'm speaking of when the form was not done correctly at first.

DR. RONALD MALLET:

But that's when we go back to the educational process.

DR. BARBARA BRYANT:

And the other thing you said about doctors, as I was speaking about doctors being motivated and being role models and supporting each other, they don't have to verbally speak down about dentistry. They give it off in their body language a lot of times and it's not consciously done, because they are not—they don't have the support of each other.

In most groups they do support each other. We are one group that doesn't get together enough. We don't say we can do it, let's keep going and I want to stay being a positive role model.

DR. RONALD MALLET:

Yes, but see—I want to interject one other element, and that is we have economic barriers more so than the majority of our practitioners.

However, we as Black practitioners in this room know we may be financially frustrated at some times, but to those patients we have an obligation and so often we give away our services. We give away our services. They're not being compensated.

DR. BARBARA BRYANT:

Just to add to that, the supporting and the motivating of each other, of your colleagues, also refers to your staff. When doctors sit around their office and discuss their inability to meet payroll or to pay people or to pay their bills or buy a car or something, the staff represent the doctor and if the staff doesn't believe or love doing dentistry with that doctor or working with that doctor because they're complaining, they can't sell you.

DR. RONALD MALLET:

And that goes in practice management courses. Every institution in the country that teaches dentistry has practice management courses. Whether it's done adequately, that has to be done on a institutional level and you're not going to find one educator in this room that says that they can add more to their curriculum, because right now in curriculum things are being taken away.

DR. MARK A. ROBINSON:

Can I make a comment concerning her statement?

You made a very good point. I'm a dentist because I want to be a dentist. I'm not a frustrated physician, okay? And there are a lot of dentists, colleagues of mine, who didn't get in medical school or who didn't get in law school or didn't get in some other . . . I wanted to be a dentist since I was ten or eleven years old.

I taught school three years before I went to dental school. When they told me that Meharry was recruiting and they said, you're in premed. Why don't you go and apply to dental school? I said, you all didn't give us an incentive, because you gave us such a hard time in undergraduate school. I don't have any grades.

They said, your grades are good enough. They said, you'd be surprised. Dental schools do not accept you just on grades. Recommendations do a whole lot. I mean I had good enough grades to graduate. I made some As and Bs, but I wanted to be a dentist.

And like I say, I'm not frustrated in any other field. We give away a lot of dentistry. We've given away, probably, as much dentistry as homes and cars and other things that we bought.

I don't fool with the money in my office. I don't even write my check. My check is given to me by an office manager. She's paid to manage our office. It's a group corporation.

Three classmates; two of us started off the practice. One we took in six years later; one is retired. We have two other dentists working with us.

And I'm not tooting my horn. I'm just saying, when she tells me—when she passes out checks the other day and I don't have one, she said, well, you didn't get paid today. And I just go on and say, well, I hope it comes tomorrow, or either they'll give us a check and say you hold this until I make a deposit by Tuesday.

But I enjoy dentistry. And I used to wonder, I couldn't draw two boxes and two squares and put them together and, you know, make the box that you used to make as children, until a little before dental school when I realized I had to do some manual dexterity.

But this was something I always wanted. So I try to do the best that I can in dentistry, and I'm sure there are a lot of us who do that. So there's some of us who are sincere.

A good point you made about office management and personnel. There are a lot of courses that we should pay and help out our office managers, our assistants and our personnels our lab technicians go to, because that's going to enhance our practice and that's going to make you get paid next week or my check will be good when it's given to me. I just wanted to inject that.

DR. JULIUS FRANKS:

In going back to your economics on your first page, I wonder if you would give some consideration to make some inclusion. You said that: “Since economic factors, such as indebtedness, loan repayment, payment mechanisms, dental fees, staff salaries, provider income, patient’s ability to pay and many other things termed . . .”

What I’m suggesting here is that all of those things you itemized seems self-serving to the provider. And it would seem to me that the patient’s ability to pay ought to be represented. Would you be considering including the environment in which the practitioner’s working; that’s unemployment, low income, joblessness, you see, lack of insurance benefits. That takes away from that one little statement, the emphasis is so much on now that the committee—on what we’re looking for as a provider.

But the inability to pay is directly related to, I think, no insurance, lack of insurance, joblessness, in that list, and that’s just one consideration.

DR. ROBERT ELLISON:

Well, your statement is well taken. I think it’s important to look at that from several angles. Saying that it’s self-serving, you certainly have a right to your opinion, but I feel very strongly that most people, when they go into practice—this is a free enterprise system and you must meet a payroll; you have to pay your rent; you have to make a living; if you have a family and so on and so forth; all of those things are motivating factors as to how you run your practice.

And if a person does that in terms of trying to make a living, all the things we know we have to do, if one of them wants to say that’s self-serving, fine. But I’m not sure that I would be so quick to say that, because having been out of school 31 years and been in practice for quite awhile, I do know that the motivation to keep going is when you make a profit.

Because dentistry is a small business and it should be run like any other business, like Barbara said, and if you don’t run it like a business you will not be in business very long. And I think that’s motivation for all of us, even though, just like Mark says, look, we give away dentistry in many cases. We don’t collect from every patient we treat.

DR. JULIUS FRANKS:

Doctor, I hear what you’re saying and I agree with you—what you’re saying. But I’m saying, shift the emphasis on more than just the practice. Yes, it’s the practice we did, but we only derive our income from the environment in which we work.

DR. ROBERT ELLISON:

Right. Absolutely.

DR. JULIUS FRANKS:

And you are not putting enough emphasis in this policy statement of the factors that influence the ability to pay. My only suggestion is that these other factors should

be included. If you list all the other things that affect my dental practice, then what affects might it have on my income?

DR. RONALD MALLET:

It's in there, sir. It's under geographic and it's right here at the bottom on the third page.

DR. JULIUS FRANKS:

I don't mean to argue. I ask it for consideration. If you don't think it's worthy, that's fine.

DR. ROBERT ELLISON:

No, fine. No problem. We're taking your statement very, very strongly and very sincerely.

DR. JULIUS FRANKS:

No problem. The other suggestion I said—I asked the question: Did the committee consider, since the factor that we represent only approximately three percent of the dental population of providers, shouldn't the question be that should the Black dentists be the primary provider for the service needed in the Black community?

To me that's a serious question, that we should ask and should be addressed, because of the impact of the needs in the Black community with low economics and with the personnel available, shouldn't we be asking for help from outside of that community in terms of economics? If you can give that consideration. . .

DR. ROBERT ELLISON:

Absolutely, yes.

DR. JULIUS FRANKS:

And it seems to me that federal and state aid—If one gets federal and state aid and you're talking about loan repayment, one of the things that providers should be is that they would be required to go back into the community. I'm talking about those people who will get an education and by obtaining federal and state aid to get tuition, go to college. They should be required, as some programs, to go back into these undermanned areas to serve. Thank you.

DR. ROBERT ELLISON:

Yes, if he's in the National Health Service Corps that is required, if the person got the loan under that auspicious. Correct.

Yes.

DR. ERNEST JACKSON:

One of the things that really bothered me when I was in private practice in East St. Louis, Illinois was the turnaround time of reimbursement from the State of

Illinois. I don't know if very many people think about it, but one of the mediums in reimbursement are the state's dental examiners who review the radiographs when we do submit for payment.

I have never seen, heard of or never met a state dental examiner who tells me if I'm going to get paid for this or not. Obviously it's a state run situation under jurisdiction of the health services in the state.

But I would think it might be advantageous to sometimes, along the way, meet with the examiners to find out what exactly do they want. One week you can send in charges for reimbursement for one thing, the next week you get it. Sometimes you don't even get that. One of the things that really needs to be addressed. Even though I'm not in private practice any longer, I think that it's one of the biggest issues that should be addressed.

DR. ROBERT ELLISON:

I think we did get into that and we talked about it. And we felt that you definitely would have to in some way affect laws being passed to mandate turnaround time, because that's the only way you're going to do it.

I think that most of us has been around long enough to know that the rhetoric that we get back from these agencies, third party, all the rhetoric we want, nothing ever changes. But if state laws are mandated where they must do it, that's probably the best way to deal with that situation in terms of dealing with state legislatures, dealing with our congressional representatives and senators.

Those are the people that can pass these laws to make a law that says that you must get your money in so many days, because we've already made the statement that these companies find it advantageous to leave this money in the bank and collect interest on it as long as they can.

But a state law, if it's mandated, they won't allow them to do that.

DR. ERNEST JACKSON:

In Illinois, every practitioner gets a specific criteria of what procedures and treatment you will be reimbursed for and how much you'll be reimbursed for. Obviously it couldn't be as near, as in-depth as what's in the examiner's mind that has direct affect on economics having to do with reimbursement once again.

I think it might also be advantageous to try to get a copy and distribute a copy of the examiner's criteria, not just the clinician who's doing the work.

DR. HAZEL HAYNES:

I'd like to thank the committee for providing comprehensiveness and information for a very thought-provoking situation here.

The second thing is that Miss Gray from the American Association of Dental Schools office informed me yesterday that the correct terminology for auxiliary personnel now has become allied health personnel in dentistry, because of the work that is provided at the national level by the consensus of people who work in these areas of dental assisting, dental hygiene and dental laboratory technology.

The request, though, for the benefit of those of us here in education, is that I hope your final report will reflect some stronger statement about the training of allied health personnel in dentistry from two perspectives; one, the nature of their training and, secondly, the adequacy of their training, which I think you discussed to some length here.

The first concern is for the school. Many dental institutional based programs in dental assisting, in dental hygiene and in laboratory technology are not as successful, as I might say, as some dental schools in the area of minority recruitment.

And I think that we all have the responsibility to make these institutions aware of the needs of the African American community in terms of personnel who can't communicate with diverse population groups, because these people are essential in critical elements of success in the African American practitioner's office.

Secondly, with regards to the adequacy of training. The proprietary institutions, as Ron mentioned, will oftentimes offer abbreviated courses. And from my experience in San Antonio, many of these persons who attend these schools have no knowledge of the fact that there are programs that are institutionally based that are much less costly and, perhaps, will prepare them much better to function in your offices.

And so I would hope that your final report will reflect some discussion of that nature.

DR. ROBERT ELLISON:

I agree wholeheartedly with you, and I think we've all come to the point that we feel that these proprietary institutions are very definitely inadequate and don't fulfill the objectives that we all have in our mind.

And I read an article in the *Wall Street Journal* about six months ago and it talked about affirmative action funds being given to these various training funds, and the auxiliary programs was or allied health professional programs was one of them.

What these proprietary institutions do is that they will apply for these loans—these affirmative action loans, take the money and pocket it and then the individual in the courses many times is put out or they never get a chance to enroll and these funds are used as profit motives rather than for the education of the students. There was a big exposé in the *Wall Street Journal* about that very thing.

And that's one reason why these proprietary institutions have become so unreliable.

DR. HAROLD MARTIN:

Hazel, we discussed that question quite a bit, and when it came down to preparing our report, we referred most of the discussion in the final reports to the education section. So that's probably why we aren't as full in our report on that issue.

DR. HAZEL HAYNES:

I think you might have a little more merit, though, if it came directly from you as practitioners.

DR. ROBERT ELLISON:

We'll take that under advisement. Thank you very much.

DR. DARYL WILLIAMS:

This past year I just completed the first year in law school. And with respect to the issue of discriminatory practices of insurance companies, let me inform you of something.

This business about waiting for a state law to mandate a certain payment date or a span of time over a payment can be made or should be made, you'll be waiting for that. There are at least two very strong legal theories right now that dentists and physicians can use, probably on a class action basis, that can get you further than a legislator will, and I'll speak to this.

First of all, when an insurance company uses faulty information or evaluation techniques to deny you payment, they are, in fact, interfering with your business relationship with your patient. That means, in legalese, tortious interference of the business relationship.

Now, under contract law you have a situation where the patient has taken out a policy with the insurance company. The dentist becomes a third party beneficiary of that contract.

So there are two valid legal theories that one can use to actually penetrate this interference of insurance companies. But there's a problem, and that is that you've got to find creative attorneys that understand what you're talking about, because I can tell you that in my first year, we had writing assignments and every one of those writing assignments had something to do with medical malpractice and every one of them some extreme situation of a physician implanting a fertilized ovum into a woman, things that just don't make sense.

What I'm trying to say to you is that attorneys are primed to think against health practitioners, and it begins right in the first semester. And unfortunately I don't have a lot of answers as to where you find the creative attorney.

But I am saying that this business of waiting for the legislature to do something, you can't help yourself until you help yourself.

DR. ROBERT ELLISON:

As soon as you graduate, we'll be after you, because you probably will be the only person who has that information.

DR. PAUL GATES:

I kept standing here thinking about Shakespeare and one of the Henrys and his suggestion about attorneys.

I would like to compliment the committee on stimulating such provocative discussion. I think that's very good.

The comments I have are so minor I hesitated to get up, but I would like to offer two suggestions. One, on page one at the bottom, simply an editorial adjustment. The next to the last sentence and the last sentence, the advantage of good nutrition,

and I would ask you to inject appropriate levels of fluoride during the period of pregnancy.

DR. ROBERT ELLISON:

I appreciate that. The committee did change that, but it didn't get into the write up, but thank you very much. We did change that.

DR. PAUL GATES:

And the second would be for consistency throughout the reports, and, perhaps, those individuals who put together the final document will attend to this particular issue. And just a very brief story.

I called my dad the other night because someone in the family had a heart attack since I've been here. And he asked what type of conference this was, and when I told him the title Black dentistry et cetera, et cetera, he started laughing and he said, "You know you were born to colored parents. You were nurtured through youth by negro parents. You went to college as an Afro-American. You practiced as a Black dentist and interred a Black mother, and probably in the next five years you will inter an African American father."

Many of the reports have used the term "African American" This report uses Black. This conference is called Black dentistry. I would ask that we use consistency and, perhaps since the title of this is the 21st century, we might consider going with what will be current at least for the next few months.

DR. CLAUDE WILLIAMS:

Mr. Chairman, I wanted to congratulate the committee on such a thorough report and certainly one dear to me, because I'm not only on faculty but I'm a private practitioner as well.

I have two comments. One, I'd like to tell the learned counselor that in Texas it does work, the ten-day turnaround and that perhaps people don't need those services right now, but perhaps in the future.

The ones I'd like to make a suggestion to the committee regarding their recommendations that the last sentence, "We must reach past the Black caucuses and reach as many legislators as possible." If we could change the intent of the tone of the statement such that it would not be antagonistic toward the Black caucus.

DR. ROBERT ELLISON:

Well, I'd like to address that statement for a moment. We had no intention of being derogatory in any way toward the Black caucus. It was just semantics, but we will make the change if it makes the group happier, but it was strictly semantics, no intention to be derogatory.

DR. CLAUDE WILLIAMS:

The other is that in some areas of general practice or private practice, insurance companies have been known to pay according to zip code. And I think that perhaps we should address that issue as to payment of services alone.

And the other is, I want to mention another factor, interprofessional relationships dealing with referral patterns, respect of academic achievements and to develop a better professional relationships within the Black dental profession.

DR. ROBERT ELLISON:

Great. I'd like to just say one word about the fact that we discussed that very extensively in our group about zip code payment and all these other discriminatory practices.

One of our members was on the Delta Board and he gave us some information which, I shouldn't say is privileged, because it isn't privileged, but we can say this, that he made the statement that a lot of policies that are made by the Board are made by a select few people. The other members of the Board are not given privy to this information and then when they come out with the total group, the policy has been established already. All they want is your signature and that's it. So these are practices that we don't know how we can attack because they're done in a very clandestine pattern.

Now we also know that Blue Cross just takes a totally adverse position; in other words, they have an adversary relationship with the practitioners only from the standpoint they're not concerned about you. They make a policy and that's it.

Their whole attitude is dental claims are such a small cadger of all the claims they get they don't have to worry about you. So if you scream and yell, they just ignore you; that's all.

Now what we can do about that; letters have been written. We've had all kinds of lobbyists. In fact, at the Michigan Association of Endodontists, we end up paying \$200 dollars a piece in our group for lobbyists, and these people try to go to these insurance companies. And believe me, I've never seen anything they've done. It's a waste of money, so I don't know what can be done with those situations.

But you're right, we need to do something about them, but what, we don't know. Things have been tried. None of them have worked. That's unfortunate, though.

DR. DAVID ANDERSON:

I'm very happy, Dr. Ellison, that I've been able to hear this report and I'm very glad that I came to this meeting. I think it was time well spent; I'm very happy as a dentist; I'm very happy with my practice.

I don't think I have anything to be ashamed about, and I think it's time very well spent to come here and to hear the reports of the various committees. We have quite a bit to be reactive about, and a lot of our focus has been that way.

I'd like to offer the opportunity for the committee to comment proactively on three issues. Number one, although there is a disproportionate amount or grouping of African Americans that are insured by various states through Medicaid and Medicare, it's, certainly, not the majority. I haven't seen a statistic to say that most Blacks are on welfare.

We always hear that almost half of Black babies are born into single family households and that condemns them to a certain lifestyle. Here's the point of my question for number one: What about the other 50 percent, or what about the

majority of the minority that is not necessarily below the poverty level? That's number one. What potential do you see there in the future? How will that affect Black dentistry in the 21st century?

Point number two, the American Dental Association publishes statistics to say that 60 to 65 percent of practice income in doctor's offices that are between ages 30 and 45 comes from patients that are over 50 years old. So that precludes Head Start and a lot of the other people that are eligible for Medicaid.

Is that, indeed, true in Black practices and what affect do you see that happening—or what affect do you see that having on Black practices in the 21st century?

And the third, and last one, is that the average age of dentists that the American Dental Association says is about 46 years old. In Pennsylvania it's about 48, so maybe they'll be retiring a little sooner.

At any rate, the average age is 46. Now that does not stand to reason that it will be the same in the Black community because the doors of dental schools have not been open for that many for that long. What affect do you see that having on Black dentistry in the 21st century?

DR. ROBERT ELLISON:

I'll just preface my remarks. And I'm not going to answer this by myself, but I'll say this, that having been involved in research over the years, when someone comes to me with a report of any kind and starts quoting figures, I always like to see the report and then I can determine the validity of the conclusions.

I mean, it's very difficult if someone says 50. I don't know how those figures were arrived at, because I haven't seen any reports myself that I thought were validly sampled populations where you could come up with those things. But it's certainly a point for discussion.

The only thing I can say is, is that we can give a philosophical discussion, and I'm sure that's what you want, I would guess, anyway. Because, you know, there are no hard figures that we can go by and say, okay, this report was done this way and it was designed properly and this is a conclusion we can accept.

But I can only say, from a philosophical standpoint, that I think we all know that our population is growing older and about 12 percent of our population now are people over 65. And there's no question in my mind, I can look at patients that I see and I think the longer you're in practice you're likely to see older people, as opposed to maybe someone in practice maybe a shorter period of time.

And I can see, just proportionately that we are seeing more older people, people over 65 and over 70. And I believe that the projection of the population, according to the census, they claim that in another ten years we may have 12 percent of our population over 75, so that implies you're going to be seeing a lot of elderly people, and it's probably philosophically true in a Black practice as well.

That's my philosophical answer to that question.

DR. MICHAEL RAZZOOG:

And again, I'm going to exercise the Chair's prerogative for just a second.

Dr. Robinson and I worked with a woman by the name of Barbara Norman several years ago on her PhD dissertation. And the reason for bringing that up is that we needed a patient pool to sample. And the people we got involved with were the United Auto Workers retirees. Obviously, this being the Detroit area they're a very viable source.

And what we found was is that the Black group within the United Auto Workers retirees are really an active group. And if you're looking for groups that can make a change, that kind of group can make a change, because the Union can definitely influence future insurance roles, at least within the corporation.

CAROLYN GRAY:

I'd like to make two points. One is to make a plea to the audience to seek out and support your accredited programs in dental hygiene, dental assisting and dental laboratory technology.

Over the last five years, programs in dental assisting and dental technology have closed at alarming rates. And if this trend continues, there is no way that you're going to have an education base for the pool of personnel you're going to need in your private offices. I can't stress that need enough.

My second is a question. One of the very real impressions that has been made on me during the course of the last several days is that a unique problem faced by Black practitioners, particularly in the early years of their practice, is that they must practice in multiple sites. They cannot often survive in their own single private office or as an associate in another's practice, and find themselves working multiple jobs or in multiple settings and that information is not picked up in any existing data collection processes and I'm wondering if that—if my impression is an artifact of a few conversations in the last few days or is that a serious problem for the private practitioner in the Black community and might it be addressed more fully in your report?

DR. ROBERT ELLISON:

Well, it's certainly a very good question. And as far as I know, no data have been collected on that particular condition, but I talked to students—being that I am a professor at the school, we talk to students—white students and Black students—and it appears to me, just as a cursory remark, that that condition appears to exist in both groups.

And I'm not sure we can say that it's directed mainly to the Black community, although it could be. No one has collected the data on it. It could be true, though.

But we will look into it. I'm sure it's something that should be dealt with pretty effectively, because we did mention something in our group's discussion about maybe networking would be a good thing for young people getting out of school so they would have someplace to go.

If we set up a network in all the communities around the country, it would be a good thing for a person before they left school to have someplace to go, plus we could provide externships in our offices for students in school. That was discussed quite extensively by our group.

The other thing about the auxiliaries, I'll make a quick comment there. We discussed that, also, in our group about the alarming rate at which these programs are closing. And I know when I went to the School of Dentistry at Meharry Medical College—I graduated in 1960—and we had a school of dental technology there. It closed my senior year.

And I think you're absolutely correct, from the standpoint that if we don't do something to make this area more attractive; better pay, better working conditions, marketing strategies and so on and so forth, these programs will continue to undergo demise, which we agreed with.

DR. HAZEL HAYNES:

May I make one comment in that regard?

DR. ROBERT ELLISON:

Sure.

DR. ROBERT ELLISON:

Let Dr. Shuford speak first, because it would be unfair if he stood there.

DR. FRANK SHUFORD:

I'm Frank Shuford, and I will yield a second to you.

DR. HAZEL HAYNES:

I just wanted to say that some programs are closing, but in response to some of the modern day pressures on these programs, some programs are beginning to modify their programs and offer dental assisting and hygiene in combination. So you can expect a higher quality person in terms of chair-side management activities, as well as office management capabilities.

But in my experience and knowledge about these programs, most of them do not have Black representatives on their faculties and when they get ready to go out to recruit, they do not go to the Black communities. Instead they go to the more affluent communities and most of the people in those communities do not want dental assisting and dental hygiene.

So they are suffering from a lack of applicant pool, but we do need to get our people into those schools. But I tell you, they won't be there unless you call the faculty and ask, do you have these people available? Can you train them? I have somebody I'd like to recommend. Thank you.

DR. ROBERT ELLISON:

Thank you very much. We appreciate that.

DR. FRANK SHUFORD:

Again, I'm Frank Shuford and I come again as a messenger and at the same time in the form of having worked for a major insurance company for over 14 years.

Much of what has been said about insurance here has some very good factual information. However, there are other sides to this picture. And I say this, and when I said originally that the NDA should refocus and work within the confines of organized dentistry which is now attempting to and has been working with the people who make up the rules concerning insurance—and I speak specifically of the council that dealt with dental health care. I was appointed to that as a consultant during the years when they made up the procedural codes and when they also talked about other things as it related to insurance.

That initiative and there at the table, you have Blue Shield, Blue Cross. You have also Delta and you have the insurance industry represented at that table, and it would behoove the National Dental Association to negotiate for a position to be at that table where they're now talking.

Review of the Literature: Patient Care (Private Sector)

DR. HAROLD B. MARTIN
College of Dentistry
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Washington, DC

Kelly, James E. and Harvey, Clair R.: Decayed, Missing, and Filled Teeth Among Youths 12-17 Years. *Vital and Health Statistics, National Health Survey, National Center for Health Statistics, Health Resources Administration, HEW, Series 11, No. 144.*

During 1966-70, the Division of Health Examination Statistics conducted a survey that collected information about the health of the U.S. population aged 12-17 years. This was a total health examination.

The dental examination was conducted by seven dentists employed at various times during the survey. The examiners derived their findings on a uniformed basis by following as closely as possible written, objective standards. The standardized examination procedure undoubtedly reduced the sensitivity of the examination.

Ninety percent of 7,514 sample youths were examined. This examined sample was regarded as closely representative of the population from which it was drawn.

Using text and tables, the occurrence of decay among specific groups of youth is described. No primary teeth were described in this report. The average number of DMF teeth goes from 4 at 12-13 years of age to 8 at 17 years of age. Some differences were found in older white youths compared to older Black youths, but the progression was essentially the same.

The methodological strength of this survey derives especially from its use of scientific probability sampling techniques and highly standardized and closely controlled measurement processes. The data from the survey are imperfect because of sampling errors, actual conduct of the survey and the measurement processed themselves are inexact. The Appendix III, Statistical Notes, is excellent and could be read quickly while providing great insight on the results of the survey. Good article for review of survey methodology.

Mobley, Eugenia L. and Smith, Stanley H.: Some Social and Economic Factors Relating to Periodontal Disease Among Negroes—II. Observations on Personality Traits. *JADA*, 75:104-110.

Mobley and Smith studied 13-19 year old, Negro high school students scoring their Oral Hygiene Index, Russell's Periodontal Index and taking their Minnesota Multiphasic Personality Inventory. This was done to see if there was any correlation between the presence and severity of periodontal disease and the patients' personality traits, especially schizophrenia. The investigators believed that social psychological factors were more dominant than economic factors in studying a correlation to the development of periodontal disease. Unfortunately, only 42.7% of the student population was available in the third year of the study. The study produced a number of tables comparing MMPI scores and the existence and severity of periodontal disease. A slight relationship was observed between periodontal disease and personality traits as measured by the MMPI. They emphasized the significant relationship between periodontal disease and schizophrenia. From their findings, they hypothesize that there is a tendency toward an interrelationship between elements in personality disorders and early manifestations of periodontal disease, calculus and poor oral hygiene.

Kelly, James E. and Sanchez, Marcus J.: Periodontal Disease and Oral Hygiene Among Children. *National Health Survey, National Center for Health Statistics*, Series 11, No. 117.

Kelly and Sanchez, Division of Health Examination Statistics, discussed the survey of the health of the nation's children aged 6-11 years done during 1963-65. The universe from which the sample was drawn contained approximately 24 million children. It was defined as all non-institutionalized children living in the United States, including Alaska and Hawaii. The sample examined consisted of 7,400 children, an average of 185 children at each of the 40 examining locations.

Five dentists were utilized and they obtained their data on a uniformed basis by following as closely as possible written, objective standards. The prevalence and severity of the periodontal disease were measured by the Periodontal Index (PI), a system of classification proposed by Russell in 1956. Oral hygiene was evaluated by the Simplified Oral Hygiene Index (OHI-S) a method described by Greene and Vermillion in 1964.

An estimated 9.2 million children or about 39% of the population had either gingival inflammation or a more advanced form of periodontal disease. Virtually all children in whom positive signs of disease were found had gingivitis.

A series of tables were generated. A significant major finding was that the Periodontal Index does not seem to be associated with either race or sex. Age seems to be a factor as increasing age leads to slightly increased PIs. The PI is associated with parents' educational levels and that association parallels in most respects that

of mean scores with family income, especially with white children. OHI-S differ with age. As the child got older, index decreased slightly, but steadily. At every given age, the DI-S and CI-S for Negro children were higher than those for white children.

Significant qualitative changes occur in both periodontal disease and oral hygiene status with advancing age. Demographic variables seem to be important.

Baird, James T. and Kelly, James E.: Need for Dental Care Among Adults. *Division of Health Examination Statistics, Vital and Health Statistics from the National Health Survey, National Center for Health Statistics, Series 11, No. 36, U.S. 1960-62.*

The estimates in this report are based on examinations conducted during 1960-62 on 6,653 men and women out of a probability sample of 111 million U.S. adults aged 18-79 who composed a civilian, non-institutional population. The estimates in the report apply only to those adults (approximately 90 million) who had one or more natural teeth.

Two out of every five persons who had natural teeth, had one or more dental conditions for which early care was indicated. The percent of persons in need of dental care varied significantly by race and sex. The former being the variable for which more dramatic association may be demonstrated.

The percent of Negro adults needing early care was 61.5% compared to 37.6% for whites. Need for dental care was significantly greater among men than among women, although the difference by sex was not as large as that by race. A number of charts were generated by this study which were most interesting, but usually illustrating differences by variables. Forty percent of all persons with one or more natural teeth had one or more conditions for which an early visit to the dentist was indicated.

Horton, John E. and Sumnicht, Russell W.: Relationships of Educational Levels to Periodontal Disease and Oral Hygiene: II. *J. of Period.*, pp. 27-29.

A previous study by Horton and Sumnicht, published in 1967, showed a relationship between periodontal disease and oral hygiene status with variables of age and geographic residence. These relationships of socioeconomic factors with periodontal disease and oral hygiene.

A sample of 1,284 Black and white male subjects, aged 17 through 52 years, was examined. No edentulous subjects were included in the study. The same six examiners were used from the first study. The data were investigated also by computer analysis, testing relationships for simple linear regression and Duncan's New Multiple Range Test, with adjustments being made for unequal mean frequencies.

The socioeconomic factor of increased individual educational levels indicates improved oral hygiene status and less severe periodontal condition. Other conclusions seem to be somewhat speculative.

Kaslick, Ralph S. and Chasens, Abram I.: Periodontosis with Periodontitis: A Study Involving Young Adult Males—Review of the Literature and Incidence in a Military Population. *O.S., O.M. & O.P.*, pp. 305-326, March 1968.

Kaslick and Chasens attempted to ascertain the exact nature of periodontosis through a review of the literature up until 1967. They agreed with the Nomenclature and Classification Committee Report on Periodontal Disease that periodontosis is found in young people who show early mobility and migration of teeth with deep alveolar bone loss and initially little inflammation. The literature review discussed clinical findings, histopathology, etiology, treatment and prognosis as well as incidence with some reference to slight racial and gender differences.

The study included 7,646 men between the ages of 16-26 who passed through the initial dental examination station at Fort Polk, Louisiana from April, 1964 to June, 1964. Of these, 3656 white and 241 Negroes were randomly selected for the study. Only six patients were found to have periodontosis, 0.15% of the total subjects tested. All of the cases were found in men from the southwest suggesting that geographic location of origin could have an effect of the incidence of periodontosis in a population.

Of the six patients, two (33%) were Negroes whereas only 6% of the study population were Negroes. This is not considered to be a statistically significant finding, but it may indicate a tendency toward greater incidence in Negro subjects as indicated by Belting who did a study with Massler and Schour on the prevalence and incidence of alveolar bone disease in men.

Whitehurst, Virgil E., Stookey, George K. and Muhler, Joseph C.: Caries Prevalence in Children of Low Income Families. *J. of Dent. for Children*, pp. 305-308, July 1968.

Whitehurst et al. examined the prevalence of caries among Negro and Caucasian children of low income families in Indiana. They examined 508 children between the ages of two and ten. There were 21,806 carious surfaces in their primary dentition, but only 66 restored surfaces. Beside a lot of other dental services, 26 children required full dentures. Eighty-four percent (84%) of the Negro children of Ft. Wayne had never been to the dentist. The study compared Negro and Caucasian children in Ft. Wayne and South Bend because of the lack of fluoridated water in South Bend and studied racial differences in both cities. This study concluded that dentistry must find practical and efficient preventive techniques for controlling dental caries in children.

Dental Health—Differences in Use Persist Despite Dental Prepayment: *Public Health Report*, Volume 84, No.3, pp.240-243, March, 1969.

Authors of this article are unknown. The article reports difference in use persist despite dental prepayment plans using a comparison of two groups in New York City who were entitled to prepaid dental care through membership in Group Health Dental Insurance, Inc.

The article also found that Medicaid dental services were falling far short of its goals. Only one-fourth of persons eligible for dental care under New York Medicaid in Erie County, New York actually received care in a 2-year period. The older the patient, the higher the cost to treat that patient.

Growing federal support to dental health programs, coupled with the vigorous leadership of the dental and allied professions, assures a bright and substantial future for the nation's dental health, stated Dr. Viron L. Diefenbach, Assistant Surgeon General, P.H.S.

The article discusses the Division of Dental Health and the role of the Children's Bureau.

Creighton, William E.: Dental Caries Experience of Negro and Caucasian Children in Portland, Oregon. *J. of Dent. for Children*, pp. 65-69, March-April, 1969.

Creighton's study was done as a result of mixed reports about the caries rates of Caucasians and Negroes. Four hundred and ninety-three (493) first grade students and 381 fifth grade children were each examined with the aid of a dental mirror, explorer and artificial light by two United States Public Health Service dentists. They were grouped by race and grade and their DMFT and DMFS scores were compared. Mean caries experience scores (DMF teeth and surfaces) were consistently higher for Negro children than for Caucasian children when grade and sex were held constant except that the mean DMF tooth scores for Negro and Caucasian male first graders were the same. DMF surface scores were significantly higher (at the 5% level) for the Negro girls than for the Caucasian girls in the first grade and for Negro boys as compared to Caucasian boys in the fifth grade.

Creighton's discussion brought a number of facts to light from other studies, but the study revealed that in Portland dental caries experience was higher for Negro than for Caucasian children of the same sex and grade level. Dental caries experience was higher for girls than for boys. Environmental rather than racial determinants of dental caries are suggested.

Moosbrucker, Jane and Jong, Anthony: Racial Similarities and Differences in Family Dental Care Patterns. *Public Health Report*, Volume 84, No. 8, pp. 721-727, August, 1969.

Moosbrucker and Jong studied the dental care patterns in low income families and found that the study results contradicted some of the previous findings and attempt to delineate some of the factors related to the low level of dental care with particular emphasis on differences between Negro and white families.

The subjects of this study consisted of a respondent from each of 646 families enrolled in Boston's Summer Head Start Program in 1967. They developed tables that illustrated significant racial differences in patterns of dental care. Whites were more likely than Blacks to have a regular source of dental care. White parents report having earlier dental care than Black parents. There were significant differences in the types of services the races received. The dental health knowledge of the white group was found to be significantly higher than that of the Negro. Negroes are more likely to go to a public clinic for treatment while whites go to a private dentist. The dentist-to-population ratio is as high in communities where residents are primary Negro as it is in the low income white communities of the Head Start Program. Social patterns related to housing and employment may also affect patterns of dental care differentially.

Dummett, Clifton O.: *The Vanishing Minority Dentist. J. Am. Coll. of Dentists*, pp. 256-264, 1970.

This article was a talk given at the Spring Workshop Academic Reinforcement Program, College of Dentistry, Howard University, Washington D.C., May, 1970.

Dr. Dummett discusses the mental growth and preparation of future dentists, the insensitivity of some teachers, the inadequacy of paper preparation for and insight into the difficulties involved in matriculating in dental school for four years. He discusses various problems of dental teachers, i.e., severity of teachers, poor judgment used by some teachers and poor attitudes of some teachers. He tells how student unrest can affect teaching and learning. Problems of minority student recruitment that have been put off now need the attention of everyone in the dental community. We are not looking just for students, but men and women who can complete a professional education program like dentistry. Dental health education is an excellent tool for getting over the importance of dentistry, but the profession's potential for prospective students needs to be emphasized.

Dr. Dummett feels that the immediate function of the predominantly Black dental professional schools, as well as the white schools, is to take Black students as they are with many of their disadvantages and prepare them for effective professional roles in American society. Doing this will require special effort and a sincere effort for success in increasing the number of minority dentists in the future.

Leverett, Dennis H. and Jong, Anthony: *Variations in Use of Dental Care Facilities by Low Income White and Black Urban Populations. JADA*, Volume 80: 137-140, January, 1970.

A study of Medicaid patients in Boston, Massachusetts revealed a steady increase in use of dental service. In 1968, more low income families, both Black and white, were receiving regular dental care and were going to private practitioners than the year before this study. The maldistribution of dentists in urban areas seem to impose a greater hardship on Black families who must travel further and spend more money on transportation.

The study population consisted of 457 families of children enrolled in Boston's Headstart Program during the summer of 1968. Out of 336 respondents, 150 (45%) were white, 144 (43%) were Black, 30 (9%) were Spanish-speaking, 8 (2%) were other (mostly Chinese) and 4 (1%) were of unknown race. Only Blacks and whites were included in the final evaluation of data. A structure interview schedule was pretested and found acceptable to the study population. The families were broken down into three groups: private practice patients, clinic patients and no regular source of care patients. Tables were developed showing distribution of mode of transportation, cost of transportation and comparison of source of dental care by race. Blacks were more likely to seek clinic care than whites and to travel greater distances for care. Blacks had to spend more funds for transportation. The number of Blacks seeking care showed a sharp increase.

Littleton, Norman W., Kakehashi, Samuel and Fitzgerald, Robert J.: Study of Differences in the Occurrence of Dental Caries in Caucasian and Negro Children. *J. Dent. Res.*, pp.742-751, July-August, 1970.

A difference in dental caries experience between Caucasian and Negro children was investigated in relation to differences in recoveries of specific "caries-inducing" and extracellular polysaccharide-producing streptococci from samples of dental plaque; acidogenic potential of dental plaque; and the ingestion of sweet food either with or in between regular meals.

This study by Littleton et al. involved boys aged 13-14, who were lifelong residents of an area that used water with fluoride content increased to 1 ppm. There were 106 Caucasians and 109 Negro boys who all met the study criterion. A clinical examination was done and plaque samples taken on each boy.

A number of tables were generated (9), i.e., DMF Teeth, Distribution of Specific Caries-Inducing Streptococci and selected Dietary Considerations, etc. The study found that the Caucasian boys had about twice as many decayed, missing and filled teeth as the Negro boys. Specific caries-inducing streptococci of the hamster type were recovered from 30% of the cultures of plaque materials obtained from Caucasian boys compared to 17% of the cultures of plaque obtained from the Negro boys. The rest of the results were not reporting much difference between the two groups of boys.

Bachand, R. G., Gangarosa, L.P. and Bragassa, C.: A Study of Dental Needs, DMF, def, and Tooth Eruption in Migrant Negro Children. *J. of Dent. for Children*, pp.35-38, November-December, 1971.

Bachand, et al. took the opportunity in 1966 to examine 61 children, 5-12 years old in a migrant Negro population in Monroe County, New York. This survey of the oral health status was initiated in order to assess the dental conditions and needs of the Negro migrant child.

All the children were examined by Dr. R. G. Bachand using a method similar to that employed in the Public Health Service National Survey. This population was compared with an urban sample examined at the East Dental Center in Rochester, New York to see if there were gross differences between migrant and urban Negro children in respect to dental care and needs. In addition, they wanted to determine whether the well known sex-related difference in eruption timing occurred in both groups.

A number of tables were generated. It was evident that the migrant child was almost completely lacking in dental care except for possible treatment of an emergency nature. Active caries rates between the two populations were not statistically significant. Eruption patterns were similar in migrant boys and girls, contrary to the well known sex-related difference in eruption. The sex-related difference was more evident in the urban groups.

Dummett, Clifton O.: *The Environment of Minorities: The Negro in Watts.*

This article is a description of a speech given by Dummett at the Southern California Seminar sponsored by the University of California on "Man and His Total Environment—The Health of Man," December, 1967, Los Angeles. In this article, Dr. Dummett discusses some facets of the sum total of socioeconomic and group behavioral premises, which affect a special population constituent imbued with a generic sameness. An example is the Negro in Watts.

He gives pertinent demographic data on Watts, age ranges, racial makeup, ethnic data and social profiles including educational profiles. He uses two scales for providing family status, three scales for a youth profile and reports on housing. All of these scales reflect disadvantageously on Watts, a densely populated area.

The fact that inequities exist in Watts is highlighted and that poverty and ill health reinforce each other so there is a glaring need for anti-poverty programs, etc. in Watts.

The importance of the Neighborhood Health Center to an area like Watts is discussed and there is a discussion of the NHC movement nationally as well as in Los Angeles.

Bargramian, R. A. and Russell, A. L.: An Epidemiologic Study of Dental Caries in Race and Geographic Area. *J. Dent. Res.*, pp. 1553-1556, November-December, 1971.

Bagramian and Russell did a study to determine the dental caries experience for Black and white high school students in a northern and a southern city of the United States. Expected racial and geographic differences were not found. Black and white students showed similar caries experiences, and Black students had a higher incidence of caries than reported in earlier studies.

High school students were selected in Detroit, Michigan and Columbia, South Carolina. The study was restricted to lifelong urban residents with similar environmental conditions, such as socioeconomic status and no previous exposure to fluoridated water, except that both city water supplies were fluoridated approximately one year before the study.

Dental examinations were conducted using a dental spotlight, #5 mirror and #23 explorer. DMF tables were generated from the data. Southern Black and white students have a similar caries experience, as do northern Black and white students.

Linn, Erwin L.: Professional Activities of Black Dentists. *JADA*, Volume 85, pp. 118-122, July, 1972.

Dr. Linn did a study which consisted of a questionnaire completed and returned from 1,412 Black dentists. It is estimated that there were 2,688 Black dentists in the United States at the time the study was done. Since racial minorities depend mainly on racial minority dentists because of geographic convenience and because of social and economic barriers they would encounter in seeking the services of dentists in white communities, this study had national implications. Of the respondents, 96% were active in dentistry.

Dr. Linn found that 81% of the respondents were in private practice, 10% were employed by local, state or federal agencies, 4% were teaching and 4% were in training.

Sixteen percent (16%) of the professionally active dentists were also in secondary paid professional activities. Six percent (6%) designated the private practice as secondary: 3% teaching, 4% working for a public agency; and 3% graduate school, internship or residency.

Only 10% limited their practice to a specialty. Generally, most Black dentists have Black patients. Sixty-three percent reported that more than half of their patients were between the ages of 18-50. Eighty percent treated more than 100 patients a week. There seemed to be a sufficient demand for services of most Black dentists. There seemed to be an upward trend toward associating among Black dentists. Retirement is being pushed upward by practicing Black dentists.

Everhart, Donald L., Grigsby, William R. and Carter, Jr., Walter H.: Human Dental Caries Experience Related to Age, Sex, Race and Certain Salivary Properties. *J. Dent. Res.*, Volume 52, No. 2, pp.242-247, March-April, 1973.

Everhart et al. compared saliva flow, protein concentration and blood group substance concentration in whole saliva in 106 persons. Some of these variables were compared with age, decayed surfaces, DMF surfaces and immunoglobulin concentration (IgA and IgG).

Besides taking saliva samples, each subject got a Dunning's Type 2 dental examination. Four tables were generated, various variables studied, correlation coefficients significant levels, race and sex comparisons and blood group substance correlations.

In the study, blood group substance and IgA concentrations are positively correlated; IgA and IgG concentrations are not correlated with age; saliva flow and IgA concentrations are negatively correlated; males secrete more saliva and more IgA than females; the Black sample has a positive correlation for age-IgA/minute and more decayed surfaces than the white sample. The study and conclusions showed the need for further study to see if some of the conclusions drawn are accurate.

Bagramian, R. A. and Russell, A. L.: Epidemiologic Study of Dental Caries Experience and Between-Meal Eating Patterns. *J. Dent. Res.*, Volume 52, No. 2, pp.342-347, April, 1973.

Bagramian and Russell studied the relationship between dental caries and between-meal snacks in 1,486 high school students in Detroit, Michigan and Columbia, South Carolina. The participants completed a questionnaire on between-meal habits and then were given dental examinations. The lack of differences in dental caries between racial and geographic groups was not related to the frequency of sucrose-containing, between-meal snacks.

Four tables were generated depicting mean numbers of DMF Teeth, Snacks Consumed by 15-Year Old Black Females from Columbia, and two significant difference tables. The results obtained were not as expected. No clear patterns of association were found in any of the analyses. Only a few of the chi-squares that were calculated were significant. Past caries experience does not indicate necessarily a strong relationship to snacking habits which could have changed recently.

Fiedling, Jon E. and Nelson, Scott H.: Health Care for the Economically Disadvantaged Adolescent. *Pediatric Clinics of North America*, Volume 20, No. 4, pp. 975-988, Symposium on Adolescent Medicine, November, 1973.

These authors developed an article that reflects on the many deficiencies, i.e., physician-oriented, traditionalistic, fragmented, etc., reported in the health care system that impact on adolescent health care, especially the poor adolescent. The poor have been shown to have a higher prevalence of many health conditions including tuberculosis, venereal disease, other infectious diseases, orthopedic and visual impairments, mental illness and untreated dental caries.

This differential prevalence is a byproduct of economic poverty to some extent, but other things also impact on this problem. When health education is available to the poor, it is frequently taught with moralistic overtones and with the facts stretched to make a point. A general need exists for continuing, coordinated health care services delivered in a respectful manner to poverty and minority individuals and particularly adolescents. Fielding and Nelson describe the Job Corp' attempts to provide a program and setting through which appropriate, coordinated health care services can be delivered. They discuss elements of distrust between adolescents and health care providers. They discuss the characteristics of many health care institutions relies on by poor and minority adolescents where health care needs are not translated into effective demand. It is clear that the needs of a high risk population are not being met by the existing health care system.

Schneider, George E. and Fox, Susan: Health Care Coverage and Out-of-Pocket Expenditures of Detroit Families. *Inquiry*, Volume X, pp. 49-57, December, 1973.

Schneider and Fox studied the demographic characteristics of Detroit families covered by various types of health insurance with particular emphasis on Blue Cross and Blue Shield families. They also studied patterns of out-of-pocket health expenditures associated with various types of families.

A survey of random sample of 5,970 families living in Detroit, Michigan was accomplished in 1971-72. Interviews were completed for 56% of the 5,912 households selected to be in the sample. The sample slightly over represented Blacks and under represented whites for all age groups.

Some findings were that the Blues were insuring the middle class and upper middle class segments of the population. The typical family covered had an income of approximately \$10,000 and had a head of household who was a high school graduate. About 28% of the families paid out-of-pocket for expenditures of approximately \$7.00 for drugs during the month they kept their diaries. There were other out-of-pocket expenses such as 20% of the families spent about \$23 on dental care if they were Blue Cross-Blue Shield families while of the commercially insured families, 12% had to pay out-of-pocket.

A data bank was created that could be used for future reference.

Conti, Anthony J., Avery, Kevin T. and Downing, Darryl: Caries Experience of Preschool Children in Selected Day Care Centers. *J. of Public Health Dent.*, Volume 34, No. 4, Fall Issue, 1974.

Conti and Avery examine 453 children for this study in 15 day care centers in Alachua County, Florida. Three hundred and eighty-five (385) records of Black children, 2,3, and 4 years of age, were designated for the final statistical analysis. This study was presented using nine charts and tables. The variables of age and exposure to fluoridated water were considered.

Black children in the study area tend to experience a high rate of caries activity which begins soon after the eruption of the primary teeth. When fluoridated areas are compared with non-fluoridated areas, the percentage of difference in mean dft at three years of age is 64% and, at four years of age is 56.6% and the differences for mean dfs at similar ages are 68.6 and 60.4%. The findings confirm the value of fluoridating communities and instituting an early visit to the dentist in the preschool years.

Morgan, P.M., Murphy, R.F., Willis, R. A., Hubbard, D. W., and Norton, J. M.: Dental Health of Louisiana Residents Based on the Ten-State Nutrition Survey. *Public Health Report*, Volume 90, No. 2, pp. 173-178, March-April, 1975.

Morgan et al. reported on the results of the Ten-State Nutrition Survey that pertained specifically to the dental health status of residents of Louisiana from census districts where the average per capita income was in the lowest quartile for the nation.

They sampled at random to form a total of 19 parishes. Twenty households were designated for survey in each district. Each person in the sample household was examined by a dentist. Seven tables were generated after the dental health status of 4,006 residents was analyzed.

A considerable variation in the prevalence of dental diseases was found among the Louisiana residents according to age. The females examined had a slightly higher DMF score, a lower Oral Hygiene index score and a slightly lower periodontal index score. The OHI scores of the Blacks were higher than those for the whites. The PI scores were higher for the Blacks. More white persons than Black persons were edentulous, but whites seem to have received more care. Lower income meant higher advanced periodontal disease. Age and level of income are indicated as determinants of dental health status. Race seems to be the determinant factor in the amount of care that a person received.

Wan, Thomas T.H. and Yates, Ann Stromberg: Prediction of Dental Services Utilization: A Multivariate Approach. *Inquiry*, Volume XII, pp. 143-156, June, 1975.

Wan and Yates reviewed the variables that previous research has found predictive of differential utilization patterns, to verify the relative importance of the variables and to ascertain their interaction and predictive power for utilization. They also did an analysis of data on dental services use in five counties in New York and Pennsylvania. A schematic model of dental services illustrate utilization. This paper utilizes tables as well as models to explain data.

Need for care, predisposing factors, demographic factors, social status, beliefs and attitudes, enabling factors, personal factors, and dental services system factors were all developed to explain variables that affect utilization.

Wan and Yates interviewed 2,171 households to get their data. A two stage multivariate analysis technique was employed. They found that automatic interaction detector analysis (AID) clarified the variables with regard to utilization behavior. The use of multiple classification analysis identified high dental utilization rates among households. A multiple regression analysis performed on each AID-identified subgroup and on the entire sample, showed that the effects of 18 different predictors varied from group to group.

Garn, Stanley M., Rowe, Nathaniel H. and Cole, Patricia E.: Sibling Similarities in Dental Caries. *J. Dent. Res.*, Volume 55, No. 5, p. 914, September-October, 1976.

In this study, Garn et al. examined DMFT data from a Ten-State Survey of 1968. They found that although dental caries experience clearly follows family lines, information on sibling resemblance in the DMFT is surprisingly scarce. The most extensive sibling comparisons involve a limited number of boys and girls analyzed with respect to parental DMFT.

This study involved exactly 16,000 pairs of siblings, 8,674 of them Black and 7,326 white. Sibling correlations for the DMFT are systematically positive and statistically significant overall. Correction for socioeconomic status did not alter the correlations by more than 0.02 overall.

Rowe, Nathaniel H., Garn, Stanley M., Clark, Diane C. and Guire, Kenneth E.: The Effect of Age, Sex, Race and Economic Status on Dental Caries Experience of the Permanent Dentition. *Pediatrics*, Volume 57, No. 4, pp.457-461, April, 1976.

Rowe et al. did an extensive analysis of dental caries in the pediatric age group of data collected in the Ten-State Nutritional Survey of 1968-70. Tooth-by-tooth analysis, rather than the conventional decayed-missing-filled (DMF) index was employed for several reasons. First, the DMF index is a difficult measure for non-dental personnel to comprehend. Second, DMF indices do not show which teeth are carious and, therefore, are unable to discriminate as to whether there

are socioeconomic, nutritional, or racial differences in the pattern of caries development.

The TSNS data clearly show that dental caries experience is an age-site dependent phenomenon. Racial differences in dental caries experience were clearly evident. Sex differences were not clearly demonstrated. Poverty seems to protect against dental caries. The Ten-State Nutrition Survey data show a consistent, dramatic and meaningful difference in dental caries experience between Black and white children at all ages. This difference transcends socioeconomic groupings, nutritional level and developmental status.

Heifetz, Stanley B., Horowitz, Herschel S. and Korts, David C.: Prevalence of Dental Caries in White and Black Children in Nelson County, Virginia, A Rural Southern Community. *J. of Public Health Dent.*, Volume 36, No. 2, pp.79-87, Spring, 1976.

Heifetz et al. did a study of a large number of Black and white children in Nelson County, Virginia. This study prompted a cross-racial comparison of prevalence of dental caries.

Examinations were made in the schools by three Public Health Service dentists who were standardized in their use of the DMF (permanent) and dmf (primary) tooth and surface indexes. Analyses of water samples from the various drinking water sources in the county have shown no significant levels of fluoride. One thousand, three hundred and seventy (1,370) children were examined for dental caries. In order to study the possible relation between race and dental caries, it was essential to control any variation between the races in age and sex. Eight tables were developed from this study, all broken down by race and sex.

The investigators found that race may be related only indirectly to the prevalence of dental caries in some geographic areas because of racial differences that exist in diet. They also found that there was little or no difference in the caries experience of Black and white children, especially if they are from similar socioeconomic backgrounds. Another environmental factor besides diet that can influence the prevalence of dental caries is level of dental care.

Because of Nelson County's low dentist to population ratio, it is apparent that professional restorative or preventive care can have only a small impact on the community's severe problem of dental caries. The most feasible solution to the problem is the introduction of caries-preventive measures that do not require professional manpower.

Salber, Eva J., Greene, Sandra B., Feldman, Jacob J. and Hunter, Georgia: Access to Health Care in a Southern Rural Community. *Medical Care*, Volume XIV, No. 12, pp. 971-986, December, 1976.

Salber et al. studied the behavior of two communities in northern Durham County, North Carolina to determine utilization of health care services. The most striking findings were the low utilization of physician and dental services compared with national standards (particularly by the Black population) and the infrequent use of private physicians by Blacks. Possible explanations for these findings are the short time interval since integration of services after Medicare and Medicaid legislation, the short supply of primary care physicians, especially Black physicians in the community and the reluctance of white physicians to accept Medicaid patients. They postulated that while employment and social mobility have improved greatly for Blacks, established patterns and methods of medical and dental practice have changed slowly.

The investigators did an initial cross-sectional household interview survey followed by a second longitudinal study of the rural area only. Six part-time interviewers were assigned a group of families that they visited four times at three monthly intervals. A number of tables were generated.

They found infrequent use of private doctors in the Black population, under utilization of needed dental services by both Blacks and whites and a real shortage of Black dentists which was even more acute than the shortage of primary care physicians.

Nikias, Mata K., Fink, Raymond and Sollecito, William: Oral Health Status in Relation to Socioeconomic and Ethnic Characteristics of Urban Adults in the U.S.A. *Community Dent. Oral Epidemiol.*, Volum 5, pp. 200-206, 1977.

Nikias et al. screened nearly 1,300 members of a prepaid medical group plan in New York City in 1971-73. Oral health status indicators were developed including number of missing teeth, scores to measure levels of gingival and periodontal disease, Simplified Oral Hygiene Index scores and ratios of decayed teeth. This paper examines the interrelationships of economic status, education and ethnic origin with the above oral status measures.

The study findings revealed the widespread prevalence and great variations in extent and severity of oral health problems among adults in New York City in the early 1970's. Very few adults studied showed no tooth loss, were free of periodontal problems, and free of calculus and debris and more than half were free of untreated decay. Less than half of those screened had all of their affected teeth restored.

Ethnic and cultural background appeared to be interwoven with economic and educational influences. All tend to complicate any study of oral health. Effective dental health education and delivery of needed dental services must be planned taking into consideration all the subtle differences resulting from the patient's socioeconomic and cultural surroundings.

Clancy, Katherine L., Goldberg, Hyman J. V. and Ritz, Angeline: Snack Food Consumption of 12 Year Old Inner City Children and Its Relationship to Oral Health. *J. of Public Health Dent.*, Volume 38, No. 3, Summer, 1978.

Clancy and Goldberg studied a group of inner city school children to consider different variables that affect caries and to assess their needs for dental care.

Dental examinations were conducted on 92 12-year old children (48 females, 44 males) in three inner city schools in Rochester, New York. A questionnaire was also administered to these children to measure frequency of consumption of 18 different foods.

Seven tables of data were generated by this study depicting mean values of DMF and gingival scores, height and weight of ethnic group and sex, oral debris to gingivitis, relation to DMF scores to reported frequency of candy and ice cream and relation of allowance money.

The study documented only a few significant relations between consumption of snack foods and DMF scores on overall oral health. Long term consumption and habits are probably more important. Reported cake consumption correlated positively with total debris and gingivitis, and consumption of chewy candy and ice cream was positively related to DMF scores. Black females exhibited the greatest number of decayed and DMF teeth. Both male and female Black children had significantly greater amounts of total debris, gingivitis and decayed teeth.

Salber, Eva J., Brogan, Linda, Greene, Sandra B. and Feldman, Jacob J.: Utilization of Services for Preventable Disease: A Case Study of Dental Care in a Southern Rural Area of the United States. *International J. of Epid.*, Oxford Press, Volume 7, No. 2, pp.163-173, 1978.

Salber et al. did a household survey of 665 households containing 2,148 persons in 1973. Of this population, 545 households or 1,689 low and middle income persons were used for this follow-up study. Sixty-one percent of the study population was white and 39% were Black.

They analyzed overall utilization of dental services, utilization of preventive services, prevalence of toothache, continuity of dental attention and the association between mother's preventive behavior and the preventive dental behavior of their school-age children. A number of charts were generated depicting their findings.

Fifty-two percent of the white U.S. population and 36% of the Black population visited a dentist in 1975. Whites received more preventive services. Lack of amenities, running water and inside plumbing, does not differentiate between utilizers and non-utilizers of dental care in Blacks. Racial difference in utilization is well known, especially as it relates to types of utilization, i.e., preventive care or more serious care.

Because of the presence of a neighborhood health center in the study area, Black utilization of dental services was higher than when other services of care were named.

Stamm, J. W.: Is There a Need for Dental Sealants?: Epidemiological Indications in the 1980s. *J. of Dent. Educ.*, Volume 48, No. 2, 1984.

Dr. Stamm's paper focused on crown caries in the permanent dentition of school children and adolescents. It reviews the relationship between caries and selected epidemiological factors in a North American context; the article evaluates briefly the evidence for the decrease in caries experience by concentrating on data both from North America and the developed countries overseas; it contrasts caries experience in developed countries with that in developing nations; and it gives attention to the significance of pit and fissure caries relative to total caries in the permanent dentition of school children.

This paper generates 14 tables that describe various data which focus on the caries pattern among North American school children, caries experience among whites and Blacks in North America, fluoridation and caries experience, the evidence for decreasing caries experience among children and relative significance of pit and fissure caries to name a few.

The author develops a number of variables related to caries experience such as recognizing that caries experience is inversely related to socioeconomic status; urban-rural difference in the dental caries experience in children give conflicting results which make variables like access problems more important; utilization of dental service appears to have a significant independent impact on the DMFT and its components. This paper is full of interesting facts and figures, comparisons and recent data of interest, especially to dental epidemiologists. This paper suggests that besides fluorides, dental sealants may have to play a significant role in future prevention of tooth decay.

Sinkford, Jeanne C.: A Look at Dental Manpower and Related Issues. *J. of Amer. Coll. of Dentists*, Volume 52, No. 1, pp.40-43, Spring, 1985.

Sinkford cites the 1984 Report to Congress from DHHS that predicts a shortage of dentists in the U.S. by the year 2000. Since we know that 20% of the population receives 80% of the dental care in the U.S., serious manpower problems seem to be just over the horizon.

An examination of statistics regarding Black graduates, students and practicing dentists is even more alarming because the numbers have not changed much in 20 years. The cost of dental education in the U.S. is rising at 4% annually with tuition providing only 24.6% of the cost.

Dr. Sinkford explains Howard University's mission as a national resource for minority manpower. She makes ten recommendations that the profession should follow: promotion of oral health as part of general health, review impacts of federal cuts, increase the lobby for federal and state appropriations for dental care, promote dental research funding, review "outmoded" practice styles, assist dental schools in recruiting gifted students, influence graduates in their choice of practice location, facilitate regional or national licensure, increase geriatric focus in dentistry, and give dental schools support for curriculum research and development.

Graves, Richard C. and Stamm, J. W.: Oral Health Status in the United States: Prevalence of Dental Caries. *J. of Dent Ed.*, Volume 49, No. 6, pp. 341-351, 1985.

Graves and Stamm's paper discusses the decline in caries during the decade prior to their examination of the problem. The changed picture represents a major success for organized dentistry while also presenting new challenges to the dental profession. This paper underlines the significance of the changed caries picture by setting it against a brief historical perspective. The paper describes the current caries status and U.S. children and follows it with a parallel discussion of tooth decay experience among United States adults.

The 1979-80 National Dental Caries Prevalence Survey of 5 to 17-year old U.S. children establishes a mean DMFS of 4.8, a 32% decline from the 1971-74 levels of 7.1 DMFS determined by the HANES. The pattern of caries in the child population has altered significantly. This paper has numerous charts and graphs to illustrate change in the caries experience. Many studies demonstrate the reduced caries prevalence among the young adult population of the United States.

The geographical pattern of decreasing caries prevalence from the northeastern to the southwestern region of the U.S. continues to persist.

Fluoride probably represents the single most important factor contribution to the decline of caries prevalence in children and young adults.

Graves, Richard C., Bohannon, Harry M., Disney, Judith A., Stamm, John W., Bader, James D. and Abernathy, James R.: Recent Dental Caries and Treatment Patterns in U.S. Children. *J. of Public Health Dent.*, Volume 46, No. 1, pp.23-29, Winter, 1986.

Graves et al. did a longitudinal study of U.S. children between 1978-1982 who were geographically dispersed across several fluoridated and non-fluoridated sites. The National Preventive Dentistry Demonstration Program between 1977 and 1982 generated an extensive set of longitudinal dental caries data. This paper analyzes and reports on data found with regard to patterns of care and dental caries.

Patterns of restorative care naturally follow patterns of caries attack so that changes in disease levels are reflected in shifting patterns of tooth surfaces restored. There are five tables in this article that show the data generated by the study.

The NPDDP data were not derived from a random sample of U.S. school children, but the findings do represent recent caries and treatment patterns of a large and diverse population of children examined at fluoridated and non-fluoridated sites. Dental caries have declined generally in U.S. children and the tooth-surface pattern of caries attack is simpler. The increased use of sealants on high risk children is recommended.

Kuthy, Raymond A. and Ashton, James J.: Eruption Pattern of Permanent Molars: Implications for School-Based Dental Sealant Programs. *J. of Public Health Dent.*, Volume 49, No.1, pp.7-14, Winter, 1989.

Kuthy and Ashton conducted an assessment of the dental health of 4,879 Ohio school children in grades 1,2,3,6,7,8 and 11. This study focused on the eruption of first and second permanent molars in the development of a timing strategy for placement of occlusal sealants in a school-based program.

The data were analyzed for grade, sex, race, locale, fluoridation status and percent of children on free or reduced-cost lunch programs. Appropriate charts were generated from this data. Analyses were performed on 2,215 children in grades 1-3 and 1,840 children in grades 6-8. Fifty-seven percent of first graders had all first permanent molars sufficiently erupted for sealant placement on the occlusal surface. Likewise, 23.6% of sixth graders had sufficient exposure of second molars. Females showed an earlier eruption pattern than males for both first and second molars. Black children preceded white children only in the eruption of the second molar. Those institutions that are predominantly Black should be of higher priority for sealant intervention when one considers the eruption of the second molars.

Perry, Dorothy A. and Newman, Michael G.: Occurrence of Periodontitis in an Urban Adolescent Population. *J. Periodontology*, Volume 61, No. 3, pp. 185-188, March, 1990.

Perry and Newman developed a project where 307 Black, Hispanic and Asian students, age 12 to 15 years, were evaluated by calibrated examiners in a Los Angeles inner city junior high school. The periodontal status of maxillary and mandibular incisors and permanent first molars was evaluated. The percentage of students who had 5 mm or deeper probing depths and associated attachment loss of at least 2 mm was 12.7. They were considered to have periodontitis. Clinical screening alone was not sufficient to determine if the periodontitis seen was localized juvenile periodontitis; however, the program detected a high occurrence of periodontitis in this population group.

Disney, Judith A., Graves, Richard C., Stamm, John W., Bohannon, Harry M. and Abernathy, James R.: The University of North Carolina Caries Risk Assessment Study. II. Baseline Caries Prevalence. *J. of Public Health Dent.*, Volume 50, No. 3, pp. 178-185, Spring, 1990.

Disney et al. did baseline clinical dental examinations on 5,233 children in grades 1 or 5 from the areas surrounding Aiken, South Carolina and Portland, Maine as part of a longitudinal study being conducted under the auspices of the AFDH. This study was an attempt to predict children at high risk to dental caries. Mean caries levels in the Aiken area were nearly twice those of the Portland area. Black children experienced slightly more disease than whites. In addition to lower levels of caries experience, Portland children also had more treatment needs met, as indicated by higher filled ratio scores.

The University of North Carolina Caries Risk Assessment Study sought to improve methods to identify children at high risk to caries. This article reports on selected characteristics of the participating children and presents the baseline dental caries prevalence in the two geographically different populations involved. Tables were developed showing population sample data, mean numbers and other data. Caries prevalence levels in permanent teeth were much lower than expected, particularly in the Portland area. Patterns of caries experience were the opposite of those observed in the past for some regional and racial subgroups. There were still children who suffered high levels of disease. A targeting model is important to those children still at high risk to disease. Further study is needed to confirm trends.

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Focus of Section Discussions: Human Resource Development

The following is a representative listing of questions each section has been asked to focus on during their deliberations. This list has been expanded upon by the section's faculty in the period of time leading up to the Workshop. While not specifically requesting the sections to develop proposals, all of the questions have an underlying component relevant to a research and action agenda for the future. Each of the discussion sections has been charged to: **make recommendations for future action related to proposals that evolve from discussions of their specific topics.**

HUMAN RESOURCE DEVELOPMENT IN DENTALLY RELATED FIELDS

FOCUS STATEMENT: What are the consequences of current (all education programs) dental enrollment patterns on the ability to provide care to the Black community?

Are available national data reflective of the dental situation in the Black community? If so, what is the nature and impact of those differences? How will demographic changes impact on the need/demand for dental care?

How will current and proposed legislation on geriatrics and maternal / child health affect dental care and delivery for the Black community? Will there be a need for non-traditional dental personnel?

Report of the Section: Human Resource Development

Introduction

In addition to the specific aims of the conference, the Human Resource Development Section expressed several expectations to include:

1. Developing a mechanism to implement ideas discussed during the deliberations.
2. Assuring parity for African American dental personnel in the United States.
3. Continuing previous efforts to improve the oral health of African Americans (i.e. National Dental Association Charet in 1972).
4. Reversing the decline of African American males in dentistry.
5. Defining "Black Dentistry."
6. Improving the delivery of health care in the African American community.

There were four basic assumptions underlying the deliberation of the section.

1. African American dentists will continue to provide care to the African American community.
2. Enrollment of African American students will continue to decline.
3. Non-Black dentists must provide some care to African Americans.
4. There must be collaborative efforts from organized dentistry to address the critical factors concerning human resource development.

In order to respond to the elements set forth by the Planning Committee, the section was divided into three areas: Predental, Dental School, and Practice of Dentistry. For each area (Predental, Dental School, and Practice of Dentistry), specific issues were addressed including: concerns, factors affecting the concerns, resolution and potential benefit, strategies and courses of action. The Predental and Practice of Dentistry areas were targeted first because overlap was expected from the Dental Education Section. The Dental School area was addressed more narratively than the other areas.

Success in the Dental School area is dependent largely on the activities addressed in the Dental Education Section. Accomplishment of Predental factors are essential for success in the Dental School area (i.e., Dental Education) and the accomplishment in the Practice of Dentistry area are dependent on the Dental Education

Section. Consequently, the human resource development for African American's must be viewed as a continuous process.

Operational Definition:

African American—persons of African descent who are citizens of the U.S. and received the majority of their formal education in this country.

African American Community—persons of African descent who have a common heritage, and similar psychosocial and cultural values. These individuals may or may not live in the same geographic area.

Predental—preschool through undergraduate college.

Dental School—formal dental and post graduate dental school experiences.

Practice of Dentistry—private and public clinical practice, research, teaching and administration in academia, government or corporate service.

Concern Statement: What are the critical factors influencing African American Human Resource Development?

Predental

Factors Affecting This Concern:

I. Competition

Resolution: Dentistry will be more attractive to currently prepared African American students.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Increased and broadened application pool
- b. Increased oral health awareness among African American students
- c. Improved image of dentistry among primary, secondary and college faculty/administrators
- d. Increased awareness of the role of the dental team in health care

Strategies To Take In Bringing About Resolution of This Concern:

- a. Collect, analyze and disseminate accurate information about dental careers
- b. Highlight the achievements of African American dentists
- c. Interact with organized dentistry to increase exposure to dental careers for African American students (i.e., SELECT)

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Recommend collaboration between the American Dental Association, American Association of Dental Schools, National Dental Association, National Dental Hygiene Association, American Dental Hygiene Association, dental schools, Public Health Service, Department of Education and the Department of Labor.
- b. Ensure greater involvement of the National Dental Association in SELECT.

- c. Request permanent resource support from the Federal Government at the Secretary's level.
- d. Highlight oral health during the Health Braintrust Session of the U.S. Congressional Black Caucus' Annual Meeting.
- e. Encourage the National Dental Association to provide leadership in accomplishing the resolution.

II. Federal, State and Local Support

Resolution: Support will be adequate to increase African American human resource development for dentistry.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Increased African American potential student pool.
- b. Continuous support for African American human resource development.
- c. Improved access to oral health services for the African American community.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Develop programs to reward public school systems for outstanding curriculum which encourage health careers.
- b. Encourage school districts to develop health career Magnet schools.
- c. Ensure continuous support for Head Start.
- d. Ensure health services for the African American population.

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Provide scholarships, low interest loans, grants, and develop loan payback and forgiveness programs from the public and private sector.
- b. Encourage legislative activity for support.

III. Social/Cultural/Family Support Systems.

Resolution: There will be a recommitment to equity in a culturally diverse society.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Increased African American potential student pool.
- b. Better social support systems.
- c. Greater institutional awareness.
- d. Fulfillment of responsibility and social obligation to society.
- e. Promote equitable public policy.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Achieve the Health Objectives for the Year 2000.

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Continued dialogue between interested bodies.

- b. Encourage legislative activity.
- c. Support of the Disadvantaged Minority Health Act.
- d. Encourage support from organized dentistry.

IV. Educational Support

Resolution: There will be effective elementary and secondary school programs which expand student career options.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Increased African American potential applicant pool.
- b. Better prepared African American students.
- c. Fulfilling the responsibility and social obligation to society.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Influence the development of a basic curriculum that will provide an effective education.
- b. Provide role models and appropriate dental education materials to schools.

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Leadership by organized dentistry to encourage individual dentists involvement in local educational policies.
- b. Encourage local dental societies to develop mentor programs for African American students.
- c. Encourage dental schools, dental hygiene programs, and dental assisting programs to "adopt" a primary or secondary school for mentoring.

V. Role Models

Resolution: Dentists will become positive influences in their communities.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Increased interest in oral health careers.
- b. Increased oral health care awareness in the African American community.
- c. Generate potential mentors.
- d. Greater career satisfaction among African American dentists.
- e. Better image for the profession.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Increase awareness of contributions and achievements of African American oral health professionals.
- b. Maximize the use of visual, audio and electronic media.
- c. Better utilization and focus of the SELECT program.

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Encourage legislative activities.
- b. Encourage sponsorship from the corporate community to highlight achievements and accomplishments of African American dentists.

VI. Oral Health Status of the African American Community

Resolution: The oral health of the African American community will be improved.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Improved quality of life by enhancing oral health.
- b. Enhanced employment and educational opportunities.
- c. Improved social interaction.
- d. Physical and mental well-being.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Develop adequate oral health surveillance systems
- b. Improve reimbursement systems
- c. Support preventive interventions (i.e., fluoridation)
- d. Develop a research agenda for oral health for the African American community

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Encourage leadership from the National Dental Association.
- b. Request support from local, state and federal legislators.
- c. Request assistance from state and federal health agencies.

VII. Perception of Opportunities

Resolution: The African American population will view careers in dentistry as being tangible and achievable with personal, professional and societal rewards.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Increased numbers of African American dentists.
- b. Increased access to care.
- c. Improved oral health.
- d. Improved image of the profession.
- e. Improved quality of life.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Collect, analyze and disseminate accurate information about African American dentists.

- b. Encourage collaboration between career counselors, teachers, National Association of Health Advisors, American Association of Dental Schools, National Dental Association, and the American Public Health Association.
- c. Include contemporary concepts and practices in the profession; i.e., pain/infection control dental career options.
- d. Ensure adequate financial aid.

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Ensure private and public funding.
- b. Encourage more pro-active recruitment processes by dental schools.
- c. Encourage SELECT counterparts in local National Dental Association chapters.
- d. Involve directors of Allied Dental Health Programs in programs.
- e. Utilize ethnic specific communication networks, i.e., church, fraternities, sororities and social clubs.
- f. Encourage SELECT to produce targeted material for African Americans.
- g. Encourage the development of children's books about dentistry.
- h. Coordinate efforts with Headstart.

Practice of Dentistry

Factors Affecting This Concern:

I. Access to Post Graduate Education

Resolution: An institutional commitment to post graduate training for African Americans.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Increased quality and quantity care.
- b. Increased pool of African American faculty/administrators.
- c. Improvement in the profession.
- d. Increased research potential.
- e. Diversity in the regulatory agency pool, i.e., Board of Examiners.
- f. Improve image of African American dentists.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Target Post-Doctoral General Dentistry programs.
- b. Document the need for and benefits of post graduate education.
- c. Encourage legislative activity to achieve parity in post graduate education.

- d. Appoint African Americans to policy making positions within dental education.

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Mentoring African Americans for policy positions.
- b. Create a data bank of African Americans interested in faculty/administrative positions.
- c. Network to monitor institutional commitment.
- d. Increase and support post graduate training at Howard University and Meharry Medical College.

II. Continuing Education

Resolution: "Lifelong Learning" among African American dentists.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Improved quality of care.
- b. More informed practitioners.
- c. Enhanced practice management.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Require for licensure renewal.
- b. Promote "lifelong learning" in dental school curriculum.
- c. Document benefits of continuing education.
- d. Disseminate information to professional organizations and schools.
- e. Promote continuing education at local and state levels, i.e., study clubs, local societies.

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Promote continuing education in National Dental Association Journal.
- b. Promote legislation requiring continuing education for licensure.
- c. Recommend to the Special Interest Group of Minority Faculty, American Association of Dental Schools, to pursue curriculum reform.

III. Licensure

Resolution: Increase the number of licensed African American dentists.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Increased participation in continuing education.
- b. Greater public protection.
- c. Increased quality of care and access.
- d. Increased mobility of practitioners.
- e. Improved image of individual dental schools.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Develop an adequate practitioner surveillance system.
- b. Collect, analyze pass rates.
- c. Increase and support African Americans participating in the licensure process at Federal and state levels.
- d. Support computer simulator learning systems.
- e. Encourage legislation to monitor licensure process.
- f. Support national licensure.
- g. Support of American Association of Dental Schools policy (school responsible for licensure).

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Encourage greater collaboration between American Association of Dental Examiners, National Dental Association, American Association of Dental Schools, American Dental Association, Regional Testing Agencies, Federal government and the Data bank.
- b. Encourage leadership roles by National Dental Association.

IV. Economics of Practice

Resolution: Viable practice options for African American dental health.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Greater access to practice options.
- b. Improved health care.
- c. Diversity in the profession.
- d. Improved image of the profession.
- e. Improved viability for the African American community.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Create incentives to practice in African American communities.
- b. Utilize the Disadvantaged Minority Health Act.
- c. Disseminate information regarding various practice opportunities.
- d. Activate recruitment for high need areas.
- e. Support universal access to health care.
- f. Expand systems for third party reimbursement for dental care.

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Encourage legislative activity by organized dentistry.
- b. Collaborate with Public Health Services and the Office of Minority Health.

- c. Pursue National Health Service Corps position.
- d. Promote continuing education in financial practice management.
- e. Pursue low interest loan options.
- f. Develop relationships with the local financial community.

V. Private/Public Opportunities

Resolution: To increase opportunities for the African American dental team in the private/public sector.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Broader exposure of African American dentists.
- b. Increased oral health care to the community.
- c. Increased potential applicant pool.
- d. Increased professional satisfaction.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Promote continuing education/internal marketing.
- b. Encourage greater corporate involvement.
- c. Encourage broader recruitment by federal agencies.

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Encourage legislative activity at the Federal, state and local level.
- b. Increase dental schools collaboration with federal agencies.
- c. Focus corporate attention.
- d. Expand National Dental Association liaisons with corporations.
- e. Political Action Committee support.

VI. Development of the Dental Team

Resolution: Maximize contributions of various members of the dental team.

Potential Benefits If Resolution of This Concern Can Be Accomplished:

- a. Increased efficacy.
- b. Increased efficiency.
- c. Enhanced comprehensiveness.
- d. Improved quality.
- e. Increased access.
- f. Improved efficacy.
- g. Increased opportunities.
- h. Increased job satisfaction.
- i. Improved career advancement and mobility.

Strategies To Take In Bringing About Resolution of This Concern:

- a. Involve dentists in training programs.
- b. Explore full utilization of educational skills that exist among dental team members.
- c. Encourage dialogue between organizations to maximize skills of dental team members.
- d. Seek legislative authority to do research on procedures that can be delegated to allied dental health professionals.
- e. Promote de-genderization of dental personals.

Course of Action Needed to Ensure Continuous Pursuit of This Concern:

- a. Develop accreditation standards that will encourage exploration of knowledge, skills and abilities of dental team members.
- b. Encourage legislative flexibility in State Dental Practice Acts.
- c. Seek support from organized dentistry to sponsor public forum on developing the dental team.

As previously indicated the Dental School area has major overlap with the Dental Education Section. Consequently, several cross cutting concerns that should be considered in the Dental Education Section include:

- Institutional commitment to life long learning
- African American faculty growth and development
- Licensure
- Predental outreach to primary, secondary and college students

Additionally, cultural diversity must be assured with the necessary resource commitments from deans and presidents. Relevant curriculum and alternative health delivery systems must be explored to target the needs and concerns of the African American community. Organized dentistry must share in the development of dental professionals by direct involvement in curriculum, institutional policy and career guidelines for undergraduate and post graduate dental students. The National Dental Association must be represented and provide leadership in relevant programs and policy and decision making in dental education. Both process and outcome evaluation using appropriate criteria must be completed.

Additional Concerns and Recommendations:

1. How will demographic changes impact on the need/demand for dental care?

Demographic changes in the United States will result in increased need and decreased access and demand for dental care.

Recommendation: Private and public support for research on the oral health status and personal needs of the African American community.

2. How will current and proposed legislation affect dental care and delivery for the Black/minority communities? Will there be a need for traditional dental personnel?

Currently there is no federal legislation addressing oral health care and delivery. In fact, current trends in the states are to decrease oral health services.

Recommendation: Maximizing the knowledge, skills and ability of traditional dental team members.

3. Is special training needed to meet the Geriatric dental needs of the African American population?

Dental needs of the geriatric African American population will increase and there will be a need for specializing the training in comprehensive approach in health care for this population.

Recommendation: Investigate the specific oral health needs of the African American elderly.

Discussion of Section Report: Human Resource Development

DR. HARVEY WEBB:

Dr. Harvey Webb. I would like to commend the committee on such a thorough and detailed expression of concern and interest.

In light of the decrease in oral health care services around the country, I was wondering if we might look at a clear definition of what access means? The simplistic definition for access is; are there dentists out there?

If you take that definition, the answer will be yes, because if they're out there whether the patient has the ability to pay for the care or not becomes less important. So there are other factors in access, if we use it in a larger sense; that include availability.

Is it close enough for the patient to get to? Is it presented to the patient in such a way that he doesn't sit in the waiting room or get a certain kind of care that's not available for all persons?

Is he entitled to get a full scope of dental service? And is there financing and then are there a payment mechanisms from that financing that will allow him to get these services?

I would appreciate it if the committee would consider that and in light of its wisdom determine how that might be presented.

DR. REUBEN WARREN:

It will be included under the operational definitions. Thank you very much.

DR. PAUL STEVENS:

I am Paul Stevens. I am the President elect of the Academy of General Dentistry. I wish to commend the conference on the excellence of the presentations.

There does seem to be one thing that seems to be missing. We referred to it, we have all of the relationships and so forth, but a direct, workable, practical access to the general practitioner does not seem to be still yet defined in this conference.

So what I would like to do is offer this—the participants of this conference and the rest a direct access to facilities and their ability and expertise which the academy has presented.

I want to give you a little bit of my history. I began my career as an educator. I'm very happy to say that Dean Henry was one of my first students, and I bet you can't guess as to how far back that goes.

But for the last 40 years I have been actively practicing dentistry and I've run the full gamut, as President of the State Dental Board, I spent nine years as the President of the State Dental Board and all of those things which are necessary, participation which I think that we must do to make ourselves heard.

In addition to that, as the incoming President of 40,000 practicing dentists, the access to the majority funds, et cetera which are available to the dental community I feel can best be had by the Black community if tied into the majority. That does not mean that you must lose your Black agenda, but the easiest way to be heard is to put your agenda with the larger agenda. Then have someone there who is specifically designated and who—in this case the academy has a Black president.

So you can be assured that your Black agenda will be heard. What I'm really saying to you is, you may bypass—this is not to take away from the American Dental Association; this is not to take from the National Dental Association, but you may bypass movements and move directly to an organization which is now being heard.

When I go to the House Ways and Means Committee, they hear. When I go to any other conference they hear me, because I've got 40,000 dentists behind me and they don't ask me what color they are. They are 40,000 practicing dentists—family dentists.

So I would like to offer to you an access to—an immediate access to both your family dentists and to those which will grant you by investigating the academy, the Academy of General Dentistry and then keep using that part of our facility which are important to you.

DR. REUBEN WARREN:

Let's take time to recognize and reward our own, the President elect of the Academy of General Dentistry.

DR. FRANCIS FOSTER:

My question is will you assign as required reading the *Negro in Virginia* by Roscoe Lewis, from the Federal Writer's Project, 1930. My reason for saying that is this: I come from Virginia, that is the seat of the founding of Black dentistry, names like Dave Ferguson.

And the interesting thing, when we started out, there was a strong humane commitment. It was a matter of sacrificial service, if necessary. But gradually as times have gone by, we've reached the point that we've gotten to sophisticated entrepreneurship. And if you can see some of the things being done all over the country, it's really something.

Now what about this assignment that I'm talking about? The most sophisticated entrepreneur was a Negro named Anthony Johnson, just right after the 1600's, who had the dubious distinction of being the first person to own a negro in America and, unfortunately, they set the pattern of slavery.

And the reason for bringing this to your attention is while some of the cases have been in groups and, for some reason, Black historians don't seem to want to touch this thing. But in this day of great polarity we need to have a sense of tolerance, you see.

And I'm not trying to take the guilt away from the White brother, but really he has no guilt, because we were the ones who set the pattern and started it. So to an extent, we helped slavery.

On the other hand where we're concerned, a lot of times if we know this, we won't be as hard on him as we ordinarily would have been, because the picture's changed, and ye shall know the truth and the truth shall set you free.

And the reason why I'm saying this is that if you're in history and you're going to discuss history, you got to let it all hang out.

I had the pleasure about two years ago of sitting in a meeting with an outstanding writer—a Black writer. He spoke about Black history. And someone said, was there any earlier affluent Negroes? And he says, yes, there was a guy named Anthony Johnson and he had quite a setting, but he didn't discuss it further.

And the next day I went to the Museum and a distinguished professor at an outstanding White institution was speaking on the history—Negro history and he said there were some other sources, but they weren't important. There was the Federal Writer's Project which was important.

And of course, I felt it necessary to at least bring things to light. I asked him afterwards, I said, would you be kind enough to tell the story of Anthony Johnson? And so he did tell the story of Anthony Johnson, but there is a lot of fiction, a lot of which can be eliminated when we see what the true picture is.

And we have to search not out there for the solution to the problems, but we have to get down deep inside and look at our own faults. And when we become masters and specialists in our own faults, then we'll find solutions.

I want to thank you all for the opportunity. It's just great being here at Michigan. Unfortunately, I didn't get a prebriefing, because otherwise I would have liked to have just been here sitting around listening to your dialogue when you got your stuff together.

It seems as though Joe Henry, Paul Stevens, James Jackson and quite a few of us have reached the point that we're the old breakout boys and, come next year, it would have been 50 years since I started into the field of dentistry.

And it's a great opportunity for us to deliver service.

DR. FRANK DUFFY:

I'm Dr. Frank Duffy from Toledo, Ohio.

I want to tell you that I've been to many, many meetings through the years and never have I been to one quite like this with the enthusiasm and the important points that were brought about.

We brought almost the entire Black dental population of Toledo except two dentists down here, but I want to say that perhaps very much we've been here almost by accident, because no one in Toledo that I heard of was ever informed of this meeting.

We heard about the meeting from a colleague of mine and then I took some of the information over to some of the other dentists and we're all here. And my question here is that though we're very, very pleased to have been able to brush

shoulders with I think the best dental minds in the country here—it's a pleasure to be here and many of us have no idea of how much expertise we have.

But when it all comes down, we know that the vast majority of the positions—the vast majority of the dentists, Black dentists or white, are in private practice. And all of the programs we've talked about, many of them are going to be carried out by the dentists who are in private practice.

So I want to speak about the thousands of Black dentists who are not here. And I would say, in our opinion, that they are not here because they were not informed—they didn't know this thing was going on.

DR. EMERSON ROBINSON:

That's very incorrect.

First of all, the entire body of the National Dental Association had a mailing that was supposed to have been sent out to that body, and whether it got out or not—I know I didn't get one. You say they did not.

Mike and I are responsible for this Conference and we had over five or six thousand names to this effect. And so to a lack of interest on the private practitioner—and I even had a personal mailing list of Chicago, of Atlanta, of Detroit and I don't see very many private practitioners from any of those areas. I don't think there's even one from Atlanta and only one from Chicago.

But all the Black dentists, to my knowledge, had some potential access to come to this meeting.

DR. FRANK DUFFY:

But I don't want to belabor the point, and the reason I bring this up is because I think when things come along in the future, we should be there, but as far as we're concerned, we did not get any information at all about this meeting.

We have gone to the National Dental Association and the next year we get no information back. So can I ask this question, perhaps, to the doctor who is one of the ones who coordinated this program: Do you have a listing of Black dentists throughout the country? Now there's something—as I say, I don't want to belabor the question—but we are not getting the information. A lot of the Blacks just aren't getting the information.

Do you have a listing of the Black dentists, or would you speak on that, please?

DR. REUBEN WARREN:

Dr. Gates can respond.

DR. PAUL GATES:

The National Dental Association, through the efforts of the Robert T. Freeman Dental Society in Washington, D.C. has a list of approximately 4,000 Black dentists in the United States. I am currently undertaking an effort to identify every Black practitioner in the United States with a collection of names, addresses, phone

numbers and we'll be sending surveys out to those, including those where you live and you.

So there is some list available in the offices of the National Dental Association. I am not an officer of the National Dental Association, so I can't speak for their activities. I do run a project for the National Dental Association foundation and they did share that list of names with me.

So there is a list available.

DR. FRANK DUFFY:

Very good. And the last question here, to belabor, I notice that most of the dentists who go to Meharry or Howard get all the information, but those of us who went to other colleges do not get it. So I would just say that we would like to get all the information and like to be here. Thank you.

DR. REUBEN WARREN:

I didn't attend either of those institutions so I'm in the same boat that you might be in.

DR. EMERSON ROBINSON:

I'm from Meharry. I didn't get anything either.

Member of Audience:

This is a good presentation and group and you and your group did an excellent job.

I have a problem with the definitions of African American, because what that does is exclude people like me. I'm first a generation American, and it doesn't matter. I still have the same experience—you know that. I was just wondering if we can modify the definition.

DR. REUBEN WARREN:

This was specific to this section, and the attempt was to begin to look at it in the pre-dental area. And if we're going to impact upon the public school system, we wanted to impact upon that system for the children who are in it and the preparation of—students of African descent. Other students not citizens in this country are very different. The educational preparation, the access to financial aid. For example, as you well know, students who are not citizens don't have federal money available to them.

DR. REUBEN WARREN:

For the most part, students who come over here are not permanent residents and, therefore, when they try to get through dental school they can't borrow money. So we need to know that difference and prepare accordingly.

Dr. Niles was very clear in saying we want to separate but not to penalize. So our attempt was to begin to look at different segments of the Black community and

looking at the subgroups and addressed ourselves accordingly, but it was no intent to exclude.

DR. REUBEN WARREN:

I appreciate your comment.

DR. JOAN MCGOWAN:

My name is Dr. Joan McGowan, Associate professor of the U of M Dental School.

My comments are related to your report which I have enjoyed hearing. I sat through five other reports and it's very easy to be reactive rather than proactive, but I have to call your attention to something.

I am a minority in this room. Obviously I am white. I am a minority in that I am female, but if Dr. Bennett can do it, I can do it too.

But, ladies and gentlemen, I am a dental hygienist. I sat here for two days and I did not hear the ADHA, the American Dental Hygienists Association, represented anywhere in these reports. I did not hear the NDHA, the National Dental Hygienists Association, which I am a member of, represented in these reports.

Now for five reports, two people referenced dental auxiliaries. Today, in this last section, I see the word "dental hygiene." I think you should pay attention—and I am a reactor—to the fact that dental hygienists are your most ardent supporters.

We can't do anything without you. We are the dental health educators on your team and I would like to see American Dental Hygiene Association and National Dental Hygiene Association included in this report.

DR. REUBEN WARREN:

Your point is appreciated and well taken. We'll be sure and include those organizational titles.

Our attempt was to develop a concern development of the dental team, and that attempt fell short. We'll be sure to include that in our deliberations. Thank you very much.

And by the way, Carolyn Gray was reminding us of that during our deliberation. She's a dental hygienist also.

DR. BARBARA PURIFOY-SELDON:

My name is Barbara Purifoy-Seldon, and I'm an associate professor at the University of Detroit School of Dentistry, Department of Dental Hygiene.

I'd like to echo the things Joan has just said. However, I was looking at it from kind of a different position.

First of all, when we speak of human resources development I think you should also consider in that full picture of the dental team idea of preceptorship. That is a concept that hasn't been mentioned in your deliberations either.

I'd like to ask if it's possible in the future, as you continue with your leadership style, that more dental hygienists, particularly educators, be added to some of your committees so they can have some important input in decision making.

And second, if you think that this committee or this group of people should at least come up with some type of policy statement relative to the idea of preceptorship. For those who do not know what preceptorship is, there are some ideas going around in some of the states within the United States that will allow the practice of dental hygiene without having licensure—that in some small form of education and then on the job training within the private practices.

We feel that will provide a substandard of the practice for dental hygiene and, as educators, we're not comfortable with that. We think that you should make some statement regarding the issue of preceptorship. It may fall under private practice; it might fall under the educational component.

DR. REUBEN WARREN:

Thank you. We attempted to discuss these items—and we, again, must have fallen short—in the development of the dental team. We mentioned it in the strategies to bring about resolution of this concern, “explore full utilization of educational skills that exist among the dental team members.” That was our first attempt.

And then in the course of action we ask for, “develop accreditation standards that will encourage exploration of knowledge, skills and abilities of dental team members.” Dr. Pat Niles, who heads the division of dental hygiene at Howard, was very clear about the Board of Dental Examiners not allowing the schools to explore expanded duties and other things the dental hygienist should and could be doing.

DR. MARK ROBINSON:

I would be remiss if any dental assistant in Chicago reads this and see that I didn't mention the American Dental Assistants Association, our council of the Chicago dental assistants.

DR. ED HEWLETT:

Just a brief suggestion for an addition to an otherwise excellent body of work by your committee.

Specifically under pre dental and course of action needed, I would encourage you to include in here some encouragement to those of us who are alumni of majority institutions to approach those institutions en masse as alumni to ask specifically what's being done about the declining African American enrollment.

I'm bringing this up because this phenomena has occurred with some long-term success at UCLA.

When I was a student there some dozen years ago, we, at that time, graduated more African Americans into dentistry than any institution, with the exception of Howard and Meharry, a distinction now that our host institution proudly and deservedly holds.

As the enrollment declined, a number of our alumni questioned what was going on, what was happening at UCLA, and it developed unification and mobilization of a large but otherwise fragmented group that approached the school. Fortunately, requests have fallen on sensitive ears and our dean is now bending over backwards to answer those requests.

And everybody wins. You know, the Black alumni now are together as a group again. The school is sensitive to the issue and now recognizes the opportunity to bring other alumni back into the fold—back into the financial fold, if you will, that historically may not have been that enthusiastic in that regard.

It's a win-win situation, and I would encourage that kind of activity for all of our other majority dental schools.

DR. EVEROD COLEMAN:

I wanted to put an exclamation point on the section on continuing education.

In the private practice section, we deliberated over this, but I would really like the committee to bring this out a little stronger in that we talked a lot about patients and the indigent patient. I remember one of our colleagues from Pittsburgh made a comment about the majority of Black patients—or Dr. Gates, African American—patients who do not necessarily have services or do not have access to the care.

In other words, we have the majority of Black patients that can get dental care. Now if you are in a position, let's say, in a community where you are seeing a lot of Medicaid patients; you're seeing a lot of patients that are on capitation programs that limit your scope of services, you will in turn sometimes feel that why should I take a continuing education course if the patients will not avail themselves to me?

So, therefore, I would like for us to say in some terms that the Black practitioner still should be able to make available to their patients a full range of services regardless of where he practices, otherwise we're going to get into this two-tier system again.

I see right now the discussion being too much and—you know, when we practice in indigent communities and, therefore, you'll just be doing minimal—and not having the skills if and when the dental IQ of that community raises itself or when you have certain situations where you may move, let's say, you will not have the skills to do what you should be able to do.

And I don't have to bring up lawsuits and a lot of other things, but we really need to prepare ourselves to deliver the highest quality services possible wherever we are.

DR. REUBEN WARREN:

Thank you very much. We'll include that.

DR. BILL HOSKINS:

Bill Hoskins, University of California, San Francisco School of Dentistry.

And it seems like we have a grand slam here. And again, I want to commend this subcommittee on doing just an absolutely exceptional, outstanding job and as part of this tremendous document that has been put together.

My comments come from one of two areas. I want to take just a minute to kind of put this together.

I had the opportunity, as one of the reviewers, to go over a body of information that dealt with dental education. And the one thing that came out of that was that there is a tremendous lack of information available and that the information that

is available is so scattered and unfocussed that it is not something that you can readily use.

And the exciting thing about having gone through this was that out of that came a clear mandate, and that mandate is not just for me, although at first I said I'm going to have to do it as an educator, but one of the things that I think that each one of us, in our own way, particularly those in education, when they leave here today, they should make it a high, high priority and a commitment to go back and in their own way, relative to resources and support, start to develop research and to collect data. That is something that each one of us can do as part of this course of action that I want to respond to.

The next factor here is that the excitement, after realizing what was happening at this conference and especially after this grand slam where all the various subcommittees have just been outstanding, not only in their effort and their work and their product, is that this conference to me is so important because it represents—maybe not the first time, but at least the first time as far as I'm concerned—where we are determining our own destination as far as the health care of minorities, and more specifically African Americans or Blacks or whatever is in vogue in the next month or next year or so forth, so that that adds a tremendous amount of importance of what's happening here today.

And so to this end, I am extremely concerned that when we leave here today—and it was sort of amplified when we discussed yesterday and certainly in some of the subcommittees—the fact that efforts like this in the past have been made, such as the “Claret” and there was also another conference in 1975 with the Heart of American Dental Society and the University of Kansas and Missouri, and nothing came out of that.

This is so important, I want something to come out of this. And so I, as far as course of action, I am very concerned about the what happens starting tomorrow up until some of these things start to take affect. And I would like to again focus on the possibility—the feasibility of coming up with one mechanism which would be to create a task force or a steering committee that would oversee this—the activities from this day until there is another meeting and certainly be sure that things happen.

And at the end of our subcommittee we did do a resolution, and I would like to read this and possibly suggest that, as part of your committee and maybe as part of all the subcommittees, that this be adopted—at least seriously considered.

And that is: “The subcommittee for roles and issues of Blacks in education strongly recommends the creation of a steering committee made up of representatives impacted by this document, i.e, foundations, corporations, federal government and professional organizations and dental schools.

The purpose of this steering committee is to monitor and ensure that the goals of this document are implemented and met in a timely fashion and are on an ongoing basis.”

So I think something like that would certainly help us get over that transition and ensure that we have the appropriate momentum.

The last thing—and I would be remiss, and I want to take this opportunity to thank Dr. Robinson and Dr. Razzoog for their effort and energy in putting on this conference and to express my sincere appreciation for all that this conference represents. And I also want to wish them a speedy recovery at the end of this conference.

DR. BILL HOSKINS:

Well, what I wanted to do is just add a little addendum to continuing education and give you a little tip on how you may key into your continuing education courses.

When you take a continuing education course, if you look at the bottom you'll see approved by AGB. You'll see the number of hours and so that means that the academy has approved that sponsor. That means that their gender, their whole course content has been viewed by the academy and it's number one.

If you wish to have courses which direct themselves directly to the Black agenda, now is the time to form an aesthetic club, a component club, a constituent club or a state club in which you would devise courses which pertain particularly to the Black agenda.

Up until February the second of '92 they will cost you nothing. After that it will cost you \$300 dollars for our approval. So now is the time, because the academy is the organization which does continuing education nationwide and is most respected.

So I suggest to you that if you're going to follow up on this agenda, that if there are things that particularly must fit the Black agenda, you need to do it within the next six months.

DR. REUBEN WARREN:

Thank you, sir.

Member of Audience:

I'm a third year dental student from the University of Florida in Gainesville, Florida.

And I just wanted to ask you about on page seven of your report under B, under strategies, that it might be possible to include the Student National Dental Association, because I'd like to thank Dr. Robinson for getting in touch with Student National Dental Association which allowed me to come and kind of my taking part in it was really listening and learning a lot.

I've learned a lot—I've learned a lot of things I had no idea that existed, and I want to thank him for this opportunity, because at this young point in my career this really means a lot to someone like myself.

And I, again, just wanted to ask that you perhaps include the Student National Dental Association. I know we're part of the National Dental Association, but the Student National Dental Association is—because we do ask students—we can talk to students sometimes a lot easier and they're more likely to listen to us than they are sometimes to the professors or to people who are miles and miles ahead of them.

DR. REUBEN WARREN:

I apologize for our omission. Any other questions, comments, criticisms, thoughts, suggestions? Thank you so much.

Review of the Literature: Human Resource Development

GREGORY STOUTE, DMD
Harvard School of Dental Education
Dental Care
Administration

U.S. Department of Health and Human Services: *Dentistry*, Seventh Report to the President and Congress on the Status of Health Personnel in the United States, March 1990.

This report was assembled by the Secretary of Health and Human Services in response to the Public Health Service Act and submitted to the President and the Congress. It presents and analyses recent developments in the education, supply and distribution of the Nation's dentists. Underrepresentation of minorities was found within most health professions education programs and among health care personnel. It was concluded that underrepresentation may adversely affect minority access to health care. "Underrepresentation is due to a variety of factors, including inadequate educational preparation, poor career counseling, high costs of health professions education and lack of institutional commitment. Motivation to increase minority representation derives not only from a need to assure equal access to health professions education to all population groups, but from a need to provide health care to minorities and other disadvantaged populations which is often met mainly by health professionals who themselves are minorities."

In 1988 approximately 142,200 active civilian dentists were practicing in the 50 states and the District of Columbia. Approximately 5,000 were in the Armed Services. The ratio of active dentists-to-population in 1988 reached its highest level—58 per 100,000. The ratio is expected to decrease slightly to 57.6 per 100,000 in 2000 and then to decline steadily to 47.8 per 100,000 by 2020. In 1987 the Northeast Region had the highest dentist-to-population ratio with 69.3 per 100,000 population; the West and Midwest followed with 61 and 60.7; the South significantly lower with 46.8.

As of December 31, 1988, 793 sites were designated by the Bureau of Health Care Delivery and Assistance as dental manpower shortage areas (areas with a dentist-to-population ratio of 1:5,000 or greater or 1:4,000 where high needs are indicated).

In 1988 the Bureau of Health Professions reported that in 1985 there were an estimated 3,800 Black dentists (including 800 Black female dentists) or 2.6% of the total active dentists. The Black population in 1985 was 12% of the total U.S. population. The number of Black dentists is expected to reach 6,300 by the year 2000 if the present rate of enrollment is sustained. Over the past 18 years the percentage of Black applicants has declined slightly while Asian and Hispanic applicants have increased. In 1989 there were 357 Black applicants or 6.6% of total applicants and 242 enrollees or 5.8% of total enrollees.

Waldman, H. Barry. Minority Group Dental Students in a Period of Decreasing Enrollment. *J. Amer Col Dentists*. 55(4):36-40; Winter 1988.

Waldman reviewed dental school minority group student applicants, enrollment and rates of attrition up until 1987 to determine if there were any changes since the 1970's. Adjustments were carried out to account for the number of Hispanic students enrolled at the University of Puerto Rico. Data limitations included using ADA data over extended periods of time, students repeating years, taking leaves of absence, transfers and varying curriculum lengths.

Marked differences between minority (American Indian, Asian, Black and Hispanic) and non-minority acceptance and attrition rates observed during the 1970's has diminished significantly in the 1980's *except for Black students*. Asian-American students' attrition rates were far lower than *non-minority* students. Except for Black students, minorities cite personal reasons for their withdrawal from dental school. Black students cite academic reasons. Fewer Black students are applying to dental schools compared to other groups and a smaller percentage of Black applicants are being accepted to schools. Asian Americans experienced a 176% increase in male students and a 645% increase in female students between 1976 and 1987, Hispanic Americans experienced a 70% increase in male and a 297% increase in females, Black Americans experienced a 25% decrease in males and a 33^{1/3}% increase in females. Average rate of attrition experienced in males and females between year of graduation 1980 and 1987 by race and ethnicity are as follows:

American-Indians	20.0 – 44.4%
Asians	2.1 – 1.9%
Black	27.2 – 25.7%
Hispanic	9.0 – 10.6%
White	9.4 – 9.8%

Waldman challenges the profession and affected public to support efforts needed to attract and maintain qualified Blacks for the delivery of dental services.

Waldman, H. Barry: Increasing Numbers of Minority Group Dentists. *J. Amer Col Dentists*. Winter 1987.

Data from 1970 and 1980 federal censuses on the general characteristics of dentists reflect the changes in the dental student population. Increases in minority group representation has not been uniform. Blacks, Native Americans, and Hispanics continue to be underrepresented, Blacks have the lowest dentist to corresponding minority group population ratio, Blacks have the lowest increase in numbers, and Asian Americans have the greatest number.

Deeley, William S. Dentistry in the U.S: Struggle, Disputes, Lawsuits. Dental Student: 67-74 March 1978.

Deeley presents a short history of American dentistry (through 1914) citing records of the Plymouth Rock Colony as the first reference to the profession. Using Dr. Clifton O. Dunnett's "Historical Aspects of Blacks in Dentistry," he included Blacks in U.S. dentistry. Beginning in colonial days, there were 120 Blacks practicing dentistry by 1840. In 1867, Robert T. Freeman became the first Black man to receive a D.D.S. (Harvard) and in 1890 Ida Gray Nelson Rollins became the first Black woman to do so (Michigan). He states that they were exceptions and due to dual standards, Blacks were forced to establish their own organization because they were refused entrance into the ADA. In 1895 the National Negro Medical Association of Physicians, Dentists and Pharmacists was established to include physicians, dentists and pharmacists. By 1900 the Washington Society of Colored Dentists was founded. At that time the number of licensed Black dental practitioners in the United States was approximately 125.

University of Illinois (n. d.)

Students who were recruited as a result of a collaborative effort conducted by the University of Illinois College of Dentistry and the Council for Bio-Medical Careers (a private organization which conducts a year round program for motivating Black, Hispanic, Indian and Appalachian White students in meeting the "requirements" for careers in health fields) are highlighted in this article. Dr. Seymour Yale, dean of the college, says, "certain communities are faced with a shortage of dentists and our recruitment activities must take this into account . . . We can best solve society's oral health problems by providing more and better dentists who will practice where the need is greatest . . . If, we increase the number of minority group dentists qualified to practice and convince others to do the same, so much the better, especially if they return to areas where dental care is desperately needed." James P. Roberts, chairman of the committee on minority education stated that our society has become accustomed to equating the word "disadvantaged" with Black students and that the project is by no means a "disadvantaged" program, but deals with a rich potential student market that has been untapped and never considered seriously by professional colleges in the health sciences.

Linn, Erwin L. Professional Activities of Black Dentists. *JADA*, 118-122; July 1972.

Linn, utilizing survey data reported in 1970, describes the professional activities of Black dentists. Black dentists are generally in private practice—78%, which is 6% lower than white dentists. They are more inclined to do clinical work for a public agency than whites. Sixteen percent of Black dentists were involved in secondary paid professional activities: 3% teaching, 4% public agency, 6% other private practice, and 3% graduate school, internship, or residency. Ten percent limited their practice to specialized treatment which is 5% less than the estimated percentage among all U.S. dentists. The patients of Black dentists are mostly Black or other racial minority. Seventy two percent reported that more than 70% of their patients were Black, 9% reported more than 70% of their patients were white and 33.3% reported no white patients at all.

Private practitioners reported treating an average of 65 patients a week and that the demand for their services was more than or as much as they wished. Eight to thirteen percent reported not having as many patients as they would have wished. Only a third reported a definite age at which they hoped to retire.

Linn, Erwin L. Black Dentists: Some Circumstances About Their Occupational Choice. *JDE* 25-30 March 1972.

Linn conducted a survey in 1970 to determine how Black dentists came to choose their professions. Ninety-four percent who answered the questionnaire (1,412) had considered other occupations, medicine (70%) being the most prevalent. Yet a majority also did not prefer any other occupation to dentistry. Parents, family dentists, other dentists and dental students were the persons most frequently talked to about an individual's interest in becoming a dentist. The family dentist or another dentist was reported as the person of greatest influence in the choice of dentistry and were much more likely to be consulted than school counselors. Approximately one-third of respondents decided to become dentists while in grade or high school. One-third made the decision in college or at college age and one-third decided after college or college age.

Asked to recommend occupations, 79 percent of dentists recommended dentistry to a young man while only 42 percent recommended it to a young woman. They also tended to recommend medicine; 65% to men, 40% to women. Dentists lack many of the educational support present for physicians, thus they tend to make their final career decision later in the educational process as compared to physicians.

Linn concludes that dentists appear to be the most effective recruiters in the community.

Henry, Joseph L. Increasing Recruitment and Retention of Minority Students in Health Programs—Dentistry. *Jrnl. of Dent. Educ.* 44: 191-193; 1980.

Dr. Henry addressed the Congressional Black Caucus Health Brain Trust (CBCHBT) concerning causes of poor health and lack of availability of health care in disadvantaged minority communities. Insufficient minority health personnel was identified as a major factor.

Despite the net increase in Blacks entering dental school, 14% between the academic years 1971-72 through 1978-79, there had been no significant improvement in the dentists to population ratio for Blacks (1:12,000 as opposed to 1:900 for the population at large). Henry predicts a decline in Blacks entering dental school citing these reasons—the Bakke decision, reduced capitations, increased tuition and fees, less scholarship and loan money, higher cost loans, a poor feeder and recruitment system, lack of sufficient role models, and an erosion of commitment. (1978-79: 12 of 60 U.S. dental schools admitted no Black students, 11 more had one admittance; 18 schools had no Blacks in their graduating classes).

Henry also expressed concerns about representation by minorities who were least likely to experience a low dentist to population ratio, poverty and underrepresentation.

Henry's recommendations to the CBCHBT:

1. Developing legislation to strengthen public education system and programs to identify gifted Black students.
2. Provide incentives for attracting and keeping talented and gifted people in teaching careers.
3. Financial aid incentives to assist all economically disadvantaged students including minorities.
4. Academic reinforcement and retention programs at the professional school levels.
5. Review the guideline for the classification of racial and ethnic minorities to consider such status as economically disadvantaged, underrepresented, and underserved.
6. Dental representation at the national policy level.
7. National health insurance plan with a substantial dental component.

EDITORIAL—NEGRO DENTAL MANPOWER

This editorial, author unknown, expressed the concern of organized dentistry over the paucity of Negroes in the medical and dental professions. Although Negroes constitute 11.4% of the U.S. population, they represent only 2% of the nation's dentists. Reasons include: 1) number of applicants has historically been

lower than population ratio; 2) Negro applicant does not compete scholastically as well as the white applicant; 3) lack of financial support necessary to complete education.

Possible solutions as recommended by a conference on the Negro in Medicine include: 1) financial support; 2) special summer pre-med program; 3) establishment of pre-med programs in Negro colleges; 4) spreading the freshmen year over a longer span for certain students; and 5) recruitment of more Negro women.

Wilson, W.E. Lack of Black Participation. *OHIO Dental Journal* 54-55; May 1973.

Wilson addressed the Ohio Dental Association in 1973 and expressed his concern about the lack of minority participation on state level committees, especially those committees that deal with dental health education delivery service problems, in the locations where minority dentists practice.

Sinkford, Jeanne C. A Look at Dental Manpower and Related Issues. *J. Am. Col. Dent.* 52: 40-43; Spring 1983.

In 1984, Sinkford addressed the challenge of dental schools and the dental profession to maintain a viable applicant pool of dentists who will be responsible for the oral health of this country for years to come. She felt that the estimated shortage by the Department of Health and Human Services (DHHS) predicted first year class size as 4,719 in 1987-88 when in fact it was 4,172!) When addressing supply/demand, the following facts need to be considered:

1. The USPHS has identified 1000 dental shortage areas in the U.S.; 2,500 dentists are lost per year due to deaths and retirement.
2. Only 50% of the U.S. population live in fluoridated communities.
3. One half of the population does not visit the dentist on an annual basis.
4. 80% of the dental care goes to 20% of the population; less than one-third has some form of prepaid dental health insurance.
5. The Surgeon General's 1982 Report to the Nation still included dental disease as a major national health problem.
6. National and state aid for health care to targeted segments of our population has been drastically reduced.
7. Blacks continue to be seriously underrepresented in the dental profession.
8. 85% of minority students are in need of financial aid; the decrease in low interest loan programs, and National Health Service Corp trainees, and a reduction in scholarships poses a serious recruitment and retention problem.

Sinkford's recommendations included efforts to lobby for dental care for special populations, to regionalize or nationalize licenser to allow for greater mobility of dentists, recruit gifted and talented students to the profession of dentistry, implement curriculum changes that meet the demographic, epidemiologic and socio-economic changes facing society, promote dental research funding, promote oral health as a part of general health and review "outmoded" practice styles, locations, behavior, patient payment and other reimbursement modes with the objective of improving the quality and accessibility of dental care. The combined efforts of dental educators, practitioners and researchers are needed for the challenge that lies ahead—"Health for All By and Beyond the Year 2000."

Rauch, Marvin A. Recruitment of Students From Racial Minorities. A Guest Article. *Bulletin of the Eleventh District Dental Society*.

Dr. Rauch was in the process of organizing a recruitment program to attract Negro and Puerto Rican students to the New York University College of Dentistry, "which is acutely aware of their distressingly neglected health needs and of the related importance of solving the problem of the "vanishing Negro dentist." Most of his background information came from "prominent Negro dental leaders," Dr. Joseph L. Henry and Dr. Clifton Dummett. Plans to publish a brochure, meet with students, community leaders, guidance counselors, etc, and to utilize the ADA as a recruitment source were in the works.

Applewhite, Harold. Health Manpower. *J. Nat Med Assoc.* 66:219-225.

Applewhite looked at how the steady flight of healthcare providers to suburbia has resulted in the deprivation of the Black communities of critically needed medical and dental manpower (health studies equating the health needs of Blacks to those found in the underdeveloped countries) and how our present educational system has played a major role in the health crisis in the Black community.

Since most institutional settings are not prepared to provide the needed Black health manpower, Applewhite contends that the federal government should provide financial inducements to bring about changes in the current methods of personnel, who in return would be committed to serve in Black urban and rural areas. Dr. Victor Sidel stated that the current method of training and provided incentives to seduce physicians into ghetto practice shows little evidence that those seduced would practice successfully in the ghetto or stay in the ghetto. Applewhite offers three (3) factors which he attributed to the lack of social responsibility exhibited by physicians and dentists:

1. The bias in the selection of students toward the higher socioeconomic classes.

2. The bias toward the male sex, toward the white race, and toward the student who obtains good grades in course work and in examinations.
3. The bias and maldistribution within the medical educational system.

To improve health care for the Black community Applewhite calls for thorough changes in the manpower structure in the health field. Expanded duties of the allied health occupations, i.e., The New Zealand Dental Auxiliary Utilization Program, can create career opportunities for the poor and extend the overall effectiveness of physicians and dentists by allowing him/her more time to serve patients.

“Can A Black Make It As A Dentist?” Dental Student, #46

In an article written in the early 1970's, Raymond J. Fonseca, a first year dental student and recipient of a \$12,500 scholarship from the American Fund for Dental Education which covered the last year of college and four years of dental school, offered the following advice to Blacks interested in becoming dentists:

1. Get basic requirements in science early in college.
2. Get a booklet from the ADA listing of Dental schools and requirements.
3. Contact a school you're interested in and let them know you're interested.
4. Talk to a Black student presently enrolled.
5. Don't let entrance requirements stop you, if you show motivation, the requirements will change for you.

Anderson, Collins F. Welcome and Orientation—Workshop on Minority Dental Student Recruitment, Retention and Education. April 24-26, 1975, Kansas City, Missouri.

Anderson stated the two(2) main objectives of the workshop: to identify, discuss and record the barriers which prohibit individuals from disadvantaged ethnic minority groups, indigenous to America, from significantly increasing their numbers as students and graduates of dental school and, to recommend immediate and long range solutions. At the time, 1974, only 3.4% or 154 graduates of dental schools were Black out of a total of 4,515. Anderson defined the term minority as “indigenous disadvantaged ethnic minorities” consisting of Blacks, Puerto Ricans, Mexican Americans and American Indians, and felt that Asians and “others” did not qualify in this category.

Improvement in income, employment policies, elementary and secondary schooling, counseling, urban environment and sensitization of faculty, students and admission personnel were perceived as ways to eliminate barriers. Any programs instituted to eliminate the barriers would need national and regional body of people vested with compliance authority.

Applewhite, Harold L. The Vanishing Negro Dentist. *J. of P.H. Dent.* 29:198-220; 1969.

Applewhite concluded that at the present rate of decline of training, the Negro dentists would soon vanish from the dental population. Percentage-wise there were fewer Negro dentists in 1969 than there were in 1930. The high cost of dental education and the long years of preparation have proved to be barriers to qualified Negro applicants. This article pointed out that the dental manpower-shortage in undeserved areas was dependant upon the successful recruitment efforts of Negroes into dentistry. Better testing methods need to be adopted to identify potential Negro applicants and the pretesting of admitted dental students in order to identify weaknesses. Health as a major industry should be prepared to compete with other industries by setting up programs to counsel and tutor promising students at junior high and high school levels. Ways to eliminate the financial barriers need to be identified.

Kidd, Foster. Pediatric Dentistry Provided by Texas Dentists. Texas Dental Association (table clinic) 13-16, 1968.

Kidd conducted a mailed survey among Black dentists practicing general dentistry in Texas to assess the amount of children's dentistry practices. All dentists replied that they will treat children; 48% reported that they encourage parents to bring children in for their first visit from ages 2-3. Most of the 56 to 75 age group preferred to refer a majority of their pedodontic cases.

Webb Jr., Harvey. Problems and Progress of Black Dental Professionals. *NDA Quarterly* 34: 147-157, 1976.

Webb looks at the burden of Black history, the residue of slavery, the Black student struggle, lack of money and professional barriers as they relate to dentistry. As President-elect of the National Dental Association, Webb offers their recommendations for overcoming adversity in the Black dental community.

Webb contends that because racists attitudes still permeate all of the major distinguished sanctuaries of higher learning, they, as well as government, the church, private industry and the dental profession must bear a major portion of the responsibility for the current crisis in health care delivery.

The American Negro population increased from 15,000,000 to 20 million between 1950 and 1960 but the number of Black dentists increased only from 1681 to 1889. During 1970-71, the predominantly white dental schools were admitting more than 50% of the Black students enrolled, yet only five of these schools had more than ten Black students, ten only had one. Between the years of 1964 to 1971 Black student enrollment increased from 2.2% to only 5.3%. An

adequate pool of Black dental professionals is thwarted by the general impoverished state of many Black Americans. One major barrier to the matriculation of Black students in dental schools is the overwhelming costs.

Webb finds that Black dentists face resistance into professional organizations which impede their advancement and improvement in the profession. (The NDA was incorporated to overcome racial exclusionary practices and to upgrade the status and knowledge of Black dentists.

Applewhite, Harold. A New Design for Recruitment of Blacks Into Health Careers. *Amer. J. Pub. Health*, 61:1965-71; October, 1971.

Applewhite deals with the critical dental and medical manpower shortage in the ghettos, some underlying causes, how Blacks might be recruited, and what support is needed from government and the health profession for this purpose.

At this time the current ratio of Black dentists to Black population was 1:11,500; the American Dental Association classified a 1:3,000 ratio as an emergency. The goal of recruiting Blacks into health careers is in clear conflict with the use of present criteria for admission. It was pointed out that the vast majority of students are drawn from middle class and become middle class practitioners. Professional practice is usually segregated on the basis of ethnic background and race and tends to locate in areas of high socioeconomic standing where traditionally there has been high demand for its services.

Just as a significant number of Blacks gained entrance into the health professions to meet the crisis in trained manpower shortage during WWII, Applewhite calls on the country to respond in the same way to the War on Poverty and Disease. Federal funds should be earmarked for training recruited Blacks and other minorities in the fields of medicine and dentistry and they would be committed to serve in Black urban and rural areas for X amount of years. Performance levels of Black students should be evaluated yearly to assess if compensatory and tutorial programs need to be established.

Sinkford, Jeanne C. Current Status and Future Trends in Training Dental Practitioners and Dental Auxiliaries to Meet the Needs of the Black Community. *J. Natl. Med. Assoc.* 66:60-62; January, 1976.

Sinkford asks the question of how long will dentistry survive as a separate profession when it is constantly placed in the position of "begging" for support of programs, inclusion in health manpower legislation, representation at the policy making level in national and local health deliberations and in constant aggravation at being placed in a secondary role to that of our medical colleagues. Dentists work longer hours, for less compensation and die on the average at the age of 51 years. The suicide rate among dentists at this time was the highest among all professionals.

The status of dental manpower in the Black community was at 1:12,500 as compared to the 1:5,000 level used by the Public Health Service to categorize needy or shortage areas. At this time, there were 872 Black dental students or 4.5% of the total. Howard and Meharry continued to train 50% of the nation's Black dentists.

Sinkford advocates the use of expanded function auxiliaries because of their potential for improving the quality of healthcare, improving the system of delivery of dental service and relieving the dentist of mundane and timely tasks that could be performed by an individual with a lesser degree of training.

Dummett, Clifton O. Dental Education For Afro-Americans. *Jrnl. Tenn. Dent. Assoc.* Vol. 61; 4:14 - 16.

Dummett gives a historical perspective of dental education for Afro-Americans. At the time the Baltimore College of Dental Surgery was established in 1840, it was estimated that there were 120 Black practitioners who had received their training under an apprenticeship system. Traditionally dentistry did not enjoy great popularity in attracting Black persons to its ranks because of racial discrimination, low incomes, inadequate pre-dental education, limited knowledge about the profession, and the physician in the Black community was accorded the position of higher prestige in the health professions. In 1928, there were 213 Black students in U.S. dental schools. The 1930 U.S. Census listed 1,773 Black practitioners of whom 98.1% were male.

In 1948, the Dental Health section of the National Health Assembly urged the admission of qualified Black students to all dental schools. That same year, the governors of 14 southern states initiated a compact for Regional Education to train Black health professionals, thus avoiding the responsibility of admitting them to existing state schools and perpetuating the traditional system of segregated educational facilities.

In a 1946 survey of white dental schools, only 3 out of 29 replies had one Black faculty member each. The 1954 U.S. Supreme Court decision against segregated education, the Civil Rights Act of 1964, and the Affirmative Action Programs of the 1970's have enhanced opportunities for access to schools, positions and organizations in the field of dentistry.

Sinkford, Jeanne C. and Henry, Joseph L. Survival of Black Colleges From a Dental Perspective. *Jrnl. Natl. Med. Assoc.* 73:511-515; 1981.

Sinkford and Henry postulated that the future dental health needs of 11.5 million Black citizens is dependent upon the survival of Black colleges which educate approximately 30% of all Blacks in higher education, thus a significant resource for minority students who select careers in dentistry.

At present only 1,009 Black students (4.4% of total enrollment) attend dental schools throughout the U.S. with 45% enrolled at Howard and Meharry. Black enrollment reached a high of 5.2% in 1975-76. Students from Black colleges score below the national mean on the Dental Aptitude Test (DAT) so minority dental schools rely heavily on grade point averages, baccalaureate status and recommendations from pre-dental advisors for admission evaluations. Special preadmissions programs help prepare students for the rigors of dental school and special post admission reinforcement in the form of counseling and tutorials enhances the retention of these students. Dental curriculums throughout the U.S. average nearly 1800 semester hours in a four year curriculum, which is a shock for the student who has carried 120 semester hours for the undergraduate degree.

Perlman, Daniel J. Little Things I've Learned From Sixty Years In Black Harlem. *Dental Management* pp.17-20; July 1973.

Perlman gives a synopsis of a white family-owned dental practice established in 1912, that has remained in Harlem despite the uneasy climate which has prevailed since the unrest of the 1960's that saw the flight of almost all white businesses from the area.

Ninety-nine percent of his patients are Black and approximately half are Medicaid recipients. Despite the drawbacks of Medicaid, which he perceives: low fees, the delay in payment, the limitations on treatment, the cost in public tax money and the lack of patient cooperation, he had managed to maintain his professional standards and support his family.

His father practiced in an atmosphere in which Black people had little choice but to accept his role as a patronizing benefactor. This arrangement was disrupted in the 1950's and 1960's and one-time patrons and clients became antagonists. The field of human relations has become Dr. Perlman's greatest challenge (he enrolled in graduate school and after 7 years received a Ph.D. in Black History and now teaches a college evening course).

Once a community dweller, living in the back of the office, his family has fled to the suburbs. He examines everyone through a peephole and relies upon a familiar face or his mental alarm system before admitting anyone. He has no plans to move his practice nor is he imbued with missionary zeal or an illusion that his presence will change anything.

Proctor and Gamble Sponsors Negro Scholarship. *News of Dentistry*. 557.

Proctor and Gamble contributed \$13,750 to the American Fund for Dental Education to cover sponsorship and administration of scholarships brought about by the Kellogg Foundation Challenge Grant. The purpose of the program was to encourage more Negro college students to undertake dentistry as a career. In

recent years even Howard and Meharry dental schools have shown a decline in Negro applicants as a result of active recruiting by industry and other professions.

Kellogg Grant to Provide Scholarships For Negroes. *News of Dentistry* 1300-1301.

As a result of a three year challenge grant from the W.K. Kellogg Foundation, the American Fund for Dental Education announced the establishment of a program of scholarships for Negro dental students. The program will provide 40 five-year scholarships of up to \$12,500 each over the next three years(1969-72) to begin in the final year of pre-dental school and continue throughout the four years of dental school. This was in response to the marked decline in Negro dentists and the increasing demand for dental care amongst low income groups. Only 2% of the country's dentists are Negroes, despite Negroes comprising 11% of the nation's population. Only 21 of 50 dental schools have any Negro students and besides Howard and Meharry, none has more than four and most have only one.

Tomorrow's Dentists—A Different Blend. *JADA*. 85:550; September 1972.

The percentage of women students enrolled in U.S. Dental Schools in 1971-72 increased by 0.5% over the 1970-71 figure(1.4% or 231 out of 16,553), to a total of 1.9% (334 out of 17,305).

In the past six years there has been an increase in the number of Black students enrolled in dental schools from 306(2.2%) in 1964 to 597(3.5%) in 1971. During this time, the number of dental schools with Black enrollments increased from 20 to 48. Dental schools other than Meharry and Howard now account for more than 50% of the Black students enrolled. As of the year 1971-72, 3.5% Blacks, 0.6% Hispanics, less than 0.01% American Indians, 2.0% Asian and 0.2% others were enrolled in dental school.

Rauch, Marcum. Recruitment of Students from Racial Minorities, 12,16.

Rauch, Chairman of the Committee to Recruit Negro and Puerto Rican Dental Students for NYU's College of Dentistry gives the rationale for NYU's incentive. He states that because of their shameful neglect of the health needs of the Negro population, the NYU College of Dentistry, which is located in the largest urban concentration of Negroes and Puerto Ricans, established a committee to increase the number of Black and Puerto Rican students. already aware of the highly publicized difficulties—financial hardship, educational and cultural disadvantages, Rauch looked for other variables. Through Dr. Joseph Henry he learned that

the greatest obstacle of all is the competition from industry which was trying to meet the requirements of the Civil Rights Act of 1964. Also, a poll taken of the faculty of a northern dental college asked the question if they wanted more Negro students enrolled. Eighty percent of the faculty voted for the status quo; the school had one Negro student.

NYU's initiatives planned were 1. seek financial backing from the government and private foundations 2. make full subsistence scholarships available 3. marketing 4. interface with minority organizations, leaders, Black student groups, local college administrators and Negro colleges 5. special pre-dental programs 6. auxiliary program recruitment with scholarships and 7. involvement at the high school level.

Howe, Andrew. The Kellogg Foundation Grant for Dental Scholarships for Undergraduate Negro Students.

Howe presented before the joint meeting of the National Dental Association and the American Dental Association Liaison Committee in 1968. It was felt that in order to achieve a better balance of white and Negro dental practitioners, the profession must initiate an intense recruitment program with the incentives of financial assistance. One such program created by the American Fund for Dental Education provides financial aid to an undergraduate student who will enter dental school the following year and is renewed for each of the four years of dental school.

Price, Sheila S. A Synopsis of Minority Female Dentists *Jrnl. Dent. Resrch.* 69:316; March 1990.

Price examined minority female dentists' (randomly selected, 190 respondents) practice characteristics, educational indebtedness, annual income and satisfaction with the dental profession. The majority completed dental school in the 1980's, are general dentists and private practitioners. Mean age was 30, youngest was 25—oldest was 59. Forty-five percent practice dentistry more than 40 hours per week, 36 have dental spouses, and over 50% earn a gross annual income of \$25,000 to \$49,999. Fifty-seven percent have dental education indebtedness less than \$35,000. Eighty-eight percent reported they are satisfied with the profession.

AFDE Awards 74 Dental Scholarships to Disadvantages Minority Students. *Jrnl. Dent. Educ.* Vol.; November 1972.

Seventy-four disadvantaged minority students were awarded dental scholarships for the 1972-73 school year by the American Fund for Dental Education. Dr. Clifton O. Dummett, Chairman of the Awards Committee stated that about 1 in 10 Black students now in dental school are AFDE scholarship recipients. A total of \$892,597 has been contributed to the program from private sources, the largest supporter being the W.K. Kellogg Foundation. In 1970, the program was expanded to include students from other disadvantaged minorities currently underrepresented in dentistry including Mexican-Americans, Puerto Ricans and American Indians.

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DENTAL EDUCATION

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Focus of Section Discussions: Dental Education

The following is a representative listing of questions each section has been asked to focus on during their deliberations. This list has been expanded upon by the section's faculty in the period of time leading up to the Workshop. While not specifically requesting the sections to develop proposals, all of the questions have an underlying component relevant to a research and action agenda for the future. Each of the discussion sections has been charged to: **make recommendations for future action related to proposals that evolve from discussions of their specific topics.**

THE ROLE AND ISSUES OF BLACKS IN DENTAL EDUCATION

FOCUS STATEMENT: What changes are needed in the educational process to produce the future dental personnel?

Are there innovative modalities in delivery or teaching methods which specifically could improve the environment for Blacks/minorities at all levels of dental education?

Are there identified cultural factors that influence career decisions by Blacks/minorities (economics, values, tradition, etc.)?

What are the external and internal influences which provide the competition for qualified students?

What will be the impact of dental school enrollment declines and reductions on the Black community?

Is there an adequate cadre of Black faculty and/or administrators? What might be the strategies of the future to provide for Black faculty development?

Report of the Section: Dental Education

Preface

My first comment is to thank the Co-Chair, Dr. Juliann S. Bluit and our Reviewer, Dr. William Hoskins for doing the brunt of the work of our section with sterling help and work from all of the members of the section of this workshop. Special kudos to Dr. Anna Cherrie-Epps, Dr. Francis Mante and Dr. Nathaniel West for their assistance in helping the co-chair and advisors in writing this report.

Next, we would like to compliment the planners of this important conference as well as the participants in the Conference. Special accolades are given to Dr. Emerson Robinson and Dr. Michael Razzoog and their staff, as well as Delta Dental Fund of Michigan for its early support for holding this conference. The other important federal and commercial sponsors are listed in the final report.

Dean Bernard Machen deserves our thanks for his strong support of this conference. The University of Michigan Dental School, has demonstrated an extraordinary leadership commitment to education of minorities for dentistry. In fact, Michigan is surpassed numerically in educating Black dentists only by Howard and Meharry. Also, we can attest personally to the quality of the Michigan graduate. Indeed, the University of Michigan has literally put its money where its mouth is when it comes to providing opportunities and support for educating and graduating underserved minorities in dentistry.

We would be remiss if we didn't acknowledge the prodigious efforts and achievements of the U.S. Department of Health and Human Services under the outstanding leadership of the Honorable Secretary, Dr. Louis Sullivan. This fact needs to be dwelled upon because much of what has been and is being done is not well known and needs wider publicity to maximize the benefits of new programs, enhanced initiatives and expanded opportunities. In other words, there is a crying need to educate the public at large, the teachers and administrators in junior high school, high school, junior colleges, colleges and universities.

It is our understanding that literally million of dollars, some say billions, of dollars available for financial aid including scholarships, loans and money to support research by minority students are going unspent. HCOP, Minority Supplemental Funds, Centers for Excellence funds and many of the special programs an initiatives of the Division of Disadvantaged Assistance of the Office for Minority Health as well as many other programs are not known to high school and college career advisors, parents and potential recipients.

Introduction

Changing demographics will substantially impact upon the health care needs of our society in the 21st century. These changes reflected in increased expenditures confirm the fact that health care is one of the most challenging issues confronting our government and our society.

The pivotal point of our delivery system remains with those vested in providing that care. The health care educational programs will remain the key element in determining how care will be provided, the amount of care which can be provided, the quality of that care and indirectly, the accessibility of that care to the people.

There is a growing racial and cultural diversity of our population which will significantly influence the way in which health care is utilized. Specifically, data show that health care delivery to underserved minorities is shaped "by their cultural values, economic well-being and disease patterns." In turn, minorities, as they comprise an increasing segment of our population will form part of the cadres of health care professionals "with expanded abilities and new attitudes designed to meet society's evolving health care needs."

In particular, Blacks now represent 12% of the U.S. population. It is from this small percentage that we must draw all of our health care providers. Factors which impact directly or indirectly upon the population available for entry into our health professional schools are:

1. Changing structure of Black families. There is an increase in single parent families. In fact, most Black children do not live in two parent homes according to statistics in 1982.
2. A high incidence of impoverished Blacks. In 1982, nearly 1/2 of all Black children 18 years and under, lived in households below the poverty level.
3. High unemployment among Blacks. About one of every 5 Blacks in the labor market was unemployed with higher rates for teenagers and young adults.
4. Greater strides have been made by Black females than males in achieving upward mobility as reflected by the number attaining higher education degrees.
5. College attendance and graduation rates have declined for Black students.
6. In 1979, Blacks represented less than 5% of all professional and doctoral recipients. Today, they still represent less than 5%.

Admission

In the area of admission, the following recommendations and suggestions are made:

1. Although the American Association of Dental Schools (AADS) has stated its commitment to the education of minorities, no action has been taken to that effect. Deans of Dental Schools should create an atmosphere in their schools through expressed policies which enhance the recruitment and admission of Black students.

2. Such commitment should be reflected in the attitudes of admission committees. This will require the development of a fair and equitable admissions criteria for Black students.
3. Admission criteria should include consideration of GPA, DAT scores, points awarded for non-cognitive activities such as work experience, participation in team sports, voluntary activity, leadership activity, etc. Interview techniques should be improved to eliminate bias.
4. Admission criteria should be continuously monitored in order to compile needs data, correlate student background with performance and to improve the value of quantification of non-cognitive activities of students.
5. Non-standard admission processes such as guaranteed early admissions are suggested as ways of facilitating minority enrollment in dental schools. However, the success of early admissions requires intense work by committees and faculty to support the students without depriving other students of help they need. Another problem associated with early admission is that students who have problems in dental school may have to go back to finish undergraduate courses and the level of maturity of such students may be low.
6. There is a need to educate all students in high school and college regarding admission requirements for dental schools. We should aim at attracting students who show interest early, as they enter college, and to work with them throughout college. Special effort should be directed at Black males.
7. The Federal Government should provide special support to schools that commit to and promote Black admission and retention in schools. Programs that are designed to promote Blacks in math and science should also be supported.
8. There is a need for data for quantifying non-cognitive characteristics.

RECRUITMENT AND RETENTION

The importance of creative, innovative and aggressive recruitment and retention programs is dramatized by statistics underscoring the decline of Black applicants entering dental school and the number of Black students graduating from dental schools. The need for recruitment and retention is at both the professional and the postgraduate admissions program level.

Recommendations and observations addressing factors which affect recruitment and retention activities include:

1. A disproportionate number of Blacks enrolled in high school are students in non-academic career pathway (i.e., vocational programs).
2. Economic factors preclude many Blacks from considering dental school, i.e., the high cost of dental education and the failure to package financial aid in a manageable manner.

3. Inequality exists in the grade school, high school and undergraduate educational system.
4. Developing role models in dental school and the community is important. It is also important to have role models from the public health section and from all of the other health professions.
5. Because of diminishing availability of funds in state schools and the Federal Government, there is a need to be realistic in expectations for students.
6. Dentistry is pricing itself out of the reach of most minority students.
7. There is keen competition with other professional careers and the underground economy.
8. Commitment to affirmative action by dental school presidents, deans and faculties is critical to the success of minority-oriented programs.
9. Changing demographics impact on dental schools and federal funding.
10. Implementation of the affirmed need for increased minority enrollment by organizations such as the AADS is essential.
11. Increases in Asian and Hispanic applicants has resulted in institutions courting minorities other than Blacks to fill schools.
12. Minority graduates are more sensitive to economic factors, family pressures, debt level, lack of assurance of greater financial rewards and lack of job guarantees.

RECOMMENDED RECRUITMENT AND RETENTION ACTIVITIES

Recruitment Activities:

Recruitment activities designed to attract greater numbers of under-represented minorities into the dental profession include:

1. Increase the recruitment pool by improving the academic experience at the primary and secondary level with emphasis on science and math.
2. Increase self esteem among Black students at all levels.
3. Concentrate efforts at the high school level to direct students at an early age into the profession (i.e., mentorship programs)
4. Identify creative ways to offset undergraduate debt and dental school debt.
5. Encourage time and money management training among minority high school, college and professional students.
6. Develop an appreciation early on among Black students for "investing" in their future via a career in dentistry.
7. Seek out ways to subsidize (supplement) tuition
 - state incentives
 - National Health Service Corps (specific to dentistry)

8. Encourage schools to be selective even when there is a small minority applicant pool.
9. Develop a larger minority applicant pool through efforts in high school such as VENTURE and Taylor Programs.
10. Identify ways to get minority students, especially Black males into dentistry:
 - work with pre dental societies with help from dental schools and practicing dentists.
 - target specific areas/schools and make frequent presentations to targeted schools.
 - encourage Black dentists to encourage Black students to enter the profession.
 - expose students, early on, to the National Dental Association and other minority dentally oriented organizations.
 - familiarize students, early on, with admissions requirements.
 - facilitate team efforts to attract minority students by working with parents, students, counselors, high school science teachers, dental school faculty and professional organizations.
 - encourage modification of current admission processes to offer when appropriate early admission to minority students.
11. Attract students as they enter college and work with them throughout their school days.
12. Encourage the participation of corporations in local and national programs designed to support the admission of minority students to dental school.
13. Follow-up on students who have expressed interest in postgraduate training with creative mentoring programs.
14. Target dental students with some graduate teaching or research experience to encourage a desire for additional training.
15. Use work study programs to identify students with an interest in teaching. Encourage early identification of students who have a potential for being teaching assistants and groom them for faculty positions.
16. Implement high school recruitment programs that include working from both ends from the bottom up and from the top down.
17. Take advantage of existing programs, foundation money, (i.e., PEW Foundation) corporation support, scholarship monies, federal programs).
18. Target for recruitment "unusual" minority pools such as persons considering career change, older applicants, and students who have tried but failed to gain entrance to dental school.

Retention Activities:

Retention efforts should consist of academic and non-academic activities. Factors to be considered that influence these activities include:

1. Academic support services are enhanced by minority faculty involvement and should include:
 - tutorial services.
 - directed study services.
 - on premise remediation.
 - preparation for licensure exams and for standardized exams.
 - counseling.
2. The negative impact of small numbers of minority students in a dental school will be minimized by prematriculation programs designed to better prepare Black students admitted to a dental school.
3. Facilitate non-academic support, (i.e., diversity workshops, social group activities).
4. Implementation of two track curricula to meet individual needs of students with regard to their background and learning capabilities.
5. Strive for a critical mass approaching national parity of minority students in order to minimize the need for extensive school organized support.
6. Maximize the influence of minority affairs officers by using persons that are full time faculty members, preferably tenured.
7. Develop in-house support programs to ensure that students graduate and successfully pass the National and state board examinations (i.e., National Board Review Programs).

Faculty

The section on Education views the concerns about dental faculty as crucial to meeting the needs, objectives and strategies that relate to the education of the Black minority in dentistry and to increasing the presence of Black faculty and administrators throughout the pre and postdoctoral dental programs.

In response to the question “Is there an adequate cadre of Black faculty and/or administrators?,” the section submits:

No, there is not, but the situation is getting better. More commitment from the Deans and Heads of Departments at the dental schools is needed and more resources and better incentives are needed for minority postdoctoral students to pursue a career in academics. This includes, but is not limited to providing more attractive loan forgiveness programs for the unreasonable debt in which so many of our postdoctoral students find themselves.

In response to the question “What might be the strategies of the future to provide for Black faculty development?,” the section offers the following:

- Improve the milieu for Black postdoctoral students and junior faculty. Most places welcome the students and junior faculty but they are not made to feel welcome. Housing requirements and schools for their children are examples of the things which will improve the quality of life and the milieu for Blacks.
- Providing empathetic and friendly mentors for students and junior faculty is critical. This relationship must be ongoing and not a seasonal or “hit and miss” occurrence.
- Stop using minorities as “token representatives” on too many committees of the school and university to an extent that it diminishes their scholarly activity and publications. This, in turn, frustrates minority faculty and delays promotion and tenure. Alternatively give a “quid pro quo” for such committee service (i.e., such committee service counts as “X” number of publications).
- Expand the MARC program and make it more financially attractive to participants. Consider coupling the program with loan forgiveness where applicable.
- Establish interracial partnerships and sponsor cross-cultural events which capitalize on the diversity of the faculty.
- Set goals for enhancing and maintaining the presence of minorities on the faculty and review. Assess the level of meeting these goals frequently and not less than annually.
- Encourage and lobby for legislation and private enterprise programs which reward dental schools and/or universities for encouraging and achieving diversity, (i.e., endowed minority chairs, funding for specific academic administrative slots such as Associate Dean for Cultural Diversity).
- Accord Minority Affairs officers full faculty status with tenure or on the tenure track.
- Give priority to minority faculty for FIRST Awards, Dentist-Scientist Awards, teacher training fellowships from the private sector (RWJ, Kellogg, PEW, etc.).
- Provide liberal and attractive exchange programs for junior minority faculty, (i.e., summer, 3 month, or 6 month exchanges with a focus on “how to teach” and how to get started in research.

Frankly the section emphasizes that most if not all of the suggestions offered depend on commitment, good will and perseverance by Deans and Department Heads at dental schools.

FUNDING AND PROJECT FOCUS

With emphasis on the predicted change in demographics in the 21st century, there is an anticipated need to encourage the Federal Government to critically reexamine its resources and increase appropriation to meet the needs of the future as it relates to Dentistry in education and delivery of dental care.

Concerns expressed and agencies identified to address these concerns are as follows:

The need for continued and expanded efforts on the part of the Federal Government and the private sector to address and support the following concepts:

- a. Identification and motivation of students with potential to succeed in the educational process.
- b. Increased admission and enrollment of Black students in the profession.
- c. Increased retention and graduation of Blacks in the profession.
- d. Development of dental school faculty and administrators.
- e. Encouragement of curriculum changes to meet the needs of the changing demographics of students and populations to be served.
- f. Continued and enhanced support of successful programs to encourage prototypes (MODELS).

Federal Agency Resources and Suggested Focus—Public Sector

I. Health and Human Services (HHS)

- A. Bureau of Minority Health—Demonstration Projects
- B. Division of Disadvantaged Assistance
 1. HCOP—identification
 - motivation
 - admission
 - enrollment
 - retention
 - graduation
 - postgraduate education
 - faculty development
- C. National Health Service Corps (NHSC)
 - Financial Assistance
 - Debt Forgiveness
 - Research/Faculty Development
- D. National Institutes of Health (NIH)
 - Research/Faculty Development
 - Debt Forgiveness
 - MBRS Recruitment
 - MARC Program
- E. National Science Foundation (NSF)
 - High School Projects

II. Department of Education

- A. Financial Assistance

- B. Special Projects—high school
- C. Capitation (national, state and local government)

PRIVATE SECTOR RESOURCES AND SUGGESTED FOCUS

The contributions of corporate and private foundations to past efforts for increasing the representation of the underrepresented in the health professions were recognized. Concern and interest were expressed in encouraging their reaffirmation of commitments to support increased diversity in the health profession of dentistry from the standpoint of education and the delivery of health care to address the needs of today and the future. The private sector of resources mentioned, to name a few, are as follows:

I. Foundations

- A. PEW Foundation—reaffirmation expressed to support concerns a-f previously listed and in the new initiatives for the health professions, high school, college, health profession schools, faculty development.
- B. Robert Wood Johnson Foundation—Special projects/Faculty development.
- C. Kellogg Foundation—Faculty/Administrator development.
- D. Howard Hughes Institute—High school and colleges.
- E. Kellogg Foundation—Faculty/Administrator development.
- F. Kaiser Foundation—high school, college, health profession schools, faculty development.

II. Corporate Support

- A. Procter and Gamble—Endowed chairs, fellowships, scholarships and special projects.
- B. Colgate Palmolive—scholarships, fellowship and faculty development.

III. Other Sources of Support

- A. VENTURES—a national special high school project facilitating support in the state and city school systems.
- B. Regional, state and local private funds.

FINANCIAL AID

Scholarship aid for dental students across the country is generally declining, especially for minority students. While some funding sources remain viable, others are being phased out or not being renewed.

Many Black families are at the minimum wage level or below and cannot afford the high cost of a four year dental education program. The responsibility for health

care in the nation falls upon the shoulders of the federal and state governments, corporate America, private foundations, the health care industry and citizens. Therefore, it is necessary that dental educational institutions and related organizations turn to these sources to develop a national financial aid program that is available for desirable students, packaged in a manageable manner and ongoing.

COMMUNITY

It can be reasoned that dental treatment for the Black population is a responsibility of the entire profession. Access to care inclusive of identifying ways to make the costs of treatment affordable is an issue of national concern.

Although the burden is placed upon the patient to make individual judgement about purchase of personal dental care services, health professionals should be responsive to the needs of the individual as well as the community in providing oral health education, guidance with regard to appropriate services and means by which oral conditions may be prevented or be treated curatively.

Traditionally, the oral health status in predominantly Black communities has been observed to be below the status of residents in non-minority communities. Historically, Black dentists have practiced in Black communities. However, there is often a reluctance to return to the underserved communities after graduation because of the better life style afforded in affluent suburban and metropolitan settings.

To increase the incentive for young graduates to return to underserved settings, the following actions should be undertaken:

1. Collect data on sites now currently underserved and disseminate information to graduates of all dental programs.
2. Seek additional funding under the National Health Service Corps.
3. Encourage participation in volunteer clinics established in communities where the socioeconomic level creates hardship for obtaining dental services.
4. Seek to recruit and groom youngsters from concentrated Black communities and provide early experiences in the dental and allied dental health fields. Help them to develop an appreciation of "investing" in the future via a career in dentistry.

The committee for "The Roles and Issues of Blacks in Education" strongly recommends the creation of a Steering Committee made up of representatives impacted by this document (i.e., foundations, corporations, Federal Government and professional organizations and dental schools). The purpose of the Steering Committee is to monitor and insure that the goals of the document are implemented and met in a timely fashion.

Discussion of Section Report: Dental Education

DR. MARK A. CHISHOM:

Is it feasible to develop a catalog of funds that are available and distribute it to the various schools, hospitals or colleges? The whole time I was preparing to go to professional school I never saw one thing in print. If I had been informed about financial aid, it would have been a big help with my education.

DR. JOSEPH L. HENRY:

That is a momentous task and it should be addressed by the Department of Education, the American Dental Association, and the National Dental Association. Each state has money of its own that very few people seem to know about. The information about that money must be distributed to the people who can use it.

MS. CAROLYN GRAY:

The American Student Dental Association publishes the "Dental Student Handbook," which is the most comprehensive listing of financial aid available to dental students.

DR. PAUL GATES:

First, I think I would like to acknowledge the outstanding effort done by this subcommittee. Your document is most comprehensive and thorough.

Under the area titled Admissions, I would like for you to consider the fact that you may not want to support and emphasize the Dental Aptitude Test scores. The Dental Aptitude Test has traditionally been a barrier for admission for minority students.

But more particularly, in a comprehensive study done by the American Dental Association, and I believe at the National Institute of Health it was demonstrated that there is no correlation whatsoever to the performance of Black students in dental school and their Dental Aptitude Test scores before getting into dental school.

Member of Audience:

In the report under Recruitment Activities, I would suggest you place an emphasis on science and math, and that we add global cultural literacy.

In so doing, not only will we enlighten elementary school students, secondary school students and college students, but we might also enlighten their teachers.

Then these students are not diverted away from academic and professional careers as early as the third and fourth grade, as stated in the report.

I would also like to compliment the committee on their emphasis on the issue of parity as an unquestionable right. In the last committee report some statistics were given that demonstrated that we may not reach the projected number of 6,300 dental practitioners by the year 2,000.

What was out of that report was that number (i.e., 6,300) represents less than 30 percent of parity for Black practitioners. Indeed, there would be a need for 21,400 Black dentists in the year 2,000 if there was to be parity.

And last, but not least, I would like to take one more opportunity to support your report and statements presented emphasizing the need for us to interface with the school systems at the elementary school level.

DR. NORM CLEMENT:

I think one of the basic problems that Blacks face when they come out of dental school, particularly when we go out and locate in rural communities, is that there is still the problem of discrimination.

I say this because in a recent American Medical Association report, it pointed out that even when Blacks gain access to education and financial security and those sorts of things that there's still discrimination. That discrimination remains a significant factor in how health care is delivered within the Black community.

One point that the AMA report made was that in the treatment of heart disease, even when Blacks had the economic where-for-all, they were two times less likely to be treated for coronary bypass surgery than our White counterparts with less income.

Again, the problem of secondary and elementary education must be emphasized. You know, my daughter wants to become a dentist, but yet there's no science program in the elementary school she attends. How can we start talking about increasing the enrollment of Black children in dental and medical school in the future—when our future dentists who are in fourth and fifth grade today do not have adequate science or math educational opportunities.

When I was in elementary school, at least, we had wood shop courses and often young women had sewing and that sort of things. Those courses are gone now, but that's where you started getting the manual dexterity important to dentistry. And so I noticed, particularly in our public school education now all of the wood shop—all of the courses that are male supported courses are gone, and that's about all I have to say.

DR. JULIANN BLUITT:

Rather than Dr. Henry, I'm going to take the liberty of responding to you, particularly on that the aspect of the wood shopping courses being eliminated.

I can assure you that even without those woodcarving courses that female applicants scored extremely high in manual dexterity. I would be one of the first people to tell you that women having grown up in an era that did not emphasize

that kind of thing, did seem to have a greater problem in the preclinical years of dental school. However, with proper guidance you can teach, even with simple linear mazes, students irrespective of being male and female, to recognize dimensional concepts and thus improve their manual dexterity.

I'd like to comment on the need for my Black colleagues to grab the new graduate from dental school and say ". . . come with me to the Dental Society meetings. I want to introduce you to some of the colleagues. I want to get you involved in the community. . . ."

There are minority banks in the Chicago area that given a good business plan is more than happy to help the young, Black dental graduate in getting established.

Now beyond obtaining that loan, you got the problem of educational debt that cannot be overlooked. But with a good business plan and a good person that is going to stand behind you and say, yes, this young man or this young woman is very capable I believe that on the whole we can master or harness many of the problems that you have alluded to.

DR. AL CAMPBELL:

I'd like to commend the sub-committee for an excellent report.

The section relating to recruitment of the targeted unusual minority pools carries over into retention activities for that group. We should also include special support services that may include anything from child care to spouse career or job locations for those unusual family groups.

Member of Audience:

I'm an assistant professor at the UCLA School of Dentistry.

Many the themes of not only your report but earlier has been that—due to the declining Black enrollment in the dental schools there is a personnel shortage in Black communities, there is a need for more mentors, there is a need for more Blacks in research.

What I'd specifically like to address is that there are certainly many shining examples of mentors in the private sector that may be used by the educational institutions.

One that comes immediately to mind is Dr. Joseph Oliver, the current President of the National Dental Association, who exhibits to young people his enthusiasm about being a dentist. He sends our school more potential students than you can possibly imagine.

Unfortunately, his enthusiasm is not shared. I'm speaking of an element in the profession that actively discourages young people from seeking careers in dentistry. I find it not yet discouraging, but quite irritating to hear a young person tell me, ". . . yes, I'm interested in the profession but my family dentist told me I shouldn't go into dentistry. . . ."

I'm not suggesting that we lie to our young people, but, on the other hand, we must be honest with them. I'm not sure where this fits into the report, but I think this is a problem that needs to be addressed.

If you want to do something as a result of this meeting, when you go home take that person aside and ask him to just be honest with the young people. Tell that potential student; yes, it is hard work to be a dentist; yes, it is competitive, but to maintain the type of standard of living that this profession has awarded me, to get the kind of satisfaction that I get from providing the care that I do, takes hard work, both in school and once you get out.

Yes, it's hard to open a small business, especially in a metropolitan area, but that is not a problem that's unique to dentistry. Just ask these people to be honest with the young people, to step back from it if you're having a bad day and look at the benefits that they reap from dentistry for them and their family.

Until we do this, I think as a group we're going to continue to shoot ourselves in the foot as far as bringing in new people into the profession.

DR. JOSEPH L. HENRY:

All I can say to that is amen.

DR. DIANA ADAMS:

When the report talks of developing role models in dental schools, am I to assume you're talking about the dental faculty members, dental professors? In the community am I to assume you're talking about practicing dental—practicing dentists in the community?

I would like to see individuals included from the public health sector.

Along with other health care professionals I mentored two students, one at Brown University and one at Spelman College and both of these young ladies are entering their fourth year and intend to go to law school.

DR. JOSEPH L. HENRY:

I agree with you. One thing that is worth noting, somebody was asking about how could you get more people in the Indian Health Service. The same way they keep them down on the farm, you invite junior and senior dental students for a one month or a two week rotation or even more. At Harvard we send them for four and five months in their fifth year to places like the Indian Health Service, and let them see the opportunity and the need.

DR. REUBEN WARREN:

I, too, think this is an excellent report. It has included a number of things that we've heard and read over and over again.

What we need to have is an educational agenda—a research agenda in education to begin to look at some of the social barriers and enablers to dental education for African American students.

We often look for the barriers and find all the reasons why students can't learn or won't learn as opposed to identifying the enablers that have been documented over and over again. So if we add the words educational research for the appropriate people to support that agenda I think it would be very helpful.

DR. JOAN LANIER:

I have always participated in the University of Michigan, School of Dentistry program where we have the students come out and spend time with the practitioners. I think by now I have had 75 or 80 students go through my office.

With that being something that locally we have done, I've sat here and I tried to come up with some ideas that we could use and carry out ourselves. When we leave here today, I'd like to see ideas that we can actually work on.

With that being a consideration, I'd offer you the following:

We're faced with an issue where we have dentists who are graduating from dental schools who are not becoming active in organized dentistry. One of the things that we might be able to do is to offer the following with respect to dues. Dues for organized dentistry are getting very high and a lot of people can't afford to pay them. They truly want to be a part of organized dentistry, but they can't afford it.

Is it possible that we could approach organized dentistry and say I'd like to pay my dues but I want these dues to support a student. It would be nice for me to encourage a student to go to school and for those four years that the student is in school, to have my Associations dues directly go to that student. That would allow me to remain an active member in organized dentistry and still support a student in dental school.

The other thing that I would like to suggest is that maybe we could ask our legislators to give us direct credit on our income tax for paying for a student to be employed with us for the summer. It's nice for me to have skills that I want to pass on to the student.

As I said, I've let people in my office constantly. I encourage them to come to try and get anything that I have to offer to them. Many times they can't afford to spend time just to come and sit and watch me. If I could have a direct credit on my income tax return for funds that I am giving to that student, that would help defray the cost. That's something that's real that maybe we could approach.

DR. JOSEPH L. HENRY:

Thank you. Those creative ideas have been recorded, and I can tell you the Treasurer of the National Dental Association is in the audience, former presidents and officers of the—and I relay these ideas to them for due consideration.

MS. LAWANA THOMAS:

Some of the suggestions that I have are regarding recruitment and retention. First of all, the report said there was an increase in single parent families. I happen to be one of them, and I think that maybe an addition should be made to specifically address families where females are head of households.

And with that concern, under your heading "Unusual Recruitment," I thought about such items like displaced homemakers, GED programs, even military service members as they are discharged from service, would be areas from which to recruit students.

I've seen several different medical schools publicize some of their success stories. One of the advertisements that I had seen was a lady who had five kids and was on Medicare graduated from medical school.

I think we have several of those success stories within dentistry, and some of those should be publicized. These advertisements are the form of "if they can do it, I can too kind of story." I'm one of them and I have a few other classmates in the audience that have done the same thing.

One of the issues under retention that the woman who spoke earlier mentioned was child care. If there was somehow some facility or funds made available for child care it would be extremely helpful to the single parent.

Your section mentioned in the report community mentors. I think that great focus should be on that and it shouldn't be just hi, how are you doing, come visit my practice. It should be someone who takes a personal, as well as an academic interest in you as an individual, because they can be so helpful.

DR. DENISE POLK:

I am in wholehearted agreement with the women who just spoke, because I was a single parent that attended the University of Michigan and it was very difficult due to lack of child care.

My other point was that the educators in the profession should look not only to recruiting Blacks into dental schools, but also look at Black recruitment into the dental auxiliary areas so that we have qualified dental assistants, qualified hygienists and qualified staff personnel to run your offices in an effective manner.

I think that should be added to your sections report on the educational process.

DR. JULIANN BLUITT:

I would like to respond to that. Indeed, statements on dental auxiliaries wasn't really an oversight, but you'll notice, it isn't put in until the end. It is a critical element, the need for allied health professionals, particularly in the Black allied health professionals; dental hygienists, dental assistants, i.e., dental laboratory technicians.

I may say that this issue is attempting to be addressed, because it recognizes an immediate problem of the SELECT, which you know is the national recruitment program, with targeted information, particularly to the allied health professions.

And it's an irony at this point in time that the market is demanding that we have educational programs—to produce these kinds of individuals, and in turn, if you'll look at the number of programs that are available to educate them, in some instances they are closing up or there are other barriers to them having access to those.

So it is a problem that is recognized, but I admit that it is not as visible in the report and I'm certain that it will be duly incorporated. Thank you.

Review of the Literature: Dental Education

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Applewhite, H.: A New Design for Recruitment of Blacks into Health Careers. *A.P.P.H.*, Vol. 61, No. 10, October, 1971.

There is a critical dental and medical manpower shortage in the ghetto. Nationally, the current ratio of Black dentists to Black population is 1:11,500, whereas the ratio per dentist in the United States is 1:1,750. The vast majority of doctors practicing in this country are drawn from the middle class and become middle class practitioners that tend to locate in areas of high socioeconomic standing. Much evidence is also available that professional practice is usually segregated on the basis of ethnic background and race. The net result is the deprivation of adequate health care in minority communities.

The author proposes that the high cost of education and traditional white middle class admissions criteria are formidable barriers to the Black student. Black students are already at an economic disadvantage. Beyond the obvious need for tuition, fees, and books, assistance should provide for living expenses so that Black students can become part of the social life on campus. Students admitted to dental and medical schools are primarily selected on the basis of college grades and test scores. When judged by these traditional academic criteria geared to white middle class educational standards the Black student compares unfavorably to the average white student.

In this article the author discusses the underlying causes for the shortage, how Blacks might be recruited into medical and dental school and what support is needed from the government and the health professions for this purpose.

Birch, J., and Wolfe, S.: Communications: An Enrichment Program for Minority Students. *J. Med. Educ.*, Vol. 50, November, 1975.

There is a continuing problem of a shortage of Black physicians and dentists. This article addresses the effectiveness of the Meharry Biomedical Sciences Program, a "remedial" educational program, at Meharry Biomedical College and examined why this could be a working solution to the problem.

The objective of the program was to develop a new resource from which to recruit students who might have the capability to become dentists. The recruitment was targeted towards predominantly southern and Black colleges that had traditionally focused on the production of teachers, clergyman and secretaries. The exposure of students to sciences and mathematics was such that these schools were very low in the number of their graduates entering medical, dental or graduate school. Recruitment was designed so that there would be a greater pool of graduates who could become health professionals.

The data showed that participants in such programs were more likely than a cross section of all applicants to gain admission to medical or dental school. And if this is correct it could be a rapid route to increasing the supply of Black physicians and dentists.

Calisti, L. and Hozid, J.: Recruiting Minority Group Students for the Health Professions. *JADA.*, Vol. 82, May 1972.

Calisti and Hozid discuss the responsibility of the University for the education of minority dental students. According to the authors, universities now recognize they have a social obligation to all citizens. Universities are providing opportunities for students who lack the traditional academic background with which to meet the usual requirements for professional schools or the financial means to attend to be accepted into special programs.

Minority recruitment programs are very controversial issues at universities. There are concerns among faculty, students and alumni that lowering admissions standards for certain students would lessen the value of the degree, that minority students might be resented by other students and faculty, and that by accepting less qualified minority candidates, the university is decreasing the opportunity of more qualified candidates to attend dental school.

With these issues in mind, Tufts University established a three phase program that would provide funding to recruit financially and educationally disadvantaged minority groups students and then provide a tutorial programs which would help them succeed in school. This program is elaborated on in the article.

Bissell, G., and O'Shea, R., Perez-Bode, R.: Dental Students in a Neighborhood Clinic: A Review After Six Years. *J. Pub. Health Dent.*, Vol. 37, No. 1:47-56, Winter 1977.

The authors present a history and an evaluation of an extra mural dental clinic operated by junior and senior dental students in the city of Buffalo. The clinic has been operating in a low income, Black inner-city community since March 1970.

The planning for the clinic grew out of a real need expressed by the community for dental care. Serious consideration and fractional debating resulted, in the process of determining where the clinic should be located and who should be in control. In addition many of the area dental practitioners were opposed to the clinic because of the competition issue. A sliding pay scale was developed for patients not on Medicaid.

The objective of the program included providing preventive and clinical services while giving local citizens additional career options and motivating dental students to have a greater interest in the local population.

After eight months, the clinic opened with an advisory board and a clinic professional staff consisting of junior and senior dental students, one full-time dentist, one full-time dental assistant, one full-time clerk/receptionist and one "out-reach" worker. The clinic was funded by the health department.

Student assessment of their experiences was obtained from a two page, mailed questionnaire. Students found their experience very useful, interesting and relevant. They like the "freer," less pressured atmosphere. Concerns about inconvenience, travel time and time spent away from the main clinic were expressed.

Douglas, Bruce L. and Cohen, Lawrence.: The Teaching Patient Population in Dental Education. *Inquiry*, Vol. X:33-40, March 1973.

Changing social, economic and political patterns in American society have led some to question whether the number of clinical teaching patients might eventually be sharply curtailed. In response to this concern a survey of the personal and familial characteristics and attitudes of a random sample of the patient population of the University of Illinois Dental Clinics was undertaken by Drs. Douglas and Cohen. The survey, similar to the one described by Meskins done at the University of Minnesota included active as well as former patients. Out of 534 eligible cases, 359 were interviewed by telephone while eight refused to be interviewed and 27 were deceased. The first interesting finding was that, by and large, the patient population represented a cross-section of urban life, with the exception that the percentage of Black patients was double that in the general population. It was found that the patients came to the UIDC for treatment because they felt it was of high quality. Only about 9% of the Illinois patients referred to low fees as a primary consideration in seeking care, while close to 30% gave this reason in the Minnesota survey.

The fact that well over half of the UIDC patients are Black, and that the percentage of Black patients is climbing, is significant. It is assumed that this is occurring at least in part because of the relative unavailability of private care

facilities in many Black communities, even those in which there is a high percentage of middle-income Black families. It may be that until there are larger numbers of Black dentists or larger numbers of white dentists who open practices in Black communities, the Black patient population may well continue, at least in selected urban communities, to make up the larger part of the teaching patient population.

Dummett, C.: A Break for Black Students. *Dental Student*, May 1970.

The number of Black dentists in the United States is insufficient to furnish quality care to the nation. Dr. Dummett contends that this shortage leaves Black communities greatly under served. Black citizens are not preparing themselves for the health professions. Some explanations for this are 1. the limitations of their elementary and high school education 2. insufficient information about existing opportunities 3. lack of funds 4. the desire for careers in which job payoffs are quicker.

The author advises that educators and health care professionals devise more effective recruiting programs including finding ways to reach Black students as early as grade school, arousing in the youngest an interest in health care professions. He also recommends the development of new sources of finding to provide scholarships and loans opportunities to qualified Black students.

In the article, Dr. Dummett elaborates on a specific Black scholarship program funded by the W.K. Kellogg Foundation and sponsored by the AFDE. Under the terms of the grant, the Kellogg Foundation fully funded a three-year student recruitment program and provided funds to sponsor 12 scholarships over a three year period. The AFDE was required to match funds on a 1 to 1 basis. A unique aspect of the AFDE scholarship is that it starts with the final year of undergraduate work in order to attract the Black student who may not have previously considered or felt that he could aspire to a dental career. The article concludes that this is just one example of possible scholarship opportunities. The AFDE is working diligently to continue and broaden the program.

Dummett, C.: Dental Education for Afro-Americans. *J. Tennessee Dent. Assoc.*

This article gives a historical perspective on the growth of formal dental education for Black Americans. In 1840, when the first college of dental surgery was established, there were 120 Black dental practitioners in the United States, all trained under an apprenticeship system. At the writing of this article there are more than 23 million Black Americans and only 2,500 Black dentists. Traditionally, it has always been difficult to recruit Blacks into dentistry because of racial discrimination, low incomes, inadequate pre-dental education, limited knowledge of dentistry as a profession, and higher status in becoming a physician.

Meharry Medical College (1886) and Howard University (1881) are the two surviving institutions established for the training of Black health care professionals. Both are located in the southern United States. These institutions have been responsible for the education of the majority of Black dentists.

The appointment of two Black dentists to head Meharry's and Howard's dental schools, in the 1930's, marked a milestone in education for Blacks. Up until that point the administrators and faculty were white.

During the 1940's the deficiencies of segregated education were increasingly under attack and the National Health Assembly urged that the admission of qualified Black students to all dental schools should be encouraged. At the same time the governors of 14 southern states initiated a compact for Regional Education to train Black professionals at one specified institution. Meharry Medical College was to become the designated regional school, thus perpetuating segregated education. Since that time the 1954 U.S. Supreme Court decision against segregated education, the Civil Rights Act of 1964, and Affirmative Action have alleviated some of the discrimination against the Black population choosing to enter the field of dentistry.

Over time there has been a standardization of academic and admissions policies among schools, more post graduate education and greater integration of dental schools, but the shortage of Black dentists is still acute. The author concludes: "It is necessary that U.S. dental schools fulfill the dental manpower requirement of the nation while at the same time guarding against sacrificing the educational and professional standards imperative to high quality health care.

Dummett, C.: Dual Celebration of the Nation's Bicentennial and Meharry's Centennial: A Dental View Point. *J. Tennessee Dent. Assoc.*, Vol. 56, No. 3.

This article is a reprint of a speech made by Clifton O. Dummett, D.D.S., at the Centennial Celebration of Meharry Medical College. This celebration coincided with the bicentennial celebration of the United States. Dr. Dummett's speech gives a historical retrospective of the events that have taken place during the years of the Black American's graduate advancement in dentistry.

The author divides the history of Black dentistry into three distinct periods. They are:

Phase A: 1840-1900: The phase during which there was an acceptance of dentistry only as a tolerable mechanical vocation.

Phase B: 1900-1935: A period during which there was an espousal of hazy educational and administrative policies. There were definite indications of the need for preparation to achieve medical professional status.

Phase C: 1936 to Present: The phase during which there has been a gradual recognition and acceptance of dentistry as a vital health service with distinct social aspects.

This presentation is limited to the first two phases. The author makes the point that these two phases are the foundation on which modern dentistry is built. He states "it is important to pay tribute to both Black and white dentists of a bygone era who cooperated with dignity despite the great personal ridicule and ostracism they experienced.

Dummett, C.: Recruitment and Retention of Minority Students—Reality or Rhetoric. Proceedings of the Workshop on Minority Dental Student Recruitment, Retention and Education. Kansas City, MO, April 24-26, 1975.

Dr. Dummett, in his presentation at the Workshop on Minority Dental Student Recruitment, Retention and Education discussed factors and problems associated with dental student recruitment, selection, admission, retention, and education which have a limiting influence on the number of minority group members who enter dental education and the numbers who graduate.

He first pointed out that implementation of a philosophy of student recruitment and retention is basic to the concept of equal opportunity in education. He underscores that the quality of dental health care provided to the nation must be the professions major consideration and he emphasizes the importance of in-depth appraisal when recruiting minorities. A Ford Foundation report collaborates that the achievements of past recruitment efforts have been limited and indicates that the rate of increase in minority enrollment had decelerated between 1970 and 1974.

He emphasizes that the current educational deficit among minorities can only be eliminated by hard work over an extended period of time. The nations dental schools and members of the profession have a responsibility to make minority recruitment work.

At the same time minorities must understand that obtaining degrees should never be a result of established high standards being lowered. Support systems should be in place in concert with faculty members better attuned to the psychology of the whole person in establishing classroom relation.

As a result of the considerable economic disparity that exists for minorities between men, women and the minority business sector support from the business sector and government is crucial.

Dr. Dummett concludes by emphasizing how important it is for disadvantaged students to realize that although institutions have responsibility to make every effort to support a students effort to graduate from a professional school, the minority student has the responsibility of meeting the high standards of the profession while realizing the serious responsibility of the health professions.

Dummett, C.: Recruitment and Retention of Minority Students for the Health Professions. *J. Nat. Med. Assoc.*, Vol. 64, No. 4, July, 1972.

Access to quality health care should be available to all Americans regardless of their socioeconomic background, but many minority groups from low-income areas are not having their needs adequately met. One reason is that there is a shortage of health care professionals, especially among Black dentists.

A shortage of dentists is both a dental problem and a community problem. An effort is now being made to recruit Black students from the ghetto and other more affluent areas. It is hoped that at least some of these young dentists will return to their community to practice.

Dr. Dummett contends that a quality recruitment process must be a steady, continuous and coordinated activity involving a wide range of people from both academics and the community. The quest is for a student who has the potential to successfully complete a dental school education. It must be made clear to the prospective student the demands that will be placed on him as he works towards completing a dental education.

After the student has been successfully recruited the goal of the school should be to take the student as they are with many of their disadvantages and prepare them for effective professional roles in American society.

Dummett, C.: Reflections on a Dental Centennial: 100 Years of Meharry's Dental School. *Bulletin of the History of Dentistry*, Vol. 35, No. 2:81-92, October, 1987.

Dr. Edward Lewis Turner, a prominent and experienced physician, third president of Meharry Medical College, was designated to begin the task of updating the curriculum to keep pace with improved treatment modalities occurring in the health sciences. Dr. Turner was invited to Meharry in 1936 by Dr. John J. Mallowney, Meharry's second president.

The organization and teaching talents of Dr. Turner led him to the deanship of the medical school and then the presidency of Meharry in 1938. President Turner immediately instituted plans to upgrade the dentistry department, change the name from Dental Department to School of Dentistry and appointed Dr. Turpin acting Dean in 1938. In 1942, Dr. Marion Don Clawson who had served as Director of Dental Education at the same time that Turner had served as director of medical education at the American University in Beirut joined the Turner administration to lead the dental school.

Dr. Don Clawson graduated from Washington University School of Dentistry in 1926. After years of practice in Missouri he traveled to England and then on to the Middle East where he served as demonstrator and lecturer at the University of St. Joseph in Beirut; Director of Dental Services for the Iraq Petroleum Company; Visiting Clinician at Syrian University, Damascus, and Director of Dental Education at the American University in Beirut.

A short time after establishing residence in Nashville in 1942, Dr. Clawson recruited Dr. Clifton O. Dummett to Meharry to establish the Department of

Prosthodontics and Oral Pathology, and to initiate the teaching of endodontics at Meharry. In 1944, Dr. Clawson took a six month leave to organize and direct dental health services at Oak Ridge Tennessee Reservation of the Manhattan Project for Atomic Research.

President Turner then appointed Dr. Clifton Dummett, the first Afro-American graduate of a dental school other than Meharry to join the dental faculty as Deputy Director of Dental Education. The five year program continued with the support of the W.K. Kellogg funds and the determined effort of Dr. Dummett to use competence rather than school of graduation as a primary appointing criteria.

On December 31, 1944, Dr. Turner resigned his office to return to teaching resulting in the election of Dr. Clawson as the fourth president of Meharry. This was the first time that a dentist has been named president of a medical school.

As president, Clawson supported all forward looking programs initiated by Dr. Dummett. In 1945 Meharry became the first school for Afro-American dental students to be awarded a chapter.

In July 1946, Dr. Dummett at the age of 28, became the youngest dental dean in the nation. Dr. Dummett also became the first Meharry Dean to have the title of both Dean and Director of Dental Education. This broke the tradition of a two-tiered administrative level: white directors above Black deans.

In an effort to access funds to meet fiscal needs, President Clawson endorsed the concept of separate but equal and offered Meharry College as a regional institution for training Black health professional students. Unable to accept segregated regional planning Dummett resigned as Dean on June 30, 1949.

Dr. Clawson was granted a release from his presidential duties in June 1950 and a one year sabbatical. This brought to an end an important chapter in the push for competence and excellence at Meharry College.

Dummett, C.: Selected Occurrences in Dental Education of Black Americans. *Bulletin of the History of Dentistry*, Vol. 25, April 1977.

The author, Clifton O. Dummett is of the opinion that "the historical background of a people is essential for self-esteem as well as a sense of responsibility." He believes this is particularly important for minority groups. Blacks are under-represented in health care professions. To secure the necessary inspiration for achievement in the profession, Black dentists, like any other group, must study the history and past accomplishments of their colleagues. Some knowledge in this area is also essential to members of the majority group in order that they may appreciate the minority members contributions to the dental profession. In this article Dr. Dummett gives a thorough history of Blacks in dentistry.

Dummett, C. and Barends, G.: Anxieties Incidental to Normal Pigmentations of the Oral Mucosa. *Military Medicine*, Vol. 150:80-86, February, 1985.

The authors review the physiologic and pathologic pigmentation of the Oral Mucosa. The physiologic Melanin Pigmentation of the intraoral and extraoral tissues is found in a large segment of the world population. Dental students were tested regarding their perception and related anxieties about their own gingiva pigmentation.

To determine the attitudes of students towards pink gingiva (amelanogingiphilia) and negative attitudes towards melanin pigmented gingiva (malanogingiphobia) dental students were divided into three groups. Group I: Afro-Americans with self-perceived pink gingiva, Group II: Afro-Americans with self-perceived pigmented gingiva, and Group III: Caucasians with self-perceived pink gingiva.

The four gingiva color stimuli were cytochrome transparencies depicting 1) nonpigmented pink gingiva; 2) moderate or brown melanin pigmented gingiva; 3) heavily pigmented or blue-Black gingiva; and 4) maculated pigmentation of the gingiva.

Responses to the stimuli were recorded on the 10 scale device which consisted of four bipolar adjective pairs (healthy-sick, clean-dirty, pleasant-unpleasant, and beautiful-ugly) with 7 intervening numerical value space.

Results of the study indicated that the attitude of dental students who perceived their own gingiva as pink were more positive toward pink gingiva than brown, blue-Black and maculated pigmentation. Attitudes towards the brown gingiva color were generally neutral, while blue-Black and maculated gingiva stimulated the most negative attitudes.

Greifinger, R.: Communications: A Summer Program in Life Sciences. *J. Med. Educ.*, Vol. 45, August, 1970.

In 1968 a committee for increased minority representation was formed at the University of Maryland. Its goal was to increase the number of minority students attending the health professions school. Its first step towards reaching this goal was the development of a program called Summer Program in Life Sciences. This article delineates the objectives of the program and then evaluates its success.

The five major objectives of the program were: 1) to provide academic reinforcement of and a recruiting effort among undergraduates from predominantly Black colleges 2) to promote better relations with these colleges 3) to supplement the academic background of incoming students who felt they had academic weaknesses 4) to perform an experiment in medical education which would test the usefulness of various innovative techniques including student instructors, high teacher-student ratios, small group learning, sensitivity training, and reading analysis and 5) begin exploring alternative criteria for predicting success in medical school prospective and retrospective.

It was decided that students should be recruited from predominantly Black colleges, and that medical students would design and teach the course. Funding came from individuals from the white and the Black community.

Those involved with the program believed that it did satisfactorily supplement the academic needs of the students. The program was able to help students to identify potential areas of weakness. Although each problem identified could not be resolved, students were now in a better position to handle them more effectively. Another result of the program was that better relations were developed with Black colleges especially neighboring Morgan State College. The Summer Program in Life Sciences was considered enough of a success that it was continued in the future.

Hansen, A.: Meharry Medical College in Retrospective. *J. Nat. Med. Assoc.*, Vol. 65, No. 4:274-275, 287, July, 1973.

This article gives a short history of Meharry Medical College, a predominantly Black educational institution. Meharry was founded in 1876 and 10 years later it organized its dental department. Meharry was originally affiliated with the Central Tennessee College of Nashville but in 1915 the state of Tennessee granted Meharry a new charter according it separate corporate existence.

The first years of Meharry were very lean ones. A few teachers taught all subjects and classroom space was inadequate. At this time almost no opportunity existed for obtaining clinical experience because no hospital would open its doors to Meharry students. In 1910, after a major fund raising effort, Meharry opened up the George W. Hubbard Hospital, the first hospital affiliated with the school. Dr. John J. Mallowney was appointed president in 1921. He was determined to improve the standards of Meharry and by 1923 it was given a "Class A" rating.

In 1952, Meharry inaugurated its first Black president, Dr. Harold West. He initiated a development campaign marking the beginning of a period of expansion at Meharry. During this time the campus was expanded, faculty salaries and fringe benefits were improved and a new wing was added to the hospital.

Meharry remains a school dedicated to its students and the local community. It is involved with the development of many innovative programs to integrate Blacks into the national health care system.

Haynes, H.: A Historical Perspective of Blacks in American Dentistry. *The Dental School Quarterly*, University of Texas, San Antonio; pp.5-8.

Dr. Haynes notes that Blacks have failed to attain adequate educational background and preparation to achieve parity in the health professions. In 1860, an illiteracy rate of 90% was reported for the Black population of 4.5 million. At the passage of the Thirteenth (1865) and Fourteenth (1868) Amendments, education was not in reach of most Blacks. It was not until the funding of the first public schools, in Washington D.C. (1879), Atlanta (1924), etc. and the help of Quaker, Catholic and Scottish rites religious groups in the north that this started to change. By 1910 Blacks had achieved a 75% literacy rate even though many southern states were not supporting the building of Black schools as late as 1950.

Dental departments for Black students were established in 1881 at Howard University and in 1886 at Meharry Medical College. Harvard University School of Dental Medicine was the first dental school with a policy to admit Blacks, graduating Dr. Robert Tanner Freeman in 1889. Twenty-one years later the first African-American woman Dr. Ida Gray Nelson Rollins was granted a degree from the University of Michigan Dental School.

The later part of the 19th century saw Black dentists like Dr. Charles Edwin Bentley (1859-1929) the "father" of oral hygiene, a prolific writer, and an organizer of the NAACP, making unique contributions to the dental profession.

A slow but steady increase in the number of dentists at the turn of the century was eroded by the great depression and World War II. This downward trend reversed itself during the 50's and 60's and by 1970 there were 2,206 Black dentists. In 1986, the number of Black dentists was estimated to be 3,800 or 2.6% of the total active dentist work force.

Statistical data shows that affirmative action did provide access to a dental education. In the fifteen year period of 1971-72 to 1986-87, the number of first year minorities steadily increased from 6.1% to 13.6%. Between 1971-72 and 1978-79, the number of Black graduates increased from 1.4% to 4.2%. Comparing these statistics with the size of the growing Black population assures that Black Americans continued to be underrepresented. Asian-Americans, Hispanic-Americans and Native Americans all showed increases.

Reviewing Black representation in the top ten dental schools from 1984 to 1988 revealed that 67% of all Black dentists graduated from Howard University and Meharry Medical College.

Reasons given to explain a recent decreased enrollment of Black dental students are lower acceptance rates, decreases in the Black male applicant pool, economic deterrents and lack of role models.

Failure to significantly increase the number of minority dentists especially in those areas with large Black populations represents a serious deficit in the oral health care of Black Americans. Even though the number of Black dentists is projected to double to 6,300 by the year 2000, this will only amount to a 2-3% increase.

Henry, J.: The Problems Facing Negroes in Dental Education. *J. Amer. College Dents.*, 1968.

This paper was presented by Dr. Henry to Harvard University but its message was intended to apply to all universities. There is an extreme shortage of Black dentists and Black dental students in the United States. He believes this is a consequence of racism in the country. When we address the issue of race relations we will naturally address the shortage of Blacks in health care. To solve this crisis we must look for immediate, intermediate and long-range programs and objectives.

Since the passage of civil rights laws many new opportunities have opened up for Negroes. This has created a "brain drain" in the health professions because people are choosing careers where job payoffs are quicker.

Dr. Henry makes the following suggestions to relieve the shortage of Black dental students:

1. Better testing methods to identify the potential Negro dental student
2. Pretesting of Negro students admitted to dental school to identify their weaknesses
3. Compensatory programs to deal with identified weaknesses
4. Special advisors and counselors assigned to and empathetic with the Negro enrollee
5. Ample funding at the predental level and continued through dental school to make dental education more competitive with the offers from industry and government
6. Sophisticated recruitment programs at the high school and college levels to publicize the attractiveness of the profession and the funding available.

Henry, J. and Sinkford, J.: Blacks in Dentistry, *JADA*, Vol. 88:129-133, January, 1974.

Drs. Henry and Sinkford analyzed the demographic data for 15 Southeastern states and the District of Columbia as it relates to the Black population and Blacks in dentistry. The data on Black dentists to the Black population reveal that Black dentists in the region number more than five times fewer than those in the population at large.

Demographic data shows that the region contains 31% of the total national population and that 19% of the population in the region is Black, compared to 11% of the population nationally. The region contains 52% of the Black population of the nation. It has 45% of the 2000 Black dentists in the country for a Black dentist to Black population ratio of 1 to 12,500. The current dentist to population ratios are: 1:2,000 nationally; 1:2,240 in the southeastern region; and 1:2,048 in the southeastern region if Black dentists and the Black population are not included.

According to statistics from two sources, schools in the region currently enroll between 25% and 30% of the dental students in the country, and enroll 57% of all Black dental students in America. Howard and Meharry presently are educating 50.8% of America's Black dental students, whereas the other 19 schools in the Southeastern region are educating only 8.8%. The remaining 34 schools of the 56 operational schools in the nation are educating 40.4% of the Black dental students.

When all classes are compared, the dropout rate for Black students is three times greater than that reported for the national dropout rate for dental students. For non-Black schools, the dropout rate is nearly ten times the national dropout rate

during the first year and almost ten times the average for all four classes at Howard in the past year.

In 1969, Dr. Joseph Henry warned that unrealistic and unscientific modification of admissions criteria and abuse of the open door policy could become a revolving door.

The increased admissions of Black students to all dental schools in recent years is the result of a multiple of reasons, or pressures, including altruistic, political, ethical, sociological and economic factors.

Concern is expressed relative to the admissions of poorly qualified Black students to admissions programs who would not even be considered eligible for Howard's Academic Recruitment Program much less regular admissions. The lack of utilization of meaningful criteria for recruitment, admissions and retention and inadequacy or lack of special programs to meet the needs of Black students, contribute to alarming the dropout rate of Black students at non-Black schools.

The authors made eleven recommendations as part of an action plan for the identification and development of minority students. These recommendations are outlined in the article.

The authors also notes that recent trends (1968-1972) of increasing Black minority enrollment in dental school seems to have reached a plateau and that the rate of admissions may be actually declining. The freshman class in 1972-73 for all dental schools increased in size by 12.4%, whereas the Black freshman student showed a decrease of 0.4%.

Henry, J.: Bridging the Gap. *J. Dent Educ.*, January, 1971.

This article is a reprint of the Keynote address made by Dr. Joseph Henry at the Workshop, *The Vanishing Minority Dentist*, May 13, 1970. His objective is to provide information that will facilitate discussion on the critical shortage of Black dental manpower in the United States with the hope of developing policies and programs that will address the problem.

According to Henry there is a critical shortage of Black dental health manpower in the country. In his opinion "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."

Dr. Henry examines the conditions under which the Black man came to the United States in comparison to other minority groups. Other groups came to this country under their own volition. They come out of their own desire for new frontiers, opportunities and challenges. The Blacks came against their will as slaves and remained in those circumstances for three hundred years. He came with no hope. Henry credits the Black mans "amazing constitution, both mental and physical" for enabling him to endure such inhuman conditions.

After Dr. Henry traces some of the reasons for the present condition of the American Negro and contrasts his evolution to that of other minority groups, he

goes on to explain that many Blacks are at a cultural and educational disadvantage in terms of meeting the requirement to be accepted for higher education. He believes that standard achievement and intelligence tests are not the best measure of the potential of minority groups.

Henry stresses that the purpose of the workshop is to share and pool knowledge and experiences in an effort to “bridge the gap” of misunderstanding and misuse of standard testing procedures that assess the educational ability and achievement potential of disadvantaged minority groups. Equally important is the need for discussing and 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.

Henry, J.: Increasing Recruitment and Retention of Minority Students in Health Programs—Dentistry. *J. Dent. Educ.*, Vol. 44, No. 4, 1980.

The greatest gap between disadvantaged minorities and non-minorities in America is the health care gap. This article addresses some of the reasons for the situation, and gives some recommendations for solving the problem of under-representation of minorities in health care professions.

Statistics show that the ratio of Black dentists to the Black population is 1:12,000. The ration for the population at large is 1:1,900. The result of this statistic is that we don't have enough health professionals to serve disadvantaged minorities and we are not generating enough role models that will aspire young Black students to the health care field.

Dr. Henry notes that even when a student becomes interested in a career in health, they find they are not academically prepared, and do not meet the requirements for graduate education. Also, the student can not meet the financial demands of graduate school.

One factor the author finds especially distressing is that the decline in the number of Blacks entering dental school is masked in the overall percentage of minority students entering dentistry. An example given is that Asians who are not under-represented in the health professions, not under-served in their communities, and not economically disadvantaged, are included in affirmative action goals. He feels that only those who are truly disadvantaged, regardless of ethnic background, should qualify to be considered for a special minority status.

Dr. Henry concludes his article by presenting recommendations that address how to resolve the ongoing problem of under-representation of minorities as health care providers.

Howe, A.: The Kellogg Foundation Grant for Dental Scholarships for Undergraduate Negro Students.

The country is facing increasing shortages of dentists and the shortage of Negro dentists is especially acute. The Negro dentist ratio is about 1:11,000 as compared to the general dentist-population ratio of 1:1,900. To achieve a better balance of white and Negro Dental practitioners, the profession must initiate an intensive recruitment program with incentives of financial assistance.

In 1968, the American Fund for Dental Education (AFDE) received a challenge grant from the W.K. Kellogg Foundation. Over the first three years of this grant 12 students will receive financial aid. The grant stipulated the AFDE must provide matching monies on a 1:1 basis for the first year, 2:1 basis for the second year and a 3:1 basis for the third year. The author speculates that this is just the beginning. He expects many more student loan and scholarship opportunities for economically disadvantaged students to be implemented in the near future.

Johnson, C.: Meharry's Special Medical Research Programs. *J. Nat. Med. Assoc.*, Vol. 65, No. 4, July, 1973.

In the 1960's, Meharry Medical College completed a reassessment of its academic program. A major concern of the administration at the time, was the shortage of Black health care professionals. This shortage was becoming more and more evident as new opportunities began to open up for Black people. There were not enough qualified programs implemented at Meharry to address the manpower shortage.

The first program described was a Masters of Medical Science Program. This was a special educational tract graduate program especially for students that felt they needed enrichment activities designed to enhance possibilities for the successful pursuit of professional studies. The second program, called the Biomedical Sciences Program, was an undergraduate summer program designed to improve the preparation of minority-group students who wished to pursue a career in the health professions.

The author believes that these efforts would not, in the short term, have a major impact on relieving the shortage, but these activities could present models to be adapted and improved on by other similarly committed institutions.

Johnson, E. and Moore, I.: The LeMoyne-Owens College-UTCHS Cooperative Educational Program: A Model for Minority Recruitment. *J. Nat. Med. Assoc.*, Vol. 71, No. 12, 1979.

Johnson and Moore's article evaluates a cooperative education program between The University of Tennessee College of Health Sciences and LeMoyne-Owens College, a predominantly Black, four-year, coeducational, liberal arts institution. Although the two campuses are located two miles from each other, prior

to the program there was very little interaction between the two schools. Due to the attention of one faculty member at UTCHS who took notice of the situation, this program was instituted.

Preliminary research indicated that students were hesitant to apply to UTCHS due to a feeling of "benign neglect and indifference." Students and faculty at LeMoyne-Owens were suspicious of UTCHS's initial visits to the school. Once UTCHS was able to develop a higher level of credibility with the LeMoyne-Owens staff and students, a more meaningful relationship was developed between the two schools.

The initial goal was to educate the pre-health sciences students at LeMoyne-Owens to the opportunities available for training in the various health programs at UTCHS and to stimulate them to apply.

The article outlines recommendations made to LeMoyne-Owens by UTCHS to improve their pre-medical curriculum. It also lists some of the achievements that occurred over the seven years of cooperative educational efforts between the two schools.

The article concludes that to increase the number of Black health care professionals it is beneficial to develop a cooperative relationship between competitive professional programs and Black institutions. The authors state that "if the health care professional institutions are to matriculate and graduate significant numbers of minority students, it is incumbent upon these institutions to assist the Black colleges by exposing their pre-health science students to their facilities and by educating the undergraduate faculty to the curricular requirements necessary for success in professional schools.

Linn, E.: Means of Financing Education and the First Private Practice of Black Dentists. *J. Dent. Educ.*, March, 1972.

The economic barriers of graduate school have been formidable for the average Black person. The financial resources that Black dentists have used for paying for their dental education and initiating their first private practice is the topic of this article.

The occupation of parents is an indicator of potential for parental financial support. Data from research indicates that parents of Black dentists tend to be in occupations that pay above average wages for Blacks in the United States but still were limited in their ability to pay the costs of a professional education. Given this factor, the majority of dentists reported that they worked in order to pay for their education (77%). Ranking next in frequency was assistance from parents (46%). Other forms of support were student loans, scholarships, assistance from husband or wife and personal savings.

Initiating a practice is a great burden for many graduates. More recent graduates than earlier graduates initiated their practice by joining another dentist in practice,

thus entailed no debt. The most frequently reported means of financing the first practice was by borrowing from a bank. Some dentists reported being refused loans because the practices would be located in ghettos.

The article did not address how the cost of initiating a practice, or paying off any remaining debt of dental school education were eventually met by the economics of the practice.

Mason, M.: Achievements of Black Alumni of Dental School Reviewed. *Alumni Bulletin*, Indiana University School of Dentistry; Fall 1981.

This article reports on Black alumni of Indiana University School of Dentistry (IUSD). It addresses the question of where the graduates have gone and what they have accomplished since graduation. Graduates who pursued careers in education are featured.

The article discusses some general feelings the alumni shared in a survey about their experiences at IUSD. Although most of the graduates wished that some of their experiences could have been different they were all glad that they had attended IUSD. Alumni of the 1940's and 1950's remember being bothered by patient segregation. Alumni of the 1960's had memories of being excluded from what they referred to as the "hidden curriculum." They agreed that many positive changes had occurred at IUSD. Students are now free to treat any patients, fraternities are open to all, and there are now more Black faculty and staff members to offer a support system to the Black students. The major concern of the Black alumni was the fact that there has been a decrease in Black students attending IUSD. Programs are being implemented to deal with this concern.

Malhartra, S.K., and Richardson, E. R.: Molar Size Sequence in American Blacks. *J. Dent. Rsrch.*, Vol. 60, No. 2:123-127, February, 1981.

In response to the implication by some researchers that the relative molar size sequence distinguished ethnic origin, racial pattern, and environmental effect on the adoptive mechanism, the authors studied the molar size sequence (MSS) in 160 American Blacks, equally divided into males and females.

Meso-distal measurements were made on 333 molar pairs in the maxillary and mandibular arches. The study data is also compared with other studies on American Whites. The findings suggest that there is a reasonably high percentage of $M_2 > M_1$ in both the Black and white population and that the $M_2 > M_1$ sequence is not restricted to fossil man, but is seen in a large percentage of contemporary man.

The percentage of incidence of $M_2 > M_1$ in the maxillary arch seems to be significantly higher in American Whites in both sexes, than in American Blacks. In the case of the mandibular arch, the percentage is significantly higher in American

Blacks. Due to a great variation in size polymorphism, the MSS sequence alone seems to have a limited application in determining racial differences, genetic patterns or taxonomic patterns.

McLain, J., and Proffitt, W.: Oral Health Status in the United States: Prevalence of Malocclusion. *J. Dent. Educ.*, Vol, 49, No. 6:386-396, 1985.

The major focus of this paper is on the prevalence of malocclusion in children, adolescents, and adults and an attempt to define the target population for orthodontic services in the future. Five major questions that relate to malocclusion and orthodontic problems are being considered:

1. What constitutes a malocclusion or a problem requiring orthodontic treatment?
2. What are the etiologic factors?
3. How prevalent is this condition in children, adolescents and adults?
4. Of what significance is the condition? (i.e., What happens if nothing is done to change or treat it.?)
5. What can be done about it and how effective are these "treatments"?

Prahl-Anderson suggests that determination of need be based on objective signs, subjective symptoms and social suffering. A very valuable instrument to this end is the "Orthodontic Treatment Priority Index" or TPI developed by Granger, which uses regression equations to synthesize components of a patient's malocclusion into one score.

The author reviews the prevalence of malocclusion in preadolescent children (ages 6-11), prevalence of malocclusion in adolescents (ages 12-17) and the prevalence of malocclusion in adults.

The data indicated that the majority of children, adolescents and adults in the United States and Western Europe, have irregular teeth and/or occlusal relationships that differ from the ideal. Irregular teeth are the most common findings. Other characteristics of malocclusions are not common. About 15% of the total population have excessive protrusion of maxillary incisors (more than 4mm overjet); only about 1% have either protrusion of lower incisors or posterior crossbite; and slightly more than 10% of Blacks but only 1% of whites have an anterior overbite greater than 22mm, while 11.7% of whites but only 1.4 % of Blacks have a severe overbite (greater than 6mm).

The authors also looked at the relationship of malocclusion and its treatment to good oral health. Considering Prahl-Anderson's first criterion, treatment for malocclusions can be justified on an oral health basis if it can be demonstrated that untreated malocclusion will lead to jaw dysfunction. Conversely if orthodontic treatment increases the risk of jaw dysfunction or oral health problems then it should be reduced.

Mandibular dysfunction and periodontal disease are considered relative to malocclusion. The authors indicate that the evidence for an association between malocclusion and poor oral health is weak. The extent to which malocclusion and its treatment can influence an individual's assessment of his or her own facial esthetics is still in an anecdotal stage. Long term evaluations of orthodontic treatment show that properly planned orthodontic treatment is efficacious and patients feel they have benefited from the treatment and are happy with the results.

Although there are two excellent epidemiologic studies of the occlusion of United States children and youth that document malocclusion well, there is not adequate epidemiologic information to predict even the most severe needs for treatment.

The authors suggested that the psychological component of malocclusion will continue to be one of the strongest motivations for orthodontic treatment. It was suggested that an increased emphasis should be placed on orthodontic problems and treatment approaches in the undergraduate curriculum which may have the effect of fewer general practitioners attempting orthodontic procedures.

Mesa, M., Clark, M., Austin, G. and Barden, M.: Ethnic and Cultural Determinants of the Perceptions of Female Dental Students. *J. Dent. Educ.*, Vol.45, No.9, 1981.

Mesa et al surveyed American and Canadian female dental students to determine the differing perceptions of women enrolled in dental school. The data was analyzed by ethnic derivation: Caucasian, Black, Oriental and Hispanic. The specific areas examined were current status, motivation regarding dentistry as a career, experiences in dental school dealing with sex discrimination, preferences in dental education and future plans. The data indicates that the needs, desires and perceptions of women dental students does differ in relation to their cultural background.

From the data a composite picture of the "typical" female in each ethnic group was derived. In addition, five specific conclusions were drawn from the study:

1. Caucasian and Oriental females perceive that they adapt best to the dental school environment.
2. Hispanic females seem most sensitive to sex discrimination.
3. Students housing facilities will satisfy the needs of Hispanic and Oriental females.
4. The perceived low economic background of Hispanic and Black females suggests the need for more attention to financial aid packages for these groups.
5. Support services, including tutorials, should be directed primarily towards Black females, who are most sensitive to their absence.

The authors concluded that the perceived differences found in the study can easily influence the performance of the students and suggested that dental schools consider instituting sensitivity-raising sessions for administrators, faculty and students, so that these groups can recognize the nature of these perceived differences.

Rauch, M.: Recruitment of Students from Racial Minorities.

In the United States the demand for dental services will increase 125% by 1975, but the supply for dentists will increase by only 16%. This shortage of dentists is even more severe for the Black population. In the article, Dr. Rauch explains some of the reasons that it is difficult to recruit Black dental students. He then outlines some of the activities and projects of the Martin Luther King Committee, a volunteer recruit organization at New York University. His hope is that by briefly summarizing the plans of this committee he will receive assistance in the form of ideas and/or personnel from the readers of the article.

Sharpe, F.: Dr. Black's School Raises the Roof Over Tuition. *Dental Student*, October, 1978.

"Dental schools always need more money to counter higher operating costs, salary increases and the ever rising cost of living. But how much can students take before it becomes too much?" This was a thought expressed by a Northwestern University dental student after his school increased tuition by 57%.

This article reports on a surprise tuition increase at Northwestern University School of Dentistry and the protest by its students to the increase. The school officially announced the drastic increase to the students three weeks after it had made a general press release. The school reported that the large increase was due to a decision to have the dental and medical school finance themselves rather than be financed by the general school budget, decreases in federal capitation, and the need to establish a substantially larger grant fund to help assist more students financially.

The students raised no objection to the projection of the fiscal soundness of the university but were concerned by the lack of communication regarding dramatic tuition increases. The students eventually met with the school administration but only minor changes were agreed upon. This case came to national attention as the dental and medical school students continue to fight for a more affordable tuition increase.

Sinkford, J.: Current Status and Future Trends in Training Dental Practitioners and Dental Auxiliaries to Meet the Needs of the Black Community. *J. Nat. Med. Assoc.*, Vol. 68, No. 1:60-62, January, 1976.

Dr. Sinkford evaluates current trends in dentistry and future directions that are necessary for its survival. At the time this article was presented there was a crisis in dentistry due to a lack of manpower, resulting in inadequate delivery of dental health care, especially in socioeconomically underdeveloped minority communities.

Dr. Sinkford's article highlights some major factors which she believed were significant on influencing recent trends in dental education including, the Civil Rights Act of 1964, health manpower legislation and the Women's Rights Movement. She also outlines some of the countries established health care systems and policies.

The article concludes by examining areas of dental education, such as graduate education and expanded function auxiliary training, which if modified and increased might lead to improvement in meeting the needs of the Black community.

Sinkford, J.: Relations Between Private Practitioners and Present and Future Dental Programs—The Academic Role. *The Quarterly, NDA*, Vol. 34. No.3:93-98, April, 1976.

Dr. Sinkford suggests that while dental practitioners looked to dental schools and local and national societies for new directions and leadership, post graduate education has been left primarily to educational institutions.

The author reviews briefly the three essential components of dental education, research and service. Major factors given as having significant influence in dental education during the past decade include:

- The Civil Rights Act of 1964 and the Education Amendment of 1972
- Health Manpower Legislation of the late 1960's and 1970's
- The Carnegie Commission Report
- The Women's Liberation Movement

A number of the countries established health care systems and policies influencing these factors are also outlined.

Although the profession has responded to the challenges of the Carnegie Commission and the Health Manpower legislation, resulting in the graduation of dentists in three years and introduced specialty training at an earlier time, it has not shown that better dentists are being produced. The suicide rate among dentists is the highest among all professionals. It is suggested that an examination of the two year council on Dental Education Curriculum Review Study may result in the curriculum being extended.

Graduated education continues to suffer from lack of financial support. Data released in 1973 reports a 5.3% decrease in first year enrollment in advanced dental programming with a 16% increase in non-dental school.

Concern is expressed about too much government support resulting in additional government control. Two feasible suggested means of improving the status of oral health and the efficiency of health delivery would be the use of expanded function auxiliaries and effective preventive programs. (With only 50% of the population receiving dental care, the above changes could be significant.)

Dr. Sinkford indicated that the medical profession is far ahead of dentistry in use of auxiliaries. Whether or not the dentist accepts these responsibilities as well as those of an expanded function dentist is a decision to be made.

Continuing education strategies should include categories that reflected voids in the undergraduate curriculum in areas which have changed significantly because of scientific and technological discoveries.

Compliance with HEW guidelines and affirmative action programs have resulted in 50 of the 58 dental schools now reporting any Black student enrollment. In 1964, only 20 out of the 45 schools had Black students. During the past ten years it was noted that dental student enrollment increased by 40% (13,876 in 1964 to 20,146 in 1974). There were no significant increases in minority student enrollment, however, until 1970. Black student enrollment, has more than doubled during the period from 1970 to 1974 (1970-453; 1974-945). There appears to be a leveling off at the present time. There are only 945 Black dental students or 4.5% of the total enrolled dental students and 302 of them are at Howard (32% of all Black students). Howard and Meharry in 1974-75 enrolled 442 Black students or 47% of total Black enrollment.

With regard to women, the 1974-75 enrollment total was 1,361 or 6.8%. Howard has 61 females enrolled or 16% of its total dental student population. It is expected that Howard will level off at a 20% to 25% female population. The 1972 survey of recent dental graduates reports 95% of the dental graduates during the 1969-72 are in general practice and 5% are in specialty practice.

Sinkford, J.: A Look at Dental Manpower and Related Issues. *J. Amer. Coll. Dent.*, Vol. 52, No. 1, Spring 1985.

Dr. Sinkford's article is a reprint of a presentation made at the Maryland State Dental Association Annual Meeting. The 1984 *Report to Congress* from the Department of Health and Human Services predicts a shortage of 4000 dentists in the U.S. by the year 2000. Dr. Sinkford notes that "this will be a great challenge to dental schools and to the profession to maintain a viable applicant pool of dentists for the future who will be responsible for the oral health care of U.S. citizens for generations to come."

The author suggests 12 factors she believes must be understood in order to develop a solution to the present dilemma regarding supply/demand projections. She concludes the article with recommendations that should be considered by the profession as it seeks to address dental manpower issues.

Sumnich, R., and Anderson, C.: Workshop on Minority Dental Student, Recruitment, Retention and Education. The School of Dentistry, University of Missouri-Kansas City and The Heart of American Dental Society, April 24-26, 1975.

The main goal of the workshop was the development of recommendations designed:

1. To help increase the number of minority group dentists to more equitable levels.
2. To facilitate meeting the oral health care needs more adequately of all segments of the population.

Participants of the six workshops voted to emphasize the importance of the recommendations by presenting them as the first item in the body of the published preceding.

The first two days of the workshop considered identification of educational, motivational, psychological, cultural and related problems and barriers associated with efforts to increase the number of precollege-age minority youth who select dentistry as a career. The third day was devoted to the six workshop group reports.

Recommendations, as presented by the discussion groups and adopted by the assembly participants included the following areas:

- Identification, motivation, preparation during precollege years
- Recruitment at the college level
- Selection and admission to dental school
- Supporting minority students in dental school
- Organized dentistry
- Meeting certain special needs of non-Black minority students

Waldman, H.: Increasing Numbers of Minority Group Dentists.

Dr. Waldman looked at the increase in numbers of minority group students between 1970 and 1986 and practitioners during the period from 1970 to 1980.

Data presented indicated that in the fifteen years between 1971-1986, white student enrollment decreased from 91.2% to 75.6% of the entering class. Asian-Americans and Hispanic-Americans increased in the percent of the entering class 354% and 667% respectively. These increases represented continuing numeric increases over the entire period from 1971-1986. The 19% in the percent increase of Black students between 1971 and 1986 represented a numeric increase that occurred primarily between 1971 and 1980. In addition, the attrition rates for Black Americans had been greater than the attrition rate for other minority ethnic groups.

He further points out that the increase of minority group representation in the profession from 4.1 to 7.6 % has not been uniform.

He concludes that Blacks, Native Americans, and Hispanic-Americans continue to be underrepresented, that Blacks have the lowest number and the lowest increase in numbers, and that Asian-Americans have the greatest increase in numbers. He stresses that efforts are needed to attract Blacks and Hispanic-Americans to the dental profession.

Waldman, H.: Minority Group Dental Students in a Period of Decreasing Enrollment. *J. Amer. Coll. Dent.*, Vol. 55, No. 4:36-40, 1988.

Dr. Waldman reviews the applicants, admissions and the rate of attrition during the 1980's. He noted that the marked differences between minority and non-minority acceptance rates and dental students rates of attrition observed during the 1970's has diminished significantly except for Black dental students.

He underscores the dramatic changes of the entering classes since the 1970's with the following:

1. Marked decreases in enrollment (from 6,301 in 1978 to 4,370 in 1987)
2. Significant increases in the number and percent of women represented in first year classes (from 1,000 and 15.9% in 1978 to 1,410 and 32.3% in 1987)
3. Major increases in the percent of minority students represented in first year classes (from 11.0% in 1978 to 20.5% in 1987)

He points out inherent difficulties in collecting minority student group data with the example of Hispanic enrollment in the University of Puerto Rico, School of Dentistry. Prior to 1984, Hispanic enrollment in U.P.R. was not considered as minority enrollment. Since that time, all students are classified as Hispanic minority students. An additional factor given was students not identifying themselves as minorities.

When looking at the number of minority applicants (approximately 1,500 per year) between 1980-1987, the following differences were noted:

1. The number of American Indians and Hispanic-American applicants changed very little.
2. The number of Asian-Americans increased.
3. The number of Black Americans decreased.

The number and percent of male and female students enrolled in dental school by race between 1976-1987 showed a 60% increase in females. During this same period there was more than a 50% reduction in white males and a 50% increase in the number of white females.

While there was only minimal change with American Indians, male Asian students increased 176%.

Between 1976-1987 Black Americans showed a 25% decrease in male and a one third increase in female student enrollment. For Hispanics, there was a 70% increase in male and a 297% increase in female enrollment.

Looking at withdrawal from dental school data showed that there has been a progressive increase in the rate of withdrawal through the 1980's reaching 8.2% in the first year and 4.2% in the second year in 1985. In 1986 there was a reverse in the upward trend with the first year decreasing to 6.9%.

The attrition rate between 1973 and 1986 showed minimal difference among gender, wide variation among American Indians but no pattern, low attrition rate among Asian-Americans, and the highest attrition rate among Black Americans. The Black attrition rate was more than 250% higher than the rates for non-minority students, and the Hispanic attrition rate tend to approximate non-minority rates.

Graduation data reflected a significant decline of the entering class sizes in the late 1970's and indicated a 305% decrease in the number of white males and 50% increase in white females between the early 1980's and 1987. During the same period, American Indian graduation numbers remained constant; Asian-American males increased by two-thirds and females by 250%; Black Americans first increased and then decreased and Hispanic Americans increased.

He concludes that support for minority students especially Blacks must continue and is dramatized by the fact that fewer Black students are applying, a smaller percent of Black applicants are being accepted and they experience a higher attrition rate once they are accepted.

Warren, R: The Student National Dental Association: A Clarification of Its Beginning. *J. of the National Dent Assoc.* Vol. 36, No. 4:133-136, July 1978.

Fifty-two years after the founding of the National Dental Association (NDA) in 1918, the board of trustees approved a request to establish a student chapter of the National Dental Association at Meharry Medical College. Dr. Reuben Warren, Vice-President of the student government and a dental student at Meharry, spearheaded the effort to create a student component to the NDA. Dr. Warren's article discussed factors that led to the development of the Student National Dental Association (SNDA) as well as ways that the organization could be improved.

The NDA was founded to provide a formal organization to assist Black dentists in developing policies to deal with prejudice, institutionalized racism, and the historical role of the Black person in dentistry. The effort to establish a student counterpart to the NDA grew out of similar concerns of Black dental students. In addition, students wanted to open up greater channels of communication with Black dentists.

Dr. Warren concludes the article with suggestions for future planning and development within the SNDA including:

1. Increased efforts to establish chapters in areas where there are five or more Black students.

2. Racial groups, other than white, should be included upon request.
3. The national office should be located at either Howard University or Meharry Medical College.

Webb, H.: Problems and Progress of Black Dental Professional. *The Quarterly, NDA*, Vol. 34, No. 4:147-154, July, 1976.

Dr. Webb describes the many barriers Black professionals encounter preventing full participation in the dental profession. The African American population increased from 15 to 20 million between 1950 and 1960 while the number of Black dentists increased only from 1,681 to 1,839. These statistics underscore the need for more Black dentists.

Although individuals such as Benjamin Banneker, Class of 1731, Dr. Robert T. Freeman, Harvard Class of 1867, and Dr. George Grant, Harvard Class of 1870, excelled, the most aspiring Blacks found a variety of barriers. Webb points out that the inadequate number of Black professionals stems directly from discrimination and reflect the notion that most White Americans have historically held regarding Negroes as essentially inferior.

Prior to 1971 Howard and Meharry accounted for more than 50% of the Black students enrollment in the United States. Between 1964 and 1971, the percentage of Black students enrolled in the first year of dental school increased from 2.3% to 5.2%. However, the increase in numbers in predominantly white schools during 1970-71 was related to a decrease in the numbers of Black students at Howard University and Meharry Medical College. It is also noted that the University of Maryland the oldest dental school in the world graduated its first "publicly identifiable" Black student in the class of 1972.

It is pointed out that access to dental school is often hindered by the lack of money, the need by applicants to work and the inability of parents to support their siblings as a result of an income insufficient to carry students through the expense of the dental education and the minimum \$16,400 required to set up a practice. Once a Black dentist has graduated he is faced with financial problems and racial discrimination.

The author concludes with ten recommendations formulated by the National Dental Association to address barriers and problems associated with increasing the numbers of Black dentists. The recommendations include topics such as improved approaches to dental care delivery, better financing, quality care control, national health insurance, dental research and effective methods of recruiting supporting and training each dental professional and auxiliary.

AFDE Awards Dental Scholarships to Disadvantaged Minority Students. *J. Dent. Educ.*, November, 1972.

This article examines the success and growth of the AFDE scholarship program since its inception in 1968. In its first year, six students were awarded scholarships and by the 1972-73 school year, 74 students had received financing. This particular award was established with a grant from the W.K. Kellogg Foundation who made the provision that the money be used to start a dental scholarship program for Black students. The fund has received increasing support each year from diverse sources, and has expanded to provide scholarships to other minority groups underrepresented in dentistry.

COLLEGE INITIATES PROGRAM

This article describes the minority recruitment and education enhancement program at the University of Illinois College of Dentistry. The program is sponsored by the University and the Council for Bio-Medical Careers (CBMC), a private organization which conducts a year-round program for motivating, guiding and assisting socioeconomically disadvantaged students in meeting the requirements for careers in the health fields. This program was initiated as a way to counter the serious health care manpower shortage many communities are facing. This problem is especially extreme in minority communities. The ultimate goal of the project is especially extreme in minority communities. The ultimate goal of the project is to recruit potentially successful health care professionals from a largely untapped resource who will hopefully return to their own community to practice.

Kellogg Grant to Provide Scholarships for Negroes. *News of Dentistry*.

The *News of Dentistry* reported the establishment of a program of scholarships for Negro dental students funded by a three year challenge grant from the W.K. Kellogg Foundation. The importance of this grant was that it allowed dentistry to compete with other professional schools and industry for the qualified Negro student.

The grant was intended to provide, over a three year period, 40 five-year scholarships of up to \$12,500 per student. Under the terms of the grant the money must be matched dollar for dollar by the American Fund for Dental Education (AFDE) its first year, 2:1 its second year, and 3:1 in its third year. The AFDE has agreed to the provision and is in the process of soliciting matching funds from other sources. Officials from the AFDE hope that funds can be ultimately obtained to sponsor 250 scholarships per year. This would provide 4 at each of the dental schools and an additional 50 at the pre-professional level.

Negro Dental Manpower. *Virginia Dental J.* October 1967.

This article briefly describes the shortage of Black dentists in the United States. The reasons for this shortage are 1. the number of Blacks applying to professional school is less than the ratio of Blacks to whites in the United States; 2. the inability of the Negro applicant to compete as well scholastically with the white applicant for positions in the freshman class; and 3. the difficulty a Black student has in obtaining financial support to complete his education.

The author highlights several approaches for resolving the shortage including financial support, special summer courses in premedical programs, spreading the freshman year of medicine over a longer span than one academic year, improvement of premedical advisory programs and recruitment of more Negro women into medicine.

Recruiting Disadvantaged Students for Dentistry. *JADA*, Vol. 78, May 1969.

The health professions represent a career which has been outside the reach of all but a small percentage of minority group members. In the United States there is a tremendous shortage of Black dentists and medical doctors. In order to increase the number of health care providers it is necessary for colleges and universities to aggressively recruit Negro applicants who are not educationally or financially qualified to enter professional school but express a desire to pursue medicine or dentistry as a career. The schools must also offer ongoing tutorial classes and mentor support to assure that the student can successfully complete his professional training. This article reports on five such outreach recruit programs that have been implemented by dental schools in the country.

Recruitment of Students from Racial Minorities—A Guest Article.
Bulletin of the Eleventh District Dental Society.

The objective of the author, Dr. Marvin A. Rauch, is to make local dentists aware of the extreme shortage of Black dentists in the United States. This shortage is becoming a crisis of extreme proportions, especially in New York, which has the nations largest urban concentration of Blacks and Hispanics. Due to the shortage, minority groups are not having their dental health care needs adequately met. The article discusses New York University's effort to attract minority students to a dental career.

Report of Councils and Bureaus: Development of Programs to Increase Educational Opportunities for Disadvantaged Students in the Health Professions. *JADA*, Vol. 80, May 1970.

The Council on Dental Education outlines the short term results of a grant from the Office of Economic Opportunity (OEO) to the Association of American Medical Colleges. Funding was offered to schools who developed innovative minority recruitment and remedial academic reinforcement programs. The programs OEO found most favorable and which received funding were those which recruited disadvantaged minority students *and* provided procedures to ensure the continued success of accepted candidates through his/her four years of dental school. If the OEO experimental projects continue to be successful, the Association of American Medical Colleges hopes that they will be used by additional institutions as model recruitment programs.

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Focus of Section Discussions: Dental Research

The following is a representative listing of questions each section has been asked to focus on during their deliberations. This list has been expanded upon by the section's faculty in the period of time leading up to the Workshop. While not specifically requesting the sections to develop proposals, all of the questions have an underlying component relevant to a research and action agenda for the future. Each of the discussion sections has been charged to: **make recommendations for future action related to proposals that evolve from discussions of their specific topics.**

THE ROLE AND ISSUES OF BLACKS IN DENTAL RESEARCH

FOCUS STATEMENT: How can dental research initiatives be better focused toward the solutions of dental problems that impact on the status of health in Blacks?

How can this country establish, maintain, and expand the pipelines that will produce Black dental researchers (in the basic and clinically applied areas) for the 1990's and beyond?

What are the research issues that are specific for the Black population in the United States? (sociological, health delivery, geriatric issues, etc.) What are the potential resources for support of these studies?

Multi-disciplinary studies in the basic and clinical sciences are essential to ensure the highest quality of future patient care. In what setting does the optimal potential for quality research on the issues identified exist?

Report of the Section: Dental Research

Introduction

The viability of any scientific discipline is, to a large extent, dependent upon the quality and scope of the research efforts within that discipline. The sub-committee on research agreed with this fundamental premise and made three other statements that served as guidelines for discussions on the issues associated with Blacks in dental research for the coming decades into the twenty first century.

1. The recent mandate given by the Director of the National Institutes of Health (NIH), Dr. Bernadine Healey, makes clear that the NIH is committed to undertaking a comprehensive and systematic study of the oral health problems of Blacks and other minorities in the 1990s and the twenty first century. Thus, our sub-committee takes for granted that the NIH, especially the National Institute for Dental Research (NIDR) will be receptive and actively solicitous of recommendations about improving the oral status of the Black population of the United States. Further, that the NIDR understands the corollary need to increase actively the critical mass of Black dental researchers pursuant to this goal.
2. The amelioration of the oral health status of the U.S. Black community substantially improves the health status of the entire population of the United States; that any such improvement of one group will have positive repercussions for the whole country in diverse ways: economically, politically, socially and morally. Thus, there are compelling reasons to state that the proposed research goals and results will not be limited to the Black community, but there will be “spill-offs” scientifically, intellectually and practically into all population groups.
3. The significant gaps in our knowledge base and in the work place of Black dental research and dental researchers will require considerable support, not only in terms of increasing intellectual resources but also considerable financial support from a variety of sources including the federal government, organized dental associations, community/civic groups and the corporate world/industry.

Concern 1. How can the Black dental profession interact with federal and philanthropic funding agencies to establish and expand the number of Black dental researchers for the coming decades into the 21st century?

I. Factors affecting the concern:

1. Lack of funds.
2. Access to funding agencies, including the NIH, NIDR, National Cancer Institute, Department of Defense (DOD), National Science Foundation (NSF), American Cancer Society.
3. Representation on funding committees and decision-making bodies [NIH, NIDR, American Dental Association (ADA)].
4. Identification of specific health issues relevant to Black oral health status.
5. Lack of true commitment of majority institutions to nurturing the Black presence and recognizing the need of addressing problems of the oral health needs of the U.S. Black population.

II. Benefits upon resolution of the concern:

1. Reduction in morbidity in the Black community due to improvement of specific oral health problems among Blacks.
2. "Spill over" effect into other populations. Scientific and technical advances resulting from research by Blacks and for Blacks will add to the body of knowledge about human disease for the population as a whole. Similarly, the economic and social gains of one segment of the population will have ripple effects on the country as a whole. Any substantial gain in the health status of one group will improve the total productivity of the country.
3. The establishment of Black role models is essential in maintaining the self-esteem and perpetuating the cadre of Black scientists in the future.
4. With the financial support for Black dental research there will be identification of health issues with specific relevance for Blacks e.g., localized juvenile periodontitis.
5. The confidence level and morale of Black researchers will be improved clear evidence of support from various sources (federal, community, industry, etc.).

III. Strategies:

1. We must seek out the directors of major agencies that control funding for dental research and public health needs including, but not limited to: the Director of the NIH (Dr. B. Healey), NIDR (Dr. H. Loe) Secretary of Health and Human Services (Dr. Sullivan), Congressional legislators especially the Congressional Black Caucus and the Agency for Health Care Policy and Research (AHCPR).
2. Participation in special meetings (Public sessions of the National Advisory Dental Research Council, General meetings of the American Dental Association and other associated organizations).
3. Establishment and maintenance of sustained advocacy groups to ensure continuity of programs and continued progress in operational areas.

4. Increase the representation and interaction of Blacks on committees and groups where decisions about research funding, research priorities and research needs are made (NIH Study Sections, Advisory Councils, Agency for Health Care Policy and Research, Office of Minority Health). Blacks should be in leadership positions in the NIDR so that they can serve as role models. In many instances it is not just the number and representation of Blacks on such committees, but the fact that there is little interaction in some of these groups with Black researchers and educators whose expertise in scientific areas could be of great value.
5. There is a great need to increase the number of young Black dental students and faculty at various national and international research meetings. Not only are the contacts made important but there is a definite value gained from listening to the interplay among researchers presenting papers and discussing scientific issues. Without such exposure or if such exposure is delayed, the intellectual and scientific development of these future scientists may be delayed correspondingly.
6. Too little emphasis has been placed on the role of industry and the private sector in support of Black dental research. There is evidence that many chief executive officers have a commitment to support the Black community and many realize the major financial rewards that accrue to companies where such commitment is made public.

IV. Course of action to ensure follow through:

1. Sustained advocacy groups should play a major role in ensuring that the concerns of Black dental research and researchers are maintained at a high level of visibility. These groups would serve a liaison function and would also be responsible for the distribution of information to appropriate constituencies.

Examples of possible advocacy groups would include:

- National Dental Association (NDA) and the National Medical Association (NMA).
 - Association of Black Faculty of the American Association of Dental Schools (AADS).
 - Agency for Health Care Policy and Research.
 - Office of Minority Health (OMH).
 - Association of Minority Health Professional Schools.
 - American Fund for Dental Health (AFDH).
2. Sustained financial support from the previously identified agencies is the *sine qua non* for any and all kinds of follow through operations.
 3. An attempt should be made to get increased participation of the ADA on issues related to Black Dental Research.

Concern 2. What are the specific research issues for improving the oral health of the U.S. Black population?

Introduction: There are a number of specific research issues that should be studied although it is realized that some of the supporting research data linking these disease states to the Black community may not be compelling at this time. Nevertheless, the association is sufficiently strong to merit inclusion here. Some of these are listed below:

1. Localized juvenile periodontitis (periodontosis).
2. Oral Manifestations of sickle cell disease.
3. Chronic sclerosing osteomyelitis.
4. Oral manifestations of diabetes.
5. Keloid disease and wound healing in Blacks.
6. Oral manifestations of hypertension.
7. Cultural and psycho-social factors in the management of pain in the Black population.
8. Oral manifestations of HIV infection (AIDS).
9. Oral cancer.

Minority oral health as well as the implications and impact of this research on the overall health status of the individual.

Research should also include areas of international health, public health, behavioral and health services research.

I. Factors.

1. Raising the economic level of the U.S. Black population will increase the likelihood that appropriate dental care could be made available.
2. Increasing access to care.
3. Under utilization of medical resources.
4. Geriatric problems.

II. Benefits and Resolution

1. The self-evident benefit is the improved health status of the oral health of Black Americans and the associated increase in productivity.
2. Cost-effectiveness of health care with accompanying reduction in the U.S. government dollars.
3. A fundamental increase in knowledge about the pathogenic mechanisms of oral diseases and their manifestations.
4. Better treatment and a better understanding of prevention methods.
5. "Spill-over" effects. There will be cross-cultural/cross ethnic benefits to other populations.

6. Elimination of cultural biases associated with the so-called “racially-based diseases.”
7. Increased funding for research.
8. Increased numbers of new dental researchers since there would be an increased motivation for careers in dental research resulting from exposure to appropriate role models (dental researchers).

III. Strategies.

1. General

- a. Identification and prioritizing disease states. Black dental researchers need to identify and rank the major disease issues that affect the Black community. Once such identifications are made known to the appropriate funding agencies a coordinated attack could be mounted.
- b. Proposals would then be generated in specific areas.
- c. Dissemination of information (technology transfer and assessment) to the public.

2. Specific

- a. There is a need for NIDR to fund an epidemiologic study that would present comprehensive and systematic baseline data on the oral health status of Black Americans. Mechanisms and sources for funding these activities should be established i.e., specific requests for proposals/applications (RFPs/RFAs).
- b. There is a need to establish an affirmative mechanism for the entry of qualified Blacks into recognized graduate training programs of high quality. Established investigators are also encouraged to avail themselves of the existing advantages of the NIH Minority Supplements Program.
- c. Research institutes should be established at Historically Black Dental Schools and focus on issues which relate to the oral health of the Black population. Such programs would represent the Black role model for the NIDR Satellite Research Institute prototype. It is anticipated that such institutes will have long term funding with an initial allocation of 4-5 million dollars per year.
- d. There is a need to have a greater representation of Blacks at levels where policies and decisions are made about the allocation of research funding.

Concern 3. What steps must be taken in developing a research agenda for the future?

1. All of the steps require a certain amount of time and financial support to start any substantive operation. The first step would be to seek financial support

for the purpose of accumulation of baseline data on: 1) the oral health status of Black Americans and 2) available resources including numbers and scope of Black dental researchers, research facilities, research plans, and funding levels.

It is realized that this sort of needs-assessment document would require input from a variety of sources including dental schools, researchers, community-based hospitals, private practitioners, community health agencies, etc.) and the amount of time required for the accumulation of such data could be quite long.

2. A second source of financial support would be needed to convene a meeting of Black researchers to develop a long range plan based on the data accumulated in #1 above. The participants of such a meeting would include people from a number of institutions (dental schools, research institutes), federal agencies (NIH, OMH, AHCPR), private practitioners and others.
3. After review and evaluation of the data a specific proposal would then be presented to the following groups for consideration and implementation:

Director of NIH
 Director of NIDR
 Secretary of Health and Human Services
 Office of Minority Health
 House Appropriations Sub-Committee

Concern 4. How can we become involved in developing a long range research plan for the future?

Recognizing the existence of NIDR plans regarding minority health issues, we recommend the establishment of a task force which will work directly with NIDR on its minority initiatives. The composition/membership of the task force as well as the implementation of research efforts should reflect the research goals related to the specific disease processes common to the Black population, as listed in concern #2.

We also seek legislation for the funding of Black-oriented oral health research efforts. At the present time there are no active programs with legislative mandates. The benefits accruing from this program would include:

1. Increased effectiveness of research efforts.
2. Greater participation of Blacks in policies on research initiatives and planning.

Concern 5. How do we establish a research network and collaborate on research projects?

There should be a computer-based system to identify all Black research investigators (including graduate students, NIH fellows, dentist-scientists and physician scientists, dental school faculty, etc.) and this system should be based and maintained at Research Institutes located at Historically Black Dental Colleges. Some

appraisal of the level of activity for each researchers and the levels of institutional commitment should be included in this data base. It would be desirable to collaborate with existing data banks found in AADS, OMH, NDA, American Association for Dental Research (AADR), ADA, Center for Disease Control (CDC) and other agencies. A structure of networking with individual Black researchers and administrators should be established that would allow the input and updating of data in the computer base.

Concern 6. What mechanisms can be developed to strengthen Black participation in research?

A variety of mechanisms operating at different levels is required to achieve maximum participation of Blacks in research. Among these are:

1. Outreach programs should extend into the college level as well as into high schools to encourage early exposure to and involvement in dental research. Competition with other career options demands early intervention. This effort should not be limited to academic institutions, but should include community organizations (health, religious and other civic entities).
2. Timely implementation of the goals listed in Concerns 1-5 must accompany these outreach programs. Predominantly Black health organizations (NDA, NMA, etc.) are urged to play an active role in the identification and encouragement of Black students into dental research.
3. Based on the prototype program established by the AHCPR, it is recommended that Black student dental groups [Student National Dental Association (SNDA), etc.] request funding to establish outreach programs. Such requests should be made to the following: NIH, NIDR, ADA, AADS, International Association for Dental Research (IADR/AADR), and industries associated with oral health (Colgate, Proctor & Gamble, Warner-Lambert, Vipont). Various groups in the IADR/AADR should sponsor the travel of Black students to national research meetings.
4. NIDR should initiate and hold annual workshops at Historically Black Dental Schools for the purpose of presenting seminars on grant writing, developing grant applications and peer review processes (mechanisms used by various NIH study sections). Alternatively, schools could request the presentation of such programs.
5. There should be greater representation of Black reviewers on NIH study sections so that there will be an increased awareness of these groups to Black research needs. The responsibility and accountability for this recommendation must rest with the directors of NIH and the NIDR to demonstrate their commitment. The consortium of Black researchers described in Concern #4 should monitor and evaluate the progress of this objective and issue a report annually to legislative and governmental review bodies.
6. There should be funding to periodically convene a task group to assess the implementation of the recommendations in this report.

Concern 7. What can be done to ensure that research dollars are earmarked for Black dental research?

The sub-committee emphasizes the importance and critical nature of this recommendation. The recommendation was reached after much discussion of NIH budgetary records and associated data. The success of the overall thrust of this report will depend on prompt implementation of this recommendation.

1. A minimum percentage of six percent (6%) of the total allocated budget for NIDR should be earmarked for 1) research on the oral health needs of the U.S. Black population, and 2) the establishment and maintenance of a critical mass of Black dental researchers, 3) establishment of research institutes at historically Black dental schools and institutions with Black researchers. Several important people should be contacted in pursuit of this objective:
 - a. Congressional legislators.
 - b. Secretary for Health and Human Services.
 - c. Director of NIH.
 - d. Director of NIDR.
2. Other organizations whose financial support should be solicited include:
 - a. ADA/AFDH.
 - b. AADR.
 - c. Industrial companies such as: Colgate, Proctor & Gamble, Warner-Lambert and Vipont.
3. Consideration should be given to consortium research involving Black researchers.

Concern 8. What can be done to ensure that government and private agencies include Black representation in future planning activities?

We recommend that the Congressional Black Caucus focus on the oral health needs of the U.S. Black population and Black dental research needs for its next legislative week-end program.

We also recognize the need for continual contact with other congressional leaders, the Secretary of Health and Human Services and the Directors of the NIH and NIDR.

The establishment of Research Centers of Excellence at Historically Black Dental Schools (Dental Research Institutes) would provide a resource of outstanding Black scholars and investigators.

Discussion of Section Report: Dental Research

DR. ROBERT ELLISON:

I remember reading in a magazine several months ago, they were recommending in an article that we should seek other sources outside of NIH, because it appeared that all the money is being given to long term projects and not earmarked for new investigations and so on and so forth. I'm really concerned about the sensitivity of some of these agencies to topics relating to Black Dentistry. Have you had any experiences with these agencies in terms of their sensitivity for funding?

DR. ELISHA RICHARDSON:

We are taking a very positive attitude and we assume that the NIH is going to be responsive. We also assume that industry is going to be responsive.

We know that most of the research being funded, probably somewhere around 80 to 90 percent of it, is being done by way of the Federal Government, and so that is the reason you'll see NIH listed as the number one funding source.

Dr. Michael Easley:

Obviously, corporate based research usually follows a product line and it depends on what products are being developed and where the company is going in the future with respect to product sales.

Yet, I certainly think there is an interest in expanding horizons in research, and helping develop researchers. I think the fact that several companies helped sponsor this conference is an indication that at least corporate America is interested.

I think there are lots of opportunities and that certainly one of the reasons I'm here is to talk with people and find out what their interests are and try to help us develop some programs. And I would say that my experiences in the past with National Institutes of Health is that they're also interested. Given the leadership now at all levels of the Department of Health and Human Services, I think I would be very optimistic in all areas, both public and private funding.

MEMBER OF AUDIENCE:

What I want to find out is: Is there a plan that will explore other departments for funding, like the Department of Defense?

DR. ELISHA RICHARDSON:

The Department of the Army is aware of the fact that in the Middle East 30 percent of the troops were Black, and we do believe that the Army is a very progressive looking organization.

DR. EMERSON ROBINSON:

Regarding the factors affecting this concern, I thought you might want to elaborate on how does your section propose gaining access to some of these foundations.

DR. ELISHA RICHARDSON:

We recommended that dental research centers or institutes—and we don't mean the \$500,000 dollar a year grant—be established at the historically Black schools and that they be established at a level of four to five million dollars per year. When we stated they should be funded for the long term we were thinking in the terms of 20 plus years.

That recommendation was made on the basis of the prototype that was established when dental research centers were set up by the National Institutes of Health on the West Coast, the Midwest, the Northeast, the Southeast and the South Central back in the mid-1960's.

Those centers were established for the specific purpose of bringing the level of sophistication of dental research up to a competitive level. They were not established because there was the great degree of sophistication, but in order to develop the sophistication and bring it up to a certain level.

So that is the number one recommendation of the section. The other is the six percent of the total National Institute of Dental Research budget being dedicated to Blacks and their specific oral health issues.

If you listened to Dr. Manley, when she spoke and when she said that if a White gets cancer, the White is dying at about a 20 to 30 percent rate. When a Black gets cancer, the Black is dying at a 67 percent rate.

Now, why is this happening? Is it in the genes? We don't think it's in the genes. We believe the reason why is that the researchers happen to be European Americans and when they do their research and they start looking at how you need to transport the drug from one spot to another, it is done on the basis the hemoglobin level that you'll find in the European American.

When you start looking at the tissue you've got to go through in order to irradiate patients with cancer, it is done on the basis of the skin thickness of the European American and of the pigmentation of the European American.

When you get ready to treat the African American, you're trying to guess what adjustments should be made based on the studies that have been done in order to deal with the population that the researchers doing the research have studied. And they've done it objectively, but by coincident their base is in that particular group and you have a tendency to study that which is available to you.

Our hope is to swing the pendulum such that we too will be involved in the research. We can find out whether or not there's a need to vary the radiation dosage because you're dealing with a heavily pigmented skin versus one without much pigmentation.

We can see whether the minute differences in the hemoglobin level affects the ability of the blood to take the medication to the distant part that we want to attack.

In other words, we recognize the need to concentrate on what is happening to us, and we're trying to ask for the needed amount of money.

DR. LOIS COHEN:

I appreciated, as I'm sure Dr. Loe will appreciate, the receipt of this report and its many recommendations, which, obviously reflect a great deal of thought and insight into the problem.

There's been a great deal of discussion at National Institute of Dental Research on minority health issues and we have formed a sub-committee of our National Advisory Dental Research Council to explore this issue and related issues in depth. We are hopeful that in a short time we'll be able to introduce some new initiatives to the research community.

But in thinking about all of this, I was wondering whether your committee has given any consideration to the notion of collaborative networks for research and the idea of consortium arrangements. It's been alluded to the fact that the total pool of research dollars is shrinking particularly when we take into consideration inflation and the costs of conducting the biomedical and behavioral research.

I just wondered whether your committee considered the notion of leveraging support among several research sponsors, number one, and whether the doers of research and the trainers might think in terms of consortium of institutions.

DR. ELISHA RICHARDSON:

Yes, the committee did think in terms of consortium.

But one of the things that the committee was very much aware of is that when the historically Black school starts talking about setting up a consortia with the historically white schools, and you start doing it on a collegial basis, it is necessary to build the historically Black school up to competitive position so that you can discuss the interchange of knowledge and look at the exploration of ideas.

The big problem that we have is that we need the critical mass at historically Black institutions in order to talk to the other institutions on that collegial level. And if we don't reach the point where we can do it on a collegial level, then you get back into paternalism, which is not acceptable within the Black community.

So we definitely think that there should be consortia, but we think that it is critical to first set up these dental research institutes so that the Black school is strong enough to enter into a consortia arrangement and to maintain its dignity and self-esteem and fully participate in the consortia arrangement.

DR. WILLIAM HOSKINS:

I'd like to make two comments.

What I would suggest is that we should possibly begin thinking about dental research relative to not only the implications in the very finite area of the oral cavity or the area that traditionally has dealt with the area of dentistry, but the ramifications of this kind of research on the rest of the body.

It would give credibility in many areas where a lot of dental research does not receive credibility and, secondly, it would make many of our research projects more acceptable to funding sources, because certainly someone asked to fund a very limited area, say like periodontology, would maybe be hesitant to do that, whereas if one was to take it a step farther and the implications of that relative to the entire system are a specific part of the internal system, I think it would have more universal appeal.

The only missing link I see in this report is what happens from tomorrow on to make sure that these wonderful ideas take place?

DR. ELISHA RICHARDSON:

In response to your first comment I would refer to the section which talks of keloid disease and wound healing of Blacks.

In looking at that, we were trying to look at the broad subject of wound healing. In wound healing you would try to look at the biochemistry of the base membrane. You want to know why it breaks down at certain times and heals at certain times. You want to understand the basic matrix of the cell.

We are now trying to look at how do you turn on and turn off healing in the normal process because we think when you get the keloid formation you've got a time when the body is over repairing. And what we're trying to find out is how do you stop the body from adding on once you've healed the wound in order to keep the keloid from forming further. Now, even though this is of great concern to us as dentists in cosmetic surgery, it's also of equal concern to the Black female, because when you started looking at breast cancer and you left the radical mastectomy and went to the conservative approach in removing the lumps, you resolve the some of the social problems for the white female.

But the Black female still has a problem, because if you cut and there is the keloid formation, she has just as much of an aesthetic problem as if you had taken the whole breast away because now you've got these lumps she has to explain.

DR. JOSEPH HENRY:

I would like to first state my gratitude to this committee for the great amount of work they accomplished in such a short period of time, and I certainly support all of the recommendations related to the historically Black dental school.

However, I am concerned about the relative omission of a focus on the Blacks in the majority schools. In the mid-sixties, 97 percent of Black dental students were enrolled at Howard and Meharry Dental Schools. Today, and for some ten years now, 57 percent of Black dental students are attending the non-Black or majority dental schools.

Therefore, I hope that in finalizing this report that recommendations will include proposals that include Blacks in all dental schools and with special recommendations for Blacks at the majority dental schools.

DR. ELISHA RICHARDSON:

I think your point is well taken, and I do hope that with the enhancement of what's going on at the Black schools and also you're going to see an increase in the number of Blacks at the majority schools.

What we are trying to do is to be certain that the Black schools operate at such a point that the White schools will stop saying that the good Black scientists or whatever is an exception and that they will recognize the fact that you do have the good Black scientists no matter where they are and what they're doing.

DR. BONITA D. NEIGHBORS:

My comment is kind of a follow-up on Dr. Henry's comment, in that I question why the proposed research centers would automatically be given to historically Black schools. You did a very thorough job of explaining why you thought that was necessary, but I would consider doing a two-level approach where if you feel the Black schools need some kind of development. That is one phase of it, then and after development you might have an open competition for the centers.

And the reason that comes to mind is I can think of two very successful researchers here at the University of Michigan that are involved in Black research—in some ground breaking Black research and have produced quite a few associate professors that are Black that are mentors for Black students that would not have had a chance if this kind of criteria were automatically set up for historically Black schools.

DR. DOLORES M. FRANKLIN:

I'd like to bring attention again to a topic that was touched upon this morning, and that is oral cancer and I ask that it be added to your list of research issues.

In the District of Columbia we've already started dealing with our problem. We have the highest rate of oral cancer in the nation and looking at particularly within the Black community, Black males; the rate there is three and-a-half times the rate of the national rate. So when we say twice the national rate, we're talking about in general, and when you get into our sub-groups you're going to find that it's an even more significant problem, and certainly one that should be included here.

I also want to point out that we've already sought and received assistance from NIDR in this effort and that we've also received assistance from the National Cancer Institute. They should be included here when we approach oral cancer and also the American Cancer Society.

DR. JULIANN BLUTT:

I'd like to share with you a program of which I'm very proud that operates at Northwestern University, which as you know is a majority institution.

We have instituted a five track curriculum, and one of those tracks relates to research. It is going into its third year. Each year we take 6-8 undergraduate dental students to work with established researchers. Those of you that are in educational institutions will recognize the importance of early cultivation of a research interest.

Research that has come out of this particular track has been presented at the AADR and IADR, and the students involved have won research awards.

We must cultivate those who will be our future dental researchers.

The other question relates to where your section states that must be annual workshops at the historically Black schools. Am I following your thinking . . . you're predicating that upon the establishment of an institute of some sort at the historically Black institutions?

DR. ELISHA RICHARDSON:

You mentioned putting research into the dental school curriculum and doing it early. I think our section would certainly encourage it. I do laud you for your early entry of the students into research, and I would ask all schools to try to introduce research techniques to the students who have shown an interest or aptitude.

The statement in the section report is that the NIDR should hold annual workshops at the two Black dental schools. Asking that it be done at the Black school does not preclude it from being done at the white schools.

DR. MARK A. CHISHOM:

I attend the Medical University of South Carolina in Charleston, South Carolina.

And I'd first like to say that it is inspirational and motivational for me to attend a conference where there are so many Black professionals in my intended field of interest, especially when I am coming from an institution that has no Black faculty. It is along those lines that I would like to make a comment about participating in research.

Your report states that Black students or Black groups at dental schools should investigate contacting some commercial firms for research funding. Well, I would like to take that further and say possibly there could be a Black faculty member, a contact point that you could talk to about a Black perspective on research.

I know it's been especially motivating to me this week to see and talk with other Black professionals.

Secondly, I am the national minority consultant for the student dental association, and I find it kind of distressing that there is no minority consultant on the American Dental Association. Maybe we should start working from the inside to effect outside help, maybe we should have more contacts with these groups.

DR. ELISHA RICHARDSON:

We recognize the fact that the American Dental Association has been derelict in its emphasis on the minority issues. At one time, roughly about 15 years ago, we had quite a few conferences on minority issues, and then they sort of disappeared.

We need to let the American Dental Association know that this group recommended that appropriate minority advisors be set up by the American Dental Association in order to establish the appropriate interface with the minority dental community.

I do recognize what you've said about not having anyone to talk to. Now, one of the things that we would hope, if the research centers are set up, that they would put the historically Black schools in a position to be able to contact and interface with the Black students at the historically white schools, in order to at least help them to see the total spectrum.

Some schools allow the students to see the spectrum and some don't, and we think all should see the total spectrum. And we truly understand the problems and the issues that you have hinted about.

DR. REUBEN WARREN:

I want to at least bring to the attention of the committee the notion that there are various levels of research and we must direct our activity on those research endeavors and methodologies that impact most particularly on the African American population.

I'm speaking specifically of knowing those things that work for the nation as a whole, if you know, and finding out why they don't work for African Americans; public health research, behavioral, social research and health services research are important entities that must be included in research endeavors. I hope the committee considers and makes a point of emphasizing that fact. This then allows agencies like the Centers for Disease Control to become involved.

And lastly, I wanted to stress the importance of looking at international health as it impacts African Americans and the relationship between what's going on on the African continent and other places where people of African descent happen to be and African Americans in the United States.

DR. JAMES SPIVEY:

I am grateful to have heard that there's so much interest in establishing ongoing research activities into the Black dentistry. The University of Iowa would like for us to join the other institutions, particularly Michigan, since it's already been set up to a standard, in the majority dental schools training Blacks.

I may suggest that through the student chapter of the National Dental Association that dental students be made aware that institutions I know all over the country are open to receiving and reviewing their applications for graduate training.

I know at Iowa, for example, we have a committee, which I'm a part of, that reviews all minority applications and look over them specifically and see if there are any extenuating circumstances that could affect grade point, for example; if a student comes from a larger family.

We look at how they were trained, if it was in a community college and so forth, and we literally bend over sideways and front ways in reaching out trying to attract these students, and we have done, I think, a tremendous job.

DR. EMERSON ROBINSON:

I want to thank Dr. Richardson and the research section for such an excellent job.

Review of the Literature: Dental Research

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Sinkford JC. The Future of Dentistry: New Challenges, New Directions.: *J. of the Nat. Med. Assoc.*, Vol. 82, No. 5, pp. 353-358.

This 1987 presentation by Dr. Sinkford discusses the major changes in dentistry which are the essential basis for strategic planning. Five major categories were analyzed and recommendations made for directions of pursuit. The areas were:

- a. education
- b. delivery system
- c. public attitudes and consumerism
- d. manpower
- e. research and development

Among the changes foreseen were modifications in the undergraduate dental curriculum, expansion of general practice residences, inclusion of technology in the educational process and development of super-generalist faculty. Special emphasis was directed toward research subjects of high priority, e.g., AIDS , hypertension, aging, drug and substance abuse and mental illness. Delivery systems changes involving franchises, closed panels, HMO' s and their competition with traditional practice modalities were explored. Issues of manpower and public attitudes were linked with the perception of availability of health care and the existence of sufficient resources to accomplish quality care.

Sinkford emphasized that research in dental institutions will require increased federal funding and private capital funding and must be tailored to the existing

problem base of social needs. Research efforts were deemed essential to professional and institutional growth.

Sinkford JC. The Future of Dentistry: New Challenges, New Directions.: *J. of the Nat. Med. Assoc.*, Vol. 82, No. 5, pp. 353-358.

This case report details the presenting problem, symptoms and treatment of a 62 year old Black male with sialolithiasis. Correlation with medical history and guidelines for routine detection were proposed. Etiologies listed were as follows: 1) a central nidus of bacterial cells or desquamated epithelial cells 2) stagnation of saliva resulting from the nidus or tortuosity of the ducts 3) the precipitation of calcium salts from a pH change in the gland or change in the electrolyte balance.

Presenting patient symptoms and observations were dull pain, edema, tissue inflammation at Wharton's duct and palpable firm mass in submandibular area. Medical history revealed that patient had undergone parathyroidectomy two years before presenting. A 250 mg dietary calcium supplement had been prescribed post-surgery.

Surgery under local anesthesia is described. Post-surgical antibiotic therapy and return to normal function are detailed.

Jones O, Ortiz C, Schlein A. Orthodontic management of a patient with Class I malocclusion and severe crowding. *Am. J. of Orthod. and Dentofac. Orthop.*, Vol. 95, No. 3, Sept. 1990, pp. 189-196.

This is a single patient report of orthodontic management of a Class I malocclusion in an 18 year old Afro-American male treated at Howard University College of Dentistry. A cephalometric tracing of presenting conditions initiates the article. Treatment objectives of providing correct alignment, symmetry, midline, function and esthetics are listed. A treatment plan is described which involved extraction of maxillary left first premolar, and insertion of an maxillary quad-helix appliance. The maxillary right first premolar and mandibular right first and mandibular left second premolars were also part of the extraction sequence.

Numerous intraoral and extraoral photographs are part of this report and treatment objectives are shown to have been achieved. Light edgewise forces and a quad-helix expansion appliance were concluded to have been very effective as a treatment modality in this case report after a two-year period. Wearing of a positioner was also reported to have improved conditions after a four-month period.

Park S, Kudlick EM, Abrahamian A Vertical dimensional changes of the lips in the North American Black patient after four first-premolar extractions. *Am. J. Orthod Dentofac Orthop.*, Vol. 96, No. 2, 1989, pp. 152-160.

The significance of soft tissue changes after orthodontic therapy is emphasized in this publication. Numerous data are provided for fifteen North American Black patient as a result of complete first premolar extraction. An extensive review of the literature with respect to investigations dealing with soft tissue profile as a result of orthodontic therapy is presented. The purpose of this investigations was to determine the vertical dimensional changes of the lips.

The sample population included males and females with Class I and Class II malocclusions. Age range was from 9 year 6 months to 16 years 1 month for all patients. Nineteen linear and angular measurements were made from pre-treatment and post-treatment lateral cephalograms. Changes in these measurements were statistically analyzed with Student's tests and Pearson's correlations. Statistically significant results were:

1. increase in palatal plane angle
2. increase in lower anterior facial height
3. increase in posterior facial height
4. increase in pterygoid plane to point D
5. increase in inter-incisal angle
6. maxillary incisor retraction

Statistically significant correlations with maxillary incisor position were:

1. positive correlation with the change in interlabial vertical dimension
2. positive correlation with the change in upper lip depth
3. negative correlation with the change in inferomentolabial angle

Conclusions stated in the article were:

1. Maxillary incisor retraction was related directly to the change in the interlabial vertical dimension, it was related inversely to the change in the inferomentolabial angle.
2. The change in the inferomentolabial angle was related directly to the change in the nasolabial angle: it was related inversely to the change in the interlabial vertical dimension.
3. The change in the upper lip depth was related directly to maxillary incisor retraction and to a change in the interlabial vertical dimension.

Chung A, Kudlick EM, Gregory JE, Royal GC, Reindorf CA Toothbrushing and transient bacteremia in patients undergoing orthodontic treatment. *Am. J. of Orthodon. and Dentofac. Orthoped.*, Vol. 90, No. 3, Sept. 1986, pp. 181-186.

Research was conducted to determine the presence and change in bacterial count of orthodontic patients before and after tooth brushing. A review of the literature with respect to bacteremia is presented. Selected microorganisms listed

as pertinent to the problems associated with bacteremia were alpha and beta streptococci, nonhemolytic streptococci, *Staphylococcus aureus*, *Staphylococcus albus*, Vincent's spirochetes and fusiform bacillus .

Study population was 16 males and females undergoing orthodontic therapy—average age 14.5 years. Bacteriologic and immunologic studies were conducted. Only anaerobic bacteria were isolated. Results of the study supported conclusions that the body's immune system possesses the ability to reduce the bloodstream of bacteria in a 15-minute period. The majority of blood cultures were negative 15 minutes after brushing. Oral hygiene was not delimitter of existence of bacteremia, but good oral hygiene for patient under orthodontic treatment is mandatory to reduce the potential of hazardous levels of bacteria entering the bloodstream.

Gaidry D, Kudlick EM, Hutton JG, Russell DM. A survey to evaluate the management of orthodontic patients with a history of rheumatic fever or congenital heart disease. *Am. J. Orthod*, April 1985, Vol. 57, No. 4, pp. 338-344 .

The goal of this investigation was to determine the management strategies of orthodontists in treatment patients who are at risk for bacterial endocarditis. Data were obtained through a survey from a large random sample of practicing orthodontists in the U.S.A.

A review of the literature on this subject concluded that clinical judgement, a suspicious nature and early diagnosis are among the best preventive modalities. A questionnaire soliciting information concerning the following was distributed:

1. screening techniques
2. medical consultation
3. acceptance / rejection of patient with rheumatic fever history
4. regimen of antibiotic therapy for risk patients
5. procedures for which antibiotic therapy is utilized
6. office emergency procedures
7. oral hygiene aids or devices prescribed
8. relationship of periodontal health to preventive procedures

It is concluded that a significant number of orthodontic practitioners should review their patient management procedures and more fully follow present recommendations of the American Heart Association.

Richardson EA, Malhotra SK, Semanya K Longitudinal study of three views of mandibular third molar eruption in males. *Am. J. Orthod*, Vol.56, No. 2, 119-129.

This study, conducted at Meharry Medical College School of Dentistry, sought to describe normal eruption of mandibular third molars in North American Black males utilizing simultaneously obtained lateral, oblique (45 degrees, right and left) and postero-anterior cephalograms. Additional purposes were to observe the path of eruption of some impacted mandibular third molars and evaluate parameters associated with third molar eruption and impaction. A subset of 20 males taken from a 99 male population used for a growth study and having two mandibular third molars present (n=40) constituted the subjects.

Cephalograms, plaster casts and visual inspection were used to observe the position and state of eruption of the molars. Statistical analysis of the data utilized the Fisher's exact test. Numerous specific findings supported the association of impacted mandibular third molars with space inadequacy between the anterior of the ramus and the distal of the mandibular second molar.

Parameters stated to be of significance in predicting the course of mandibular third molar eruption were wide buccal location and the degree of linear space between the distal surface of the second molar and the anterior ramus. Prediction of the course of eruption of third molars was not stated as reliable before a person was 14-16 years of age.

May Jr. OA, Contreras JA. Radiology forum. *Oral Surg Oral Med Oral Pathol.* Vol. 68, No.2, August, 1989, pp. 243-245.

The authors of this brief article emphasize the important of establishing a differential diagnosis through use of medical and dental histories and complete clinical and radiographic examination. Untoward sequelae to dental extractions were discussed and radiographic examples supplied. The complications listed were:

1. compound fracture of the alveolar ridge
2. alveolar bone splinters
3. bare alveolar ridge
4. intra-alveolar residual fragments
5. foreign elements in the alveolus
6. transalveolar abscess.

Salamat K, Rezai AF. Nonsurgical treatment of extraoral lesions caused by necrotic nonvital tooth. *Oral Surg*, Vol.61, No. 6, pp. 618-623.

After making a distinction between apical and periodontal abscess, the authors present two cases in which extraoral sinus tracts required therapy. Etiologies in the two cases were mandibular incisors, traumatized and carious, respectively. Radio-

graphic and photographic evidence are presented along with presenting symptoms and medical and dental histories. Antibiotic and endodontic therapy resulted in timely and complete closure of the fistula with apical bone repair in Case I. Similar treatment was successful in Case II. Unique to the endodontic treatment performed in these two cases is the use of a paste formulation (iodofom-calcium hydroxide-glycerine). Although at odds with presently used filling material and techniques, the authors stress the formulations effectiveness and review selected paste formulations which they suggest have positive results.

Choksi SK, Modification designed to improve instruction in intraoral dental radiography. *Oral Surg*, Vol. 59, No. 6, June, 1985.

A coordinate system approach to alignment of the x-ray beam for complete coverage of periapical radiographic films is presented. The advantages and disadvantages of selected instruments are discussed and solution to the problem of incomplete is proposed. Modification of a Snap-A-Ray film holder to facilitate tube-film alignment is described in detail.

Two study groups, one using the modified instrument and one not, exposed 965 radiographs. Only errors of incomplete beam coverage (cone-cutting) were counted. Comparison of the two groups by statistical analysis supported conclusions that the modified film holder resulted in an S% reduction in all types of technical error and a 40-50% reduction in cone-cutting error regardless of side, arch or region radiographed. The modification of the film hold was also stated to be simple.

Chohayeb AA, Dilaceration of permanent upper lateral incisors: Frequency, direction, and endodontic treatment implications. *Oral Surg*, May, 1983.

Percentage frequency distribution and anatomical direction of dilacerated maxillary lateral incisors is tabulated in this study. The determination of whether endodontic therapy failures were correlated with unawareness of root direction was also sought. Over half of the 450 extracted teeth examined in this research had a distolabial dilaceration direction. The other directions in decreasing order of frequency were: labial, mesiolabial, distal distopalatal, mesiopatal and mesial. A sample of 442 endodontically treated teeth revealed the same distribution. Although the common belief is that maxillary lateral incisors tend to be dilacerated distally, this investigation indicated a distolabial direction to be the most prevalent. Caution by clinicians in assessing the direction of dilacerated teeth was emphasized.

Smith HS, Soni NN Histologic study of pulp capping in rat molar using calcitonin. *Oral Surg*, Vol. 53, No. 3, March, 1982, pp. 311-317.

The efficacy of CT (calcitonin) as a direct and indirect pulp capping material was evaluated in 20 Sprague Dawley rats at 1, 7, 14 and 28 days post-insertion. Study sets were: 1) purposeful exposure 2) preparation without exposure and, 3) untreated teeth (controls). Concentrated salmon calcitonin (pH 5 in saline solution) and calcium hydroxide powder were compared as the pulp capping materials.

Histological studies of the pulpal tissue were conducted and representative slides are reproduced in the publication. These studies support the effectiveness of both calcium hydroxide and calcitonin as indirect pulp capping agents. When used as a pulp-capping material, calcium hydroxide produced an inflammatory reaction. However, the calcitonin stimulated the formation of dense connective tissue at the initial exposure site. This area of fibrosis expanded and became progressively calcified. Presence of few, if any, inflammatory cells were observed, although isolated areas of hyperemia were seen.

Salamat K, Rezai FA, Knight AS. Exploratory endodontic surgery. *Oral Surg*, Vol.52, No. 4, October, 1981 pp. 437-442.

This two case report details that use of exploratory endodontic surgery during the retreatment of endodontic cases. It presents the sequelae following initial treatment, and describes the surgical intervention used during retreatment. The prognoses for retreatment of both cases were poor. One case was successfully (Case 1) treated, the other one was a failure (Case 2), and tooth extraction was the ultimate outcome.

In Case 1, success of a root surface amalgam in obturating a root perforation was demonstrated. Necessity for having these amalgam restorations highly polished for optimum gingival tissue response was also demonstrated. The patient was in the "youth" age group.

In Case 2, a 68 year old male with a fistulous tract associated with a maxillary left premolar was the presenting problem. A bridge using this tooth and the maxillary left second molar complicated the prognosis. Exploratory surgery was used to discover a filling devoid root canal. Retreatment was accomplished, but one year post-operative, pus was observed exuding from the sulcus and extraction was opted for. An undetected vertical perforation on the lingual aspect of the root was observed on the extracted premolar.

Mourshed F, An approach to the teaching of radiographic interpretation of bony lesion. *C. V. Mosby Co.*, Vol. 50, No. 1, pp. 92-23.

The teaching of radiographic interpretation is proposed as a significantly difficult aspect of dental education. The goal of the brief discussion is to explain a unique approach to teaching radiographic interpretation of bony lesions. Three instruction philosophies are presented:

1. Disease-oriented vs. Radiographic appearance-oriented
2. Memory-oriented vs. Radiographic criterion-oriented
3. Radiographic diagnosis-oriented vs. radiographic differential diagnosis-oriented

In the first approach, instruction in bone pathology and radiographic interpretation is given sequentially—with instructors in dental radiology presenting the radiographic appearance of pathologic lesions within the same pathology course. The advantage is listed as reinforcement of the students' previous oral pathology instruction.

In the second, criteria of peripheral outline, dimensional changes, formation of single or multiple radiolucent areas and the lesion's effect on surrounding tissue are deemed more advantageous than memorization of the specific appearance of a specific pathological condition. In the third, the importance of differential diagnosis based solely on radiographic appearance is emphasized. The importance of different types of pathology resulting in similar radiographic appearance is used to enhance the 'detective-like' skills needed in radiographic interpretation.

Gunraj MN. Decompression of a Large Periapical Lesion Utilizing an Improved Drainage Device. *J. of Endodon*, Vol.16, No. 3, March, 1990, pp. 140-143.

This article focuses on the elimination of large periapical lesions of a cystic nature through use of a prosthesis which allows continuous and adequate drainage of the site. Specific guidelines for selection of appropriate cases listed in the article are as follows:

1. nonvitality of teeth associated with lesion
2. diameter of 20 mm minimum
3. demonstration of clear straw-colored fluid during therapy
4. cystic cavity which allows free placement of tube within the lesion.

Fabrication of the prosthetic device is described in detail along with listing of necessary pharmaceuticals and materials.

A case report is presented along with radiographic and intraoral photography. Successful treatment of the case and post-operative radiographs are also shown. Disadvantages of this kind of therapy are patient cooperation of long treatment period and feasibility of obtaining poor access biopsy.

Chohayeb AA. Bonding to tooth structure: clinical and biological considerations. *Intern. Dent. J.*, Vol. 3S, pp.105-111, 1988.

The challenge of bonding restorative materials to both enamel and dentin is discussed. The advantages of such materials and their impact upon restorative dentistry is emphasized. An excellent review of the chronological history of dentin bonding agents is given. A brief description of the chemistry of bonding agents is presented along with principles of mechanisms of bonding. The inconsistency of in-vitro investigations of bonding agents is noted and reasons for these inconsistencies are listed as:

1. test method
2. choice of substrate
3. age and storage of specimens
4. presence or absence of "smear layer" on specimens
5. microleakage inhibition of bonding agent
6. experimental testing time range

The roles of tissue interface (enamel or cementum) and coefficient of thermal expansion on reducing microleakage are described. The differing opinions of the impact of dentin bonding agents on pulpal response are expressed and the difficulty of correlation between in vitro test data and clinical performance is stated. Results of a clinical study to evaluate a ferric oxalate bonding system are presented and discussed.

The need for long-term clinical studies for creditable evaluation of dentin bonding agents is emphasized.

Jumbelic A, Nassif J. General considerations prior to relining of complete dentures. *J. of Prosthetic Dent.*, Vol. 51, No. 2, February, 1984, pp. 158-163.

Proper selection of patients who are candidates for the relining of dentures is described. The phases involved consist of an interview, examinations, diagnosis and consideration of complicating factors. The purpose of the interview is determine the patient's denture-related problem(s). Systemic and health related problems are required to complete the background of the patient's denture problem(s). Unique to this approach is the generation of a written questionnaire which expresses the patient's psychological profile and details the patient's expectations and desires.

Evaluations of the patient's condition with and without the dentures should then be performed. Examination of the quality of fabrication of the dentures is accomplished to determine if this is the principal negative factor to proper use of the prosthesis. Factors of malposition of the artificial teeth, harmony of central centric and occlusion, and retention and stability must be recorded.

Complicating factors of TMJ, mucosa, denture base resin, denture teeth, facial contours, vertical dimension and unacceptable esthetics and phonetics are also explained.

Ehudin HE, Martin HB. Tooth-tutoring: a pilot study to evaluate peer-teaching effectiveness. *J. of Dent for Child*, July-August, 1983, pp. 287-291.

A program patterned after existing ones at the University of Southern California and Georgetown University was evaluated at Howard University. Using fifth grade students as dental educators to first and second grade students, eight dental students were ultimately able to educate 175 children. The effectiveness of such a program to provide health information to large numbers of children was evaluated in this study. Steps taken to accomplish the goal of the study were recruitment, location of elementary schools, organization, implementation, repetition of screening/testing procedures and analysis and report of results. Eight visits involving dental students, and fifth grade education preceded performance. Evaluation consisted of written pre- and post- tests, plaque scores and evaluation of program by classroom teachers.

Significant differences were substantiated by comparison with the control group. Classroom teachers response was favorable. The benefits of such an approach were validated and resulted in increased awareness of dental health, enthusiasm about dental health and establishment of rapport between elementary school and the College of Dentistry.

Ballard BA, Suess GA, et.al. Squamous-cell carcinoma of the floor of the mouth. *Oral Path*, Vol. 45, No.4, April 1978, pp. 568-579.

This extensive review of the relatively uncommon squamous-cell carcinoma lesion (floor of the mouth) was initiated in order to analyze the records from a large population with special reference to the clinical and biologic features of the lesion.

One hundred patients both men and women (male 4.25/female 1) were recorded from the Roswell Park Memorial Institute. The age of the patients ranged from 33-55 yrs. Pain was the initial symptom for the disease and 58% had lymph node metastases on the first visit. The 5-yr survival rate of all patients was 52.7%. It was clearly established that early detection was the primary factor to longevity of the patient. The interval between first symptoms and definitive treatments must be minimized to increase survival rate. No patient, after having unsuccessful surgery and radiation followed by treatment with mithracmycin survived longer than twelve months. Metastatic sites were wide-spread, e.g.: uterus, colon, rectum bladder, pancreas, ear, and prostate gland. Heavy smoking and drinking were predominate contributory factors to etiology.

In the non-smoking, non-drinking group, systemic and environmental factors were cited for etiology in men, but were not demonstrated for women.

Sinkford JC. Dental health needs of children and adolescents. *JADA*, Vol. 103, December, 1981, pp. 901-905.

Recommendations from the Panel for the Promotion of Child Health are presented in this article. Status of children and adolescents at the time of the articles publication indicated that malocclusion, gingival disease, cleft lips or palates, caries and periodontal disease continued to be major problems in the health evaluation of this population.

Unmet needs for the handicapped were addressed. The handicapped, physically handicapped, and medically compromised patient were the principal groups cited. Patients with Down's syndrome, epilepsy and cerebral palsy were given as examples of problem of medical management. It was noted that only 10-25% of the practicing clinicians were willing to treat this population group. The major roles of dental schools and other institutional entities is solving this problem were emphasized. Recommendations included: federal supported programs, promotion of oral health in children and youth, school-based screening and prevention, community water fluoridation, research and involvement of the private sector .

Bell AA. Prosthodontic treatment of pendulous maxillary tuberosities. *JADA*, Vol.103, December, 1981, pp. 894-895.

This case report details a procedure by which the tuberosity area of a denture can be replaced with a thin "shim" of cast gold alloy instead of the traditional acrylic resin denture base. Castings are made prior to processing of the acrylic resin denture base and provide strength and thinness in situations where there is insufficient space between the tuberosities and the retromolar pad areas of the mandible. In this case report the patient was a 75 year old medically compromised female patient with history of angina pectoris, heart murmur, hypertension and diabetes mellitus, among other system problems. Surgery was contraindicated and averted through this technique.

Nayar AK, Latta JB, Soni NN. Treatment of dentinogenesis imperfecta in a child: report of case. *J. of Dent. for Child*, November-December, 1981, pp. 453-455.

Hereditary dentinogenesis imperfecta in a patient belonging to a racial group consisting of 4000-5000 related persons in the Southern Maryland and Washington, D.C. areas was treated. The patient, a seven year old female had three other siblings with the same affliction. The trait could be traced back a period 250 years within this racial isolate. The patients chief complaint was that of unsightliness. Two treatment modalities were proposed: stainless steel crowns and a tooth-supported denture with minimal tooth preparation. The second treatment was selected owing to the insufficient space in the molar region which presented.

A description of the fabrication technique is given and home care procedures are emphasized. They included removal of denture before retiring, toothbrushing

morning and night, use of a fluoride gel and daily dental flossing.

Impediment of speech, mastication and accommodation of the prosthesis were noted early during wear, but were overcome with a period the three months. Due to growth, new dentures were required at designated observed time intervals.

Lubovich AP, Sanders Jr. HA. Use of a silicone index to apply and contour porcelain on occlusal surfaces of ceramo-metal restorations. *J. of Prosthetic Dent.*, Vol. 45, No. 4, April, 1981, pp 392-394.

This technique article describes the use of a tray silicone impression material to obtain a matrix for wax patterns prior to cut-back and application of porcelain in ceramo-metal restorations. The technique procedure is to wax the crown according to the dictates of P.K. Thomas and then obtain an impression of the wax patterns. Alternate crowns are then cast, and body and incisal porcelain applied using the general contour of the adjacent wax patterns. The procedure requires two firings of porcelain. The remaining crowns are then cast and the index used to determine their contours.

Advantages of the technique are cited to be accurate reproduction of the occlusal detail, substructure design guidance through use of the index, visualization of even porcelain thicknesses and facilitation of the second addition of porcelain for high degree of esthetics.

Tatum AC, Tatum BN, Marfatia-Rege AT, Amant KS Immediate esthetic treatment for anterior teeth: report of cases. *JADA*, Vol. 118, May 1989, pp. 575-577.

Immediate esthetic treatment for anterior teeth is cited to be advantageous with respect to reduction of patient stress and avoidance of functional sequelae. Three case reports are presented.

Although this article is entitled "Immediate esthetic treatment. . .," multiple visits were required for prosthetic restoration of lost anterior teeth. Temporary solutions to esthetic problems are presented. The importance of patient education and involvement to avoid unwarranted fears of unsightly appearance are emphasized. Techniques were based upon the acid etch procedure and particular attention was paid to maintenance or achievement of a good esthetic result for optimal patient satisfaction.

Kessler M. The Bite Plate—An Adjunct in Periodontic and Orthodontic Therapy. *J. Periodontol* Vol.51, No.3, March 1990, pp.123-135.

The indications and contraindications for use of the bite plate in periodontic and orthodontic therapy are detailed. In periodontic therapy the bite plate can be used

as a diagnostic appliance, to avoid occlusal trauma and to allow for extrusion of teeth. Radiographic evidence of the effects of bite plate therapy are cited as being difficult to quantify.

Indications for use of the bite plate in orthodontic therapy are listed as allowing for the movement of teeth without interference from inclined planes of the opposing teeth and to obviate superimposed occlusal trauma attributed to parafunctional habits. Effects produced by use of a bite plate are: decrease in overbite, increase in overjet, and alteration of mesio-distal and bucco-lingual landmarks.

Considerable technique detail is presented in the article with photographic examples of treatment modalities. Design of the bite plate is discussed and modifications of the Hawley and Sved bite plate are presented. A complete summary of guidelines for bite plate therapy is outlined with topics such as uses, possible advantages and disadvantages, bite plate design and technique suggestions.

Nghiem HT, Stahl SS. Mitotic Response in Basal Cells of the Crevicular Epithelium to Gingival Surgery. pp. 36-37.

Microscopic observations of mitotic response of basal cells in the crevicular epithelium was used to establish a guideline that restorative dental procedures affecting healing sites should not be undertaken in less than 30 days post-surgery. Gingival specimens from 18 patients (9 male, 9 female) were used in this study. The patient population was divided into Groups I, II and III corresponding to 7, 14 and 28 days, respectively. Microscopic examination revealed 6.7/1000 at 0 days, 11.4/1000 at 7 days, 11.6/1000 at 14 days and 9.7/1000 at 28 days. There were no statistically significant differences in the mitotic indices between I and II, I and III and II and III. Cellular observations showed as a function frequency were prophase, metaphase, anaphase and telophase.

Boyd, Jr. JB. Correction of prognathism with fixed and removable partial dentures. *J. of Prosthetic Dent*, Vol. 40, No. 5, pp. 509-512

Non-surgical treatment of prognathism by means of prosthodontics is documented in this case report. Classification of prognathism into true, false and acromegaly dictate the treatment modality to be used. Surgical procedures are stated as unnecessary in patients with an anterior cross-bite from pseudo-Class III malocclusion. The importance of diagnosing the consequences of increasing occlusal vertical dimension is emphasized.

The case report involved a female patient presenting with complaints of ill-fitting dentures, and pain in the teeth and temporomandibular joint. Mandibular

prognathism with a deep anterior crossbite was observed. Treatment included extraction of third molars, rebasing of the mandibular partial prosthesis and increase of the vertical dimension by 10 mm by means of an occlusal splint. Eight weeks post-treatment, the patient exhibited no TMJ discomfort or functional distress. Temporary coronal restoration were fabricated on re-prepared teeth and after a period of observation, ceramo-metal crowns were used as permanent restorations. A new partial prosthesis was fabricated and success was evident at the six month recall.

Mourshed F. The Undergraduate Dental Radiology Curriculum. *J. of Dent. Educ.*, Vol.43, No.13, 1979, pp. 680-682.

This article may well be of only historical value since many of the recommendations concerning dental radiology curriculum have been implemented since its publication in 1979. It is interesting to note, however, that development of a curriculum in dental radiology is difficult since technical aspects of the discipline may dominate the basic science aspects due to the restrictions of time and teacher resources. However, the problem of optimal radiology curricula still demands considerable attention from administrators and educators. The value of this article when published was substantial.

Hardy F. Comparison of fluid resin and compression molding methods in processing dimensional changes. *J. of Prosthetic Dent.*, Vol. 39, No. 4, April, 1978, pp. 375-377.

Dimensional changes in denture-base resins for 20 sets of technique dentures were measured comparing the fluid resin technique of processing with that of the conventional heat-curing method. Measurement were precise to 0.0001 inch. Thirty-three degree teeth were used to facilitate location of occlusal contacts. Dimensions measured were: 1) linear dimensional change between maxillary second molars, 2) vertical change of incisal pin opening after processing, and 3) amount of pin opening after selective occlusal grinding.

Results:

1. no significant difference was cited between the two techniques with respect to linear distance measurement [Note—no p values were given in the article]
2. incisal pin opening was greater for the heat-cured dentures and
3. selective grinding was primarily on the molar teeth.

Selection of one technique over the other should be based on further clinical studies, according to the author.

Lubovich RP, Peterson T. The fabrication of a ceramic-metal crown to fit an existing removable partial denture clasp. *J. Prosthet. Dent.*, Vol.37, No.6, June 1977, pp. 610-614.

An 'indirect-direct' technique for fabrication of a ceramo-metal to fit an existing removable partial denture clasp is detailed. The procedure uses definitive anatomic guides such as indexes and wax pattern carriers to reproduce the essential dental anatomy. The authors' technique is proposed in order to prevent depriving the patient of the partial denture during laboratory technology procedures .

Goals of this technique are production of a temporary crown, final crown pattern, and reproduction of the proper facial contour of the porcelain in the final restoration. Use of the materials and methods used to achieve these goals are given as a clinical and laboratory sequence. The major steps are:

1. fabrication of the temporary crown and final crown pattern
2. production of a facial index
3. application of dental porcelain
4. try-in of the completed crown

Advantages of the technique are listed as: 1. gross contouring of the temporary and final restoration is minimized 2) clasp adjustment are eliminated or minimized and 3) patient retains use of partial denture during fabrication of final restoration.

Overall Jr. JC, Spruance SL, Green JA. Viral-Induced Leukocyte Interferon in Vesicle Fluid from Lesions of Recurrent Herpes Labialis. *J. of Infectious Diseases*, Vol. 143, No.4, April, 1981, pp. 543-547.

The role and existence of HuIFN (Human InterFeron) in local lesions of recurrent herpes labialis (HSV) was investigated in this study. Twenty patients with recurrent herpes labialis (white males and female) constituted the study population. Age range was 19-57 years. Fluid from existing vesicular lesions was collected and test data consisted of lesion duration, quantity of vesicular fluid obtained, its primary dilution, IFN titer in the diluted specimen and in the vesicular fluid.

IFN levels ranged from 1,400 to 63,600 units and high titers of HSV were present in 16 specimens. Inhibition of replication of vesicular stomatitis virus was shown in all samples.

Although the role of vesicular fluid IFN is not fully elucidated, it was concluded that HuIFN may aid in resolution of lesions by inhibition of viral replication. High titers were observed in the early stages of the lesions and HSV is known to be sensitive to HuIFN-alpha, beta and gama, in vitro.

Enwonwu CO. Societal Expectations for Oral Health: Response of the Dental Care System in Africa. *J. of Public Hlth. Dent.*, Vol. 48, No. 2, Spring, 1988, pp. 84-93.

This extensive review of the philosophy of oral health care delivery in Africa begins with a background of the problem which addresses the paradoxes of the societies of most countries in Africa. The problems in delivering health care to the population are enormous and not readily solved by superimposition of Western health care stratagems on the African scene. Most of Africa is rural and due to complex developmental problems, oral hygiene is not viewed as a precaution against oral disease. The unmet needs for dental care are immense and periodontal disease outpaces caries as the predominant oral pathology. Periodontal disease remains endemic in virtually all age groups investigated. African nations view oral health as a low priority when compared with issues of agriculture, education and defense. Maldistribution of resources in urban areas obviates effective delivery to the rural areas and health care systems, if in existence, demand fee for service. Poor transportation networks also contribute to unmet rural needs. Poor on-site maintenance of existing dental equipment is also a negative factor.

Traditional methods of chewing sticks and utilization of naturally occurring plants still dominate oral hygiene practices, owing to the prohibitive costs of Western style toothbrush and toothpaste techniques. The use of fluoridation is beset with problems of water supply, existing levels in water supply and expense of developing and maintaining a centralized water supply.

Basic principles of equitable distribution, prevention, involvement, technology and collaboration are cited by the author as pillars of a successful program. The basic problem is one of effectively integrating the best of the two systems to be benefit of the health care consumer.

Kumar PP, Henschke UK. Five Years' Experience with the Gold Button Technique for Intraoral Interstitial Implants with Iridium-192 Seeds. *Therapeutic Radiology*, Vol.124, July 1977, pp. 227-229.

Four disadvantages of free-hand intraoperative removable interstitial implants: operator and staff exposure, inaccurate positioning, equal dosage and unnecessary dosages to adjacent tissues are cited and solutions arrived at in this article. The traditional stainless steel buttons were replaced with gold buttons in a study involving 34 patients over a period of five years. Severe reactions to opposing normal mucosa were significantly reduced with the density of Au being cited as the reason for reduction of radiation dosage to normal mucosa.

Iko BO "Computed tomography and sialography of chronic pyogenic parotitis," *The British J. of Radiology*, Vol. 57, No. 684, December, 1984, pp.1083-1090.

Lubovich AP, Goodkind AJ "Bond strength studies of precious, semiprecious, and nonprecious ceramic-metal alloys with two porcelains," *J. Prosthet. Dent.*, Vol. 37, No. 3, March, 1977, pp. 288-299.

The potential for replacement of tradition gold-based alloys with non-precious alloys for use with ceramic-metal restorations was investigated in this article. The physical properties of nonprecious metals surpass those of gold with respect to density, Young's modulus, creep resistance, proportional limit, plastic strain and cost.

Purposes of this study were to measure bond shear strength, compatibility with two commercial porcelains and to evaluate the manufacturer's recommendation with regard to surface preparation of the alloys prior to porcelain addition.

The "pull through" type of specimen was utilized. Data were obtained using an Instron mechanical testing instrument. Bond strengths obtained varied considerably. There was no difference in bond strengths between the two commercial products tested. The non-precious alloys differed in their performance between the two commercial products, and bond strengths were less for the non-precious alloys than with the gold-based alloys. However, semi-precious alloys produced high bond strengths.

Press Jr. HC, Davis TW. Ingested Foreign bodies Simulating Polyposis: Report of Six Cases. *Am J. Roentgenol*, Vol. 127, 1976, pp. 1040-1042.

Ingestion of corn kernels can radiographically appear identical to multiple polyposis. Edentulous patients who have eaten corn kernels within 5-7 days are particularly likely to exhibit this phenomenon . Repeated radiographic examinations after instruction to desist from intake of corn are negative. Compromised mastication and inadequate digestion were cited as etiologies.

Wertheimer FW, Brewster AH, White CL. *Periodontal Disease and Nutrition in Trinidad*.

This investigation was initiated in order to form a database for analysis of the nutritional condition of the Trinidadian population. Sample population was 2000 comprised of two major ethnic groups: East Indians and Negroes. The method of population sampling is given in the West Indies Nutritional Survey Manual. Health data gathering was accomplished by a medical examination and a dental examination.

Biochemical data of note were: high incidence of low hemoglobin, ascorbic acid values were adequate, but vitamin A values were low. Riboflavin and thiamine values were adequate also.

Although East Indians tended to have better oral hygiene, the incidence of periodontal disease in both ethnic groups was nearly equal, i.e. 87.7% for Negroes and 89.1% for East Indians. Caries and periodontal incidence were high throughout the sample population. Correlation between periodontal disease and biochemical findings was not established.

Horowitz HS, Doyle J. Occlusal Relations in Children born and Reared in an Optimally Fluoridated Community. II Clinical Findings. (*Division of Dental Health, National Institutes of Health, San Francisco*) Vol. 40, No. 2, April, 1970, pp. 104-111.

This study of Caucasian and Negro children ages nine through fourteen was intimated to describe the occlusion of children born and reared in an optimally fluoridated community (Chattanooga, Tennessee). Data variables were: dental age, molar relation, buccal and lingual crossbite, overjet, overbite, maxillary midline diastema, midline deviation, frenum attachment, tooth displacement and anterior spacing. Population was 718.

Negro children was more advanced in dental age, female more advanced than males. Other specific differences between the ethnic groups in this non-randomized study are detailed in the article.

Garner LD, Butt MH. Malocclusion in Black Americans and Nyeri Kenyans, An Epidemiologic Study. *The Angle Orthodontist*, Vol. 55, No. 2, April, 1985, pp. 139-146.

Comparison of incidences of malocclusion, caries and missing teeth in Black Americans and Nyeri Kenyans constitute the goals of this research. The Black American population residence in Indianapolis, Indiana area and consisted of 209 males and 236 females, 13-15 years of age. The Kenyan sample was taken from nine school in Lyeri Town, a district in Central Kenya. The Kenyan sample was composed of 505 persons in 13-14 year age group. Statistically significant differences in Class II and Class III occlusions were noted between the two sample populations: Class II - 16% B.A. vs 7.9% N.K and Class III - 8.7% B.A. vs 16.8% N.K. Rampant caries was not observed as a pattern in either group.

Duncanson MG, Jr, Korostoff E. Compressive viscoelastic properties of human dentin. *J. of Dent. Research*, Vol. 54 No. 6; 1975, pp. 1207.

The objective of this research was to understand the mechanical behavior of non-pathologic human dentin and to obtain data that would serve as a partial characterization of the viscoelastic properties of this biological tissue.

Stress relaxation measurements were utilized. Specimens of normal dentin obtained from extracted human teeth which were maintained in physiological solution were used for testing. The Instron testing instrument was used to impose a constant compressive strain on cylindrical specimens and the stress behavior as a function of time was studied.

A "box distribution" of relaxation times was obtained using a method developed by Tobolsky. Plots of stress vs. log time were linear for certain minimum and maximum relaxation times.

SUMMARY OF RELEVANT INFORMATION REGARDING RESEARCH

Introduction

The contribution of Black investigators to dental research has been voluminous and of high quality. This contribution has been occurring over many decades in the twentieth century and is particularly notable since few persons have had the luxury of consistent and high funding amounts with which to work throughout those decades. Furthermore, the training mechanisms available have not produced a large cadre of those Black persons devoting their careers to basic dental research. Ingenuity, determination and concern have been the hallmarks of those Black researchers who have contributed to the body of knowledge in virtually every field of research involving oral health. The recognized dental specialties and the basic and clinical sciences are repositories for many scholarly articles representing the continuous and dedicated efforts of many persons in dentistry. It is with regret that the reviewed articles have missed the contributions of many Black investigators because an accurate retrieval system is nonexistent!

Distribution

Most of the articles reviewed were from historically Black dental educational institutions. This is an inaccurate bias which will continue to exist unless a network reflecting the use of modern technological resources is implemented. Demographic data on the location and activity of minority researchers is fragmented and not up-to-date.

Journals of Publication

The following journals are but a partial list of those journals in which Black authors have been published. The list reflects the variety and competitiveness of the research results produced by Black investigators.

1. Journal of Biomechanics
2. Journal of the National Medical Association
3. American Journal of Orthodontics
4. Oral Surgery
5. International Dental Journal
6. Journal of Dental Research
7. Journal of Prosthetic Dentistry
8. Journal of the American Dental Association
9. Journal of Dentistry for Children
10. Journal of Periodontology
11. Journal of Dental Education
12. Journal of Infectious Diseases
13. British Journal of Radiology
14. American Journal of Roentgenology
15. The Angle Orthodontist

Thus we see that both national and internationally contributions have been made and accepted by peer review as reflecting the quality of the submissions.

Unmet Needs

1. Continuous training mechanisms for predoctoral students to enter and be given support.
The lure and necessity for many Black graduates to enter non-academic pursuits after graduation is profound. Proper understanding of the benefits of an academic/research career must be promulgated to those promising Black students who are contemplating specialty training. With the lack of sufficient role models in many institutions, it is imperative that these training mechanisms be implemented.
2. Communication among Black researchers.
Communication among Black researchers should be organized and occur frequently. Conferences, workshops and meetings should be developed to facilitate such communication. Formation of a National Registry of Black investigators could be beneficial. Knowledge of and impact on the Federal funding agencies should be organized to aid investigators in competing successfully for research monies and molding policies and goals which will result in research with results focused on known problems in the Black population.
3. Enlargement of existing federal program targeted to historically Black institutions.

Programs like the MINORITY SCHOOL FACULTY DEVELOPMENT AWARD while laudable have restrictions which obviate participation by minority faculty NOT at predominantly minority schools. For instance, the purpose as outlined in a recent issue of the NIH GUIDE states, “. . . invites academic health centers or schools and other health professional schools that employ, educate or serve a preponderance of minority faculty, staff, trainees and communities to submit application for support activities directed at the development of faculty investigators at minority schools. . .”

The publication goes on to indicate that the percentage of minority faculty in U.S. medical and other health professional schools has remained at consistently low levels. Such a policy would apparently prevent a single minority faculty member from competing for these funds because of the non-minority status of his or her institution.

Programs such as the MARC program, while again to be praised, do not allow minority students at non-minority schools to participate because of stipulations that the schools must be predominantly minority.

Summary

A dual approach is required for research ventures planned for the 21st century. Along with research there must be development of a health care system so that as research proceeds, care proceeds. Too often, studies are made, needs identified and then left unmet. Mere inclusion of Blacks and females into the sample population is not sufficient. Research proposals for study of population groups should only be funded if some health care benefit is established, managed and left in place post-data collection. As with most governmental policy, research initiatives are in response to lobbying operations. Only after organization into a recognized group pressing for solutions to specific needs will favorable responses be achieved.

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Closing Session

June 27, 1991

DR. EMERSON ROBINSON:

The work that has been done here will not die. In fact, I want to say in closing that Mike and I are extremely pleased about the way things have gone, and I think that the efforts and the enthusiasm that have been demonstrated by everyone — I mean the workshop which included the six sections — I just never believed that anything like this could have happened over the preceding Monday and Tuesday when the groups met and put together these documents.

I felt that they would rebel and even come after us for asking them to do something of this magnitude, but I just think that they deserve — in fact, I know they deserve all the credit for what is happening today. We told them at the beginning — I guess it was on Sunday — that this was your conference, that Mike and I just put it together and that was it.

So we only feel that what we've done is something that needed to be carried out, and so we just did that.

I want to thank the people here for the conference, because that was the connecting point to erase the gap between the working committee and you who responded to what they've done. And I think that your efforts in that sense has helped to refine the reports that have been presented.

And again, I think that the accomplishments that have been done by the various groups needs to be applauded, and I'd just like to take my hat off to them.

I just want to say that Mike and I took an oath and we're committed to pursuing this to its fullest extent, and rest assured, this will not end up on the bookshelves and hopefully you won't let it end up on your bookshelves either and we will pursue whatever means we can possibly take to make this happen.

As a starting point, Dr. Manley, our keynote speaker, assured me that she would utilize her office to make whatever influence she has to help us to accomplish some of the things that we expect to come out of this conference. And I think that that's a powerful resource person that we can use.

And I think there are other people here, Dr. Maas, for example, Dr. Duberry, and various other people that are in the federal arena who will certainly be supportive of our efforts. So I think that we can turn to people like them who will also help to carry out the goals of this meeting.

So again, I just want to say that I appreciate everything that you have all done and we will see what happens in the very near future. Thank you.

Dr. Marilyn Woolfolk will make the closing remarks.

DR. MARILYN WOOLFOLK:

There's not much else we need to say. I think everybody's kind of tried to say it. I've been scratching out lines as I've heard it said.

The main thing I wanted to do is just to say that when we started on Monday, the workshop and the conference, I think there was a certain amount of doubt. Nobody anticipated what was going to happen and a lot of doubt existed in the minds of some of us what the experience could produce.

As one of the workshop participants, I observed a lot of members of the groups working with a lot of dedication unlike any that's been seen or that I've witnessed before, and the level of enthusiasm that they were contributing to their various assignments was certainly appreciated and also inspirational. Nobody wanted to drop the ball, which was a significant incentive at 11:00 o'clock at night, one of those sessions.

So, in the opening comments Dr. Robinson said, "When we come to an end, we will make tremendous strides towards establishing a blueprint to guide Black dentistry into the 21st century." Indeed tremendous strides have been made toward the aims put forth for this workshop and conference.

We've provided a multitude of perceptive analyses of the six areas that were covered. I think all of us who have participated have been resensitized to our responsibilities as role models, as providers of health care and as professionals who must articulate the needs and the interests of all African Americans who, according to the 1990 census, constitute over 30 million people, the largest minority group in America.

I know that as we leave we will leave with a willingness and a commitment to pursue what we have accomplished for a better future for Black dentistry in the 21st century.

On behalf of the University of Michigan, who has hosted this conference, we thank you for coming, for your participation.

For my colleagues here — stand up again, please. One of the reasons that they asked me to make these closing remarks is because they can't toot their own horn, and believe me, their horn needs to be tooted today.

With that, I'd like to close and say thanks for coming and thanks for your participation, your commitment and have a safe journey home, and may our paths continue to cross in the future.

They're going to sleep well tonight.

Attendees to the Conference

DR. CAROLYN ADAMS
Chicago, IL

MS. GEORGIA BLAKE
Ypsilanti, MI

DR. CHARLES J. ALEXANDER
Milwaukee, WI

DR. ABRAHAM BOADI
Toledo, OH

DR. DORIS ALLEN
Ann Arbor, MI

DR. CHARLES BROWN
Detroit, MI

DR. VICTOR ALOS
Washington, DC

DR. CAROLYN LYNN BROWN
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