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Objectives of the American College of Dentists

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

A. To urge the extension and improvement of measures for the control and prevention of oral disorders;

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

C. To encourage graduate studies and continuing educational efforts by dentists and auxiliaries;

D. To encourage, stimulate and promote research;

E. To improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient;

F. To encourage the free exchange of ideas and experiences in the interest of better service to the patient;

G. To cooperate with other groups for the advancement of interprofessional relationships in the interest of the public;

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

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

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DEPARTMENTS

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FROM THE EDITOR

The Unity of Form and Function: A Journal for Dental Ethics and Professionalism

AS Acting Editor, I first want to recognize the many excellent and talented people who have created and are creating the *Journal of the American College of Dentists* (*JACD*). Worthy of special praise is Dr. Keith Blair who has recently completed 13 years of dedicated service as the *JACD* Editor. Building upon this heritage, the *JACD* will continue to evolve as a means for promoting the American College of Dentists' mission and strategic plan, and to serve as an inspiration to each Fellow's endeavors to strengthen dental ethics and professionalism.

United States society is changing in both positive and fearsome ways. Dentists are constantly challenged by extraordinary advances in science and technology, increasing cultural diversity, changing economic conditions, and the seductive call from sophisticated multi-media marketing to define themselves by "image," conspicuous consumption, and the possession of goods and services. The traditional professional characteristics of self (i.e., a resolute search for truth, passion to teach, and holding patient interests above self), are whispers against the clamor of commercial messages. Can emerging generations of dental professionals withstand such influence? Can professional principles prevail? Not since the early years of the twentieth century have dentists so needed clear examples and guidance from leaders committed to hold the high ground of ethical judgment and professional behavior.

What guiding light shines from the American College of Dentists? Do College leaders and Fellows act as one in their quest to identify emerging challenges to ethical decisions and professional behavior? Does the College reassure the public's peace of mind that this profession is competent, caring, and committed to oral health and their complete physical, mental and social well-being?

The *JACD* must be the College's primary means to help dentists discriminate between their personal interest and their ethical and professional obligation to protect and promote the public's interest. The *JACD* must help Fellows to focus on the profession's long-term mission, as well as daily coping with ethical challenges. It must help define terms of reference that enable better communication within the profession, with other professions, and with the public.

From cover to cover, the *JACD* will attempt to focus on issues related to the resolution of ethical dilemmas, obligations and responsibilities that are bound to the privilege of having the public sanction for self-development and self-regulation. To assist authors and enhance credibility, manuscripts are reviewed by peers. Such review can significantly add to the quality of reading and enhancement of an author's reputation. The *JACD* has adopted the global standard for scientific writing, widely known as "the Vancouver style" to encourage authors to write and submit manuscripts. From cover to cover, changes have been made to clarify mission, broaden content, and enhance readability. Many items previously found in the *JACD* are now in *News & Views*. With the help of distinguished authors and an excellent Editorial Board, we aspire to have a professional journal that is peer to the most highly regarded scientific journals.

Ethics and professionalism are the crown and throne of dentistry. They legitimize dental practice, be it oriented to clinical, research, education, administrative or policy development duties. Ethics are principles and values applied to ensure public safety, appropriateness and social acceptability of practice. Professionalism is the application of scientifically established standards to ensure that services are

effective, efficient and beneficial. The former tells us what is right, the latter shows what is true.

To promote ethical dental practice, the *JACD* should be defining principles, language, customs and issues of dental culture. As Fellows, who we are, what we do, and to what we aspire requires our understanding of dental culture, in itself and as a subset of the culture of all learned professions. Yet, the *JACD* must reach beyond introspection. We must help readers to define, appreciate, and respond to the changing multitude of cultures that comprise the public-at-large. It is necessary to appreciate the values of our patients, our communities and the nation. As a learned profession, dentists are responsible for recognizing both oral and total health need, communicating in the public's terms, and for working individually and collectively with the public to overcome barriers to oral health protection and promotion.

To strengthen professionalism, the *JACD* will strive to highlight ethical issues and truth - insofar as possible, scientifically established truth. We seek articles that examine dental practice in terms of oral health outcomes and public benefit. The *JACD* will solicit and give preference to articles addressing health services research, since this scientific foundation has been relatively weakly addressed in the dental literature compared to biomedical, education, and management research. Thus, we are pleased that two articles in this issue relate to the endeavors of a valuable health services leadership organization, the Agency for Health Care Policy and Research.

Your articles addressing themes allied to the College's mission will be warmly welcomed. Please note the new Instructions for Contributors near the end of this issue of the *JACD*, especially the first paragraph. I invite your comments and suggestions as we continue to assess and refine the *JACD*.

Robert E. Mecklenburg,
DDS, MPH

The Journal - A Mirror to Ourselves, or Do I Detect Touch Up Paint?

Tigers do not change their stripes to spots, nor do Fellows cast off the qualities of character and accomplishment that brought them into the College. The JACD should be a standing testimony to a living College. It exists to remind Fellows about the privilege of Fellowship, and their corresponding responsibility to patients and the public, to the advancement of the art and science of dentistry, to colleagues and to the future health and well-being of the profession and society.

Fellowship in the American College of Dentists is not a point in time, a historical event, but an affirmation of personal lifelong pattern of renewal based on commitment to noble goals employing just and ethical means.

These pages are intended to help Fellows follow their guiding light, to make life's journey in our chosen field of expertise a worthy and enjoyable venture.

Editor

Letters to the Editor

The American College of Dentists Leadership in Dental Policies and Political Affairs: My Views

"Policy" is defined in Webster as prudence or wisdom in the management of public and private affairs; or a defined course of action selected from among alternatives and in the light of given conditions to guide and determine present and future decisions. "Political" is defined as relating to matters of government, or the conduct of governmental affairs, or of making rather than the administration of policy. The meaning of these terms has changed over time. These definitions may have different meanings to different individuals. Often they are cast in negative terms, but the general thrust is related to the ordering of social affairs in accord with certain values and standards. In a democratic society, such standards are intended to reflect the common good as defined by many in open debate over alternatives.

Of all dental associations, the American College of Dentists aspires to constantly define the ethical high ground over all other considerations. Thus, I believe that the College is duty bound to be a leader in policy development related to oral health and the dental profession, insofar as it can promote the ethical practice of dentistry and the protection and promotion of the public's oral health. This is particularly imperative during the national debate over health care reform. I believe that the College, through its elected and appointed officers, should express points of view that should weigh among the many competing voices influencing the evolution of health affairs in the United States. I believe that the College should promote preventive dentistry as a priority strategy, for preventive and conservative services invariably are shown in the long run to best serve the individual citizen, the public and the profession.

Dr. Aida A. Chohayeb
Rockville, Maryland

Indexing of Dental Literature

The editorial in the Summer/Fall 1993 issue of the *JACD*, entitled "A Legacy of Leadership" included a statement that "a system for indexing of dental leadership was developed." Although no date was given, the previous paragraph could lead readers to assume that the date was 1931.

I invite reader attention to a quote from Asbell's *Dentistry: a Historical Perspective*, page 127, "The earliest attempt at indexing all pertinent dental literature was made by Jonathan Taft. In 1886, he published his *Index* which covered a period from 1839 to 1885 and served as the best available manual until the *Index* of Arthur D. Black. In 1897, Black conceived a plan for the classification of the Dewey system because the profession lacked a medium of listing its literary output for ready reference. And thus was conceived the *Index to Dental Literature* which continues to this day."

Dr. Milton B. Asbell
Cherry Hill, New Jersey

Guidelines for the Evaluation and Management of Early HIV Infection

Michael Glick*

THE identification of asymptomatic HIV-infected persons can result in early medical intervention that will enhance the quality of life for the infected individual.[1] It is not enough to intervene therapeutically, however; rather, preventive measures to curtail further spread of the disease must also be instituted at this stage. Such medical intervention during the early stages of HIV disease has been shown to be beneficial in delaying the onset of life-threatening infections and prolonging the life of infected individuals, while counseling patients on issues such as access to care, pregnancy, and case management services can enhance their quality-of-life.

Although we are already well into the second decade of this epidemic, about 60 percent of all reported cases of acquired immunodeficiency syndrome (AIDS) in the United States can still be found in the most populated metropolitan areas of New York, California, New Jersey, Florida, and Texas.[2] All 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam have reported cases of AIDS, with the incidence rate varying greatly from 1/100,000 persons in North Dakota to 119/100,000 persons in Washington, D.C.[2] Not surprisingly, medical centers with large cohorts of infected patients and long-time experience in the treatment of this complex disease have the greatest success in extending life for HIV-infected persons. Consequently, it is recognized that experience and knowledge about this disease need to be shared and incorporated widely into clinical protocols in order to benefit more patients.

The development and acceptance of guidelines on appropriate patient care are obviously important from a patient health perspective, as well as from a public policy standpoint. Such guidelines will identify the health care providers necessary to implement and render care. This results in the incorporation of such health care workers in the decision-making apparatus of public health policies. Thus, protocols on oral health care need to be developed and accepted by both the medical and dental community. The specific purpose of such guidelines is to establish appropriate standards that can successfully be used by a large number of practitioners in various clinical settings.

In an effort to address the issue of a national standard of care for HIV-infected patients, the Agency for Health Care Policy and Research (AHCPR) recently published a Clinical Practice Guideline entitled *Evaluation and Management of Early HIV Infection*.[3] This guideline was developed to assist both practitioners and patients in the management of health care issues for HIV-infected individuals during the early course of their disease. The purpose was to establish clinical practice guidelines for selected aspects of HIV care that could be used when caring for infected patients. A multidisciplinary panel, including physicians, dentists, nurses, nurse practitioners, physician assistants, social workers, and HIV infected individuals, performed the arduous task of incorporating present scientific knowledge and practical experience into workable treatment protocols that could be used by health care practitioners.

Many topics were addressed, including antiretroviral therapy; disclosure of HIV status; monitoring of CD4 cell counts; initiating Pneumocystis carinii pneumonia (PCP) prophylaxis therapy; testing and preventive therapy for tuberculosis and syphilis; conduct and timing of oral examinations, eye examinations, and Papanicolaou smear assessment; pregnancy counseling; care for adolescents with HIV infection; evaluation and management of early HIV infection in infants and children; case management for persons living with HIV disease; and access and availability of care.

The development of the Clinical Practice Guideline spanned 20 months and included two public forums in New York and San Francisco, five panel meetings, and six drafts. The third draft of the Guideline was peer-reviewed by individuals with significant experience and expertise in a particular field of HIV patient care. The reviewers' assignment was

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to assess the validity, reliability, clarity, clinical applicability, and utility of the recommendations presented in the Guideline.

The dental contribution to the Guideline consisted of recommendations regarding oral examinations.[4] In general, it was recognized by the Guideline developers that oral lesions may serve as markers for early HIV infection, continued immune suppression, and disease progression. Four specific recommendations were put forward:

1. "Oral examinations should be performed by the primary care provider during every physical examination."

2. "All mucosal surfaces should be carefully examined. The HIV-infected individual should be informed of the importance of oral care and educated about common HIV-related oral lesions and associated symptoms."

3. "HIV-infected individuals should have a dental examination performed by a dentist at least two times per year. With the appearance of oral lesions or problems, more frequent dental follow-up is necessary."

4. "Primary care providers and dentists should be trained to identify and treat oral lesions associated with HIV infection. Any HIV infected individual with unusual or suspicious lesions should be referred to an appropriate specialist." (Primary care providers were defined as "persons who assume the major medical and coordinating role in the patient's care.")

The Guideline states that HIV-infected individuals may experience "unique oral conditions" which include "an unusually rapid and destructive periodontal disease." Furthermore, the Guideline suggests that "routine examinations should be performed by a range of health care providers, including primary care physicians, physician assistants, and nurse practitioners who have been adequately trained in oral examination and diagnosis."

In many ways, these recommendations, statements, and suggestions are important, but also troublesome. The recognition by the medical community of the significance of oral examinations is an important step in achieving a multidisciplinary care-approach for HIV-infected persons. However, it would be a disservice to both the medical and dental community, as well as to patients, to understate the difficulties in accurately performing and diagnosing oral lesions during a routine oral examination in a non-dental setting.

By classifying oral lesions associated with HIV disease as "unique," an extensive body of knowledge is being ignored. In order to contend that a lesion even is associated with a specific disease, four criteria need to be addressed:

1. Can the lesion be found in patients with other diseases?

2. Is the lesion more common or frequent in patients with the specific disease?

3. Does the lesion manifest differently or more severely in patients with the specific disease?

4. Is the treatment of the lesion different in patients with the specific disease?

Using these criteria it would be hard to characterize any intraoral lesion found in HIV-infected individuals as unique, as all of these lesions can be found in other immunosuppressed individuals.[5,6] Instead, by recognizing the commonality of these lesions, the task to identify and diagnose oral findings in HIV-infected patients would be greatly facilitated.

Unquestionably, routine examination of the oral cavity holds the potential for identifying changes associated with progression of HIV disease, and should be performed on a regular basis.[7] However, to expect that a wide range of non-dental health care providers can be "adequately trained in oral examination and diagnosis" is an unreasonable expectation for the vast majority of such individuals. Oral examination and diagnosis of many HIV related oral conditions are often a challenge even to practitioners with dental specialty training. A case in point is the previously mentioned "unusually rapid and destructive periodontal disease." A diagnosis of periodontal disease cannot be made without radiographic documentation of tissue destruction or at least periodontal probing. Thus, based on these criteria alone, non-dental personnel would be hard pressed to accurately make a definitive diagnosis during a routine oral examination. Furthermore, to render a reliable diagnosis of periodontal conditions associated with HIV disease has been shown to be a difficult task even for experienced oral health care providers.[8]

The Guideline makes a distinction between oral examinations, performed by a primary care provider, and dental examinations, performed by a dentist. Yet, according to the guideline, routine oral examination should note "periodontal disease and

the presence of caries or defective restorations." The training necessary to perform such examinations goes far beyond the scope of courses for non-dental providers. Therefore, it would be more appropriate for non-dental health care workers to be trained in screening, i.e., recognizing presence of oral lesions and dental pathologies, without the onus of attempting to diagnose oral complications and pathologic conditions. This approach will encourage appropriate referrals and appropriately increase the role of oral care providers in the overall health care for patients with HIV infection.

To ensure that oral conditions are not overlooked or ignored, the Guideline encourages primary care providers to actively search for oral conditions and refer to appropriate dental care. Regardless of the differences in meaning intended for primary care providers and dental providers, one should expect Guideline users to recognize that it is the individual who will treat the oral conditions, HIV related or coincidental, found by another individual's "examination and diagnosis"/"screening and monitoring." They will be responsible for conducting an adequate oral examination, developing a treatment plan, presenting options and risks to the patient, and following through on the patient's behalf. The steps necessary at this point of ultimate responsibility are no less or any different than those that always have been necessary as a standard of professional care for any health condition.

Overall, the Guideline is a valuable contribution for management of HIV-infected individuals, but it should be recognized that the Guideline was developed to address provision of medical care and not dental management of HIV-infected patients. To address the dental management, two organizations have published clinical protocols specifically developed for oral health care of HIV-infected patients -- The AIDS Institute/New York State Department of Health and the American Academy of Oral Medicine (See below).[9,10] The focus of these dental guidelines is to enable safe, efficient, and appropriate care for infected individuals.

It is clear that HIV infection in itself is not an indication for modification of already established standards of dental practice. Furthermore, recent data suggest that provision of regular dental care for severely immunocompromised HIV-infected patients is associated with a very low complication rate,[11] and that even more complicated procedures, such as placement of dental implants, can be performed safely in HIV-infected patients.[12] Thus, any dental protocol that attempts to establish clinical guidelines needs to be based on the assessment of patients' overall health status. This leads back to one of the rationales for publishing the Clinical Practice Guideline, namely, establishing a multidisciplinary approach to the management of early HIV infection. Unfortunately, the Clinical Practice Guideline marginalizes dental practitioners to perform dental examinations instead of emphasizing the importance of access to dental care as an important quality-of-life issue and recognizing the unique ability of dental practitioners to identify and diagnose oral pathologies.

The AIDS Institute/New York State Department of Health guidelines were developed by a committee consisting mainly of oral health care providers.[9] Ten major topics were covered, including infection control; ethical and legal issues; initial evaluation; special considerations for treatment planning; diagnosis and management of oral lesions, including gingival disease and periodontal disease; restorative, prosthetic, endodontic, and oral surgery dental care.

The American Academy of Oral Medicine (AAOM) guidelines were developed by a committee of oral health care providers with experience in treating HIV-infected patients and other medically complex patients.[10] A wide range of topics were discussed, including legal issues; pathogenesis of HIV disease; medical evaluation; HIV testing; pertinent laboratory tests and values; medications; nutritional aspects; clinical manifestations; oral manifestations; dental treatment planning; antibiotic prophylaxis; modification of dental therapy; post-exposure protocol; staff training; and psychosocial issues.

Both guidelines emphasize that oral health care should be the same for all patients regardless of HIV infection, and that alterations in oral health care treatment based solely upon HIV status are not warranted. Not surprisingly, these two statements are reiterated by many dental care providers with clinical experience in treating HIV infected patients.

There are some differences between these two dental guides. The New York AIDS Institute's guide covers specific legal requirements and AIDS resources pertaining to New York State; has clinical color photographs of oral lesions; and adds references after each chapter. The AAOM guide gives a broader explanation of legal issues, infection control, and national AIDS resource, but is more specific regarding medical assessment of patients, HIV-associated medications, laboratory values appropriate for HIV disease, diagnosis and treatment of oral lesions, and provision of oral health care. Both the New York

AIDS Institute's and AAOM's guidelines are similar in their approach to oral health care for HIV-infected patients: medical assessment determines the scope of oral therapy, and access to oral health care is integral to maintaining the quality of life for all patients.

Medical assessment prior to oral health care ensures both safe and appropriate care. This is borne out in patients with more advanced HIV disease who may be more susceptible to medical complications associated with oral health care such as secondary infections or bleeding tendencies, and who may have more frequent and diverse oral manifestations. However, as oral health care for patients infected with HIV follows the same standards and requirements as for non HIV-infected patients, there are no contraindications to treat this patient population in private dental facilities. Furthermore, this is necessary to accommodate the growing number of HIV-positive individuals.

It is important to realize the role of the dental provider in the HIV epidemic. HIV-infected patients will still have oral health problems which need to be addressed. It is not clear if infected patients have a higher incidence of caries or increased severity of periodontal disease, but more frequent recalls are appropriate during more advanced stages of HIV disease.

Many of the oral manifestations are early indicators for the different stages of the disease. Consequently, dental providers need to be cognizant of the significance of such manifestations and help to coordinate the overall medical care for these patients.

Lastly, oral health care providers need to be well versed in the facts and figures of HIV disease in order to act as resources to their community at large. As such, oral health care workers will enhance the awareness of HIV and help to dispel myths and misconceptions surrounding this disease.

As oral health care providers, we play an important role in both surveillance, prevention and treatment of this disease. We cannot abrogate our responsibility to our patients or society by shunting HIV-infected patients to HIV-dedicated clinics. Instead we need to become more dedicated primary health care providers.

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The following information is excerpted from Clinical Practice Guideline No. 7, Evaluation and Management of Early HIV Infection, U.S. Department of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research; 1994

Guideline Development and Use

Guidelines are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical conditions. This guideline was developed by a multidisciplinary panel of private-sector clinicians and other experts convened by the Agency for Health Care Policy and Research (AHCPR). The panel employed an explicit, science-based methodology and expert clinical judgment to develop specific statements on patient assessment and management for the clinical condition selected.

Extensive literature searches were conducted, and critical reviews and syntheses were used to evaluate empirical evidence and significant outcomes. Peer review and field review were undertaken to evaluate the validity, reliability, and utility of the guideline in clinical practice. The panel's recommendations are primarily based on the published scientific literature. When the scientific literature was incomplete or inconsistent in a particular area, the recommendations reflect the professional judgment of panel members and consultants. In some instances, there was not unanimity of opinion.

The guideline reflects the state of knowledge, current at the time of publication, on effective and appropriate care. Given the inevitable changes in the state of scientific information and technology, periodic review, updating, and revision will be done.

We believe that the AHCPR-assisted clinical guideline development process will make positive contributions to the quality of care in the United States. We encourage practitioners and patients to use the information provided in this clinical practice guideline. The recommendations may not be appropriate for use in all circumstances. Decisions to adopt any particular recommendation must be made by the practitioner in light of available resources and circumstances presented by individual patients.

J. Jarrett Clinton, MD
Administrator
Agency for Health Care Policy
and Research

Publication of this guideline does not necessarily represent endorsement by the U.S. Department of Health and Human Services.

Foreword

According to the World Health Organization, between 30 and 40 million men, women, and children around the world will be infected with the human immunodeficiency virus (HIV) by the year 2000. Others have estimated that this number may be as high as 110 million. By the turn of the century, acquired immunodeficiency syndrome (AIDS) will be the third most common cause of death in the United States. This growing presence of HIV necessitates that primary care providers become involved in and knowledgeable about HIV care. The growing population of individuals and their families living with HIV also need guidance in seeking and accessing appropriate care.

This guideline provides such recommendations for health care providers and people living with HIV. Philosophically, it recognizes the unique character of the HIV epidemic and the need for a close partnership of providers and consumers. The expert panel that prepared the guideline included representation from both groups in its membership and among the peer reviewers.

Because appropriate assessment and treatment during the initial phase of the infection can have great impact on an individual's quality of life, the panel focused on specific aspects of evaluating and managing early HIV infection. Also included are discussion and recommendations relating to non-medical issues which are intimately related to HIV care.

Thus, the panel's challenge was to include specific medical care approaches for the provider within the broader social and psychological concerns of the patient. This document provides recommendations for a wide range of issues, including im-

munologic monitoring, specific treatments for HIV infection and commonly associated infections such as tuberculosis and syphilis, issues affecting special groups (such as women, children, and adolescents), case management, and health care policy. It should be noted that the guideline does not address many other areas important to early HIV care.

The past decade has seen many changes in the management of individuals living with HIV infection. The pace of advances in HIV care will make it imperative to update this guideline continually. Although there remain many issues that this panel has not addressed (these are enumerated throughout the guideline), the guideline provides a model for addressing issues of importance to individuals and families living with HIV.

Early HIV Infection Guideline Panel

Oral Examinations

Some of the earliest published work describing AIDS included descriptions of oral lesions found in persons with HIV infection (Feigal, Katz, Greenspan *et al.*, 1991; Greenspan, Barr, Sciubba *et al.*, 1992; Greenspan, Greenspan, Conant *et al.*, 1984; Greenspan, Greenspan, Lennett *et al.*, 1985; Pindborg, 1989; Scully, Laskaris, Pindborg *et al.*, 1991). In addition, some HIV-infected persons may have an unusually rapid and destructive periodontal disease (Masouredis, Katz, Greenspan *et al.*, 1992; Tenenbaum, Mock, and Simor, 1991; Winkler, Murray, Grassi, and Hammerle, 1989). Because HIV-infected individuals experience these unique oral conditions in addition to dental problems common to all individuals, both specialized as well as routine oral care are required by individuals with HIV infection. Despite this need, many persons with HIV infection have poor access to any dental care (Capiluto, Piette, White, and Fleishman, 1991).

Oral lesions may provide the only early indication of HIV infection and are important in the classification of the stage of HIV disease (Greenspan, Greenspan, Overby *et al.*, 1991; Melnick, Engel, and Truelove, 1989; Schulten, Reinier, and Van der Waal, 1990). In an otherwise asymptomatic individual, recognition of the presence of oral lesions, such as oral candidiasis and/or hairy leukoplakia, may be crucial for some therapeutic decisions and indicate progression of disease (Katz, Greenspan, Westenhouse *et al.*, 1992). In addition, oral lesions may be used as part of a staging system for HIV progression and as endpoints in clinical drug trials (Royce, Luckman, Fusaro, and Winkelstein, 1991). Although oral lesions have been seen in all groups at risk for HIV infection, most published work described studies in men (Bolski and Hunt, 1988; Feigal, Katz, Greenspan *et al.*, 1991). As yet, only a small body of literature concerns women (Shiboski, Greenspan, Westenhouse *et al.*, 1992; Tukutuku, Muyembe-Tramfun, Kayembe, and Ntumba, 1990) and children (Davis, 1990; Katz, Mastrucci, Leggott *et al.*, in press; Ketchem, Berkowitz, McIlveen *et al.*, 1990; Leggott, Robertson, Greenspan *et al.*, 1989; Palumbo, Jandinski, Connor *et al.*, 1990).

The panel's recommendations for oral examinations are based largely on published literature (Sheiham, 1977; Preventive Services Task Force [US], 1989); however, the recommendation for optimal timing of oral examinations is based on clinical judgment.

Recommendation: Oral examinations should be performed by the primary care provider during every physical examination. (Expert opinion)

Recommendation: All oral mucosal surfaces should be carefully examined. The HIV-infected individual should be informed of the importance of oral care and educated about common HIV-related oral lesions and associated symptoms. (Suggested by evidence)

Recommendation: HIV-infected individuals should have a dental examination performed by a dentist at least two times per year. With the appearance of oral lesions or problems, more frequent dental follow-up is necessary. (Suggested by evidence)

Recommendation: Primary care providers and dentists should be trained to identify and treat oral lesions associated with HIV infection. Any HIV-infected individual with unusual or suspicious lesions should be referred to an appropriate specialist. (Expert opinion)

The published literature consistently supports the importance of the recognition of oral lesions in HIV-infected individuals. It is therefore important that at each contact with the primary care provider, an oral examination is performed. These routine examinations may be performed by a range of health care providers (Feigal, Katz, Greenspan *et al.*, 1991; Katz, Greenspan, Westenhouse *et al.*, 1992; Melnick, Engel, and Truelove, 1989), including primary care physicians, physician assistants, and nurse practitioners who have been adequately trained in oral examina-

tion and diagnosis. Ideally, such training should include seminars incorporating slides of lesions and led by trained examiners with clinical experience; in addition, primary care providers should take opportunities to discuss HIV-related oral care with dentists.

Routine oral examinations should include careful inspection of the oral soft tissues, with particular attention paid to the soft palate and lateral margins of the tongue. Any soft tissue changes, as well as periodontal disease and the presence of caries or defective restorations, should be noted. Information about the importance of oral care should be made available as part of this examination. The HIV-infected individual should be instructed to report symptoms such as oral pain, dryness, bleeding, difficulty in swallowing, change in taste, and loosening of teeth. Many oral lesions require the expertise of a dentist for correct diagnosis and management (Scully, Laskaris, Pindborg *et al.*, 1991). Referral may need to be made to a specialist such as a dentist trained in oral medicine, periodontology, or oral surgery (Masouredis, Katz, Greenspan *et al.*, 1992).

Few published studies define the appropriate timing of dental examinations in any population (Sheiham 1977; Preventive Services Task Force [US], 1989). Therefore, our recommendation for the frequency of examinations by primary care providers and dentists is based on clinical judgment and experience in monitoring other immunologically compromised populations. Routine oral examinations by the primary care provider would detect lesions that may indicate progression of HIV infection. Scheduled dental examinations should be conducted by a dentist at least two times per year. This is consistent with the existing recommendations for non-HIV-infected individuals (Preventive Services Task Force [US], 1989). It is well documented that as immune function declines, the probability of developing oral lesions increases dramatically (Begg, Phelan, Mitchell-Lewis *et al.*, 1992; Katz, Greenspan, Westenhouse *et al.*, 1992). Thus, it is imperative that the frequency of dental examinations be increased as immune function declines.

The goal of these examinations is to identify disease and institute preventive care (Greenspan and Greenspan, 1991; Winkler, Murray, Grassi, and Hammerle, 1989). All providers should be trained in the recognition and treatment of lesions associated with HIV infection, including pseudo membranous candidiasis (thrush) and erythematous candidiasis (Dodd, Greenspan, Katz *et al.*, 1992), hairy leukoplakia due to Epstein-Barr virus (Greenspan and Greenspan, 1991), Kaposi's sarcoma (Ficarra, Person, and Silverman, 1988), aphthous ulcers, ulcers due to herpes simplex virus (Phelan, Eisig, Freedman *et al.*, 1991), oral warts due to papillomavirus (Greenspan, de Villiers, Greenspan *et al.*, 1988), and periodontal disease (Klein, Quart, and Small, 1991; Masouredis, Katz, Greenspan *et al.*, 1992; Swango, Kleinman, and Konzelman, 1992; Winkler, Murray, Grassi, and Hammerle, 1989). Less common lesions include non-Hodgkin's lymphoma, Mycobacterium avium-intracellular complex, bacillary angiomatosis, and salivary gland enlargement, as well as ulcers due to varicella-zoster virus, cytomegalovirus (CMV), syphilis, histoplasma, and cryptococcus. Complaints of xerostomia due to treatment with didanosine (dideoxyinosine, ddI) and ulcers due to treatment with zalcitabine (dideoxycytidine, ddC) have been noted (Dodd, Greenspan, Westenhouse, and Katz, 1992).

Infectious Disease in Dental Practice - Professional Opportunities and Obligations

Enid A. Neidle*

AWARENESS of infectious disease reentered the consciousness of health care providers in the mid 1970s when it was learned that they were at substantially greater risk for hepatitis B than the general population. The mild *frisson* of fear that this elicited was superseded by the advent of a disease, in 1981, that had no name, no cause, no route of transmission, and appeared to be new and fatal. In 1982, the disease was given the name Acquired Immune Deficiency Syndrome (AIDS). Even before infection with human immunodeficiency virus (HIV) was discovered to be the cause of AIDS in 1984, the major routes of transmission -- sexual, blood borne, and perinatal -- had been established. By this time, too, the fear of AIDS had grown to enormous proportions, not merely among health providers who saw themselves threatened by the blood of infected patients, but among the general population.

In this period, the most egregious acts of inhumanity, moral callousness, and societal rejection were carried out against the victims of AIDS, and many of those who were discriminated against turned to the courts for relief. During the same time, this author became the Director of Scientific Affairs for the American Dental Association (ADA) and was privileged (no irony intended) to hear the fearful voices of dentistry over the WATS line. It was a privilege because it provided this author, as well as the ADA, with a window through which to view the terrors, the anxieties, the nameless and sometimes irrational fears that were disorienting dentists' lives. It also provided the ADA with an agenda for the years to come, an agenda that would be designed to assuage the fears of dentists and empower the members to function, as they once had, in an atmosphere less fraught with needless anxiety.

Over the years and through those telephone calls this author heard the faceless voices say: "I don't want to treat HIV-infected patients because I am afraid that I will become infected"; "My wife is pregnant"; "My staff is unwilling to treat such patients"; "It is God's curse (and my wife and I pray daily for release from this curse)"; "No matter how good my infection control is the organisms will get on my plants"; "I am afraid for my dog"; "My patients will abandon me if I am known to have an AIDS practice"; "My debts are so large that I cannot afford to die young."

In contrast to hepatitis B, which is far more common and is a very devastating disease, AIDS became the point at which all society's anxieties converged. It marked the confluence of fear, irrationality, rejection of reason and knowledge, moral obtuseness, and ethical callousness, made all the more extraordinary by the fact that the professionals who were so anguished were decent people, committed to alleviating pain and suffering, and in virtually all other respects highly ethical people. Let the record state here that it was not dentists alone who were fearful; it was physicians, surgeons, nurses, technicians, paraprofessionals, teachers, even law enforcement officials and umpires. Let the record also state that in earlier plagues, physicians fled from their infected patients, just as many were fleeing in the 1980s, the Hippocratic Oath notwithstanding.[1] Why was there such an extreme reaction to AIDS? In this author's view, at least at first, it was because, the very word AIDS conjured up sex (deviant) and death (at an inappropriately young age).

The late 1980s and early 1990s also marked the entry of regulatory governmental agencies into the formerly sacrosanct precincts of physicians and dentists. Regulations and guidelines were promulgated by agencies such as the Occupational Safety and Health Administration (OSHA) and the Centers for Disease Control and Prevention (CDCP is primarily a non-regulatory agency) dictating how a dentist was to operate in the privacy of his/her own professional domain to prevent the spread

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of infectious disease. By 1991, many health care providers found themselves ensnared, Laocoon-like, in a choking mesh of advisories and regulations. It is an understatement to say that there was first a feeling of rebelliousness, followed by reluctant capitulation.

Thirteen years into the epidemic, this author is guardedly optimistic that dentists, as well as other professionals, are becoming less frightened, less averse to treating infected patients, and less eager to fight the regulations that have lessened their sense of independence. The remainder of this article will address what dentists reasonably can be expected to do in this new era of infectious disease and will assess the level of success achieved in meeting goals that were eloquently defined in the *Report of the National Commission on Aids*.[2] Two caveats are offered at the outset. First, these are the author's opinions distilled from nearly a decade of involvement with health providers, government agencies, close reading of the literature, and personal ethical standards. Second, this author is a scientist, *not* a dentist or even a health care provider. It can be said fairly that the author's life and professional practice are not on the line. However, to this the author's response is: "It is possible to be sympathetic to the problems of a student without being a student; it is also possible to understand the fears of a dentist without being a dentist."

The obligations of a dentist in this era of infectious disease, as in previous eras, fall into three overlapping areas: obligations to patients and to the community as a whole; professional obligations; and ethical obligations.

Obligations to Patients and the Community

The advent or reappearance in the last 15 years of a host of infectious diseases (e.g., hepatitis B (HBV), hepatitis C (HCV), AIDS, tuberculosis) confers no new obligations upon the dentist, but rather puts into bold relief the responsibilities that the dentist has always had.

First, there is the concept of the patient as a whole person, rather than as a tooth that needs treatment. This is a "medical" view, in which the patient's entire medical status is seen as relevant to the oral condition. It dictates that the dentist obtain a thorough medical history at the first visit and review that history with the patient at all subsequent visits (unless they are very closely spaced). AIDS has not dictated this approach. It has always been important to know about diabetes; about conditions that put the patient at risk for bacterial endocarditis; about immunologic status that may have been affected by steroid therapy or chemotherapy; about allergies to drugs; about cardiovascular conditions that compromise the patient's ability to withstand long or stressful procedures. Unfortunately, dentistry cannot claim an unblemished record in this area. In a recent article, Little documents the well-known unfamiliarity of dentists with the latest guidelines for prevention of bacterial endocarditis,[3] reflecting a failure in dissemination of knowledge that has been repeatedly reported in the literature.[4] In some practices, history taking may be careless and perfunctory and is done by dental auxiliaries who should not be expected to be as sophisticated as the dentist (but sometimes are) about medically compromising conditions.

The medical history taken by the dentist must now be extended to reflect a knowledge of the signs and symptoms of HIV and tuberculosis. It is ethical and permissible to ask a new patient about his/her HIV status (but it is not ethical to refuse treatment based on this fact);[5] it is also ethical to inquire about HBV, HCV, and tuberculosis status. If the medical condition revealed by the history is such that conventional dental therapy would put the patient at special risk, then it is professionally acceptable, even obligatory, to refer to a practitioner and a setting that will be less threatening to the patient's health.

It also is the dentist's responsibility to be keenly aware of the oral manifestations of HIV, particularly as some of the earliest symptoms of HIV infection appear in the mouth.[6] It may be the dental encounter that leads to early diagnosis and treatment of the HIV infection. The dentist is able to

diagnose the oral markers of HIV disease, (e.g., hairy leukoplakia, candidiasis, and Kaposi's sarcoma), is in a position tactfully to urge the patient to seek medical advice, and should be competent to treat many of the oral manifestations of AIDS. The dentist is not responsible for the prescription of drugs used in the therapy of HIV infection except for those used specifically for oral conditions.

The awareness of a patient's HIV seropositivity confers some new and difficult responsibilities upon the dentist, namely those of maintaining the patient's dignity and self respect, of bringing a high level of compassion to treatment, of monitoring the patient for evidence of escalating oral problems (e.g., the development of serious and rapidly advancing periodontal disease), of knowing the appropriate time to refer to dental specialists who can provide the kinds of treatment not conventionally provided by the general dentist, and of maintaining confidentiality. The question often arises about how much must be shared with the dental staff in the office. To be sure, it would be ideal if the staff were made aware of the patient's condition. However, there is the danger this information will be disseminated in the community and will be detrimental to the patient in his/her job or community. It also is difficult to maintain confidentiality when certain items appear on the medical history form. This is an issue that must be treated on a case-by-case basis and with utmost sensitivity to both the needs of the patient and of the staff.

Another issue of considerable importance in the treatment of infectious patients is communication between the physician and dentist. In the best of all worlds, the physician, upon learning that the patient is HIV positive or has tuberculosis or is a carrier of hepatitis C, would inform the dentist and make appropriate recommendations. Unfortunately, such communication is prohibited, in some states, by the laws of confidentiality. The dentist should be aware of prevailing laws and, if information exchange between the physician and dentist is possible, s/he should attempt to contact the physician when there is a suspicion of a problem.

Currently, the dentist is not entitled to initiate contact tracing or provide gratuitous advice to family members about the risks of transmission of disease. Certainly the dentist can counsel the patient compassionately about how to care for him or herself, how to reduce risks of transmission, how to manage diet/nutrition, and how to take medications prescribed for the oral lesions, although it is inappropriate to prescribe a drug such as zidovudine, which falls into the purview of the physician.

The AIDS epidemic has also brought to the dentist some clear community obligations that are probably, like the obligations to the patient, merely extensions of tradition. The dentist has always been a respected member of the community, honored and trusted because of his/her special knowledge and experience. Dentists have made invaluable contributions to campaigns for community water fluoridation, school fluoridation programs, and preventive dentistry. They have been called upon to be community leaders in matters of health. There has never been a more important time for dentists to speak out in their communities about infectious disease, how these diseases are transmitted, irrational fears of acquiring these diseases in casual ways, and behaviors that put people at risk. These are messages that can be articulated in the privacy of the operatory (when treating a young patient, for instance), or conveyed in the setting of the town meeting, the letter to the editor, or local school discussions of public health issues. Dentists have become increasingly articulate about smoking, blood pressure, prevention of dental disease. It surely is appropriate to bring to the community the dentists' reasoned, informed, sensitive, unbiased experiences with and knowledge of the major infectious diseases of our time and especially oral implications of these diseases.

Professional Obligations

It is difficult to dissect professional obligations from patient/community obligations. For this article however, professional obligations are seen as the dentist's behaviors, attitudes, continuing education, and relationships with peers and the profession. While there are many examples that could be cited, three areas that, to this author, contribute to professionalism are considered: (1) respect for science; (2) commitment to a continuum of learning; and (3) acceptance, through scrupulous infection control, of the need for unceasing vigilance against the transmission of infectious disease between patient and dental health care provider.

While some dentists claim a sympathy and respect for science, they traditionally have not seen their profession as primarily scientific. In some instances, dentists have shown considerable resistance to scientific thinking, apparently preferring a more practical and empirical approach to the practice of their profession. In fact, even in these treacherous times, dentists have taken positions that can be described as anti-scientific. The profession's early reluctance to accept vaccination with human plasma-derived hepatitis B vaccine (because they would get AIDS); their continuing reluctance to treat HIV-infected patients despite assurances that the risks of transmission are too small to be calculated; the unforgiving attitude towards barrier techniques and other forms of infection control; the greater level of comfort with HBV-infected

patients than with those with HIV[7,8] fly in the face of science that has been widely accepted and validated over 13 years. Furthermore, some dentists have distanced themselves from much of mainstream science, saying that it has no relevance to dentistry. When a resolution to support the scientific validity and value of fetal tissue research came before the American Dental Association's House of Delegates in 1992, there were many who argued that dentistry has nothing to do with fetal tissue research and the resolution was therefore improper. Those who voted against the resolution could not visualize themselves as doctors who specialize in diseases of the mouth and teeth and who treat patients with a variety of problems that might be related to fetal tissue research. Nor could they imagine that sometime in the future a problem could arise in dentistry that has some relevance to fetal tissue research. Surely it is an important professional obligation of dentists to heed the voices of respected scientists, to read scientific journals, to support the conduct of research, to report interesting and unusual findings to appropriate people or places, and, above all, to respect the process.

A second important professional obligation is to continue learning, and, wherever possible, to transmit the information to the staff. Many dentists, unlike medical practitioners, enter the practice of dentistry with no formal postdoctoral education. Furthermore, most dentists practice in settings that neither demand nor permit peer review and offer little opportunity for exchange of new ideas and knowledge on a daily basis. This creates a formidable, continuing obligation to seek education that will keep dentists informed of new knowledge, the latest science, innovative techniques, newly discovered risks, as well as medical information that will allow them to be more insightful about their patients' health status. In the past, many dentists overlooked clear signs of oral cancer; today there are many dentists who are unaware of the existence of hairy leukoplakia, much less its relationship to AIDS. A professional imperative for dentists is the regular pursuit of continuing education that consists of more than how to market a practice, invest money, or lose weight.

The third professional obligation is to exercise the greatest vigilance in preventing transmission of infectious diseases in the dental setting. While the dental office traditionally has not been a sink of disease, outbreaks of hepatitis B have been reported from nine HBV-infected dentists (including five oral surgeons) in which 147 patients were infected and two died.[9,10] There are no reports of patient-to-patient transmission of HBV in dental settings. In Florida, an HIV-infected dentist transmitted the disease to six patients.[11] It has been known for some time that dentists are at three times the risk for hepatitis B as the general population.[12] Klein *et al*, claimed that dentists, and especially oral surgeons, also are at risk for hepatitis C.[13] However, data from other studies do not support this finding.[14,15]

Dentistry did not embrace the conventional tools for prevention of infection with alacrity in the early days. Dentists complained of the inconvenience, expense, and inefficacy of gloves; they resisted vaccination with the plasma-derived vaccine; they railed against the injunction that all items that enter the mouth, including the handpiece, be sterilized citing the lack of scientific evidence for such a requirement. Through much of the 1980s, many dentists' answer to the AIDS epidemic was not to adopt infection control techniques, but to refuse to treat individuals who were known or suspected to have HIV infection.

Things have changed in dentistry. There is much greater acceptance of infection control. Based mainly on anecdotes, it appears there is better acceptance of infectious patients into the private dental office. As of this time, data show that 83 percent of dentists have been vaccinated against hepatitis B (C. Siew - personal, written communication); the rate of percutaneous injuries has fallen dramatically, suggesting a heightened awareness of the routes of transmission of infectious diseases and a conscious effort to reduce risk.[16] Dentistry is to be congratulated for these changes, but it must be emphasized there will be new diseases, new threats, and new infection control techniques. This means dentists must continue to educate themselves, their staff, and their colleagues, and to make informed decisions about when it is appropriate to adopt new techniques to protect patient and/or provider.

Ethical Obligations

In response to accusations that dentists have been less than sensitive to their obligation to alleviate pain and suffering in individuals with AIDS, a few dentists have been quick to point out that they never took the Hippocratic Oath and therefore are not bound by it. Furthermore, numerous studies of the reasons people choose the career of dentistry suggest that it is precisely because they do *not* want to deal with very ill patients and they do *not* want to make life-and-death decisions. Rather, they enjoy working with their hands and being their own "boss."[17]

As previously noted, the early days of the AIDS epidemic were marked by a serious reluctance of dentists to treat known or suspected HIV-infected patients, and thus were erected enormous barriers to care for these patients. As recently as 1990, Roland Jerrell gave the following testimony before the National Commis-

sion on Acquired Immune Deficiency Syndrome:

> Neither dentist would see me, due to HIV infection. One dentist told me that his office was carpeted and he would not be able to sterilize the room after my visit. A second dentist told me she had plants and could not take the risk of infecting her plants and then infecting her other patients.[18]

Articles continue to this day to document the unwillingness of dentists and physicians to treat HIV-infected patients.[19-21]

In a sense, the taking of an oath is irrelevant. What is relevant is the meaning of the word "doctor" and the obligations and privileges that it confers. As the ethicist William B. May has pointed out during a 1989 presentation at the Yankee Dental Congress, the title "doctor" brings to its holder knowledge, societal respect, a privileged place in the community, and very often a larger portion of society's goods than is the lot of most of the rest of society. In exchange for these privileges, the physician or the dentist should expect to take risks, to expend effort, to give more of self, and to use knowledge "in the service of the stranger." While not in any way exonerating physicians from accusations of unethical behavior and discrimination against HIV-positive patients, it is appropriate here to focus on some of the actions of dentists in this epidemic that are susceptible to ethical analysis. Obviously, all of these examples pertain to the situation where the patient is known (or assumed) to be infected. Many people who are HIV-positive do not know or do not share the information with the health care provider.

Refusal to treat infected patients or abandonment of patients of record. This is unethical in a pure and abstract sense. It violates the ethical code of professional dental associations including the American Dental Association, which stated, in 1988, that the decision to deny treatment to a patient solely because the patient is HIV-infected is unethical.[5] A decision not to treat infected patients also is unscientific. Available evidence indicates that there are no dental workers among health care workers documented to have become infected with HIV after specific occupational exposure. To date, six dental workers are reported as possibly having acquired their infection through occupational exposure. For these six workers, no other behavioral or transfusion risk for HIV infection could be identified; however, specific occupational exposure to HIV-infected blood or body fluids could not be documented. (Center for Disease Control and Prevention written communication)

Forcing a patient in need of emergency treatment to seek it in someone else's office. This is unethical because it constitutes an attempt to shift a perceived risk to a peer or colleague whose interest in remaining uninfected should be no less.

Referring the infected patient or presumed infected patient to a gay dentist. This is unethical because it implies a belief that the homosexual dentist, identifying more readily with "his own kind," should be more willing to become infected than the heterosexual dentist. To even think that a homosexual values his life less than that of a heterosexual is not only absurd, but immoral.

Claiming that one is not adequately trained to treat HIV-positive patients. This is unethical because it is false and, once again anti-scientific. Unless a patient presents with complications of AIDS that require special treatment to protect the patient's health, no special precautions are required. No dentist can honestly claim to be professionally inadequate to deal with an infectious patient.

Insisting on treating infected patients after normal office hours. This is unethical because it reflects fear or shame that other patients will know that such patients are being treated. There is no scientific basis for special preparation of the office or for special appointment hours unless the scheduled procedure is one that is so lengthy that the office schedule would be disrupted.

Enveloping one's office and office staff in protective materials when treating such patients. This is unethical because it is humiliating to the patient, and it flies in the face of "universal precautions," which are as adequate for the HIV-infected patient as for the 80-year-old nun.

Suggesting that the infected patient seek care in a dedicated AIDS facility on the basis that s/he will be treated with more compassion, experience, and knowledge. This is as unethical (and illegal) as it would be to refer an African American to a clinic that treats only other African Americans. Again, in making such a referral, one is shifting risk for unethical reasons, and one is consigning the patient to a "ghetto for the diseased."

Suggesting that the most appropriate place to treat infected patients is in dental school clinics, rather than in the private office.[7] This is both unethical and absurd, because in so doing one is consigning patients that the dentist considers risky to the least experienced of his/her future colleagues, namely dental students.

Treating infected patients as cursorily and minimally as possible so as to get them out of the office quickly. Clearly, this is professionally unethical. Every patient has a right to expect the best, most thorough, most careful treatment that the dentist is capable of rendering and which is indicated by the treatment plan and the patient's ability to afford the pro-

posed treatment. Unfortunately, often it is assumed that HIV-infected patients are not worth the trouble of extensive and expensive health care, whether it be coronary by-pass surgery, cosmetic surgery, or non emergency restorative dentistry, because they are going to die. A mean of 12 years elapses between the time of infection with the virus and the first manifestations of AIDS. This is a longer time than most people survive with cancer. People with AIDS have a right to a decent quality of life as they define it, whether that means beautiful teeth, a mouth free of disease, or an adequately functioning heart.

Summary

This article presents one author's view of the dentist's obligations to patients, to the community, to the profession, and to the principles of ethics in a highly troubling time of serious infectious diseases. It essentially is an optimistic view that, while the epidemic of AIDS will continue and tuberculosis may become a graver problem in certain health care settings, the dental profession possesses the education, ethical insights, and technical training needed to meet with grace and authority the challenges of practice in this era of infectious disease.

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Health Services Research, the Agency for Health Care Policy and Research, and Dental Practice

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Abstract

Recent findings of research supported by the Agency for Health Care Policy and Research (AHCPR) confirm the need for additional health services research on the effectiveness and appropriateness of dental care, and the way in which dental care is provided and financed. This paper presents an overview of relevant AHCPR programs, gives examples of dental health services research supported by the Agency, and describes ways in which Fellows of the American College of Dentists could participate in the development and dissemination of health services research. New knowledge generated by dental health services research will be useful to dentists in meeting many of their professional obligations. Translating that knowledge into improved quality of care will depend directly upon the best collaborative efforts of dentists in all professional settings and may include collaboration with academic researchers. As leaders in the profession, Fellows of the American College of Dentists are regarded as instrumental in conveying the findings of health services research to their colleagues, stimulating critical review, and making recommendations to guide research in the future.

The Objectives of the American College of Dentists were adopted to promote the highest ideals in health care, advance the standards and efficiency of dentistry, develop good human relations and understanding, and extend the benefits of dental health to the greatest number. Attainment of these goals is dependent upon both good intentions and sound judgment.

Although the terminology is different, the purpose of the Agency for Health Care Policy and Research (AHCPR) mirrors the preamble of the Objectives of the American College of Dentists (ACD). The AHCPR is an agency of the U.S. Public Health Service, Department of Health and Human Services. It has been charged to develop knowledge necessary for promoting improvements in clinical practice, care delivery systems, professional self-governance and public policy. In response, it supports research to critically examine the assumptions upon which clinical practice and practice-related public policy are based.

Parallel to AHCPR activities are the means endorsed by the ACD for attaining its goals -- its call for promotion of research, improved public understanding of oral health service and its importance for optimum health, the free exchange of ideas and experiences in the interest of better service to patients, and in urging of dental professionals to accept the full extent of their responsibilities to the community.

This paper describes key components of AHCPR programs that have the potential to support activities conducted by and for the dental profession and the public. Examples of dental health services research supported by the AHCPR and ways in which Fellows of the ACD could participate in the development and dissemination of health services research are also discussed.

Informing Professional Judgment

Professional judgment plays a role in clinical decision making, practice administration, and professional policy making. Competent dentists may differ in their opinions regarding the suitability of different methods of organizing and financing dental practice and delivering care, or about the appropriateness of different approaches for diagno-

The opinions expressed are those of the authors and do not necessarily reflect the position of the Agency for Health Care Policy and Research.

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sis and treatment for persons with apparently similar oral conditions. The following examples gleaned from the dental literature illustrate the need for additional research on the effectiveness and appropriateness of dental care, and the way in which dental care is provided and financed.

How well do dentists agree when making restorative treatment decisions? What factors influence their decisions? Dentists who were asked to independently examine and recommend restorative treatment for the same patient frequently disagreed about whether a tooth required treatment. When there was agreement that treatment was needed, there often was disagreement concerning the reason for treatment. If a tooth were already restored, the likelihood that treatment would be recommended by at least one dentist was higher, but the presence of a restoration increased the chances for disagreement on the need or lack of need for treatment and the reason for treatment.[1] What are the implications of such variations? What are the opportunities to improve agreement for treatment decisions?

Should practitioners follow the FDA radiographic guidelines adopted by the ADA and AGD?[2] How can the guidelines be improved? An evaluation of the effect of using the FDA guidelines to order dental radiographs for new patients showed that approximately four percent of dental conditions were missed. However, the number of x-rays ordered was reduced by 43 percent. For patients in regular care, how do the consequences of having their dentist miss these conditions compare to the alternative health risks from additional radiographs, (e.g., radiation exposure and the burden of unnecessary treatment due to "false positive" diagnoses that often arise from any diagnostic procedure) or the expense of the additional radiographs?[3]

Are dentists' treatment recommendations influenced by the payment system? There is growing evidence that dentists who practice under different financing mechanisms recommend different treatment for the same patient.[4] Do such treatment recommendations reflect patient decisions about how much to spend for dental care so that treatment plans reflect patient tradeoffs, or are they merely subject to dentists' responses to reimbursement? When both out-of-pocket payment and premiums are considered, is it clear which financing mode provides patients with the best value? Do some payment mechanisms encourage treatment approaches that are more responsive to patient values?

Does specialty training cause oral surgeons to prescribe more treatment? When planning treatment for a 29 year old patient with asymptomatic third molars, oral surgeons, as a group, were twice as likely to recommend extraction as general dentists.[5] Is this because oral surgeons have better information about the likelihood of problems in the future, or the severity of sequelae to extractions among patients of different ages? Or does this trend indicate that general dentists have better information about the prevalence of third molars that remain asymptomatic throughout a lifetime?

Health Services Research and The Agency for Health Care Policy and Research

These recent findings and resulting questions are products of the research supported by the AHCPR. In fact, the AHCPR was created by Congress in 1989 in response to similar questions about the effectiveness of medical and other health care.[6] The AHCPR is the major Federal agency responsible for identifying and testing ways: to improve the quality of and access to health care, to determine that the health care provided is effective, and to contain health care costs. The goals of AHCPR are pursued by supporting health services research aimed at improving care delivery and understanding the outcomes of health care, by facilitating the development of clinical practice guidelines, and through efforts to disseminate the products of the Agency's work.

Health services research systematically examines how health care services are organized, provided and financed. Because it comprises a broad array of subjects, health services re-

search draws on the skills of many disciplines, among them biostatistics, health care economics, epidemiology, health care finance, health policy, medical sociology, and the health professions. This field of research provides the scientific information needed to understand and to improve the health care delivery system. Examples of health services research questions include: *What factors affect the efficiency of the health delivery system and how can they be changed? What factors determine access and utilization of health care? How do methods of payment affect the distribution of health providers? How do public policies (including licensing and regulation) affect health care?*

Dental practice has been long influenced by health services research. One of the first examples of its application to dentistry predated the use of the term "health services research." This study of the organization of dental education and its relation to dental practice was carried out by William J. Gies in 1926. It led to changes in professional and public policy that raised the quality of dental education, and improved by an order of magnitude the quality of dental care available to the American people.[7]

The AHCPR and its predecessor, the National Center for Health Services Research, have supported over a dozen projects addressing issues in dentistry. The knowledge base arising from AHCPR-supported dental research has advanced in very small increments and a comprehensive program of such research has not yet been developed. The AHCPR does not have an identified or separately budgeted program for oral health or dentistry, (or for any other disease, condition or specialty, for that matter). Instead, AHCPR programs are organized around broad and frequently cross-cutting programs. For example, one program examines and develops ways to improve understanding of the effectiveness of health care. Another examines health care delivery systems and their affect on the availability, quality and costs of health care services. A third program addresses the appropriateness of clinical practice through the development of clinical practice guidelines.

Understanding the Effectiveness of Health Care

Medical effectiveness research is an evolving area of health services research that examines the relationships between health care interventions commonly used and health outcomes of significance. One of the most intriguing phenomena uncovered by health services researchers during the 1970s and 1980s in the U.S. were major variations in the process of care that different physicians rendered to similar patients.[8,9] These studies revealed large geographic differences in the rates of certain surgical procedures, even after researchers controlled for differences in patients' age, health status, race and other demographic characteristics.[10] Often, practice variations properly reflect clinical factors or patient preferences. However, in some cases, variations are the result of professional uncertainty or lack of knowledge about the effectiveness of treatments. The AHCPR's Medical Treatment Effectiveness Program (MEDTEP) was established to address these concerns.

One distinguishing characteristic of the MEDTEP effort is its focus, as the name implies, on treatment effectiveness rather than efficacy. Efficacy research has the main goal of identifying whether a treatment is beneficial under highly controlled conditions and selected patient populations ("does it work?"). On the other hand, effectiveness research examines whether interventions are of benefit under less than ideal conditions ("does it work in the real world?"). Effectiveness refers to the outcomes that can be expected in typical patients, receiving care in typical clinical situations.

The need for treatment effectiveness research for dentistry is compelling. Wide variations in care and the factors associated with decision-making by dentists have been succinctly reviewed in an earlier contribution to the *JACD* by Shugars and Bader.[11] Close inspection of the assumptions upon which much dental practice is based reveals that the profession has incomplete knowledge of the likelihood that certain commonly used treatments will yield expected outcomes. Regardless of the health plan participation that brings dentist and patient together for dental care, the ability of either dentists or patients to choose the most appropriate treatment alternative is compromised by lack of such information. Shugars and Bader argued for "practice-based research networks" as a mechanism for practitioners to gather the effectiveness data in real world practices. As such, practitioners would have a direct role in collecting information to inform treatment decisions more likely to result in optimum outcomes in everyday dental practice.

MEDTEP research emphasizes outcomes that reflect the patient's experience and considers the patient's perspective in evaluating effectiveness and appropriateness of health care (patient outcomes). Thus, in addition to clinical indicators, MEDTEP studies address quality of life, functional status, satisfaction with care, and the impact of disease on overall well-being of patients. Dental re-

searchers have devoted much attention to measurement of disease and treatment success from the dentists' perspective (e.g., loss of a certain number of millimeters of periodontal attachment, replacement of all missing teeth, replacement of "defective" restorations). But patients' satisfaction with dental treatment and the impact of treatment on patients' ability to function have not been adequately explored. Assessments of functional status and health status have been examined to some extent in the geriatric dental literature, but need to be applied to other areas of dentistry as well.

Understanding Health Care Delivery Systems

The past 20 years have witnessed a rapid growth in the number of people covered by dental benefit plans, as well as the number of variations of coverage options, reimbursement arrangements and alternative delivery systems. Yet, the impact of various organizational arrangements for providing dental care were never fully measured or understood. The profession has been striving to provide the highest quality, to be more efficient and to expand the number of people receiving its benefits. With the advent of health care reform, further changes in the way that dental care is organized and delivered can be expected. This makes it even more imperative to examine the effect of the delivery system on cost, quality and accessibility of care. How will different cost-sharing, choices of dental plans and benefit structures affect quality of care and patient satisfaction?

With the prospect of health care reform, research on quality assurance and improvement also has assumed new urgency. Public acceptance of the new organizational and financing arrangements necessary for health system reform depends upon confidence that the quality of services provided will be maintained. Quality improvement systems and measures of quality that emphasize patient outcomes, including functional status, quality of life and patient satisfaction are relatively new developments. The AHCPR supports research to resolve issues related to the validity of measures developed, their feasibility and their acceptability and credibility to providers, patients and purchasers. A related activity of the AHCPR is the development of automated, integrated patient records and clinical decision support systems that may be helpful for both improving and assessing performance. Such systems also have the potential to serve as a source of data for studies of the effectiveness of treatment in everyday practice.

Interests and incentives of various participants to control the growth of health care costs, increase the efficiency of care or extend the benefits of health care to the greatest number create pressures throughout the system to change ineffective and inefficient practices. The AHCPR supports research to examine the cost and quality implications of utilization of different types of primary care providers and settings for the same or equivalent conditions. It supports studies of the organization of primary care services and the process of clinical practice to identify key aspects of different health care delivery models that can provide cost-effective, high quality care to diverse populations, including the elderly, the poor and ethnic minorities. This AHCPR focus includes an interest in ways to increase the use of preventive services among those who have little contact with primary care providers, for a variety of reasons, and are most in need of such services.

Clinical Practice Guidelines

Deciding what treatment options are best for patients has become increasingly difficult for practitioners. Advances in basic research, new and improved materials and procedures, better technologies, concerns about malpractice and cost control pressures are among the factors that have made clinical decisions increasingly complex in both medical and dental practice. Decisions about dental treatment are further affected by the lack of outcome information for the growing number of treatment alternatives available to dentists. As partners in making informed decisions about their health care, patients experience similar difficulties. Clinical practice guidelines were developed to guide practitioners and patients through these complex choices.

Guidelines are "systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical conditions."[12] Guidelines are not protocols that impose a standard of care; they are science-based, flexible tools designed to be updated and revised as new scientific evidence becomes available. AHCPR funding of guideline development is a collaborative effort between private practitioners, researchers, health care organizations and specialty societies.[13] AHCPR's principal role is to facilitate the process of guideline development and to develop and maintain scientific evidence for this enterprise. The resulting guidelines are derived from the best scientific evidence and a consensus of opinion and clinical judgment from panels of outside experts.

The potential of practice guidelines to improve the quality of care has been recognized by the dental profession.[14] To date, AHCPR guidelines have not addressed topics exclusive to dentistry. However, the Agency also supports studies that evaluate guidelines and identify ways to improve them. Dental guidelines are among those studied.

Developing better guidelines supported by better research will not necessarily lead to improvements in clinical practice. Wide dissemination of guidelines to practitioners and adoption of the guidelines by practitioners is crucial to their long-term success. The AHCPR funds projects to evaluate the success of guidelines in different practice settings and to test their effect on patient care. An example of such projects is a study that tests different ways to disseminate the guidelines developed by the American Association of Oral and Maxillofacial Surgeons to members of the specialty. This study is expected to improve educational methods used to disseminate information, and will assess the impact of the guidelines on the behavior of practicing oral and maxillofacial surgeons.

Role of Dental Practitioners and the American College of Dentists

The findings from health services research, including that supported by AHCPR, frequently are reported in professional journals that are not commonly read by dental practitioners. Consequently, individual practitioners' assumptions and understandings about the collective dental care delivery system or alternative treatment strategies often are based upon the recollection of personal experiences, with little opportunity to contrast them to conclusions based upon a larger or more systematic collection of experiences. Expansion of the experience base from which such insight can be drawn requires an expansion of the literature supporting each individual's information base.

The American College of Dentists (ACD) includes leaders in all specialties and settings of the profession, who collectively have access to an expansive array of relevant information garnered from many sources. ACD Fellows can be instrumental in bringing the findings of clinical and health services research to their colleagues and stimulating both critical review and thoughtful consideration. Where findings contradict widely held beliefs and assumptions, the ACD can encourage follow-up and clarification, suggest the need for replication in other settings or develop other recommendations that might lead to acquisition of additional information essential for guiding further research and care.

Dentists, collectively, can contribute to expanding the knowledge base by clarifying the dental care delivery and public policy issues of greatest significance and by encouraging research to address these issues. Although the dental research issues discussed earlier are within AHCPR's mission, it has no legislative or programmatic imperative to address dental matters. Consequently, dental proposals compete for resources with others addressing the full spectrum of care delivery concerns of the Nation. The scope of AHCPR's dental research program reflects the success of individual dental researchers in developing meritorious research protocols that survive rigorous review by peers.

If dental health services research is promoted and cultivated by the profession, its findings will assist dentists in meeting many of their professional obligations. These obligations, as synthesized from the writings of others by Blumenthal, include the responsibility to make a commitment to self improvement, to promote altruism, and to participate in peer review.[15]

Professional Obligations

Concerning the first of these obligations -- the **commitment to self-improvement** -- professionals are expected to master new knowledge about their discipline and to continually incorporate it into their practice. They also are expected to contribute individually to the knowledge base that informs their discipline. Research on practice variations has illuminated many issues in medicine where professional uncertainty has resulted in apparent discrepancies in the delivery of care. The few studies that have addressed this in dentistry indicate that this is also true for dental practice. Effectiveness research and clinical practice guidelines can improve the knowledge base guiding practitioners' decisions, but translating that knowledge into improved quality of care will not be possible without the best efforts of those delivering the care. For this research to be translated as improved quality, an informed, engaged and motivated profession is essential. The rationale for the formation of practice-based research networks has been presented in this Journal.[11]

Although dentistry will need to develop its own model, it may be instructive to examine the accomplishments of the Maine Medical Assessment Foundation, which has developed networks of provider study groups to examine practice pattern variations, conduct outcomes research studies and disseminate information.[16] Also applicable are experiences of the Dartmouth COOP

Project, a network of independent primary care physicians who collaborate with academic researchers and organize activities for mutual support, continuing education, and practice improvement.[17] In these examples, issues or problems that surface in clinical practice energize providers to design and participate in their own educational and research agenda.

The second of these stated general professional obligations of dentistry is **altruism**, that is, the resolution of conflicts between the practitioner's interests and the patient's interests in favor of the patient. Conflicts are further complicated when a third party is paying for the care, a situation which would become more common if calls for expanded public subsidy of the cost of dental care for those who cannot afford it are answered.[18] For a private practitioner caring for a patient paying for care entirely "out of pocket" there is concern that the patient be presented an accurate assessment of the benefits likely to accrue from costly treatment, so that they can make a truly informed decision. For practitioners who have accepted a capitation payment for a patient, there may be the opposite, but no less difficult, issue of ensuring that patients are provided an opportunity to receive necessary services under an appropriate and timely schedule.

Sometimes the conflict is between the interests of the practitioner and those of a community. When the patient has opted for a dental benefit plan that encourages participation by the provider in agreeing to special arrangements for covering certain services more generously than others or for executing various cost-sharing arrangements, the practitioner's advocacy for the individual patient is tempered by concerns of fairness to all the other patients sharing in the plan or other practitioners participating. In such cases, all parties are best served when there is some consistency in the rationale for identifying what services are "necessary" or "appropriate."

Our understanding of what is necessary and appropriate is integrally tied to our understanding of the effectiveness of dental care. Furthermore, it is much easier to identify ideals we would like to promote than it is to specify how to create them within the context of continuation or modification of the present delivery system. Improved understanding of patterns of treatment that occur under various financing and reimbursement plans, and consideration of how to optimize the situation for patients, providers, and those in society sharing the costs are needed. The AHCPR can assist the dental profession by being a source of support for studies examining how a reformed delivery system can promote altruism.

The third obligation of dental professionals that can be facilitated by advances in dental health services research is that of **participation in peer review**. In the 1970s and 1980s, quality standards for dental care frequently focused upon technical specifications for a particular treatment service, especially those that resulted in restorations or appliances. Less attention has been given to development of standards regarding appropriateness of care and the selection of treatment from among alternatives. Frequently, there is an assumption that more expensive alternatives are of higher quality and that patients are determining the quality of their care by deciding what they are willing or able to spend for the services. Dentistry has a great deal of experience with this notion of "shared" decision-making. However, if the knowledge base is not adequate to advise patients about the different outcomes they may expect from alternatives, then such patient involvement is not truly informed.

In the short term, patients are not in a position to assess the appropriateness of the diagnostic, preventive or treatment services they receive. To the extent that certain organizational and financing arrangements encourage under treatment or over treatment, patients rely on peer review and the profession's ability to sanction those individuals who provide inappropriate care, as well as the profession's insistence that organizational or financing arrangements include adequate protection from substandard care.

Although various members of the dental community have different expectations of health care reform, there is universal advocacy of preservation of tax deductibility of dental plan benefits. If successful, this would ensure a continued role for third party intermediaries, and likely encourage employment of some measures of peer review. Dentistry must assure that the efforts of dental professionals in "supervising" peers are valued, appropriate, and efficacious. Institutional, legal, and financial support for peer supervision at the local level must be present.[15] AHCPR can be a resource to dentistry in its attempts to assure that these conditions are met. Specifically, AHCPR could support the development of more comprehensive measures of quality which emphasize patient outcomes, as well as including patient characteristics and nonclinical factors when appropriate. The AHCPR could evaluate demonstrations of effective, efficient, and professionally-empowering methods

for quality assessment and improvement.

Summary

This paper has reviewed a number of issues facing dental practitioners and leaders in dentistry daily. They range from detailed questions about what treatment to provide a specific patient to overarching issues affecting the profession as a whole, as it justifies maintenance of professional autonomy through fulfillment of professional obligations. It has described how research at AHCPR may be relevant to dental practice and professional affairs. We believe that such research can clarify relationships of and responses to social, economic, political and professional forces, and help all parties anticipate and optimize the effects of system change.

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Family Violence Implications for the Dental Profession - A Symposium -

Presented June 3, 1992
at Harvard School of Dental Medicine

THIS symposium was a wake up call for the medical and dental profession. The alumni of the Harvard School of Dental Medicine have always supported the faculty of the school in addressing and speaking out on controversial issues. On the issue of family violence, the leadership has been provided by Dr. Howard Needleman, Co-Chairman of the Department of Pediatric Dentistry. Several years ago, Dr. Needleman attempted to bring the hidden horrors of family violence to our attention. Because we were not as attentive as he, many of us thought he was exaggerating. How could sexual abuse of children by their parents or battered women be more frequent than the rare act of some mentally disturbed person? People who function apparently well, who hold good jobs, who go to church or synagogue would not be involved in family violence -- we thought. We also thought that if any of us did see a child or woman who had been beaten we would say something to somebody.

Abuse does happen far more frequently than we thought, and most of us would recognize it if we were more sensitive. But there is still a reluctance to do anything. Dr. Needleman has worked for laws and regulations that make reporting family violence, when observed in the dental office, a professional duty. The papers included in this symposium were prepared by experts in the fields of child abuse and battered women. We are grateful to Dr. Needleman and the other authors for the wisdom they displayed in paying attention to these issues, and for the personal sacrifices they have made in pursuing a cause that has not been popular. We are also grateful to the Delta Dental Plan of Massachusetts which has sponsored this symposium and has been the lead agency in founding and supporting the Dental Coalition to Combat Child Abuse and Neglect.

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Understanding of Child Abuse and Neglect*

Eli H. Newberger**

WHEN C. Henry Kempe[1] and his colleagues coined the term "battered child syndrome" in 1961, the attention of the American medical community was focused on one of the most dramatic manifestations of family violence. Since then, family violence has been perceived as a major social problem, and the eyes of pediatricians have been opened to familial causes of morbidity and mortality.

Kempe noted that notwithstanding a long history of concern with child welfare, the pediatric community ignored the implications of injury and neglect of children because of a "process of denial that was unequal to anything... previously seen in pediatrics." This denial continues today in spite of an increasing and visible literature on child abuse.

History, Definition, and Prevalence

Violence toward children has been condoned and endorsed throughout recorded history. In the view of many historians and social theorists, it is deeply embedded in the social institutions and legal structures of industrialized society.

Societies for the prevention of child abuse developed in the 19th century, and government and private agencies dealt with abused children throughout this century. Following Kempe's awakening of the medical community, there was an editorial outcry in professional and lay media. This led to a model Child Abuse Reporting Law promulgated by the U.S. Children's Bureau. By the mid-1960's the law was adopted in some form by all states. Underlying these statutes, however, was a shaky knowledge base and a confusing set of criteria for reportable maltreatment.

Whether, indeed, child abuse can be defined with precision remains a question full of conflict even for experts. Gelles, a sociological scholar of family violence in the United States, identifies the term "child abuse" as "a political concept that is the single greatest obstacle which stands in the way of gaining an insight into the problem."

The concept of child abuse has been broadened in the last decade. Now each state's reporting criteria include neglect, sexual abuse, emotional abuse, and deprivation of necessary physical and moral supports for a child's development. Additionally, the list of professionals mandated to report has been increased to include virtually all who are responsible for the care of children.

A nationally representative sample of American families was asked about their methods of child rearing in a recent survey by Straus, Gelles, and Steinmetz.[2] The responses suggested a far greater prevalence of physical violence toward children than that suggested in the case report data. This survey, which asked respondents in intact families specifically whether children had been kicked, punched, bitten, beaten up, or threatened with a knife or gun, suggested that 3.6 percent of children between the ages of 3 and 17 are at risk for serious physical injury every year.

Model for Understanding Child Abuse

The initial efforts to understand child abuse focused on the psychological problems of the parents of the victims. An influential study by Steele and Pollock[3] pointed to abusing parents' distorted expectations of their children, frustrated dependency needs, personal isolation, and histories of having themselves been abused as children.

It is useful to think of child abuse as culminating from a series of stresses that impinge on parents and children. These "causes" have been identified as risk factors in populations of parents and children. The research has not uncovered casual connections for child abuse in the usual sense of illness pathogenesis. How risk may operate for any individual family must be assessed at the clinical level. Only by understanding the social, familial, psychological, and

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* This paper is excerpted with permission of the American Academy of Pediatrics from a manuscript by S. Bittner and E. Newberger, originally published in *Pediatrics in Review* in 1981. It has been reprinted here since it provides an excellent introduction to the issue of abuse and neglect of children.

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physiologic concomitants of child abuse can the pediatrician form a comprehensive management plan.

Gil[4] notes that "the most fundamental causal level of child abuse consists of a cluster of interacting elements, to wit, a society's basic social philosophy, its dominant value premises, its concept of humans."

Zigler (former chief of the U.S. Children's Bureau) states that "undoubtedly the single most important determinant of child abuse is the willingness of adults to inflict corporal punishment upon children in the name of discipline.[5]

Violent entertainment in the cinema and on television may also affect how adults and children approach issues of conflict. Whether media violence is associated with childhood aggressive behavior remains a subject for debate, but there is a developing consensus that a milieu of violence fosters actions of violence.

Social and cultural factors affect individual behavior and the quality of relationships within the family. It is helpful to think of "stresses" within the family as a way of organizing the complex data that accompany a child with the symptom of child abuse. Many families have some of the stresses listed, but we do not yet know enough to be able to predict child abuse in a given family with certain levels and qualities of stress.

Although most psychological studies of child abuse have focused on the adult adaptation of individual parents, recent work suggests that the relationship between a child's parents may have as much to do with the occurrence of child abuse as any psychological qualities of individual adults. In homes where husbands and wives had used violence on each other in the past year, Straus found a 129 percent greater incidence of severe violence toward children. The inter-generational nature of child abuse was supported in this study which found that "respondents who reported that they had observed their parents hit one another had a much higher rate of violence towards their own children than respondents who said they had never seen their parents hit each other."

Low birth weight infants appear to be at an increased risk for child abuse, and this may be due to some failure of development of mother-infant attachment. Nursery routines that oblige protracted separations of newborns from their parents may contribute to this perceived risk. Associated with prematurity are other early stresses in the parent-child relationship: difficulties with the pregnancy and delivery, separation of the child and parent during the first month of life, or illness in the mother or child during the first year. How these stresses increase the probability of physical injury is not known.

Corporal punishment is accepted in all social classes, but when violence is a major mode of communication between parent and child, the relationship may take on a quality that maintains the violence. Families in which abuse has occurred may be administering corporal punishment inconsistently - in response to the child's failure to accomplish tasks and behavior that may be impossible at the child's chronological age, or when the child is insufficiently responsive and nurturing to the parent. This so-called "role-reversal" phenomenon is noted often in clinical work with families.

There has been a growing recognition that a child's own qualities may stimulate violence in his/her family. These qualities may include physical deformities, acute or chronic illness, slow intellectual development, psychiatric problems, or a temperament that is inadequately understood or tolerated by the parents. Historical circumstances may be associated with child-produced stresses, even in the absence of physical or behavioral idiosyncrasies; a child may be born at a time of crisis and be identified as the bearer of trouble, or the child may have been unwanted. Stepchildren and foster children may be more susceptible to violence.

Most adults who abuse children are not crazy. In comparison with other adults, they may be lonely, feel helpless or depressed, express unfulfilled dependency needs, and have little control over impulses. Other attributes that have been observed among abusive parents are inadequate understanding of child care and child development, misinterpretation of the meaning of such childhood behavior as crying or slow feeding or awakening at night, and a low tolerance for frustration. Alcohol-

ism and substance abuse are often noted.

Sexual Abuse

Incest is defined as sexual abuse by a parent, sibling, or other close relative, that includes intercourse. Molestation is defined as sexual abuse by a stranger with or without penetration. Modes of sexual contact include rape, defined as forced genital contact - usually introduction of the penis into the vagina of the female victim, but occasionally in children including the forced penetration of an adult female by a boy's penis; sexual assault, defined as violent or nonviolent manual, oral, or genital contact with the genitalia of the victim or the perpetrator; "immature gratification," defined as fondling, looking, or kissing the genitalia of the victim, and including confrontation by an exhibitionist.

An adult who seeks sexual contact with children, in whatever mode, is pedophilic. The sexual encounter may be coerced by the adult, or the child may be an active participant, seeking out or encouraging the adult because of needs for nurturance, mastery, or acting out aggressive feelings.

Finkelhor[6] suggests that the current approach to sexual abuse is complicated by the historical context of sexual behavior between children and adults, and he notes that the process of discovery of sexual abuse has political dimensions. The women's movement has stimulated a consideration of the problem of sexual abuse as a variant of rape, and the proponents of protective services for child abuse have focused on the relationship with other forms of maltreatment. Yet, sexual abuse is unique in many ways. Unlike rape, sexual abuse is usually perpetrated by a friend or an adult known to the child. It is more frequently chronic, does not necessarily involve physical force, and seldom involves sexual intercourse. Unlike physical child abuse, the "injury" is usually psychological rather than physical, and the motivation is usually for sexual gratification rather than as an expression of anger. These differences create confusion when trying to comprehend the nature of the risk to a child, the needs of the family, and the therapeutic resources that might be employed.

The very suspicion of sexual abuse can be profoundly troubling to children and adults, and the force of the intrusions of the criminal justice and welfare systems when case reports are made can sometimes be more harmful than helpful to the psychological status of the victim and his or her family.

Sexual abuse may present with "nonspecific" symptoms such as enuresis and encopresis, hyperactivity, fears and phobias, sleep disorders, learning problems, compulsive masturbation, sexualized play, perineal irritation, other genital injury, and distorted, pseudomature personality development. Incest frequently is discovered when the child or mother reports the problem to someone outside the family. By far the most frequent relationship is father-daughter, and often the child has been an active participant in the relationship over a long period of time. The incest is usually a symptom of a family system that includes a lonely, dependent father; a depressed, withdrawn, but subconsciously encouraging mother; and a needy daughter who may believe that her secret relationship with her father is the only thing that holds her family together.

When sexual misuse or abuse is suspected, the clinical evaluation should include a calm, careful, sensitive interview of the child alone, allowing the child to communicate with pictures, toys and play. The parents, and other close relatives and other caretakers can be interviewed to assess risk factors in the home and to establish relationships that will carry beyond the crisis to support the family, even in the event of ambiguous medical findings and uncertain diagnostic conclusions.

Interdisciplinary Management of Child Abuse

Since current understanding regards child abuse as a symptom of family distress and a problem with complex, multivariate origins, it should be managed by a diagnostic interdisciplinary team that includes a social worker, a pediatrician, a nurse, a psychiatrist, and an attorney. When such a diagnostic unit is not available, it may be necessary for the physician to help organize and to work with other professionals in the hospital or in the community. Management guidelines can be developed that utilize each community's resources and personnel. The protective service to which mandated reports are sent may not by itself be able to offer an adequate program of services. A social worker should be called promptly at the time of the family's presentation, both to facilitate the social assessment and also to form a helping relationship.

Several ethical dilemmas confront the pediatrician and his or her colleagues in the diagnosis and management of child abuse. The diagnosis itself is often impossible to make with certainty, and the physician, concerned with giving the parents the benefit of any doubt, may feel that the easiest, fairest, and most ethical approach is to send the child home without reporting. These clinical problems, once reported, may also consume substantial amounts of unremunerated time.

The reporting laws also oblige communication of confidential infor-

mation when a child is suspected of being at risk, and this may place the pediatrician in conflict. The Hippocratic precept, *primum non nocere*, is challenged when the reporting carries with it the risk of an incompetent intrusion into the life of the family by a poorly trained, inadequately supervised social worker from an overburdened and under funded public child protection agency. The child may be separated from home, or help may not materialize. It is often necessary for the interdisciplinary team to choose "the least detrimental alternative," a concept suggested by Goldstein,[7] Freud, and Solnit in *Beyond the Best Interests of the Child*, to guide a choice of management options when both may clearly carry the possibility of harm.

A consensus on seven axioms of child abuse management appears in the literature on child abuse:

1. Once diagnosed, abused children, especially infants less than 1 year of age, are at great risk for reinjury or continued neglect.

2. In the event the child is reinjured, it is likely that the parents will seek care at a different medical facility.

3. There is rarely any need to establish precisely who it was who injured the child and if the injury was "intentional." The symptom itself should open the door to helping alliance and comprehensive service plans for the child and the family.

4. If there is evidence that the child is at major risk, hospitalization is appropriate to allow time for interdisciplinary assessment. The complex origins of the child's injury are seldom revealed in the crisis atmosphere at the time of presentation.

5. Protection of the child must be the principal goal of intervention, but protection must go hand-in-hand with the development of a family-oriented service plan.

6. Traditional social casework alone may not adequately protect an abused child in the environment in which he received his injuries. Multidisciplinary follow-up is also necessary, and frequent contact by all those involved in the service plan may be needed to encourage the child's healthy development.

7. Problems of public social service agencies in both urban and rural areas - specifically in numbers of adequately trained personnel and in quality of administrative and supervisory functions - militate against their effective operation in isolation from other care-providing agencies. Simply reporting a case to the public agency mandated to receive child abuse case reports may not be sufficient to protect an abused child or to help the family.

The development of programs that attend to these principles will require careful thought and planning. In the last analysis, the professionals' ability to convince patients or clients that they intend to help them depends on their ability to mobilize effective services. When case management programs and interdisciplinary cooperation improve, pediatricians and other professionals who work with children will find it easier and more rewarding to participate in comprehensive service plans.

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Child Abuse and Neglect – Recognition and Reporting

Howard L. Needleman*

THE abuse and neglect of children and adolescents is a serious societal problem not limited to the medical, legal or social service professions. The dentist, dental hygienist, dental assistant and other auxiliary personnel involved with the treatment of children and adolescents must detect, document, and report children they suspect are abused or neglected.

National figures indicate that annually as many as 1.5 million children are abused and neglected and of these, about 1,000 die.[1] In 1991, Massachusetts Department of Social Services received 82,831 reports of child abuse and neglect of which 54 percent were substantiated (Department of Social Services, Boston, Massachusetts, personal communication). This represents one of every 28 children in the state reported as abused or neglected that year.

Trauma to the orofacial structures is frequently a component of child abuse.[2,3] The dental team, therefore, has the potential to detect and report such cases. In addition, dental professionals usually render dental care to children multiple times each year, thereby increasing the opportunity to see signs of abuse or neglect. In spite of this potential, it appears that dentists only report one-third of the patients they believe are definitely abused, and even a smaller percentage of children they suspect as being abused.[2] When dentists are educated on the topic of child abuse and neglect, they are five times more likely to report cases of abuse or neglect (Needleman, H. L. and Macciarulo, P. 1991, personal communication). Reasons dentists give for not reporting all suspected or definite cases include denial, confusion, fear of reprisal, or simply lack of recognition. It is important to note that dentists must report abuse or neglect if they have "reasonable cause" to suspect abuse or neglect.

The purpose of this presentation is to increase the dental professional's awareness of child abuse and neglect, and in so doing, to help the professional to detect, document and report such situations.

Types of Child Abuse and Neglect

As health care professionals, dentists have both a moral and legal obligation to detect and report any of the major types of child abuse and neglect (Table 1).

Table 1: Types of Child Abuse and Neglect

Physical abuse
Child sexual abuse or exploitation
Failure to thrive
Intentional drugging or poisoning
Manchausen syndrome by proxy
Health care neglect
Dental neglect
Safety neglect
Emotional abuse
Emotional neglect
Physical neglect
Educational abuse

Physical abuse or non-accidental trauma is the most important type of abuse since it can result in severe injury or even death. Physical abuse is defined as any serious injury inflicted on a child under 18 years of age by a caretaker. These injuries can be graded mild (a few bruises, welts or scratches), moderate (numerous bruises, minor burns, a single fracture), or severe (large burns, central nervous system injury, abdominal injury, multiple fractures or other life threatening injuries). Physical abuse is often difficult to distinguish from "reasonable" physical punishment or legal corporal punishment. Any punishment that: 1) causes bruises; 2) requires medical or dental treatment; 3) is delivered by kicking or using a closed fist; 4) utilizes a blunt instrument (although acceptable in some groups, it should not result in bruises or should not be used on children under two years of age); 5) is delivered to areas of the body other than the buttocks, legs, or hands; 6) results in multiple repeated blows; 7) is delivered to a child before their learning to walk; 8) is administered more than three times per day; or 9) is in danger of causing subdural hematomas by vigorous shaking of a young infant, should be investigated.

Not all states agree on a uniform definition of child sexual abuse or exploitation. However, federal statutes include it within the definition of child abuse. This may include, but is not limited to, child pornography,

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rape, molestation, incest and child prostitution. The National Center on Child Abuse and Neglect defines sexual abuse to include contacts or interactions between a child and an adult when the child is being used for sexual stimulation of the perpetrator or another person.[4] Physical injury is often absent in these children and sexual exploitation better describes this subtype of child abuse.

Neglect is defined as any child under 18 years of age who lacks adequate food, clothing, medical/dental care, supervision or any other essential care. A child that is underweight (below the third percentile while height and head circumferences are above the third percentile) and malnourished can be diagnosed as failure to thrive.[5] Neglect is evident when a child fails to grow and develop due to insufficient caloric intake and the parents are responsible. These children usually are under the age of two and often thrive once they are removed from the home and placed on unlimited feedings of a normal diet for their age.

Health care neglect exists when a parent or caretaker ignores the treatment recommendations of a health professional for the management of a child's treatable illness which is worsening. This situation may be due to either a parent's or caretaker's denial that a serious illness or emergency exists or their religious beliefs. The child's constitutional right to life and health overrides parental beliefs and control over the child. Dental neglect is a specific type of health care neglect. Often the best intentions of a caretaker can be negated by poverty, ignorance or a lack of access to adequate care. However, dental neglect exists when obvious oral disrepair is seen coupled with the parent's failure to provide adequate dental attention. The American Academy of Pediatric Dentistry defines dental neglect as chronic pain and/or infection that either makes eating difficult, delays the child's growth and development or interferes with playing, working or going to school.[6]

The Abused Child

Abuse of children is equally distributed between males and females when all forms of abuse and neglect are considered. The prevalence of maltreatment of children increases with age. There are, however, two exceptions: 1) the prevalence of physical abuse of males decreases with age, above the 3 to 5 year age group; and 2) the prevalence of physical neglect of both males and females is constant for ages over the 0-2 year age group. Severe physical injuries occur in the preschool age group (0-5 years), with 70 percent of all fatalities occurring from within this group. Sexual abuse occurs most frequently among adolescent females (age 12 to 17 years), but half the female victims of sexual abuse are younger (0 to 11 years). In a random sample of adults in the Boston area, 15 percent of the responding females and 6 percent of the males reported having been sexually abused in the past.[7]

The abused and neglected child often is perceived by the abuser to be difficult to control, "bad," selfish or to have other negative traits. The likelihood of being abused is greater if the child has special needs, such as hyperactivity, is physically handicapped, or has a low birth weight. Signs and symptoms that might increase suspicion that a child may be abused and/or neglected include:

1) unduly afraid or passive (especially of his parents),
2) evidence of prolonged confinement,
3) repeated skin or other injuries,
4) inappropriate treatment of injuries by parents (e.g., inappropriate bandages or medications),
5) under nourishment,
6) inappropriate food or drink,
7) inappropriate dress for weather conditions,
8) aggressive, demanding or hyperactive,
9) overall poor care,
10) cranky, irritable and/or cries easily and/or,
11) "role reversal" (i.e., child takes over the role of parent and tries to be protective or otherwise take care of the parent's needs).

The Abuser

Child abuse and neglect occur among a wide range of socioeco-

nomic, racial, religious and geographic populations. Parents or caretakers represent a cross-section of the general population. One parent is often the active abuser, while the other passively approves of this maltreatment. The parent often has a history of being abused themself, so that this child rearing practice is passed down from one generation to the next. Many of the families are single-parented; thus one must consider whether an adult who is caring for the child is responsible for inflicting injury while the parent is not present.

Parents may exhibit characteristics that can be indicative of abusive behavior, including:

1) poor self esteem, coping skills and lifelines,
2) violent temper or outbursts,
3) unrealistic expectations of child's behavior,
4) inappropriate responses to the seriousness of the child's condition (over- or under-reacting, hostility),
5) overly critical of the child and never describing the child in positive terms,
6) seldom looking at or touching the child,
7) reluctance to give the history of the accident or giving an unrealistic explanation,
8) bringing the child for treatment long after the injury has occurred,
9) appearing confused or embarrassed when discussing the child's trauma,
10) being immature, depressed or demanding,
11) substance or alcohol abuse.

The Crisis

A crisis or trigger is often a common denominator among abusive families. Abuse is likely when the potential to abuse exists within a parent or caretaker, there is a "special" child within the family, and/or a significant stress is introduced into the family. The interaction of these three variables can serve as a construct for the etiology of child abuse.

The crisis may take many forms. A major crisis, such as loss of employment, separation of parents, or exacerbation of a medical or emotional illness can increase the stress within a family unit sufficiently to set off abuse. Substance abuse or alcohol abuse is often associated with an abusive situation. Common social ills, such as isolation of the family unit, poverty or poor housing can all contribute to the necessary factors leading to abuse and neglect. These ills do not cause the abuse, but can act as a trigger.

Clinical Protocol

With any clinical protocol, a consistent sequence of investigation is necessary to ensure an analytical approach to the diagnosis of a clinical entity. This type of protocol needs to be applied to child abuse and neglect as well, and should follow these steps: 1) behavioral assessment; 2) history; 3) general physical assessment; 4) cranio/orofacial examination; 5) diagnosis and documentation; and, 6) consultation.

Behavioral Assessment

Examination of children for abuse and neglect begins when the child enters the reception room or operatory. The dentist and staff should obtain a general impression about the child's overall cleanliness, size and stature, interaction with the parent or caretaker, appropriateness of dress and gait. Any unusual behavior on the part of the child or parent should alert the clinician. The child's lack of eye contact, fear of adults or touch, dramatic mood swings, withdrawal or aggressiveness should raise suspicion. A parent who acts over- or under-concerned also should be considered suspicious.

History

Diagnosis of any clinical problem requires a thorough patient, family and social history. This is especially true for the clinical diagnosis of child abuse or neglect. When examining a patient with a potentially non-accidental injury, the history given can either be an eyewitness account, unexplained, implausible, allegedly self-inflicted, or indicate a delay in seeking medical care.

When a child states that an individual caused an injury, it is usually accurate. This is also true if one parent accuses the other of inflicting the trauma on the child. This type of eyewitness account should be regarded as highly plausible, unless the child is involved in a custody battle, in which case skepticism should predominate. A partial confession, such as admitting to only part of or one of multiple injuries, can be as diagnostic as a complete confession.

One should be highly suspicious when a parent is unaware of or is unable to explain an obvious injury. Most non-abusive parents know precisely how or when an injury occurred and are willing to discuss it. When an abuser is pressed for a specific etiology, they often become anxious or suggest implausible etiologies. When major injuries result from a reportedly minor accident, or when the child's developmental level precludes their behavior from causing the accident, one should be highly suspicious.

The report of a self-inflicted injury in an infant who is unable to walk is highly suspicious; children of this age are unable to self-inflict an injury. In addition, any fractures in these young children should be considered non-accidental until proven otherwise. Children can be severely injured or killed if the diagnosis of child abuse is missed and the child remains with the parent or caretaker.

One should be suspicious when there has been a delay in seeking medical attention for a traumatic injury. Abusive parents often delay or do not even accompany their child to the medical or dental facility to obtain care for the child.

General Physical Examination

Dentists cannot perform a complete physical examination of the patient suspected of child abuse or neglect. We can, however, observe much about a patient without undressing them. It is helpful to check exposed skin surfaces for unusual markings or bruises by lifting shirt sleeves or pant legs. Any limitation of movement of the child might indicate more extensive injuries than presented by the parent (Table 2).

Table 2: Dating Bruises

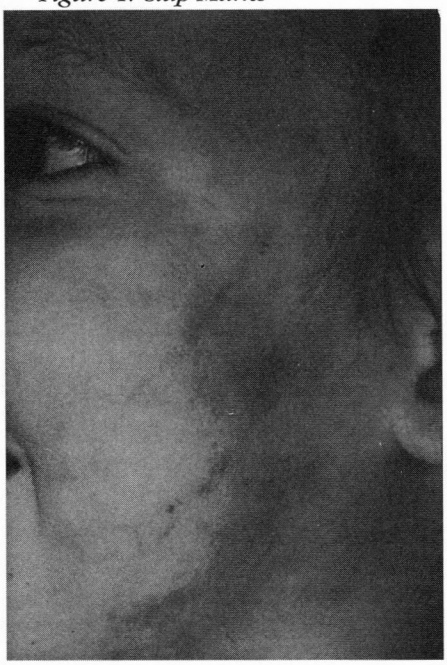
0-2 days	Swollen, tender
0-5 days	Red, blue, purple
5-7 days	Green
7-10 days	Yellow
10-14 days (or longer)	Brown
2-4 weeks	Cleared

Reference from Wilson EF. Estimation of the age of cutaneous contusions in child abuse. Pediatrics. 1977;60:750-2.

Cutaneous injuries are the most common type of injuries seen in cases of child abuse. These include bruises, burns, bites, welts, lacerations, abrasions and unusual markings.

Most children have bruises on their body at any given time. Preschool children normally have bruises on the elbows, knees and shins, and even on the forehead. Bruises from abuse, however, are often found in atypical locations such as the back, genital area, thighs, buttocks, face or the backs of the legs. Genital or inner-thigh bruising is often inflicted for toilet mishaps or can be indicative of sexual abuse. The greater the number of bruises, the more likely that abuse has taken place. Bruises of the cheeks indicate the slapping of the child; often the markings of the fingers can be found in this area (Figure 1). Bilateral

Figure 1: Slap Marks



periorbital bruising can occur when a child is hit about the eyes with an open or closed hand. Presence of bruises at various stages of healing can point to multiple beatings over time. Bruising of the ear lobes indicates pinching of or pulling on the child in this area. Bruises of the upper lip, labial frenum or floor of the mouth are usually caused by impatient or force feedings (Figure 2). Bruises to the neck are generally due to the strangulation of the child with a human hand or implement. Grab marks or squeeze markings also can be seen in the upper arm or shoulder area and are caused by holding the child during a violent shaking (Figure 3 - see page 34). Circumferential bruises or burns on the ankles and/or wrists can be the result of the placement of restraints; bruises of the corners of the mouth can indicate the gagging of a child.

Unusually shaped markings on the body can indicate the child was struck with an object such as a stick, board, hair brush, belt, strap, wires or cords. The hand is a common target for physical abusive injuries. In a recent study, 10 percent of abused children had hand injuries.[8]

Approximately 10 percent of all physical abuse cases involve burns.[9] In determining the etiology of a burn injury, the dentist must consider the age of the child, physical location of the burn and degree of the burn in

Figure 2: Oral Burn

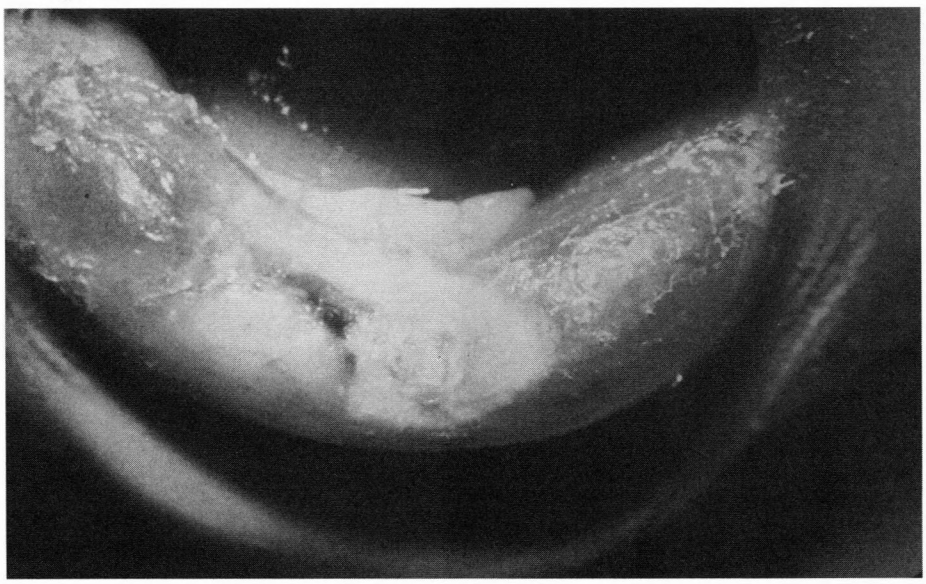
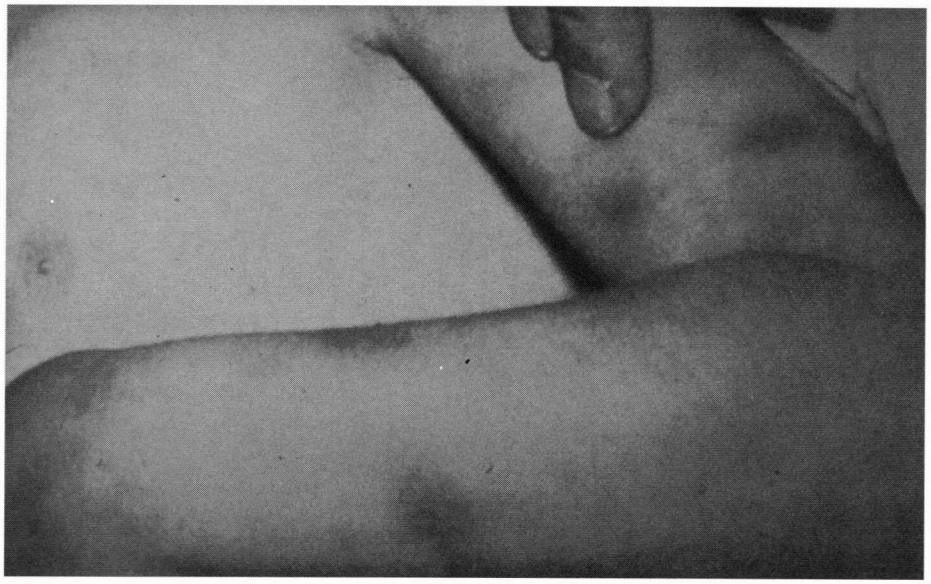
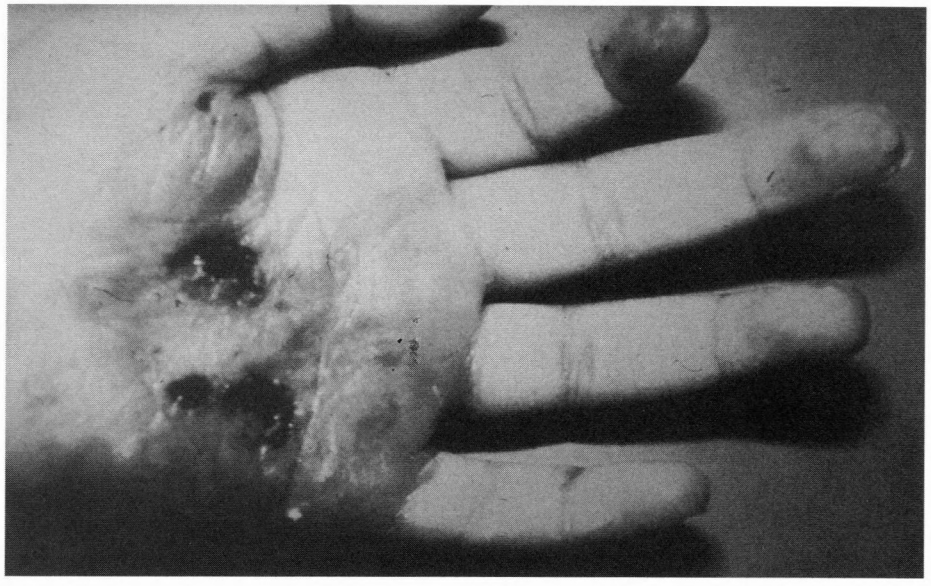


Figure 3: Bruises from Grabs



relation to the history provided by the parent or child. A cigarette commonly is used to burn a child (Figure 4), but other hot solid objects, such as irons and electric plates also have been used. These usually involve only one surface of the body and the burn outlines the shape of the object. Scalding injuries also are common abuse-related burns and usually are inflicted as a form of punishment. Hot water burns result in blistering and have characteristic locations based on how the abuser places the child in the scalding water. For example, children are often punished for toilet training difficulties by immersing their lower body into hot water resulting in burns to the buttocks and perineum. The feet may be spared, and the upper extremity is almost always spared. This pattern of burn cannot occur if the child has accidentally fallen into a hot tub.

Figure 4: Cigarette Burns



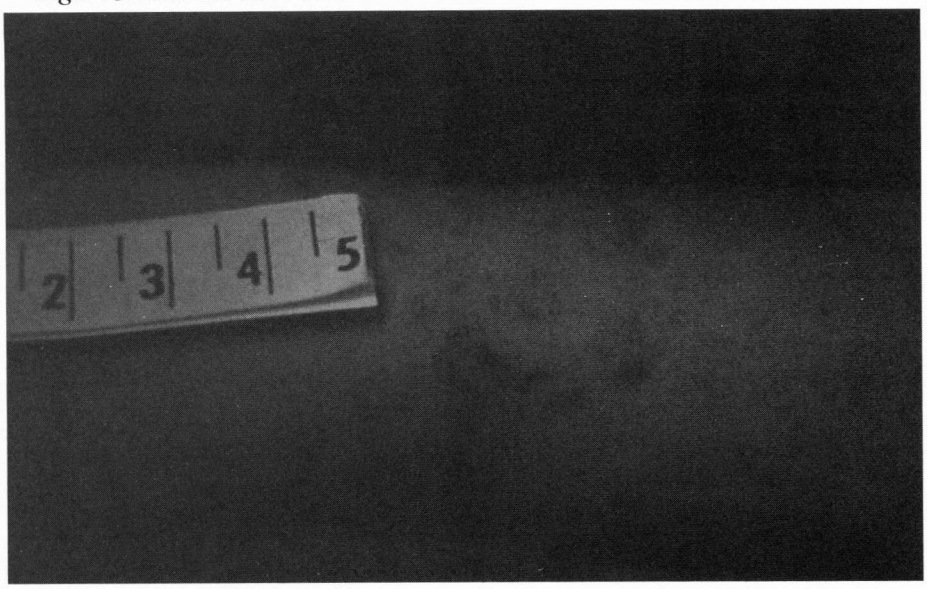
The literature contains numerous reports documenting the occurrence of bite marks in child abuse and the role of the dental profession in interpreting this information.[10-14] Bite marks can be found as solitary lesions indicative of child abuse or found in association with severe head trauma. The dentist should be able to recognize a human bite mark (Figure 5 - see page 35), substantiate its significance, know how to document it and be able to refer the evidence for complete interpretation. A human bite mark is usually an elliptical or ovoid pattern on the skin. The characteristic markings of the maxillary incisors can be seen and measured to determine whether the offending dentition was primary or permanent. When the bite is indeed determined to be human, it is necessary to refer to a forensic pathologist/odontologist for complete evaluation and documentation.

Cranio/Orofacial Examination

It is a common finding that when an individual is attacked physically, the head and/or facial areas often are involved. This is true because these areas are exposed and accessible, and the head is often considered representative of the whole being or "self." It is not surprising that the physical abuse of children often involves the head and facial areas. Numerous studies have demonstrated that: 1) trauma to the head and associated areas occur in over 50 percent of the cases of physical abuse to children; 2) soft tissue injuries (most frequently bruises) are the most common injury sustained to the head and face and are the single most common injury sustained in child abuse; 3) injuries to the upper lip and maxillary labial frenum may be a characteristic lesion in the severely abused young child;[2, 15-19] and, 4) injuries to teeth such as fractures are not uncommon.[20]

Careful examination of the cranium and scalp can reveal traumatic

Figure 5: Human Bite Mark



lesions, as well as conditions such as hair loss and lice. Abnormalities of the ear, periorbital ecchymoses, scleral hemorrhages, ptosis, deviated gaze or unequal pupils, blood clots of the nose or a deviated septum are essential to recognize. Careful examination of the face, neck and throat should be completed before systemic and thorough oral examination.

Injuries to the head as a result of abuse also can include subdural hematomas, subarachnoid hemorrhages, traumatic alopecia, cephalohematomas, subgaleal hematomas and scalp bruises.

The subdural hematoma is the most dangerous inflicted injury and can result in serious sequelae or even death. Over 95 percent of the serious intracranial injuries during the first year of life are the result of abuse.[21] Helfer[22] showed that subdural hematomas rarely occurred from falls from cribs or beds and that major trauma or abuse is required to produce such an injury. Violent shaking or whiplash can cause subdural hematomas; more than 50 percent of the cases are not associated with skull fractures, scalp bruises or swelling. Subdural hematomas associated with fractures are the result of a direct blow by the abuser or from being thrown against the wall or door. These children present with irritability, vomiting, decreased level of consciousness, breathing difficulty and apneic episodes, a bulging fontanelle and/or convulsions. Subarachnoid hemorrhages also can result from violent shaking and may be as common as shaking subdural hematomas. Hair pulling, a common form of abuse, is indicated by bald patches on the scalp that are interspersed with normal hair (traumatic alopecia). This may cause cephalohematomas (a collection of blood between the periosteum and bone of scalp) or subgaleal hematomas (a collection of blood between the calvarium and the aponeurosis that connects the occipital and frontalis muscle). Scalp bruises may be difficult to detect since they are covered with hair and often lie deep in the scalp.

Lacerations of the mucosa of the inner aspect of the upper lip near the frenum or the occasional tearing of the lip from the alveolar margin of the gums occurred in 45 percent of cases reported in a study by Cameron *et al.*[15] Based solely on this report, the torn frenum injury has been purported to be pathognomonic of child abuse in the dental literature. However, no other study reported such a high frequency. Furthermore, it is important to note that the age of the child is significant in this type of injury. A frenum tear is not uncommon in the young child who is learning to walk and frequently falls. However, a frenum tear in a very young, non-ambulatory patient (less than one year), or an older and stable child (greater than 2 years) should arouse suspicion to the possibility that the injury is non-accidental. This type of injury may be the result of an upper-cut type of blow to the upper lip, an effort to silence a screaming child, or the forcing of a spoon or bottle into a baby's mouth by an angry parent who is frustrated at a slow eater.

Bruises of the cheeks and sides of the head suggest blows or slaps with a fist or open hand. If the lesions are more localized and have underlying severe injuries, they may represent a severe blow or impact with a hard object.

A child may receive injuries to the genitalia indicative of child sexual abuse. The dentist is certainly not in a position to diagnose genital injuries, however, unusual oral findings may indicate sexual abuse. Oral penetration has been found to occur in various degrees; one study reported occurrences in about 10 percent of sexual abuse cases.[23] Showers *et al.*[24] reported that orogenital contact may occur in up to half of the sexual abuse cases involving boys. Oral findings can include ecchymoses, petechiae, erythema of the soft or hard palate, lacerations, or the presence of semen or pubic hair in the oral cavity. Sexually transmitted diseases, such as herpes simplex type II, condyloma (Figure 6 - see page 36) or gonorrhea, can have oral presentations.

Diagnosis and Documentation

Once a dentist is suspicious that a traumatic injury or lesion is of non-accidental origin and a tentative diagnosis of abuse or neglect has been made, the findings must be collected, and permanently and accurately documented. The findings may need to be presented in a court of law and thus, would be open to the scrutiny of the judicial system as well as experts testifying on the case. Therefore, it is important that the dentist properly document and collect the evidence of the injury or lesion.

The recording of the data must be made in a fashion that is permanent, accurate and reproducible. Techniques can include written documentation, photographs, radiographs and diagnostic study casts. Written observations recorded in the patient's dental chart should be made in ink, contain diagrams when possible, and describe the physical finding by number, type, size, location, and state of resolution. The suspicion of child abuse should be mentioned, with an appropriate explanation of why one is suspicious.

Consultation

Once an injury of a suspicious nature has been identified, the dentist's first and immediate responsibility is the protection of the child. The clinician must use discretion to determine exactly how to proceed. At the time of diagnosis, consultation with the child's physician can help confirm suspicion. Dental treatment for the presenting injury must be rendered and be as definitive as possible, since the child may not return once a report is filed. If the injuries are extensive and beyond the scope of the dentist, the child should be referred to a hospital where a child abuse and neglect team exists. These hospital-based teams usually consist of a pediatrician, social worker, psychiatrist or psychologist, nurse (often from the public health department), hospital attorney and a representative of the community. They are well trained in managing children and their families and may decide to admit the child to the hospital for protection and treatment until the family status is fully evaluated. If such a team is not readily available, the practitioner should rely on the patient's physician for appropriate treatment and evaluation.

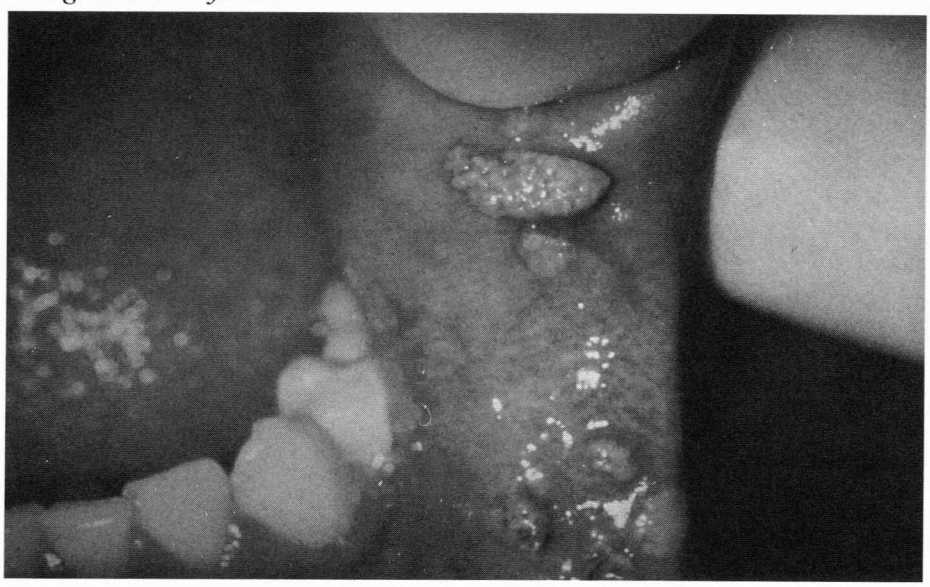
The dentist can discuss their concern of abuse with the parent. The tone of the discussion should not be judgmental or accusatory, but should be sympathetic to the child's situation. It should be explained to the parent or caretaker that it is the dentist's legal responsibility to report concerns.

All states have statutes requiring individuals to report any suspicious case of child abuse and neglect to the designated state agency. These agencies may be social service agencies, or in some cases, a police agency. The reporting process serves as a case finding function comparable to infectious disease reporting. The majority of states specifically name dentists as mandated reporters. Dentists must familiarize themselves with the exact procedures to be followed in their state. Many states have established hotline telephone numbers allowing immediate reporting of child abuse and neglect and can advise the practitioner on follow-up with the reporting. A written report usually is required to be filed within a specified time period following the oral report. The state agency, in turn, is mandated by state law or regulations to investigate the report within a specified time.

The general features of state laws attempt to protect the child by encouraging prompt reporting and investigation. "Reporters" are given immunity by statute. This protects the mandated reporter from civil or criminal liability, whether or not the report is made in good faith.

Failure of a dentist to report a case of child abuse and neglect can lead to specific sanctions, as outlined in the statutes, including criminal prosecution. In addition, health care professionals have been found civilly liable for failing to report and have had monetary judgments made against them. Any dentist who is suspicious of child abuse and neglect should report the case. Excuses such as lack of definitive evidence, fear of confronting the parents, lack of

Figure 6: Condyloma



knowledge of reporting requirements or responsibilities are not adequate reasons for failing to report one's suspicions.

The screening process is initiated once a case of child abuse and neglect is suspected and reported. An evaluation can be undertaken by the appropriate state agency or by an institution such as a hospital that can utilize its multidisciplinary team to begin the investigation. Depending on the apparent urgency of the circumstances, the agency or team investigates the case immediately or within a period specified by state statutes. The screening includes interviews with family members, visitations to the home, and contact with professionals (e.g., physicians and teachers) who know the family. The main goal of this process is to substantiate the report of abuse or neglect. If not substantiated, the case can be dropped although services or counsel still can be offered to the family on a voluntary basis, if deemed necessary. If a crisis is substantiated, an approach to the management of the child and family is developed by the social worker or team. The goal is to preserve the family unit and render services to the family that result in nurture and protection of the child. Only in the most desperate and serious cases is the temporary removal of the child warranted.

Summary

The dental profession has a legal, ethical and moral responsibility to report suspected cases of abuse and neglect. The risk to the child is significant. In non-fatal cases of abuse, 35 percent will be abused again within one year.[25] To this end, dentists should discuss child abuse and neglect at staff meetings and establish office procedures if a case is identified. Encourage staff to discuss concerns they have regarding possible abuse they suspect in the office. Keep the child abuse hotline number or local agency responsible for receiving reports in the office rolodex. Abuse and neglect is a real problem in all neighborhoods and dentistry can make a difference.

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Violence Against Women

Lisa Tieszen Gary*

CANADIAN novelist Margaret Atwood once asked a male friend why men feel threatened by women. He replied: "They are afraid women will laugh at them." She then asked a group of women why they feel threatened by men. They answered: "We're afraid of being killed."[1]

Statistical studies underscore the stark realities of these perceptions:

One-fifth to one-third of all emergency room visits by women each year are for traumatic injuries.[2,3]

Each year, 2 to 4 million women in the U.S. are battered, regardless of race, age, ethnic or socioeconomic background.[4,5]

Women in the U.S. are more likely to be assaulted and injured, raped or killed by a current or former male partner than by all other assailants combined.[4-6]

What is important is: 1) women are the victims of domestic violence; and 2) they most often are injured by known perpetrators. This is not mutual combat, or spousal disputes, or conjugal violence, as is commonly proposed. The problem with the latter terms is they imply reciprocal or mutual violence between the two partners. While the major surveys mentioned note that women are, at times, violent toward men, they also noted the differences in the type of assault: men perpetrate more aggressive acts of violence, inflict more severe injuries, and are more likely to commit multiple aggressive acts.[4,5] What the surveys fail to note is the *context* of the female violence, that is, when women are hitting men in self defense.

What is battering?

Battering is a pattern of coercive control that one person exercises over another. Abusers use physical and sexual violence, threats, emotional insults, and economic deprivation as ways to dominate their partners and get their way. Relationships in which one partner uses assault and coercion can be found among married and unmarried heterosexuals, lesbians, and gay men.[7]

Battering is the abuse of power. Two people who are equal in a relationship can negotiate and disagree. They can have all kinds of conflict; conflict does *not* cause abuse. When one person uses coercion and violence to get his/her way, the other can no longer be equal. Even if the violence stops, threats and intimidation can serve to keep the partner in control and threatened. It is critical to understand the range of coercive behaviors which one partner will use to control and harm the other:

Physical abuse is the form most visible in dental and health care and which reinforces the other forms of power and control. Physical abuse includes pushing, shoving, hitting with hands or weapons, and beatings and stabbings which may result in death.

Dental professionals observe women's face and neck areas which are most often traumatized. Broken teeth, lacerations to the face and mouth, as well as bruising on the face and neck could be indicative of abuse. Other warning signs are multiple injuries in varying stages of healing, repeated injuries in the same location, or injuries inconsistent with the explanation given.

Sexual abuse is coerced sexual contact of any kind.

Emotional/psychological abuse involves instilling fear through threats, intimidation, harassment, or the destruction of personal property. It includes undermining a person's sense of self-worth. This behavior includes constant criticism, belittling one's abilities and name calling. One might see any of these behaviors in the dental waiting area or office.

Isolation is a common form of emotional abuse that most battered women have experienced. A man does this by controlling what his partner does, whom she sees and where she goes. He might withhold access to the telephone or to transportation, undermine her relationships with friends and family, or prohibit her from going anywhere without him. Isolation also might be evident when a woman appears for dental care after many years of neglect, or when a couple appears together and the woman isn't allowed to speak for herself.

Economic abuse involves making a person financially dependent. This includes maintaining total financial control over one's income and assets, prohibiting access to money even for family needs, forbidding employment, or running up bills for which the victim is responsible for payment.

In the dental practice, one will most likely observe and treat physical injuries related to battering. However, sexual, economic and emotional abuse often accompany physical abuse and it is important to be familiar with the whole spectrum. Each abusive act builds on the other, creating an increasingly disempowering wall around the woman and her children.

We often consider domestic violence -- the abuse of women and children in the family -- as two separate phenomena which have little to do with each other. However, re-

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search and clinical practice are beginning to link the two.

Men who abuse their wives are more likely to abuse their children than non-abusive men.[8-10]

A study at Boston City Hospital found that 59 percent of the abused children had mothers whose records were diagnostic of battering.[11]

Women return again and again to health care settings with medical and emotional complaints. One study found that one in five battered women returned eleven times to emergency rooms with trauma. Unfortunately, in most cases the victimization histories underlying these injuries were never identified.[12]

Where you see one form of victimization, it is highly possible that you will see another. Therefore, it's necessary to ask a woman about her own victimization, should her child appear in your office abused.

What can dental professionals do?

The medical and dental professional can provide two primary services: treat the injury and help make referrals for safety. As one treats the injury, attempt to speak with the patient alone, asking her partner to wait outside. Disclosure of the battering in front of the partner will further endanger the patient.

Clinicians often do not ask about violence because they are often under intense time pressure; they do not want to violate a woman's privacy; they are afraid; they don't know how to ask the questions; and/or they don't know what to do if they received the answers. Battered women are often silent, as well. They don't talk to clinicians because they are afraid; they don't know how or where to begin; they are ashamed; and/or they don't know there is anything anyone can do for them.

Women want a professional's help; the problem reaching them is ours, not theirs. Since other systems have failed to respond, they have no reason to believe that it will be different now. Other clinicians may have ignored the evidence of fear; family members may have encouraged her to be a "better wife" and stay for the children; the church/temple may have emphasized the strength of the marital commitment, ignoring her danger.

In talking with her, the clinician should express concern and validate her experience in an open, non-judgmental manner. It is useful to explain the prevalence of domestic violence and the potentially dangerous consequences if it continues. Because the abuser blames the woman for the violence, and because family and society frequently do nothing to stop the blame or assaults, many victims feel alone and self-doubting, even "crazy." The very acknowledgment by a health care provider that domestic violence is occurring and that the provider and patient concur that it is a serious problem, is a powerful and therapeutic first step.[13]

However, it is only a first step. Without community support, the dental provider may only falsely raise her hopes.

It is important to know what community resources exist that can help a patient who has been battered, such as shelter services, legal assistance, batterers' treatment programs, mental health services, and social service agencies. Explore which options are safe for the woman and her children. Advocacy projects in shelters and hospitals can offer support and legal advocacy. Learn how to access these resources with a patient. You may provide her first step toward safety.

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1993 Annual Meeting
Address of the President-elect: Charting a Course for the Future

Chris C. Scures*

I AM HONORED to stand before you today and to offer my comments and perspectives as President-elect of the American College of Dentists. It is humbling to think about those who have stood here before. The Presidents of the College traditionally have been among the leaders of dentistry. Although they have not always been on the front pages of dental newsletters, they have been the individuals who have stimulated the growth and progression of this profession.

It also is a great privilege to address the Fellows of the American College of Dentists. As Joe Devine, Past President of the American Dental Association said in his convocation address in 1992, "You are the best of the best." You are the finest of the dental profession and you are part of -- a truly great organization -- the American College of Dentists.

I was inducted into the American College of Dentists in 1972. I'm sure you understand the pride I felt on that day. A year later the euphoria was gone. However, Charlie Fain, who is a Past President of the College and who has always been a true inspiration for me, challenged me. First, he told me about the illustrious history of the College and its very important role in stimulating some of the most important changes in dentistry. Then, he told me to get involved. As I did so, the proud history and the very real potential of the College became clear. While the American College of Dentists honors those who have achieved much in dentistry, this is not a gold watch organization. It is a dynamic organization comprised of thinkers and doers; we are the foundation for continued growth of the profession.

The American College of Dentists began in 1920, first as a vision of four great leaders of dentistry: John Conzett, H. Edmund Frisell and Otto King, the officers of the National Dental Association, and Arthur Black, President of the National Dental Teachers Association. These individuals understood the need for change. They saw that the dental and other health care needs of our people were not being adequately met. They saw great problems in dental and health professional education. They clearly recognized the need for research to provide new knowledge and to enhance dental care, and for high quality publications to communicate research and professional issues.

These four individuals chose to be proactive. They proceeded to plant the seeds of change in dentistry. They did so, in large part, through a new non-political organization that, as they envisioned, could draw upon the wisdom and creativity of dentists from all corners of the profession. This was the birth of the American College of Dentists.

Every one of us has benefited from their vision and their action. Each of us should be proud to be a part of their distinguished ranks.

Seventy-three years have passed since that vision was first translated into reality. However, it is interesting to note the strong parallels between 1920 and today. Once again, there are major issues surrounding health care costs and access. Again, we are asking how we can enhance the health and well-being of our nation. Today, as in 1920, our institutions of higher education are suffering. Today, many are succumbing to economic hardships and closing their doors. With them goes some of our dental education programs. How then can we provide the best health care professionals to provide quality care in the future?

These are general, wide-ranging issues. However, dentistry also must address these issues and must be prepared to offer creative and well-founded solutions. Many issues will be difficult to face. In some cases we will need to fight to preserve positions that enable us to best serve our patients and are vital to us as a profession. In other areas, we must be willing to be more flexible and to adapt. However, it is imperative that any solutions we propose and then implement are based on preserving the highest ethical values and professionalism. On this point we should not be willing to compromise.

I believe that we can look at today and tomorrow with a sense of hope and optimism. Yes, we must face issues and problems and we must offer solutions. However, we are not in

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crisis. We are presented with challenges that can and must stimulate proactivity and creativity -- just as the founders of the American College of Dentists did 73 years ago.

The dental profession has been an important and gratifying part of my life. I have tried to give something in return through my involvement in dental organizations, and especially through the American College of Dentists. Although I am in the later phases of my career, I still have a strong commitment to shaping the future of dentistry. I am proud to say that my daughter and son-in-law are dentists. I hope their professional future, and the future of the young dentists entering this profession, will offer the great challenges and rewards that I have experienced. It would cause me great anguish to see dentistry suffer from a lack of opportunities available to those who are entering this profession. I believe that it is our responsibility, we who are the leaders of dentistry, to provide some assurances for the future.

Continuing the proud history and traditions of dentistry into the future will present challenges that must be borne by many dental organizations. No one organization can do it all.

Today, I want to call upon the American College of Dentists and you, as the noble Fellows of the College, to assume your very critical role in shaping the future.

In April, 1993 the College's Board of Regents created a new strategic plan. We have envisioned this plan as creating a framework for the future. Let me summarize the strategic objectives for the College for the next three years:

1. Position the American College of Dentists as the primary advocate for ethical issues and professional perspectives underlying the quality of oral health.
2. Increase public and professional awareness of the College as a proactive force in addressing ethical issues in oral health today.
3. Enhance opportunities for meaningful and active involvement of Fellows at the National and Section level.

These are just three of the objectives embodied in the College's strategic plan. Consider them closely. The objectives reflect a clear intent for proactivity on the part of the College and its Fellows in order to improve the oral and general health of our population. The objectives issue a call for the involvement of Fellows. Today, I am challenging you to respond. I want to emphasize that in April of 1993 your Board created a framework. The finishing work is still to be done and it can only be undertaken with your involvement.

What are the next steps? We have many paths and alternatives. You can help us map our directions. First, I hope you will let us know about your interest and commitment. Communicate with the members of the Board, the Officers and members of your Section, and with our Executive Director. Provide us with suggestions for the future. Tell us what tools you need to become an active participant in our forward movement. As our specific directions are defined, you then must be willing to become involved at the Section and National levels.

Each of us is in different stages of our careers. Some have retired from full-time, active practice; some of us are approaching retirement; and some have many productive years ahead. However, each and every one of us has something to offer the College and the profession. We are Fellows of the American College of Dentists because of our contributions, leadership and potential relative both to dentistry and our communities. We are not a complacent group. And, we cannot be complacent regarding the future.

I do not have the answers we all seek. I'm not sure I can yet describe all the questions and issues to be faced. However, I am certain that we must be willing to face the future with a proud past and the confidence that we will continue to excel. Let us pool our knowledge, talents and creativity. We can effectively utilize the human resources that exist in the American College of Dentists. Please join me in helping to insure that my daughter and son-in-law, and the other young dentists experience the same fulfillment that we have experienced through our careers. It is you, the Fellows of the American College of Dentists, who will Chart a Course for the Future.

1993 Annual Meeting
Reaching for a Higher Standard

John C. Greene*

THANK you for honoring me with the privilege of making remarks on this important occasion. First, I would like to offer my congratulations to the 283 dentists who are being honored here today with Fellowship in the American College of Dentists. You have been nominated and judged by your peers to have outstanding professional qualities, and to have made notable contributions and demonstrated unselfish devotion to the advancement of the dental profession. Today, you join a very select group of your fellow dentists as elected members of the prestigious American College of Dentists. Again, congratulations and thank you for all you have contributed to our profession.

In these times, the rapid and unprecedented upheaval in social, political, and economic matters has been likened to "continuous white water" by some people. It is a bit like being aboard a raft that is hurtling down a rapidly flowing and churning river as it darts about to dodge visible and invisible obstacles. These conditions prompt feelings of intense excitement but, at the same time, feelings of insecurity, uncertainty, and helplessness. Events such as the major geopolitical changes in Europe, the Middle East, and Asia, and here in our country, the massive restructuring of business to become more competitive, and the downsizing and closure of military bases and programs -- all of these cause people to have mixed feelings about the future: feelings of excitement and hope, yet uncertainty about how they will be affected as individuals, and concern about which course to follow to obtain a secure and stable enclave in which to live and work.

In our profession, the continuing changes in local, state and federal regulations; discussions about health care reform; and fluctuations in the economy all affect how we conduct our business today and in the future, whether we are in practice, research or education.

This is a time that really does test our mettle. It is a time for re-examining our goals and values. It is a time to ask ourselves such fundamental questions as: *Why do we do what we do? Sure, dental practice provides me with a livelihood, but is that all? I enjoy what I do, but do I do it only for my benefit -- money and pleasure? Do I do it also because I want to make a difference by improving oral health? Or is it for all of these reasons?*

Professor Roscoe Pound, Dean Emeritus of Harvard Law School and one of our great American educators, gave what I consider to be an excellent definition of a profession.[1] He characterized a profession as a group of people pursuing a common calling as a learned art and a public service. He went on to say that an organized profession seeks to make its primary mission, that of public service, as effective as possible. Pound did not mean that what we do is any less a valuable public service if at the same time we are gaining a livelihood. Rather, he stressed that regardless of what else we gain from what we do, the very spirit of a profession is the spirit of public service.

It is my contention that the basic spirit of our profession is and must always be that of public service, and that our public service is the improvement of oral health.

John Naisbitt, in his book *Megatrends,* emphasized the importance of always being aware of why one does what one does.[2] He illustrated this by his example of how railway corporations in America focused so much on operating railroads that they forgot that they were in the transportation business, that is, moving people and things from one place to another. As a consequence, people found other ways of meeting their needs and many railway companies have gone out of business.

We must not forget that we are in the business of improving oral health as a part of general health and well being -- treating not just teeth and mouths, but people to improve their oral health.

What can we say about how successful we have been in improving oral health in this country? As a result of the contributions of many dental practitioners, educators and scientists over many years, the status of oral health in this country has improved tremendously, particularly in the past few decades. In fact, oral health sta-

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tus in this country has never been better. We have witnessed a dramatic decline in dental caries among children. Periodontal health among adults is improving, and edentulism is much less common now than it was just a few years ago. Prevention and early and periodic treatment are paying off. We have ample reason to take tremendous pride in our accomplishments. We also can be proud of the fact that the best dental care in the world is available in this country today.

But, even with these advances and the high standard of dental care in the United States, much remains to be done. Still today, 85 percent of 17 year olds have experienced tooth decay; most adults have some degree of periodontal disease; and 45 percent of those over age 65 are edentulous. Clearly, not all segments of our society have benefited equally from our successes. In fact, the high quality of dental care in which we take great pride is not available to a large portion of our population, due to economic and access barriers; and many who could avail themselves of dental service do not.

As members of a profession dedicated to the improvement of oral health as our rightful public service, I do not believe we can accept the current standard of oral health as good enough for this great nation. ***We must always reach for a higher standard.*** As Pacific Bell Telephone says in its commercials: "Good Enough Isn't!"

I believe that we, the current and future Fellows of the American College of Dentists must accept the challenge "good enough isn't." This challenges us to always reach for a higher standard in all that we do and stand for. This should be true whether our place is in dental education, research or practice. With the current widespread public interest in the quality, cost and availability of health care, I believe we have an unusual opportunity to extend the benefits of our progress to those less fortunate in our society. Today may even be a time when we can get the mouth reconnected to the body, as health policy and health care decisions are being made. In fact, we have an opportunity and, I believe, a moral and professional obligation to emphasize the importance of oral health to general health and well being by actively participating in the health care reform debate.

Those of us in dental education are challenged to prepare each entering class to be better than the one before. We are being driven by intellectual and social imperatives to make fundamental changes in the way we educate the dentists of tomorrow. It is not good enough to settle into a comfortable educational routine and to let it continue on the assumption that since it worked in the past it will be adequate for the future. We need not and must not abandon expertise in clinical technique while we strive to help our students prepare for tomorrow. However, dental education still suffers from too much emphasis on memorization of facts and too little on science as a way of framing questions and gathering and using relevant data for solving problems.

Dental education continues to be so narrowly focused on management of individual teeth that the student often loses sight of the patient, let alone the community. Fortunately, this is changing. However, much more needs to be done to prepare future dentists to better understand their communities and how they can make a difference within them.

It is encouraging that dental education, prompted by pressures from within and without and aided by a grant from the Pew Foundation, has been undergoing serious introspection and renewal for several years. The result is there are many reasons to be optimistic about the future. A new generation of leaders in dental education is not willing to continue the old ways just because that is the way we always did it. Instead, they are trying to break away from obsolete and restrictive traditions to create a new order. Further, today's entering classes are talented and well-prepared to embark on professional education. They are motivated to succeed even within the milieu of rapidly and extensively changing educational programs.

Dental education might well be tempted to rest on its oars now and say: *We've changed and we are good enough.* However, I am confident this will not happen and, indeed, tomorrow's graduates will measure up to a higher standard than ever before.

Research, by its very nature, searches for a higher standard of knowledge and understanding. The products and processes of research fuel the engines of progress. Even in times of limited resources we must find ways to invest heavily in scientific research, from the most fundamental and basic to the most practical and applied. The high levels of health care we enjoy today are due to wise investments in research by our predecessors.

More than 150 years ago, Alexis de Tocqueville noted the tendency to value the practical over the theoretical, the quick solution over true understanding.[3] He illustrated this by an example from history:

"Three hundred years ago, when the first Europeans came to China, they found that almost all the areas had reached a certain degree of improvement and they were surprised that, having come so far, they had not gone further. Later on, they found traces of profound knowledge that had been forgotten. The nation was a hive of industry; the greater part of its scientific method was still in use, but science itself was dead. That made them understand the strange immobility of mind found among this people. They still used formulas without asking why. They kept the tool but had no skill to adapt or replace it. So the Chinese were unable to change anything. They had to drop the idea of improvement. Human knowledge had almost dried up at the fount, and though the stream still flowed, it could neither increase, nor change its course."

Lest a similar strange immobility of mind paralyze the dental profession in 21st century America, we must find a way to make it possible to continue and, better yet, increase and broaden the current level of oral health research. My personal priority would be to broaden the sweep of research to give greater emphasis to health services, behavioral and epidemiological research. Most important, however, is to support the process of inquiry in search of ways to improve oral health as part of general health. Of course, to raise the standard of care, the products of research need to rapidly find their way into practice.

Dental services now account for approximately 6 percent of total health care expenditures. A major proportion of dental care is paid for out-of-pocket by consumers, with most of the balance coming from third-party payers. However, approximately 150 million people are not covered by dental insurance; many more are under insured. About half of those without dental insurance live in the poverty zone. Yet, less than 2 percent of dental services are funded by public sources. The low level of public financing for dental services means that most people of lower socioeconomic status lack access to regular dental care. The result is a significant and unnecessary burden of untreated oral and dental disease for growing segments of the population, including particularly members of racial and ethnic minority groups, those of lower socioeconomic status, and those who are medically and developmentally compromised.

As a part of our public service mission, we as a profession, and certainly we as members of the American College of Dentists, need to actively participate in the public debate over health care and how it is financed and provided in this country. We need to get our message in loud and clear. It is not good enough to say we provide the best dental care in the world and stop at that. We need to seek a higher standard of oral health for everyone, especially those who have benefited the least from our progress to date.

As members of the American College of Dentists, we need to remember and renew our commitment to extending the benefits of oral health to all, as it says in the College Bylaws. If all of us -- practicing dentists, educators, researchers -- each in our own way, vigorously pursue our public service mission of improving oral health while reaching for a higher standard, the future for our profession will be even better than the past.

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*Improving Quality and Accessibility in Our Health Care System: Cost Effective Controls in a Reformed System**

Donald M. Steinwachs**

THE American Health Security Act of 1993 has been presented by President Clinton to the American people and to the U.S. Congress for action. It is a complex plan to address a complex set of problems that face the American health care system. These problems are now widely recognized: health care costs are spiraling upwards; increasing numbers of Americans are uninsured or underinsured and lacking access to health care; at the same time, we are concerned that efforts to control costs will erode the quality of care we receive. The following presents a perspective on health care reform: its potential, its problems, and its future.

A starting point might be to consider what would be an ideal health reform plan. My perspective is that an "ideal" plan is one that:

1) provides health care coverage for everyone,
2) coverage is reasonably comprehensive,
3) everyone can exercise freedom of choice,
4) high quality of care is assured,
5) the current distribution of who pays for care remains substantially the same, and
6) the plan restrains future cost increases to the level of inflation adjusted for shifts in the age related needs for care (currently approximately one percent per year).

The first four items are probably more achievable than the fifth and sixth. However, it is the cost issue and who pays for care that are central to the problems of our existing health care system. Furthermore, there is a concern that cost problems cannot be resolved without potentially sacrificing access, coverage, and/or quality of care. Each of these criteria and how well the President's health care plan meets these criteria are discussed below.

Background

It may be worth reviewing the historical patterns of cost increases and the distribution of who is paying for health care. This can help set the stage for discussing the President's plan. Since 1965, real cost increases have more than tripled per capita health care expenditures (Figure 1). Currently, we are spending 14 percent of gross domestic product on health care. Dental health care expenditures also have been rising, but at a slower rate. Dental health expenditures accounted for 7.9 percent of all health expenditures in 1965 and

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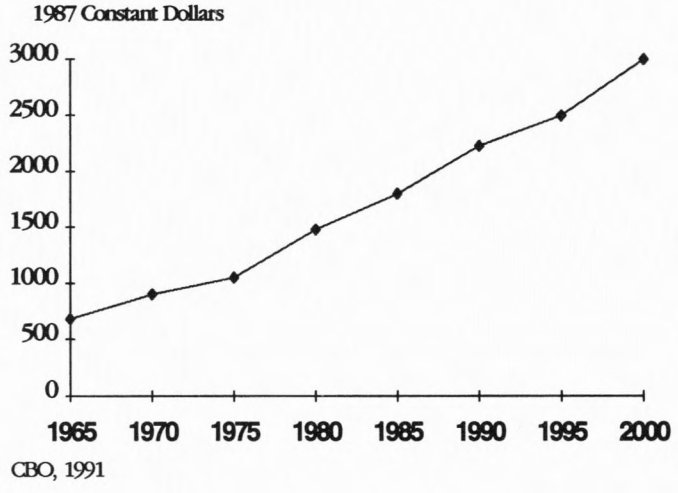
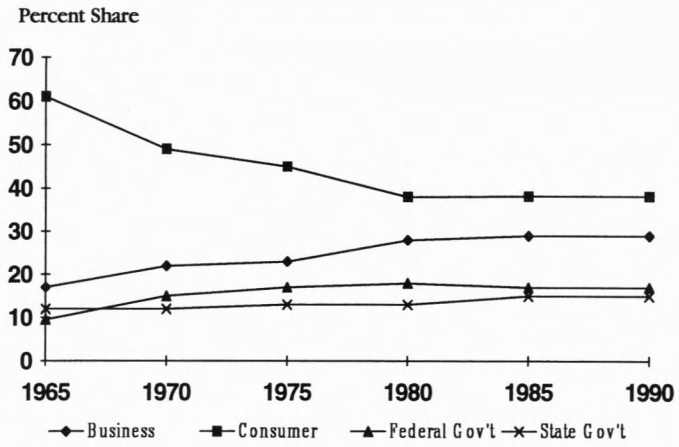
Figure 1. Health Expenditures
Real Per Capita



now account for less than six percent.

After the introduction of Medicare and Medicaid programs, the distribution of who paid for health care expenditures shifted dramatically. Personal expenditures dropped from 59 percent in the mid-1960s to a low in 1980 of 38 percent, while federal expenditures and employer expenditures grew (Figure 2).

Figure 2. Who Paid for Health Care



The introduction of Medicaid and growth in private dental insurance had an effect on dentistry, leading to declines in out-of-pocket costs to an estimated 56 percent in 1987.

In recent years, the Federal government has successfully reduced its share, while consumers have seen their share of costs increase. These shifts might not have been so difficult to absorb if it had not been for real increases in health care costs that were rising faster than real personal incomes and corporate profits. Both consumers and employers are concerned with rising costs, as is the government. All are finding it increasingly more difficult to pay their share of the bill.

Efforts to restrain growth in health care costs have taken several forms and largely have been unsuccessful. These have ranged from health planning and regulation to competition. Employers have sought answers to the same problem, leading to increased cost-sharing with employees and growth in managed care options, i.e., the introduction of a third-party in the decision-making process between patient and provider to assure the care paid for is appropriate and at a reasonable cost. The most striking change in the 1980s was probably the growth in managed care. HMO enrollment grew from 9 million in 1980 to 41 million in 1992 (GHAA, 1993). resulting in 16 percent of Americans being enrolled in HMO systems.

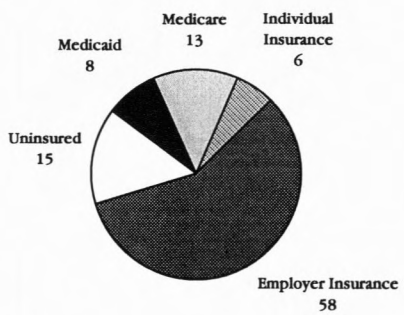
What promise does health reform hold for us? It proposes a combination of competition and cost controls to contain the growth of future costs. It promises universal access and affordable prices for consumers. It promises information on the quality and cost of alternative health plans. The central questions are how will this system actually work and can it be successful?

Universal Health Care Coverage

The President's employer-based insurance plan comes as close as may be possible to universal coverage. It will extend health insurance coverage from the present mix (Figure 3), to all individuals by expanding employer-based coverage and providing subsidized coverage for the poor, early retirees, and small businesses.

Technically, all Americans will be able to obtain "affordable" coverage. Some may disagree and may not wish to pay their part of the monthly premium for health care insurance. In fact, it may not be possible to force all Americans to actually enroll. For example, we require all drivers to have automobile insurance, yet at the same time all of us purchase coverage for the *uninsured driver.* Unless coverage is free of any monthly pre-

Figure 3. Source of Insurance Coverage
Percent of U.S. Population



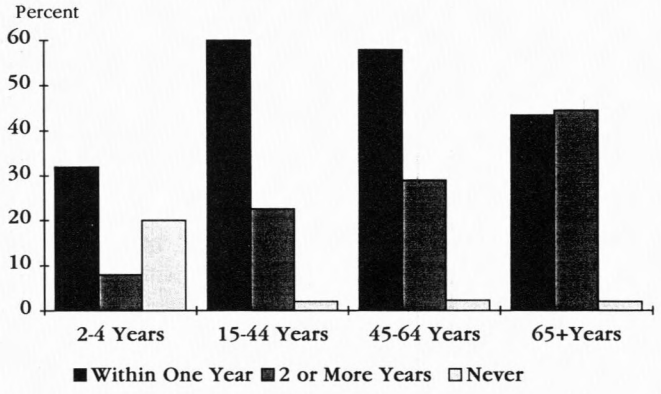
CBO Oct. 1993

mium contribution, such as Medicare Part A, there may be many Americans who will not actually enroll, or only do so when they have to have health care. The plan recognizes this by requiring enrollment at the time unenrolled individuals present for health care.

The goal of universal access is to have people obtain health care when needed and appropriate. Insurance coverage is essential for assuring access to care, but past experience shows that insurance coverage does not assure appropriate use of services. Although covered by insurance, we find children are not fully immunized. Further, some people delay seeking care early and wait until it is a medical emergency. Consumer education and acceptance of offered services are required to achieve goals of appropriate use. We must remember that universal coverage is just one necessary step toward the goal of providing appropriate and necessary health care to all Americans. The plan envisions a continuing role for public health agencies which, in part, would be to reach out to high risk populations and to assure appropriate care is received.

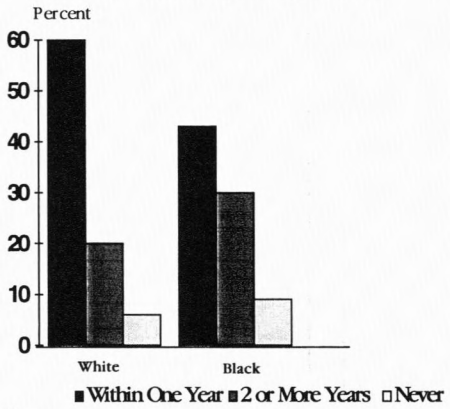
National data on the receipt of dental services can be seen as one indicator of the general failure of our total health care system to reach all Americans. While the proportions of Americans having seen a dentist in the past year varies with age (Figure 4), the level is substantially lower among Black Americans (Figure 5), and increases dramatically with family income (Figure 6). Although these statistics have improved over the past 25 years, there is plenty of room for further improvement. Not shown in Figures 4 through 6 are geographic variations. Individuals living in the South and those living outside of metropolitan areas are the least likely to be seen by a dentist.

Figure 4. Receipt of Dental Care
Percent Reporting a Visit



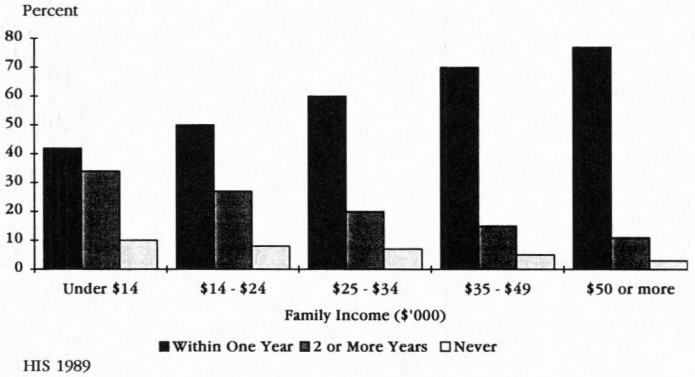
HIS 1989

Figure 5. Receipt of Dental Care
Percent Reporting a Visit



HIS 1989

Figure 6. Receipt of Dental Care
Percent Reporting a Visit



HIS 1989

Comprehensive Coverage of Health Care Services

The minimum benefit package proposed by the President's plan offers more comprehensive preventive care than many existing insurance plans. The plan covers the full range of acute care inpatient and outpatient services. What does the plan add to what many of us already have? Probably less than one-third of Americans have comprehensive preventive services coverage. Those covered include the 16 percent of Americans enrolled in HMOs and the 12 percent covered by Medicaid. This amounted to 28 million people in 1991 (Health U.S. 1992). The President's proposed plan extends this coverage to all Americans. Only 18 percent of Americans have prescription coverage; the plan adds this benefit for the remaining 82 percent. Over 35 percent of Americans (95 million) have some form of private dental insurance or coverage through Medicaid. The President's plan provides preventive coverage for all children and extends this coverage to adults by the year 2001. In addition, restorative services ($1500 annual maximum benefit) and orthodontia ($2500 lifetime benefit) are to be added. This will bring dental care into the main stream of health insurance, but will limit benefit coverage.

The benefit package assures that individuals will have lifetime coverage. There are no lifetime limits on coverage, e.g., for mental illness or total medical expenses. This is an important feature. I recently met a gentleman who is a federal employee with what most of us would think to be the best health insurance in the country. His wife was diagnosed with manic depressive disorder four years ago, had been hospitalized three times, and had utilized half of her lifetime mental health benefit of $80,000. He and his family are facing bankruptcy in the near future for the care of a treatable condition, even though he is well insured.

For those who want more coverage, there are provisions that would allow the purchase of supplemental insurance for additional services (e.g., dental) and to cover some proportion of the copayments and deductibles (e.g., like Medi-gap policies). This may be attractive for employers who want to continue to offer high levels of health care coverage.

Another issue concerns health care coverage for those who are disabled. The plan provides for home and community-based care for disabled individuals without regard to age and income. Many are not aware that once an individual is certified as disabled by the Social Security Administration, there is a two year waiting period for Medicare coverage during which time you may lose your private insurance coverage. Once on Medicare, home and community-based services are only covered for short periods following an acute episode and are not covered for long-term disability care. The proposed plan expands disability services coverage to all age groups.

Overall, the design of the benefit package is well-done. It is always possible to identify areas where benefits might be expanded. However, the package is well balanced and promises to cover some of the missing benefits by 2001.

Freedom of Choice

There is nothing so American as the concern that health care reform might deny freedom of choice among health providers. The President's plan is intended to preserve this freedom, but it may come at a cost. If the consumer's choice is a group practice health maintenance organization (HMO) or accountable health plan (AHP), this will likely represent the lowest cost option. However, if the consumer wants an AHP that provides access to any health care provider, the costs are likely to be higher (e.g., point-of-service or fee-for-service plan). This seems to be a very reasonable approach, with some people paying more to retain the freedom of choice they now enjoy.

Overall, the President's plan provides freedom of choice, but at a price. This is nothing new; most large employers also give employees health plan options that increase the employee's out-of-pocket payment for higher cost plans that have greater freedom of choice and/or lower deductibles and copayments.

Quality of Care

One of the most complex issues is how we assure high quality of care. The President's plan proposes a seven member National Health Board (NHB) which would have responsibility for updating benefit coverage, for setting the national health budget, and for a national system of quality management and improvement. The quality management and improvement activity would include defining the measures to be reported by all health plans on their annual quality performance reports. To accomplish this, the Board would establish the National Quality Management Program and implement a National Health Information System. The job of the NHB is pivotal to the assurance of quality, as well as to controlling costs.

The new concept in the plan is the quality report card. Much like *Consumer's Reports*, it is expected to inform consumers when making choices among health plans, as well as assisting regional health alliances and the NHB in monitoring and improving quality. Although there has been substantial progress in measuring quality over the past 20 years, we do not have a combination of global and specific measures that can be

easily collected to monitor overall and condition-specific quality of care.

Some quality areas can be measured more easily than others. We can monitor the receipt of routine preventive care. We have appropriateness criteria and practice guidelines that can be used to measure potential over-treatment. However, we have few methods for measuring under-treatment until we observe "poor" health outcomes such as premature death. The principal exception is that the under-use of preventive services can be measured. We have well developed methods for measuring patient satisfaction and health status (functional status) outcomes, but these require additional resources to pay for special surveys of patients in addition to resources to pay for the analysis of disease characteristics, treatment, and patient reported satisfaction and health outcomes. This is highly complex and not always easily interpretable.

The plan's commitment to the collection of quality of care information, to sharing the information with consumers, and to using the information to improve quality should be strongly supported. The problems will be in implementation. The plan will push the state-of-the-art quality measurement and interpretation. This will benefit all Americans. It will make health care providers and AHPs very nervous at first, because it may not be very apparent what can be done to improve performance on some of the measures of patient satisfaction and health status outcomes. In the longer run, it will provide the basis for assuring high quality care is being provided while we attempt to restrain the historical pattern of rising costs.

Who pays?

It is increasingly evident that no one wants to pay more; everyone wants to pay the same or less for better benefits. Coverage is likely to improve for the vast majority of Americans, but someone has to pay. This is the center of the payment controversy.

Who should be enthusiastic about the plan? Employers offering health insurance are currently paying a substantial mark-up on hospital care and other services to cover the costs incurred by providers to the uninsured and the under-insured (i.e., those who can't pay their bills). Also, Medicare is paying less than its costs, as does Medicaid. This increases the private pay mark-up. All these employers should be enthusiastic about the plan.

The small employer who is paying high premiums will save substantially by community rating of premiums. Individuals who purchase their own policies will save even more substantially and will not have to face exclusions of pre-existing conditions.

Who may be unhappy? Employers who are not paying their fair share will be unhappy. Employers who use contract employees and part-time employees to avoid paying health care benefits will now have to pay. This includes state and local governments, and small and large companies. The small employer who has not offered insurance coverage will now have to pay. The individual who has chosen to live without health insurance will now be expected to enroll and pay.

Will this lead to bankruptcy for small companies? For all employers there is a cap on basic benefit coverage payments of 7.9 percent of payroll. For employers with low wage employees, there will be a subsidy that reduces the cap to as low as 3.5 percent of payroll. Historically, much of the cost of increased benefits has come out of the take-home wages of workers. One can expect that employers who are forced to offer health insurance will recover much of this cost by reducing future wage increases. Since all employers will face the same costs, it will not adversely affect domestic competition, and should improve the competitive position of larger employers.

As one might suspect, the plan will alter "who pays" and will increase government costs to cover the uninsured. However, the additional costs of covering the uninsured are estimated to be $80 billion which is no more than the inflation in health care costs in a single year. The consequences of not accepting these additional costs is an almost certain growth in the numbers of uninsured, increasing efforts by providers to shift costs to private payers who will be resisting, and an erosion in access and quality of care for growing numbers of Americans.

Cost Containment

The promise is to pay for the coverage of the uninsured through future savings such as: cutting administrative "fat"; reducing unnecessary procedures; creating incentives for efficiency; and controlling the rate of insurance premium increases. This promise raises many anxieties. Will we have to ration care or is there really so much "fat" in the health care system that we can remove these costs painlessly? The answer is that we currently ration care and will be doing so differently in the future; hopefully it will be done in a manner that better matches care provided to the needs of people.

The frequently discussed "fat" in the system is associated with high administrative costs, unnecessary procedures, and inefficiencies. Cost savings in these areas could conceivably cover the increased costs of the plan and more. The challenge we face is how to identify unnecessary costs and provide incentives for efficiencies. The plan tries to address administrative costs through simplifying billing and standardizing data require-

ments. This has the potential to be effective. However, the reduction in inappropriate and unnecessary care, and increasing overall efficiency, are long-term problems. Controlling the rise in insurance premiums through the NHB will provide the financial incentive. The uncertainty is how different accountable health plans and providers will respond to these financial incentives.

Cost containment is the most difficult, yet necessary, part of the plan. It is necessary because health care has done little to improve its productivity and efficiency over time, putting the cost of care out of reach for a growing number of Americans. There is no right answer to the percentage of GDP that should be spent on health care, but there is an answer that says that we are foolish to not obtain value for our health care dollar. Currently the value we obtain is uneven and not great in many areas. We can ill afford to waste resources, particularly highly talented individuals who are being attracted into the health professions.

Vision of the Future

My crystal ball is no better than anyone else's, but this will not keep me from sharing my vision of the future (Figure 7).

Figure 7. Crystal Ball Vision of the Future

- **Insurance market reform will pass**
- **Extension of insurance coverage to the uninsured will be phased-in**
- **New administrative structure will be modified with delay in global budget**
- **Benefit package will be trimmed to reduce costs with phase-in of expanded benefits**
- **State options will be allowed**

Parts of the Plan Likely to Pass

I believe that Americans recognize that something has to be done about health care insurance. Too many people cannot get insurance, cannot afford it if they can get it, and the health insurers do not want to cover people who are sick, that is, the ones who need insurance. The answer to this dilemma is community rating of insurance premiums (i.e., we all pay the same average premium in each community). This is easy to do; however it will put all but the largest of the over 1,500 health insurers in the U.S. out of business. Through community rating, insurance begins to become affordable for all individuals, regardless of age and health. As a result, it becomes feasible to extend coverage to uninsured individuals and families through a combination of employer mandates and government subsidies for those who cannot afford the premium cost. I believe community rating will be passed by the Congress and I expect coverage for the uninsured will be phased in over time to reduce its budgetary impact.

The new administrative structure proposed in the plan raises the concerns of those who don't trust government to regulate and protect the public interest. Although Americans are historically suspicious of government, I don't see any other mechanism for providing for public protection and overall fiscal control. We accept the Federal Reserve Board to protect our money and the Federal Aviation Administration to protect our air travel. I think we will need to accept the National Health Board, or a similar structure, to protect our health care. This is the best solution, although not a perfect solution.

The opportunity for states to develop their own approaches within a national framework is one of the plan's great strengths, although it is not being widely discussed. Historically, states are responsible for licensure, certification of facilities, malpractice, workman's compensation laws, and other aspects of health services. The proposed plan does not diminish the state's role, but only puts it into a national framework to guarantee all Americans roughly equal health care access to care with a standard benefit. This will encourage states to adapt the national structure to meet the special needs of populations in each state.

The parts of the plan that I believe will be most hotly contested are those that will affect the health care industry. The plan will lead to restructuring of provider relationships for those not already part of managed care or fee-for-service networks. The plan will eliminate the traditional health insurance business, but will open up more opportunities for supplemental insurance and institutional long-term care insurance. The plan will reduce the rate of growth in provider incomes, but will have little short-term effect on incomes. The plan may affect the income of producers, but not as much, in my opinion, as is being threatened by drug company statements. The allegiance of the consumer will be sought by all these parties as they attempt to make their case for special treatment under health care reform.

The great uncertainty is whether or not the American consumer will be able to understand the essential elements of the plan and be able to weigh the range of special interest proposals. If the consumer can un-

derstand this plan, and the issues, I am confident the result will be reasonable and fair. The danger is that the plan, and indeed the entire health care system, is too complex for most of us to fully understand the consequences of any comprehensive reform plan. We may simply have to learn as we go forward; this is what we have done before.

Guiding Principles and Resource Issues

I will not discuss the core issues of the right to health care and the responsibility of society to assure this right. President Clinton spoke eloquently of the basic rights all Americans should have to health security. I hope we accept this, yet I realize that many Americans do not want to pay more to assure it.

I do want to discuss one issue: the potential effects of the plan on the distribution of health care resources. Health care resources are not presently distributed relative to population or need for care. This is clearly an issue when one considers global budgeting and state budget targets. Research on practice variations across geographic areas has shown that the amount of care provided for many conditions is not related to the characteristics or size of the population. A less discussed but related issue is the variation in per capita health expenditures across the 50 states. In 1982, these varied from a low of $857 in South Carolina to a high of $1508 in Massachusetts, roughly a two-fold difference. Even if we adjusted for local cost of living, wide variations would persist. Further adjustment by health status would be unlikely to remove much more of the variation. So how do we deal with this disparity under health care reform or under any cost containment proposal?

Initially, these variations will persist. Should there be an effort to narrow these discrepancies, that is equalize the insurance premiums adjusted for local cost of living and health status? I think we will have to begin to move in this direction. If we do so, it will encourage providers to go into practice in areas that historically have been under-served and therefore have low per-capita costs. At the same time, it will discourage providers from entering practice in areas with high concentrations of services that exceed the needs of the local population. I think this will have a very long-term and positive impact on American health care.

The obvious concern with global and state budgets is that Americans perceive this to be a form of rationing. It is, but is it worse than the rationing of services we have today? We ration by increasing the numbers of uninsured (37 million), through insurance mechanisms that limit coverage of the insured (excluding pre-existing conditions and caps on coverage), and through a system of poorly distributed health care resources that make care unavailable in many areas. If our current system persists, it will not only break the bank (Federal and state government budgets, as well as employers), but it will deprive growing numbers of Americans of basic health care services.

Dental Health Insurance

I am a firm supporter of including dental health insurance in a basic benefit package and would prefer more immediate and comprehensive coverage for all Americans. From my understanding of history, many in the dental profession have not been enthusiastic about health insurance because of the controls and oversight that come with insurance. However, lack of insurance has led to limited access to dental care for those who cannot afford it, or do not understand its importance and are unwilling to pay substantial costs out-of-pocket. Yet dentistry is probably the outstanding success story of the value of preventive care. Current technology makes it possible to protect and maintain oral health over the lifetime. This success must be shared and used by all Americans, and not just those who can afford it or have enlightened employers who offer dental insurance coverage.

Summary

We need to examine the elements of health reform and to debate them based on what type of health care system we want in the future. If we continue down the current course, the numbers of uninsured will grow; benefit coverage will be reduced; increasing numbers of small employers will not be able to afford to buy coverage; and, we will rely on cost shifting to pay for emergency and critical care for those who cannot pay.

The alternative is to strive to remove unnecessary costs from our current system, to assure universal coverage, and to emphasize preventive and early ambulatory care over emergency and delayed care. This will cause some disruptions and will put some constraints on the independence of providers and patients. But this is already happening, and frequently without the input of either provider or patient. The insurer and employer are making many of these decisions. Health care reform needs to support patients and providers as the key decision-makers; I believe the President's plan will move us in this direction.

I think now is the time to make health reform work for us. I do not see any catastrophic changes that will erode quality of care or the livelihood of health professionals. However, I do see an increasingly bleak future if we delay longer and avoid addressing the fundamental issues of access to high quality care for all Americans at an affordable cost.

1993 Annual Meeting
*The Specific Challenges for Dentistry in Health Care Reform**

William E. Allen**

THIS presentation reviews the Clinton Administration's health care reform proposal and, if enacted into law, its possible affect on oral health care and the dental delivery system. I will share personal observations and opinions that have evolved over the past eight years with the American Dental Association's involvement with these issues. These observations and opinions are personal perspectives and do not represent the American Dental Association.

The dental profession faces an ethical and professional dilemma. If we believe that oral health care is an integral part of total health care, we cannot choose to *opt out* of being included in a reform movement that could change the way dental care is delivered in this country. However, the Clinton Administration's reform proposal has the potential of reducing the quality of care patients receive while increasing the cost. As a profession, we need to assess our position, particularly as we are on record as advocating access to dental care for all citizens. The ethical question then becomes, can we continue to support access for all, without being included in a health care system that may change the manner in which dentists practice, reduces essential dental services (due to cost considerations) and potentially will affect the quality of care that is delivered?

I believe that we can. However, we will need to convince Congress and the Administration that the dental care delivery system is different and must be considered separately from the medical care delivery model. We must admit that the current dental delivery system is not perfect. However, it has been cost effective for private patients and those with dental insurance because the system is founded on the principles of prevention and patient participation in their treatment.

Ethically we should not say, "Leave us out, we're comfortable with the status quo." Instead, let's go to the decision makers in Washington and based on our experience in preventing dental disease, offer to develop a system of comprehensive quality dental care for Americans who do not have access to dental services. To date, unfortunately, the Administration has excluded the organized dental profession from discussions, claiming we were a special interest group. It is disconcerting to think that a health reform initiative is being structured by trial lawyers, public health officials and social scientists without meaningful input from the provider community. Now is the time for all constituencies of our profession to unite and actively approach the Congress with responsible recommendations for dentistry's role in health care reform.

Four points clearly struck me as I listened to President Clinton's presentation to the joint session of Congress (in September, 1993), which provided a broad outline of the health care reform proposal. Number one, he stressed quality and defined quality as receiving value for services. Secondly, he stressed that preventive services are the hallmark of quality health care. The third point was patients must take a greater responsibility for their own health care and participate in paying for services. Lastly, the President said the current system is wasteful and costly. As a profession, we need to send the message that the current dental delivery system is not wasteful or costly. We have a system in place that stresses quality, prevention and patient participation in their treatment. In my opinion, it is now time to capitalize on the four areas of agreement which the Administration wants included in health care reform and to send to the Congress a definite plan suggesting a separate system for dentistry as part of the reform package. The profession's proposal must recognize the shortcomings in the present delivery system and make recommendations on how to correct them.

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*This manuscript was adapted from the author's presentation at the 1993 ACD Annual Symposium, *Expanding Our Vision: Becoming More Effective in a World of Health Care Reform.*

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Let us briefly examine the shortcomings in the current dental delivery system. We need to admit there is a significant population group that does not have access to dental care. This group includes the adult poor, the working poor and the unemployed. The size of this group has been set at between 37 and 40 million people. In order to put this number in perspective, we need to point out the number of our citizens who currently receive dental services. Approximately 113 million Americans have dental insurance and most dental coverage is employment-related. Dental insurance is estimated to cover 43 percent of all payments for dental services. Direct payment by patients for dental services accounts for almost 20 billion dollars, or 53 percent of expenditures. Government expenditures, which include federal, state and local programs total only 4 percent and consist mainly of dental services provided through Medicaid, AFDC and EPSDT programs. There are minimal dental services available in the Medicare program under a provision for "medically necessary adjunctive dental services."

The Medicaid program is jointly funded by the states and the Federal government which accounts for the extreme variances in dental programs across the country. The Medicaid dental program has been less than a success in most states primarily because the fee schedules for participating dentists is below the costs of operating a dental practice. I recently received a letter written by two dentists in Vermont that was sent to the Governor of Vermont and to the Clinton Administration. The dentists pointed out that they could no longer enroll any new Medicaid patients in their practice as they were already subsidizing this population group. The overhead in their practice was 71 percent and the Medicaid fee schedule was at the 50 percent level. The Administration and Congress must understand that underfunded programs such as Medicaid discourage dentists participation, can foster fraud and abuse of the system, and do not serve the patient's best interest.

In order for the dental profession to approach the Congress with specific recommendations for a dental plan that will meet the needs of all citizens, it is important to examine the Clinton proposal to understand its basic tenants. Because this plan is so complex, any summary will omit some aspect of the plan. However, the brief descriptions that follow are intended to capture the essence of the Administration's current proposal.

It is interesting to note that the Administration has stated that they borrowed many ideas from the German health care model. In a recent article in the *Wall Street Journal*, Thomas DiLorenzo, Professor of Economics at Loyola College in Baltimore, contends that the model actually originated in Italy. In the Italian model, each industry group was an alliance, actually called a confederation. These alliances or confederations allowed the national government to orchestrate collaboration between the various categories of producers in each branch of productive activity. Italy's government planners believed the regional industry alliances overseen by a national planning board would reinvent government in a way that would render it "vigorous, careful and efficient." Mr. DiLorenzo draws a parallel with the Italian national planning board to the proposed National Health Board and the regional alliances to the proposed regional health alliances. DiLorenzo points out that instead of forcing business to be more responsive to "the national interest," it created a new and costly bureaucracy in which the taxpayers ended up paying for the "blunders of private enterprise." Mr. DiLorenzo expresses great concern that the Clinton plan has adopted these organizing principles as a basis of their health reform.

Looking at the Clinton proposal:

- All citizens and legal residents of the United States would be guaranteed health insurance and a federally guaranteed benefit plan.
- All citizens up to age 65 would receive coverage through health alliances. Medicaid would continue to pay for health care services for eligible individuals, but would purchase coverage from the health care alliances, most likely on a capitation basis.

• Coverage for all workers would be achieved through a mandated contribution from all employers and employees. Large firms (up to 5,000 employees) would probably pay less for health insurance, but will have to contribute to a regional pool to help subsidize the uninsured. Firms of 5,000 employees or more could purchase health care directly from insurance companies or health alliances, but could be taxed at least 1 percent to help support the uninsured. Small employers would have their contributions capped at various levels. Federal subsidies would be available to low income individuals.

• The standard benefit package would include benefits typically offered by employers and would emphasize primary and preventive services.

• Out-of-pocket costs for a fee-for-service (FFS) plan would be $200 per individual and $400 for a family. There would be a 20 percent coinsurance with a maximum of $1,500 for an individual and $3,000 for a family. HMO's and other managed care plans would have lower cost sharing (e.g. $10 per visit).

• Additional health coverage could be purchased with after-tax dollars.

• Cost containment: none short-term. Medicare and Medicaid spending will be capped through the year 2000. In the private sector, the health premiums could only rise annually at the rate of the annual growth in the CPI.

The plan calls for administration by a National Health Board of seven members appointed by the President, with the consent of the Senate. This board would have the power to set national budgets, rates and benefits. The Department of Labor and the Secretary of the Department of Health and Human Services would have a regulatory role, with the Secretary of DHHS having the power to federalize state programs if the state fails to comply with the national program. Also, the Secretary of the Treasury can impose a payroll tax on every employer in the state to pay for a federally designed program, if the state alliance does not meet the Board's regulatory requirements.

A revised funding estimate indicates that the savings originally estimated to be $91 billion would be reduced to $58 billion. $124 billion to come from Medicare savings; $65 billion from Medicaid; expected tax revenues by reducing health costs of $71 billion; cigarette tax $65 billion; federal program savings (Defense, Veterans, etc.,) $40 billion; and, a 1 percent corporate tax on big companies of $24 billion.

Preventive dental services would be provided for all children to age 18, but with no assurance that sufficient dollars would be available to guarantee a quality program. These preventive services have not been clearly defined, but the patient would have a managed care or a fee-for-service option. The low-cost (HMO) option would require the patient to pay $10 per visit, while the FFS option would require a copayment of 20 percent. In the year 2001, non-defined, additional preventive dental services for children would be added with the same cost options. Restorative services not included in the preventive package would require a $20 per visit payment at the low-cost (HMO) option and $50 per visit or 40 percent copayment with the FFS option, up to $1,500 annually. Orthodontic services would be provided through HMO's at $20 per visit and through a 40 percent copayment in the FFS plan up to a $2,500 life maximum.

Adult dental care would be phased in beginning in the year 2001.

The Clinton proposal also includes malpractice reforms and anti-trust exemptions, two issues on which Congress has repeatedly not reached agreement nor passed legislation.

Evident in the recent revision sent to Congress, there are several changes favorable to dentistry. The health alliances would be able to offer more fee-for-service options and could offer a program with additional benefits with a higher copayment. Additionally, insurance plans that currently offer benefits greater than the basic package would be given a so-called "safe harbor" from taxation for 10 years if they were in place by January 1, 1993 (This date has now been modified).

Probably the most important clarification to the proposed health care plan has been the definition of a preventive dental benefit plan for children. It appears this plan would have the same elements of the EPSDT program, including diagnosis, oral prophylaxis, preventive and restorative services.

The Clinton health care reform initiative certainly is not the only reform Bill before the Congress. Senator John Chaffee, Senator Paul Wellstone, Congressman Jim Cooper, and Senator John Breaux, among others have introduced legislation ranging from a voucher system to a single payer approach. Recently, Congressmen Bob Michel and Newt Gingrich introduced "Affordable Health Care Now," the Republican alternative to the Clinton Administration's proposal. It is predicted that it will be late 1994 or early 1995 before any Bill passes the Congress. It is most likely to be a compromise between the Clinton proposal and the Cooper-Breaux plan and is often referred to as "Clinton Lite."

If we assume this is the direction that the Administration and Congress are heading, how do we approach them with the concept of developing

a totally separate model for dental services? First, I believe the profession can make a strong case that the dental profession, in cooperation with the insurance industry and dental service corporations, has developed a cost-competitive delivery system that is built on preventing dental disease and preserving oral health. Therefore, we should recommend that the current system of employee dental benefits remain intact, with no caps, no taxation of benefits, full deductibility for the employer and no reduction in benefits that could shift cost in order to pay for other medical services. Is there some cost to the government in this recommendation? Yes, but I believe the progress we are making in reducing administrative overhead, such as electronic claims processing, will help to offset the cost of allowing 100 percent deductibility.

Second, I believe those citizens who are able to provide for their own dental care should continue to do so. There is no logical reason for the government to assume this responsibility. With funding being such a critical issue, I am confident we can convince the Congress that this is a reasonable approach.

Third, to provide dental services for the poor, the unemployed, the working poor (up to 150 percent of the poverty level) and the employees of small businesses, we should establish *dental insurance cooperatives* within the *health care alliances* or within each state or region. Dental care is comparatively reasonable to insure because we have excellent knowledge of the costs of procedures, as well as the utilization rate by patients. Insurance companies and dental service corporations should be able to compete for this business on a fee-for-service, preferred provider or capitation basis. While we may not favor the preferred provider or capitation concept, it is almost certain that the benefits provided to the poor and the uninsured population groups will be funded through one of these methods. It is important to keep these patients in the mainstream of dental practice where service can be rendered in a quality manner. Quality dental services are least expensive in the long-run.

It is my opinion that the "working poor" and the low wage employees of small firms that do not currently provide dental insurance should participate in copayment. Even if the payment is as little as fifty cents or one dollar, these individuals would have a stake in their own oral health. Employees should contribute the copayment based on their level of income and guidelines established through collective bargaining. Medicare recipients could participate in this type of plan based on their financial eligibility.

Community ratings to establish fee schedules and insurance premium caps, if they become necessary, should be administered at the local level, and not the federal level. Communities with fluoridated water supplies should receive special consideration in funding.

In my view, it makes sense to initiate a dental program for the population groups that currently lack access to dental care. To this end, the dental profession should make the decision on the basic benefit package services that would insure quality care, prevent dental disease and promote oral health and should be included in any program adopted by the Congress. We have the knowledge and the information; now we need to become the public's advocates on this issue.

I personally believe that, even in the beginning, dental benefits should include relief of pain and suffering for all citizens, regardless of age. Realism suggests that the more comprehensive program will begin with the child with a phase-in of adult dental care. The so-called CHAMPUS dental benefits program for military dependents is a working model, that could be adapted to a meaningful program for other children. The CHAMPUS program includes most dental procedures; coverage ranges from 100 percent for diagnostic and preventive services, 80 percent for restorative, 60 percent for oral surgery, periodontics and endodontics, to 50 percent coverage for prosthetics and orthodontics. It has an annual maximum of $1,000, with the exception of orthodontics. The monthly premium has proved to be reasonable and affordable for the patient/family. If we accept the philosophy that the government is only responsible for the underserved populations, and using the CHAMPUS model, adult dental care perhaps could be phased in prior to the year 2001 projection.

Whatever model of services the profession recommends in a basic dental benefits package, there should always be the opportunity for patients not in a government program, to purchase additional services at a higher premium.

In summary, the proposals outlined here leave intact the current dental delivery system. However, they recognize that the profession has a responsibility to the population groups currently excluded from the system. Finally, we must recognize that any dental care program initially may not be as comprehensive as we would prefer, due to limited funding.

Many may comment that the approaches presented above reflect a two-tiered system of delivering oral health services to the public. That is true and perhaps we must accept this in our imperfect world. We know that a two-tiered system exists in countries with national universal health coverage. For example, patients in England can and do visit private dentists if

they can afford to do so. Similarly, we have all heard the stories of patients in Canada waiting for surgical procedures who come to the United States and pay for their surgery. Former Governor Richard Lamm of Colorado spoke to this recently in a paper entitled, *The Brave New World of Health Care*. Mr. Lamm said, "The ethical test of a fair and just health care system cannot be that it has only one tier. We have a two-tier system in this country and all others for every social good. We pay for public schools, but not for private schools. We give people food stamps, but not unlimited food. We give people public housing, but don't buy them a house. We provide police protection, but not burglar alarms or security guards. It is reflective of America's strong belief in egalitarianism that we worry about a "two-tiered" system, but it is presently counterproductive to the true interest of poor people. The immediate challenge of our nation ought to be to get good primary health care to all its citizens. We should push to insure that this basic health package is as generous as possible, but, inevitably, it will be a two or three-tiered system."

My personal concern is not with how many tiers will exist in the system that is developed, but that we strive to provide quality dental care with available funds. We are familiar with the counting of DMF surfaces that occurred in previous government programs; recording them for statistical analysis and providing no funds for treatment. We must not continue this activity; it accomplishes nothing. Perhaps the dental profession can assist in the development of a system that establishes parameters of treatment and outcome measures to insure that patients in any government funded program receive quality dental services.

Another major and persistent concern is the complexity of the proposed plan. As Congress begins to craft a health bill with specific language, I am fearful that the advocates of the *single payer* system will argue that this proposal is too complicated to work, therefore why not look to the Canadian or single payer model? This could prove to be a convincing argument if no alternative plan can be agreed on by the Congress. In my view, neither the American people, nor the dental profession would be well served if oral health care were included in a single-payer government program. Many of us in the American College of Dentists have experience with government administrated programs at the federal, state and local levels. Medicaid certainly is an example of a federal program that has not met the needs of the people it was designed to serve. If the Clinton proposal actually eliminates all but the large insurers from the market place, and the anti-trust laws are relaxed to allow setting of rates and fees, competition as we know it will no longer exist. I believe we then will be on the road to a Canadian-style system.

All of us are obviously concerned about how we are going to pay for health care reform. We wonder if, in the final analysis, Congress will be looking at all health care providers to pay part of the bill. In spite of the Administration's assurance that they will not tax health benefits, Congress may not agree or have little choice. Such a tax will have a very negative effect on dental insurance as employers have indicated they will not look favorably on any dental benefit package that would be paid for in after-tax dollars.

Another avenue for Congress to consider would be to tax health care providers. This already is occurring in three states. I believe we can look for this option to be considered as a revenue source.

Employers cannot continue to be the principle source of funding for health care reform. Yes, they can be mandated to provide health care for their employees, but in my opinion, the cost of providing care to the underserved population must be found elsewhere, especially in the current economy. However, shifting these costs to the providers of health care also is unacceptable. If Congress and the Administration want to provide health services, perhaps they should reduce spending and fund health care for the underserved from general revenues. It would seem logical to expect health care to take precedent over tobacco subsidies and various "pork barrel" projects.

We must be prepared to have a role in the debate on health care. Dentistry is part of total health care. We, as a united profession, must provide the Congress with a plan that serves the public and retains the integrity of our profession. I recognize that there are different opinions within our profession regarding dentistry's position in health care reform. Some want dental care included universally in any system. Others want more limited participation (for the underserved). Others within our profession wish to be left out of any plan.

Personally, my position lies within the second category, that is, dental care for the underserved who lack access to the dental care delivery system. However, irrespective of your point of view, I believe we cannot afford to *opt out*; the country deserves our participation.

Profiles in Professionalism: 1993 ACD Awardees

William J. Gies Award, Honorary Fellowship, Merit Award

William John Gies Award

The William John Gies Award was established by the American College of Dentists in 1939 to recognize Fellows for outstanding service to dentistry and its allied fields. This award embodies the highest levels of professionalism, and it is the highest honor the College confers on its members.

In 1993, the College honored two Fellows with The William John Gies Award: Dr. Norman H. Olsen and Dr. James P. Vernetti.

Dr. Norman H. Olsen received his D.D.S. from Creighton University in 1951. During the months following his graduation and before beginning his graduate dental program, he worked with Boys Town in Nebraska treating underprivileged and troubled boys. In 1953, he received his M.S.D. from the Northwestern University Dental School. In the year after completing his graduate work, he taught pediatric dentistry at what is now the University of Missouri at Kansas City. He then returned to Northwestern University and dedicated nearly 40 years to building one of the finest dental programs. His faculty career at Northwestern began in the Department of Pediatric Dentistry, where Dr. Olsen served as Chairman until 1972. He then was appointed Dean of the Dental School until his retirement in August 1993. Northwestern University Dental School thrived under the exceptional leadership and tenure of Dr. Olsen.

Norman Olsen also gave much to organized dentistry. He is past chairman of the Council of Deans of the American Association of Dental Schools; past president of the American College of Dentists and the American College of Dentists Foundation; and a member of the Board of Governors of the Odontographic Society of Chicago. He also was president of the G. V. Black Honor Society and the American Academy of Pedodontists. He is a diplomat of the American Board of Pedodontics. He is an honorary member of the American Dental Society of Europe.

Throughout his busy career in academia and his involvement in dental organizations, Norman Olsen maintained a specialty practice in pedodontics, and unselfishly devoted efforts to his local community.

His efforts have been noted through his numerous awards. Among these are the Award of Excellence from the American Society of Dentistry for Children in 1974; the Dentist of the Year by the Illinois unit of the American Society of Dentistry for Children in 1981; and Man of the Year for the Pierre Fauchard Academy in 1987. He also has been honored by the Northwestern University Alumni Association with both its Alumni Service Award and its Alumni Merit Award, and by Creighton University with its Alumni Merit Award.

Although Dr. Olsen retired as Dean of the Dental School at Northwestern University in August 1993, he remains actively involved with the University. Further, in December 1993, he became Executive Director of the American Society of Dentistry for Children.

Dr. James P. Vernetti, a native of Globe, Arizona, graduated from the University of Southern California in 1937, receiving the D.D.S. degree with honors. From 1953 to 1955, he served as Chief of the Crown and Bridge Department in the U.S. Army Dental Corp as a Major, and later as a Lt. Colonel.

Dr. Vernetti spent 38 years in private practice in Coronado, California. During this time he also served part-time on the faculties at the University of California at Los Angeles, the University of Southern California and Loma Linda University. From 1975 to 1979, Dr. Vernetti was a Professor at the University of Texas Dental School at San Antonio. His skills as a teacher were clearly recognized by his students, as evidenced by his being named the most outstanding professor by the student body in 1979. An annual James P. Vernetti Award for Excellence in Operative Dentistry was created by the dental school in 1978. Dr. Vernetti returned to California in 1980.

Dr. Vernetti always has been strongly committed to social and community activities; it is difficult to even summarize his contributions in this regard. The Boy Scouts is one of Dr. Vernetti's favorite organizations, reflecting his interest in guiding our youth - our hope for tomorrow. He worked with the Boy Scouts at all levels, from troop leader to Board member. He also is a longtime member and distinguished leader in the Coronado Rotary Club. During his brief years in Texas, he was a charter member and first President of the

Oak Hills Rotary Club in San Antonio. He has lead major community service organizations in Coronado since 1937. As a tribute to his dedicated service, the mayor of Coronado proclaimed May 23, 1975 as "Jim Vernetti Day" and presented him with the key to the city.

Dr. Vernetti has given equal dedication to organized dentistry. He is a charter member of the American Academy of Gold Foil Operators and the Academy of Operative Dentistry. He has been a Fellow of the American College of Dentists since 1957, where he has served as President of the College and the Foundation, as well as remaining active in the Southern California Section. Dr. Vernetti also is a Fellow of the International College of Dentists, and a Past President of the Academy of Dentistry International. He organized a mission with the School of Stomatology in Beijing, China, Singapore, Guatemala, Argentina and Peru in conjunction with the Academy of Dentistry International. Dr. Vernetti was an organizer and the first President of the San Diego Chapter of the Academy of General Dentistry. He is a life member of the Pierre Fauchard Academy, the American Academy of Restorative Dentistry and the California Dental Association. He is also a member of the Federation Dentaire Internationale.

Dr. Vernetti's vision and perseverance has been honored widely. In 1983, he was chosen as one of the ten "Legends of Operative Dentistry" by Northwestern University; he received the Award of Excellence in 1988 from the American Academy of Operative Dentistry.

Dr. Vernetti still continues to serve dentistry through his involvement in many activities such as participating in two medico-dental team programs to help restore the facially and physically handicapped people of Mexico through COAD and Thousand Smiles organizations. He also works with the Tijuana, Mexico Dental Society to establish better liaison with the San Diego County Dental Society.

Honorary Fellowship

The American College of Dentists confers Honorary Fellowship upon persons who are not members of the dental profession but have made outstanding contributions to the advancement of the profession and to its service to the public. These contributions may be in education, research, administration, public service, public health, medicine and many others. In November 1993, the American College of Dentists bestowed Honorary Fellowship upon **David W. Chambers, Ph.D.**

Dr. Chambers is Assistant Dean of Academic Affairs and Professor of Dental Education at the School of Dentistry, the University of the Pacific. He has served the School of Dentistry of the University of the Pacific with great distinction for over 21 years. During this time, Dr. Chambers has made important contributions toward modifying dental education at the University of the Pacific and across the country.

Among his accomplishments, Dr. Chambers' design on and implementation of an innovative, competency-based approach to dental education has shaped a new teaching philosophy and classroom instructional methods. This approach was based, in part, on a Comprehensive Patient Care Program previously instituted by Dr. Chambers at the University of the Pacific. The success of this program lead to collaborative efforts with faculty at other dental schools and the introduction of similar programs.

In addition to a full-time career in dental education, Dr. Chambers provides consultation and instruction in the areas of operations research and management. Dr. Chambers' academic affiliations have included the University of California at San Francisco Dental School and Business School; San Francisco State University and Golden Gate University. He has taught at the undergraduate and graduate levels in management, organizational design, marketing, human resources management, ethics, statistics, computers and decision support systems. He has presented workshops for deans and department chairs sponsored by both American and Canadian dental schools.

Dr. Chambers has been active in dental related research and professional organizations. He is a former chairman of the Behavioral Sciences Group of the International Association for Dental Research; he served as an officer of the Behavioral Sciences and Educational Research Curriculum and Development sections of the American Association of Dental Schools. He has been an invited speaker and has provided consultant services to many dental organizations, including the American Dental Association, the California Dental Association, the American Board of Dental Examiners and the American Board of Orthodontists. He currently serves as a member of the American Dental Association's Joint Commission on Dental Education.

Dr. Chambers has received international recognition for his work on student evaluation principles, undertaken during his doctoral training at Stanford. He also presided over two studies funded by Health Education and Welfare and American Fund for Dental Health addressing learning clinical skills and innovations in den-

tal education. He was appointed an Independent Clinical Research Statistician to the Lever Brothers Pharmaceutical firm in the late 1970s. During this period, his analytical work led to the Federal Food and Drug Administration's acceptance of a major new dentifrice.

Dr. Chambers is a productive writer and a prize winning editor. He has over 60 publications in refereed dental and business journals. He has edited his university's quarterly dental publication for the past nine years. He currently is a member of the editorial boards of the *Journal of Dental Education* and *Evaluation in the Health Professions*.

Dr. Chamber's philosophy of dedication and concern for the dental profession is reflected in a quote from one of his own editorials, "to make dentistry something of greater value than has ever been realized before."

Merit Award

The supporting services of dentistry are vital to the profession, providing key elements which enhance the effectiveness of dental care delivery and the growth of the profession. The American College of Dentists' Award of Merit was established by the Board of Regents in 1959 to recognize unusual contributions in dentistry and its services to humanity by persons who are not Fellows of the College.

Mr. Robert D. Crawford, Director of Professional Relations of Procter and Gamble, was selected as the 1993 recipient of the Award of Merit. Mr. Crawford's long-term dedication to dentistry spans his professional and personal lives.

Robert Crawford was born and raised in Sikeston, Missouri. In 1957, he joined the staff of Procter and Gamble as a sales representative, headquartered in Memphis, Tennessee. In 1960, he transferred to the Health and Personal Care Division as a detail representative calling upon the dental profession. Since that time, his career has been directly involved with dentistry.

Mr. Crawford became the National Sales Manager of Procter and Gamble's professional sales force in 1967. He was appointed Director of Professional Relations in 1986 with responsibility for the interface between Procter and Gamble and dental organizations worldwide. Mr. Crawford was active in developing Procter and Gamble's dental convention program, and he has not missed attending an American Dental Association meeting since 1961. In his professional role, Mr. Crawford has remained keenly attuned to the needs of dentistry. He also has been an effective facilitator, enhancing relationships between dental organizations and corporations.

Mr. Crawford's contributions to the dental profession extend beyond his position at Procter and Gamble, as evidenced through his role as Trustee Advisor to the American Fund for Dental Health (AFDH) in 1988 and his service on the AFDH Board of Directors since 1989. He also served as Lay Director on the American Association of Orthodontists Foundation from 1990 through 1992, and on the Steering Committees of both the Dr. John W. Hein Research Fellowship Fund and the Dr. Irwin Mandel Research Endowment Fund. He currently serves on the Dean's Advisory Committee at the dental schools at Harvard, Columbia and Northwestern Universities.

Mr. Crawford was named Honorary Member of the American Dental Association in 1990 and Honorary Member of the American Academy of Periodontology in October, 1992.

He and his wife, Brenda, currently reside in Cincinnati. They have three sons, Bradley, Stephen and Kevin, and two granddaughters.

New Fellowships Conferred

Fellowships in the American College of Dentists were conferred upon the following dentists at the annual convocation in San Francisco, California on November 5, 1993:

Sheridan B. Albert
Schroon Lake, New York

Marvin W. Aldridge
Greenville, North Carolina

Charles W. Anderson
Lincoln, Nebraska

David C. Anderson
Alexandria, Virginia

John P. Anderson, Jr.
Rainsville, Alabama

Thomas Arrowsmith-Lowe
Rockville, Maryland

Samuel W. Askinas
Boston, Massachusetts

Leon A. Assael
Farmington, Connecticut

David S. August
York, Pennsylvania

Jan R. D. Backer
Lelystad, The Netherlands

Gary R. Badger
College Station, Texas

Lawrence Bailey
Mount Vernon, New York

Charles G. Baker
Edmonton, Alberta

Gary O. Baker
St. Louis, Missouri

Martin T. Barco, Jr.
Great Lakes, Illinois

Rahmat A. Barkhordar
San Francisco, California

Wayne J. Barnes
Sioux City, Iowa

Victor J. Barry
Seattle, Washington

John W. Bassett
Aurora, Colorado

Ronald A. Baughman
Gainesville, Florida

David J. Bell
Arkadelphia, Arkansas

Lester J. Bell
Dallas, Texas

Clifford J. Berger
Savannah, Georgia

Dayton B. Berk
San Francisco, California

Robert A. Bettis, Jr.
Irving, Texas

Amir H. Biniaz
Camarillo, California

Catherine J. Binkley
Louisville, Kentucky

Richard C. Black
El Paso, Texas

Richard J. Blankenau
Omaha, Nebraska

David A. Bleeke
Fort Wayne, Indiana

Lowell D. Blevins
Clarksville, Tennessee

Philip R. Bouressa
Kimberly, Wisconsin

J. Michael Boyd
Modesto, California

Orville T. Boyle, Jr.
Milwaukee, Wisconsin

William F. Brennan
Warwick, Rhode Island

Judith A. Buchanan
Chicago, Illinois

L. Stephen Buchanan
Santa Barbara, California

Andre U. Buchs
Orlando, Florida

Skip D. Buford
Shreveport, Louisiana

Alan I. Burch
N. Miami Beach, Florida

Ebenezer Bush
Long Beach, California

James H. Butler
Richmond, Virginia

Clifton O. Caldwell, Jr.
Spokane, Washington

Ronald M. Cantor
Aventura, Florida

Edward C. Carlson
Tucson, Arizona

D. Douglas Cassat
San Diego, California

Paul T. Castelein
Princeton, Illinois

Jack G. Caton, Jr.
Rochester, New York

Kenneth B. Chance
Newark, New Jersey

Daniel J. Chertoff
Pompton Plains, New Jersey

Gerard J. Chiche
New Orleans, Louisiana

William A. Clements
Reno, Nevada

Paul D. Cohen
Washington, District of Columbia

Gary A. Colangelo
Baltimore, Maryland

James R. Cole, II
Albuquerque, New Mexico

Kenneth M. Collins
Cheney, Washington

James J. Conrardy
Green Bay, Wisconsin

William D. Covington
Richmond, Virginia

Clyde P. Craine, III
Palm Springs, California

Kenneth C. Crawley
Columbia, Mississippi

Victor R. Cuccia
Pasadena, California

Howard F. Curtis
Eugene, Oregon

August A. Darilek, Jr.
Shiner, Texas

Nicholas C. Darzenta
Boston, Massachusetts

H. Bradley Davidson, IV
Auburn, New York

Joseph Davidson
Columbia, Maryland

Robert E. Davis
Grand Rapids, Michigan

Gerald A. DeFreece
Newport Beach, California

Gerald C. Dietz, Sr.
Bloomfield Hills, Michigan

William W. Dodge
San Antonio, Texas

Peter K. Doyle
Williamsville, New York

Yves Dufresne
Trois-Rivieres, Quebec

Clifton O. Dummett, Jr.
New Orleans, Louisiana

James C. Eagle, Jr.
Chapel Hill, North Carolina

Fred C. Eberle, Jr.
San Jose, California

Vernon S. Eddlemon
Tempe, Arizona

Harold L. Ehrlich
Brookline, Massachusetts

Bernard I. Einhorn
Norfolk, Virginia

Robert N. Eskow
Livingston, New Jersey

Alan L. Felsenfeld
Covina, California

Steven H. Ferriot
Bonita, California

Stephen Flanders
Whittier, California

Frederick J. Flinn
Pasadena, California

Nicholas A. Fontana
Troy, Michigan

David P. Forbes
West Dundee, Illinois

Edward C. Fox
Richmond, Indiana

Gerard M. Francati
St. Petersburg, Florida

Robert L. Frazer, Jr.
Austin, Texas

David J. Fulton
Waukegan, Illinois

David C. Funderburk
Greeley, Colorado

Harry L. Gelfant
Vancouver, British Columbia

Michael J. Getto
Jeannette, Pennsylvania

Sami M. Ghareeb
Poca, West Virginia

G. Kirk Gleason
Clifton Park, New York

Joel T. Gluck
New Hyde Park, New York

James L. Goblirsch
Milwaukee, Wisconsin

Jack E. Gotcher, Jr.
Knoxville, Tennessee

Marshall I. Gottsegen
New Orleans, Louisiana

Lloyd E. Grant
Los Gatos, California

John E. Griffin, Jr.
Columbus, Mississippi

Richard A. Grimaldi
Connellsville, Pennsylvania

Clement A. Guarlotti
Greensburg, Pennsylvania

Russell E. Haag
San Diego, California

James E. Haddix
Gainesville, Florida

Betsy A. Hagan
Richmord, Virginia

Robert R. Hallman
Atlanta, Georgia

Carole McKnight Hanes
Augusta, Georgia

Charles E. Harbison
Memphis, Tennessee

John F. Harrington
South Bend, Indiana

Richard I. Hart
Morgantown, West Virginia

Heidi K. Hausauer
Castro Valley, California

Benny F. Hawkins, Sr.
Iowa City, Iowa

Eddie K. Hayashida
San Francisco, California

John A. Hayes
Key West, Florida

Richard D. Hess
Kankakee, Illinois

Richard F. Hewitt
Greenville, South Carolina

Robert Lynn Hinrichs
Lincoln, Nebraska

Charles R. Hook
Charleston, South Carolina

Maury A. Hubbard, Jr.
Richmond, Virginia

John-Wallace Hudson
Knoxville, Tennessee

Keith C. Hudson
Colleyville, Texas

Robert L. Ibsen
Santa Maria, California

Anthony L. Ingino
St. Joseph, Missouri

Ford T. Johnson, Sr.
Richmond, Virginia

Cleveland R. Jones
Atlanta, Georgia

Jerry L. Jones
Albuquerque, New Mexico

Michael E. Justiss
Savannah, Georgia

Jack C. Kanter
Norfolk, Virginia

Gerald R. Karr
Clarksville, Tennessee

Robert Karsten
New York, New York

Denise K. Kassebaum
Denver, Colorado

Donald M. Keene
Daytona Beach, Florida

James C. Kelly
Virginia Beach, Virginia

William H. Kelly
Milwaukee, Wisconsin

Robert L. Kittredge
Hyannis, Masschusetts

Jerry L. Klein
Coral Springs, Florida

Robert W. Kline
Plattsburgh, New York

Richard S. Kloehn
Lakewood, Colorado

George J. Kottemann
Peoria, Illinois

John S. Kriz
Boise, Idaho

Georges Krygier
Paris, France

Earl M. Kudlick
Silver Spring, Maryland

Gerard Kugel
Boston, Massachusetts

Paul Landman
Chicago, Illinois

Kenneth E. Lange
Chico, California

C. Spencer Lee
Corinth, Mississippi

John G. Lee
Orlando, Florida

June Warren Lee
Boston, Massachusetts

Vincent N. Liberto
New Orleans, Louisiana

James D. Limestall
Yukon, Oklahoma

Lawrence I. Lipton
Fairfield, Connecticut

Clifford S. Litvak
Denver, Colorado

S. Jerry Long
Houston, Texas

John R. Ludington, Jr.
Houston, Texas

Chris B. Lundell
Dubuque, Iowa

Martin Magaziner
Potomac, Maryland

Allan R. Malamy
New York, New York

Jay P. Malmquist
Portland, Oregon

Eugene V. Manusov
Los Angeles, California

Neal M. Markowitz
Savannah, Georgia

Rudi Matheis
Linz, Austria

Douglas H. McCall
Louisville, Kentucky

Hutson E. McCorkle
Orlando, Florida

Arthur L. McDermott
Hamdem, Connecticut

Gary T. McDonald
New Orleans, Louisiana

Terry D. McDonald
Salem, Oregon

James F. McIntyre
Denver, Colorado

Jerry O. McNerney
Portland, Oregon

Robert C. Meador
Houston, Texas

Joseph T. Mellion
Akron, Ohio

Virginia A. Merchant
Detroit, Michigan

David J. Mishkin
Charleston, South Carolina

Abdel Rahim Mohammad
San Antonio, Texas

Jan Myhrer
Oslo, Norway

William W. Nagy
Whitefish Bay, Wisconsin

William S. Nakagawa
Honolulu, Hawaii

Lawrence T. Nakamura
San Francisco, California

D. Scott Navarro
Detroit, Michigan

Mahvash Navazesh
Los Angeles, California

Christine E. Niekrash
Farmington, Connecticut

David B. Nielsen
San Francisco, California

Charles H. Norman
Greensboro, North Carolina

Kathleen M. O'Loughlin
Medford, Massachusetts

Jay S. Orlikoff
Centereach, New York

Larry L. Pace
Dallas, Texas

David A. Paolini
Gettysburg, Pennsylvania

Stephen M. Parel
San Antonio, Texas

W. Marshall Parker
Knoxville, Tennessee

Ernest E. Patricelli
Bellevue, Washington

Edgar H. Peacock, Jr.
Columbia, South Carolina

B. Larry Pedlar
Burlington, Ontario

Richard R. Pence
Lincolnton, North Carolina

Morton L. Perel
Providence, Rhode Island

Joseph L. Perno
Voorhees, New Jersey

John K. Pershing, Jr.
Hastings, Nebraska

Stephen J. Persichetti
Portland, Oregon

Ronald J. Peterson
Phoenix, Arizona

Sandra C. Peterson
Phoenix, Arizona

James T. Phelan
Little Rock, Arkansas

Andrew W. Pickens
Billings, Montana

Donald L. Pink
Tamarac, Florida

John W. Pitner
Columbia, South Carolina

Robert G. Plage
Wilmington, North Carolina

Cleveland H. Porter, Jr.
Lynchburg, Virginia

Indru C. Punwani
Chicago, Illinois

Michael V. Purcell
Town & Country, Missouri

Ernest R. Quinn
Beaverton, Oregon

Stephen A. Ralls
Great Lakes, Illinois

John C. Reimers
Beaumont, Texas

Reneida E. Reyes
Brooklyn, New York

John D. Rosenthal
Portland, Oregon

William S. Rousseau
Atlanta, Georgia

Clifford J. Ruddle
Santa Barbara, California

Robert A. Rugeley
Wichita Falls, Texas

George W. Rupprecht
Bel Air, Maryland

Rajendar M. Saini
Columbia, Maryland

Fred J. Sambrone, Jr.
Atlanta, Georgia

Michele J. Saunders
San Antonio, Texas

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Journal supplement

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Books and Other Monographs

Personal author(s)

Dunning JM. Principles of dental public health. 4th ed. Cambridge: Harvard University Press, 1986.

Editor(s), compiler as author

Cohen LK, Bryant PS, editors. Social sciences and dentistry. London: Fed Den Int, 1984.

Chapter in a book

Burt BA. The provision of dental care. In:Striffler DF, Young WO, Burt BA. Dentistry, dental practice, and the community. 3rd ed. Philadelphia: WB Saunders, 1983:340-77.

Published proceedings paper

Woolfolk MW. Review of the literature: psycho-social aspects of dental care. In:Razzoog ME, Robinson E, editors. Black Dentistry in the 21st Century. Proceedings of a Workshop at the University of Michigan; 1990 Nov 1-3; Ann Arbor: University of Michigan, 1991:27-48.

Conference paper

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Agency publication

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Koslan J. Oral health services in Europe. Copenhagen: World Health Organization, Regional Office Europe, 1979. (WHO regional publications; European series; no 5.)

World Health Organization. Oral health surveys; basic methods. 2nd ed. Geneva: World Health Organization, 1977.

Dissertation or theses

Morrison EC. The effect of professional prophylaxis and personal hygiene on the severity of periodontitis (dissertation). Ann Arbor: University of Michigan, 1977.

Other Articles

Newspaper article

Gates M. U-M study links cigarette smoking to gum disease. Ann Arbor News 1983 Jun 21:A3(col1-6).

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