# Remarks on Receiving the John W. Knutson Distinguished Service Award

**Robert E. Mecklenburg, DDS, MPH**

I want to thank the Awards Committee for selecting me for the 2001 John W. Knutson Award. What a wonderful honor! And I'm grateful to Dushanka Kleinman and Steve Corbin for introducing me. Both have been respected colleagues and dear friends for ages. One of the delights of passing years is to see how they have blossomed into such extraordinary personalities and become visionary, capable leaders in dental public health and human development. Thank you for your generous remarks. Also, I appreciate Colgate Oral Pharmaceuticals' support that enables the building of an oral history for this most exciting, rewarding field of dental practice. I could say "specialty," but hesitate because I don't mean the term to be interpreted as limited to certified board specialists. Dental public health's strength is in its broad base of dedicated experts, not only in those who are eligible for or have met certain formal requirements.

I didn't know John Knutson, and few remain who did. I met him at the 1958 PHS clinical society meeting on the National Institutes of Health campus in Bethesda, Maryland, when he was chief dental officer and I an intern at the PHS Hospital in Staten Island. I remember him as a tall, articulate, self-assured gentleman.

Previous recipients have recounted significant events in their career, often finishing up by speaking about an issue or two that they believe of special importance to dental public health. I'll do that too, but want to begin by stating our common cause. We are united in our search for means to protect and promote oral heath so that human potential is never limited by adverse oral conditions. Life is a challenge to individuals, communities, and civilizations. Those who survive, indeed thrive, are those who can adapt best to ever-changing conditions. Oral health is important to allow such adaptations to occur freely.

## The Early Years

When young, I liked to work with my hands, so my Dad suggested I consider becoming a dentist. In those pre-fluoride days, I had many opportunities as a patient to learn what dentists did. While a predental student, I was browsing in a south Minneapolis bookstore and found a 1949 book by Walter J. Pelton and Jack Wisan, "Dentistry in Public Health." That book became my first exposure to dental public health concepts.

My second exposure to dental public health concepts arrived by experience in 1956 when I was accepted for summer training with the US Public Health Service, and was sent to Pine Ridge, SD, for three months between my junior and senior years. It was the first year of the program so it had no name, but later was called the Commissioned Officer Student Training Program, or COSTEP. Two dental students were selected, with one assigned to the dental research institute and myself to the PHS Indian Hospital. The hospital's two dentists served more than 10,000 Ogallala Sioux.

The Bureau of Indian Affairs was never able to recruit many health care professionals using the civil service system, so on July 1, 1955, when authority for Indian health care was transferred to the PHS, fewer than two dozen dentists were available to treat all tribes in the United States. Dr. George Waterman became the first chief of dental services for the Division of Indian Health (DIH). He had been a clinician in an early 1950s Division of Dental Health project in Hagerstown, Maryland, demonstrating that providing care seated and using two chairs and two dental assistants was much more productive than the then common practice of standing at one chair working alone. After a period as chief dentist for the US Coast Guard, Dr. Waterman was assigned to organize the DIH dental program. From its inception, he insisted that dentists use the sit-down, four-handed, two-chair approach. Personnel was hired and clinics constructed to allow that method. I met Dr. Waterman at Pine Ridge when he made his first tour of reservation dental facilities. He suggested that I apply for an internship, which I did and was successful. I regard him as my first dental public health mentor.

I was blessed with many mentors during my public health formative years. My second mentor was Dr. Bill Jordan, Minnesota state dental director, who had asked for two student volunteers to help him conduct a school survey in west central Minnesota. Dr. Jordan taught me how to conduct an oral examination using the DMF and def indexes and field equipment. Of course he spoke at length about his work.

Upon graduation in 1957, I was assigned to the PHS Marine Hospital on Staten Island in New York City. While there, I learned about the benefits of the Commissioned Corps system primarily from Dr. Peter Drez, staff oral surgeon, whom I regard as another mentor because he took time to make a case for a Public Health Service career as a practical alternative to private practice.

I returned to the DIH for my three-year military obligation and residency payback time. It was propitious, for the DIH was on the verge of a massive expansion as part of growth of several federal social programs in the 1960s and 1970s. The PHS Indian Hospital in Owyhee, Nevada, a remote 15-bed hospital, served as a base for health care to Indian tribes on reservations and colonies throughout northern Nevada and western Utah. As did all DIH dentists, I used the latest in preventive dentistry against high caries rate: prophylactic odontotomies, silver nitrate on deciduous teeth, and four applications of sodium fluoride swabbed and air dried onto the teeth. Diet control could bring down lactobacillus counts, but was not a practical strategy for people who survived on high starch

diets. I only managed one case successfully. Amalgam restorations were always placed first in the lower arch since it was more important to preserve natural dentition there.

Dr. Waterman arranged for me to observe the new dental assistant training program in the Brigham City, Utah, Indian boarding school. I critiqued it, then went back to Owyhee and set up an alternative that didn't require high school students to leave home. Using a series of students, each for six weeks, gave them a marketable skill and me a second assistant. The Nevada Board of Education certified the program so students received credit toward graduation.

The DIH supported a topical fluoride team across northern states where Indian dental caries rates were the highest. Edna Haliburton, a hygienist, and two assistants would set up portable chairs in grade schools in the Dakotas, Montana, Oregon, and Washington State using a four-application series of sodium fluoride. Per diem cost and dental assistant attrition eventually killed the attempt.

With preventive services showing little effect, high production caries treatment among children and youths was a primary focus. The strategy was to start each fall with children in first grade and sequentially move up grades through the academic year. Doing the same the following year would mean care could proceed quickly on youths who had been treated the year before.

In 1960, I was assigned to the new Billings area office for the dental program on Montana and Wyoming reservations and at the Brigham City boarding school. I had another great mentor, Dr. Ab Trithart, Montana state dental director. He provided valuable counsel and once arranged to have me help him with a dental fluorosis survey in a non-Indian school just south of the Northern Cheyenne Reservation, where fluoride levels were 4 ppm or 5 ppm. Mysteriously, nearby Indian community dental caries rates were high, even though the water fluoride level in the community well was also high, according to water engineering reports. Upon visiting the Indian community I learned that stream water was still being used even though the safe well supply had been installed years earlier because there was so much methane coming out of the well supply that one could light a match and get a flame at the spigot. The water tasted terrible. Engineers went back to their drawing boards. The public health lesson? In addition to field reports, one must go into communities to know what's happening.

In 1962, I was transferred to Berkeley, CA, where I earned my master's degree in public health. The Division of Dentistry had recently opened the Dental Health Center across the bay in San Francisco. I and the other four dentists in the Berkeley program were privileged to have an excellent two-credit dental public health course in the spring led by Dr. John Greene. The center was in the process of organizing a dental public health residency program to begin in 1963. The Division of Dentistry awarded grants to state and school programs to organize similar residencies.

In 1963 I transferred to DIH headquarters in Silver Spring, MD. The experience also allowed my observing the critiquing and refinement of several new dental public health residency programs because the Division of Dentistry periodically brought the new residency program directors and students to Bethesda to share views and make recommendations.

Dr. Carruth Wagner, DIH director, emphasized working by management principles. Many headquarters and area staff had to take a basic four-week course conducted by the American Management Association. Such training is still a good idea. About that time, the Indian health program was elevated in the PHS system and its name changed to the Indian Health Service (IHS).

Dr. Abramowitz initiated the IHS clinical residency program in Anchorage, AK, Gallup, NM, and Phoenix, AZ. He initiated the dental expanded duties program, often using new positions allocated during the John F. Kennedy Administration's "New Frontier" and Lyndon Johnson Administration's "Great Society" years. The program expansion allowed building hundreds of strategically placed rural hospitals and clinics and increasing positions so that the few dozen dentists of the early 1960s grew to nearly 300 dentists and several hundred dental assistants by the 1980s. Several staff development programs were created and a large contract care program implemented. Eventually IHS programs were supplemented by Tribal and National Health Service Corps programs.

I took my board examinations in 1966 shortly after arriving in Aberdeen, South Dakota. To qualify, one had to be a member of the AAPHD, the American Public Health Association, and the American Dental Association. After becoming certified, I set up the IHS dental public health residency program, using Dr. David Striffler as its primary consultant.

In 1971, upon returning to Rockville, MD, as chief, Dental Services Branch, I concentrated on upgrading the IHS dental resource management system. The dental program was the first IHS professional unit to use an automated data system. Another priority was to refine the dental career development program. Based on observations of headquarters staff earlier and students in the Berkeley School of Public Health, I concluded that field experience was essential before individuals should be supported for specialty training. Many of the finest leaders were constantly guided by their hands-on clinical experiences during their early careers.

Second, career development paths were developed for dental assistants. Assistants were central to the care program, with duties ranging from conventional to expanded duties and teaching assignments, and all provided continuity at facilities. On-site, incremental training was offered, and support for those who wanted to prepare to become certified dental assistants. Many assistants were excellent, with some even contributing to dental assisting through American Dental Assistants Association chapters and elsewhere.

Third, dental hygienists were not needed for conventional services because dental assistants were trained and used to providing prophylaxes, topical fluorides, and perhaps restorative care. However, in 1974, the IHS entered an agreement with the Department of Health and Human Services' Maternal and Child Health program to evaluate oral health services in Indian Head Start programs. A dental hygienist coordinator was employed and several hygienists brought in under contract to evaluate and consult within communities. These hygienists, serving in public health capacities, opened a new set of eyes and ears for the program. Previous infor-

mation always had been filtered and shaped by a clinician orientation. Public health dental hygienists added several insights that helped the dental program make a rapid transition from a care delivery to a community-based program.

This experience with public health dental hygienists "primed the pump," so to speak, as did many discussions with David Striffler when he consulted. Thus, when I was president of the AAPHD in 1975–76, I was receptive when David published Alice Horowitz's call for action letter to give dental hygienists the right to vote. Many meeting participants were in support, knowing what hygienists were doing in the IHS and elsewhere. The resolution passed, albeit narrowly, after passionate debate.

In the early 1970s the AAPHD had only about 300 members and the association lived or died each year depending on the commitment and skill of each president. Dr. Durward Collier, Tennessee state dental director, had labored long on a revision of the constitution and bylaws. With adoption of a new constitution in play, as president I submitted 15 resolutions. They diversified responsibility, promoted strategic planning, and provided for clearer, visible policy statements that could be easily refined as the art and science of dental public health practice advanced—and, of course, gave dental hygienists full voting membership.

One never-ending task was to resist bureaucratic attempts to manage professional decision making—especially to interfere with professional responsibilities to patients. Administrators tend to want ever higher production numbers, even though this can threaten care quality. To circumvent pressure to produce more restorative services, or more of anything else that might adversely affect diagnosis and treatment planning, we converted the IHS dental evaluation and planning system to "service-minute" weighted measurements that eliminated any pressure to warp clinical judgment. Some things only the clinician or a board of clinical peers should decide. Allegiances to an employer and to the profession are qualitatively different. Administrators can require accounting for time, reports, dress, and so on, but must stay out of treatment decisions. This follows the principle of "Render unto Caesar that which is Caesar's and unto God that which is God's."

A large part of dental program staff career development was simply having a clear goal and allowing people to use their own means to reach it. Mistakes are okay, if not repetitive behavior.

## The Middle Years

In December 1981, Dr. C. Everett Koop, who had just been confirmed as surgeon general, invited me to serve as chief dental officer beginning the following week. The Reagan Administration had begun to downsize or eliminate many long-standing PHS programs. The marine hospitals were being converted to contract care. The Division of Dentistry was broken up. The dental corps was to be downsized by nearly half, from 953 positions in 1981 to 515 by 1986. During that December week, all 13 positions in the office of the chief dental officer were reassigned. I would have to manage chief dental officer duties using IHS support.

Fortunately, Dr. Norman Clark, the dental public health resident, remained to help stabilize the situation. A year earlier, I had arranged to have a dental public health residency established in Dr. John Greene's office of the chief dental officer using IHS funds and position. Dr. Clark didn't show up on the department's list of positions to abolish. He managed the "reorganized" office, allowing us to do whatever was necessary to rebuild PHS dentist morale, develop new national and international programs, respond to congressional requests, and cultivate interagency cooperation. After two years in this "phantom" office, Dr. Clark was followed by two other two-year half-time residents: first Dr. Stephen Corbin and then Dr. William Maas.

One pressing need in 1982 was to find a home for the PHS's dental public health programs. The loss of the Division of Dentistry had left a void. Also, new block granting of the state water fluoridation program created a dental program void in the Centers for Disease Control and Prevention (CDC). Thus, I met with James Mason, CDC administrator. We agreed that the CDC should include a comprehensive oral health program within its disease prevention and health promotion mandate. CDC had the necessary funds, but not positions. Thus, I negotiated an interagency agreement between Dr. Mason and the Dr. Emory Johnson, director of the IHS, to use unfunded IHS positions at CDC. Dr. Corbin then set up the expanded program that, with hard work by many people and strong American Dental Association support, eventually became the CDC's Division of Oral Health.

In 1982, the Association of State and Territorial Dental Directors (ASTDD) was having problems with the loss of state water fluoridation grants. In its spring meeting, attending state dental directors, CDC fluoridation staff, and myself comprised just 23 souls. Many state dental directors didn't want to use their allowed "one national meeting a year" for this tiny assembly. I received the association's consent to have a combined meeting in which the chief dental officer's annual conference, IHS dental residency director's and resident conferences, and other dental public health groups would meet concurrently so that certain common issues could be covered in an expanded National Oral Health Conference. By 1995, the conference in Williamsburg, VA, registered more than 200 participants, and has been a dynamic meeting ever since.

Another pressing need in the early 1980s was to establish an ongoing national oral health surveillance system. Oral health surveys had begun in the 1950s, shortly after the national water fluoridation program was authorized. In 1951, two young men, Dr. James Kelley and Dr. Larry Van Kirk, were detailed by the Division of Dentistry to the National Center for Health Statistics (NCHS). By the early 1970s, both had retired and had not been replaced. Thus, national oral health surveys were discontinued and the dental public health community became blind in a critical area. A decade later, with the dental profession uneasy with its business in decline and with National Health Service Corps dentists seeming to compete in community practice, Dr. David Scott, director of the National Institute of Dental Research (NIDR), arranged for a special NIDR-supported child oral health survey. The survey found that dental caries rates had fallen dramatically when no one had been looking due to the widespread public exposure to fluoride.

Although the child survey gave the

dental institute considerable public attention during the 1980s, such surveys were sporadic, data were not easily available to all who would analyze them, and the effort was not clearly within NIDR's mandate. In 1986, the NCHS required a zero-based justification for all national examination survey components. Dr. Bill Maas, my resident assistant at the time, convened a select committee to advise what indexes would be needed and how data would be used. He developed a justification that was accepted by NCHS. Dr. Dushanka Kleinman, Dr. Phil Swango, and others within NIDR proceeded to develop a national oral health examination survey instrument and train examiners, getting the oral health component of national surveillance off to a scientifically sound start.

In 1981, the ADA House of Delegates passed a resolution requiring a new justification for every dental specialty. Dental public health was selected as the first specialty that would have to justify why it should continue to be a recognized specialty. Dr. Don Allen, the review task force chairman, was open in his antipathy toward dental public health's specialty status. The AAPHD, responsible for developing and filing the justification, was on the verge of bankruptcy (a different story best told by Joe Doherty, who saved it), so was incapable of quickly bringing people together to make its case. As luck would have it, at the very same time the chief dental officer needed consultation on important PHS oral health issues from the very same people who were needed to prepare the justification. Perhaps three times the group came to Washington, worked on the specialty application over the weekend, and then met with me on Mondays. The AAPHD justification was strong, Don Allen changed his mind as he learned more, and through the process he and I became good friends.

CDC, NCHS, ASTDD, and AAPHD-related activities are only four examples of a variety of ways the PHS office of the chief dental officer was able to help reestablish vitality in dental public health practice. There are other stories of this period involving health service research scholars, integrating oral health into the National Center for Health Services Research, establishing dental public health expertise and philosophy in other federal service dental programs, building a World Health Organization oral health manpower initiative for developing countries, establishing the Surgeon General's position on fluoride for EPA water quality standards, and so on, but these activities did not have as much influence on contemporary dental public health practice.

*Beverly Entwhistle Isman and Robert Mecklenburg*

## Recent Years

I retired from the PHS commissioned corps in 1988 and turned to helping the National Cancer Institute ensure that the dental profession would become competent and committed to reducing the public's use of tobacco and tobacco-related diseases and adverse health consequences. This work led to many interesting associations with tobacco control advocates, researchers, and governments globally, and provided a much-appreciated chance to continue working with numerous colleagues in dental public health practice. During the late 1990s, by acting part-time on behalf of varied organizations, I was fortunate to again work with Dr. Koop, also in independent public health practice, during a fight to keep the tobacco industry from gaining legal federal immunity from its past, present, and future misdeeds. The activity brought us to many members of Congress, into the White House, and to leaders of numerous nongovernment organizations. That experience, an entirely different affiliation with the American College of Dentists, and other consulting work, guide my concluding remarks.

## Mentors

As dental public health leaders move on and memories fade, new individuals must carry the leadership torch. John Knutson, H. Trendley Dean, and their peers were a generation before my time. Drs. Knutson, Waterman, Jordan, Trithart, and others became my exemplars and, in many instances, mentors. Such individuals possessed outstanding capability, integrity, and civility. They achieved positions when securing such appointments was quite difficult. The Great Depression of the 1930s and then the 1940s to 1970s war years with its doctor draft ensured that Public Health Service applicant ratios were very high compared to acceptances. Most individuals who secured a dental public health position were in the upper decile of their classes and possessed other exceptional merit characteristics. The last of this *crème de la crème* group included individuals such as Drs. Hershel Horowitz, Stephen Corbin, Robert Collins, William Maas, and Dushanka Kleinman.

The 1980s and 1990s saw the PHS broaden its range of talent. The loss of the doctor draft as an incentive reduced the size of the applicant pool. Many individuals were preselected for service during their freshman year of school for National Health Service Corps employment. This resulted in new commissioned officers coming in with unprecedented variability in their class standing. Federal cutbacks in training support, closure of the Marine Hospital programs that had provided basic PHS training and career development ladders, and phasing out of federal support for dental public health residencies became Public Health Service career disincentives. Turnover increased. I understand that there was a shift in selection and promotion criteria to favor genetic attributes. Time will tell if this was wise. PHS employees comprise a smaller part of dental public health workers than in the past. More personnel systems and more varied positions in a much broader array of organizations might be best led by dental public health workers coming from very di-

verse backgrounds as US culture becomes more diverse.

Worker diversity makes mentoring responsibilities more important than ever before. Mid-career and senior workers must possess an unremitting commitment to recruiting talent. Individuals of extraordinary intelligence, character, and initiative must be identified and actively persuaded to choose a dental public health career. Finding, recruiting, and mentoring young talent should become a habit, an ingrained element of daily life. No one will do it for us. Every learned profession, health discipline, and specialty of dental practice looks after its own in a highly competitive social environment.

## Beyond Ourselves

In addition to recruiting and mentoring colleagues, we have a larger role, to determine what we can do to preserve the integrity of society, civilization, and the environment. A Vatican Council once posed the question: "Is there a significant issue that is still unresolved?" Well, yes, there is. How about our living during and contributing to the greatest mass extinction in the past 45 million years? Homo sapiens has developed more intelligence than wit. Civilization and the ecosystem are at risk. You know the figures. Last winter a National Academy of Science committee reported that for the current world population to exist at US levels of consumption would require the resources of seven planets.

Politicians are not likely to lead the preservation of culture, biodiversity, and biosustainability, nor are those citizens caught up in popular trends or trapped into "lives of quiet desperation." Learned professionals can lead, for they have a relative abundance of quality information, analytical skills, integrity, and public respect, as well as sufficient self-assurance to be other-oriented. Dental public health workers can and should be among those who guide and inspire the public to rally around long-term substantial causes.

The John W. Knutson Award recipients might serve as examples of our commitment to a higher calling and to allegiance to the noble concept that the public and life on this planet are worth caring about. To be relevant, awardees need to be exemplars of your cherished ideals, a guide as you meet challenges and prepare for battles yet to be won. The thought of your selecting me as a recipient evokes profound humility and a sense of obligation.

In a quiet little park on the grounds of the Ohio State University, not far from the dental school, there is inscribed in stone a short poem called "The Torch." It was placed there in 1914 by the Mortar Board:

The God of Great Endeavor gave
me a torch to bear.
I lifted it high above me in the dark
and misty air.
And straightway, with loud
hosannas, the crowd proclaimed
the light
And followed me as I carried my
torch through the night
Till drunk with the people's
praises, and mad with vanity,
I forgot 'twas the torch that they
followed,
And fancied they followed me.

Then slowly my arm grew weary
upholding the shining load,
And my tired feet went stumbling
over the dusty road,
And I fell—with the torch beneath
me. In a moment the light was
out.
When lo' from the throng a
stripling sprang forth with a
mighty shout,
Caught up the torch as it
smoldered, and lifted it high
again,
Till, fanned by the winds of
heaven, it fired the souls of men.

And as I lay in the darkness, the
feet of the trampling crowd
Passed over and far beyond me, its
paeans proclaiming aloud,
And I learned in the deepening
twilight, the glorious verity,
'Tis the torch that people follow,
whoever the bearer may be.

Thank you for your kind attention.

*[Editorial Note: The original version of Dr. Mecklenburg's comments can be viewed on the APHA Website at http://www.apha.org/sections/newsletters/oralhealthwinter2002.htm.]*