What Have Teeth Taught Us about Culture? Practice, Patienthood and Ethics in the History of Dentistry and Public Health

Brian Dolan, PhD, Professor of Social Medicine and Medical Humanities, University of California, San Francisco

Abstract

Teeth cut across cultures. They transgress cultural boundaries but also define social boundaries. They provide information about what goes into the mouth, and what the mouth is appropriately used for. Scrutiny of teeth identified a new biomedical space to analyze pain, and created a new culture of medicine for such practices. This paper uses the evolution of dentistry since the 18th century to look at how our social and scientific understanding of teeth has shaped cultural attitudes about pain, politics, beauty and prophylaxis. It then raises questions about how these attitudes in turn create ethical contexts for the practice of dentistry around the world.

Introduction

This paper sketches the history of the creation of the professional identity of the dentist. It shows how, in the 18th century, the profession fashioned itself after the image of science in order to shed its associations with quackery and align itself with the prestige of natural philosophical inquiry. In the process, the mouth became recognized as a new site for specialized attention, and its medical management was linked to the health of populations. The move from a patient-centered philosophy of treatment to a population-based approach to oral hygiene—represented in 19th- and early-20th-century dental public health movements—formed a new ethical core to the profession's identity. This paper concludes by suggesting that the practical shortcomings of such movements, hindered as they were by political and commercial interests, did not signal the disappearance of this ethical core, but rather a re-transformation of a professional ideology toward the promotion of global health.

The Birth of Modern Dentistry

A good place to start our historical reflections is the moment often identified as the birth of modern dentistry. This takes us to 18th century Paris, where the surgeon Pierre Fauchard published a three volume treatise that introduced the very term "dentist": *Le Chirurgien-dentiste, ou Traité des dents* (1728). It was a timely moment. French medical academies were pioneering a scientific approach to the study of medicine and patho-physiology. And with regard to oral health—at this time more than ever—people's mouths were begging for

attention, so to speak. The consumption of sugar, coffee and chocolate helped contribute to a new disease ecology, as did the administration of mercury-based treatments for the "new world" disease, syphilis, that further damaged the teeth and gums.

Historians of science and medicine such as Roger King, Colin Jones, and Christine Hillman have pointed out that one important consequence of Fauchard's work was the redefinition of the culture of dentition. That is to say, by giving the practitioner a new name— the dentist—and writing a multi-volume work that spelled out the anatomical as well as prescriptive treatments for practicing dentistry, Fauchard helped to professionalize the discipline. As one historian put it, "A scientific culture of mouth care, circulating in print, was establishing itself on a terrain formerly within the realm of custom and oral tradition."[1] What was once a secretive craft, passed on to apprentices through word of mouth (it is hard to avoid the pun), was now manifest as a science inscribed in the pages of a learned book ostensibly available to any literate person. This was characteristic of the processes of legitimizing science in the Age of Enlightenment: to circulate its tenets and procedures through print with both textual descriptions and copious illustrations.

Practical textbooks became an important feature of the educational landscape at this time. Treatises by Joseph Hurlock, *A Practical Treatise upon Dentition* (London, 1742), Thomas Berdmore, *A Treatise on the Disorders and Deformities of the Teeth and Gums* (London, 1768), and John Hunter, *The Natural History of the Human Teeth* (London, 1771) and *A Practical Treatise on the Diseases of the Teeth* (London, 1778), provided the most exact and precise descriptions of the proper treatment of irregularities of the teeth.[2,3] Lectures on dentition and the oral cavity were included in anatomical and surgical lectures given to medical students in the late 18th century, but formal lectures on dentition were first developed by Joseph Fox at Guy's Hospital in London that started in 1803 and continued until his death in 1816. With a canon established and instruction provided, an appropriate intervention on an individual's oral health was now linked to a learned, literary and cosmopolitan culture in contrast to earlier associations with traveling quacks and mystical healers.

So what was special about the creation of the specialty of the dentist? The emergence of a new professional identity did not immediately revolutionize the practice of dentistry. However, practitioners now had a better understanding of facial anatomy; they developed new *theories* (not necessarily new *therapies*) about the causes of tooth decay, in part shifting from the idea that it started as an internal inflammation of the pulp and worked its way out to investigating external

acids that worked upon the teeth. By the late 19th century, this had worked its way into modern chemico-parasitic theories regarding bacterial effects on caries, pioneered by the American chemist-turned-dentist, Willoughby Miller, with his 1890 publication *Micro-organisms of the Human Mouth* (Philadelphia, 1890). The turn toward a scientific dentistry in the 18th century also resulted in new dentures, particularly "incorruptible" ones made of porcelain such as those made by the famous Wedgwood pottery, manufacturers of fine jasper vases and tea cups. Procedures for the cosmetic correction to mal-aligned teeth were also pioneered in Britain by Joseph Fox. In addition to his position at Guy's Hospital, he was vice-president of the Royal Jennerian Society, the institute for vaccination for the elimination of smallpox founded by his friend Edward Jenner, and a member of the Royal Institution, where Humphry Davy was professor of chemistry. Fox was part of the group of London chemists who in the early 1800s performed experiments on respiration that included breathing the new gas of nitrous oxide which, in a well-documented history, is later used as an anesthetic, first in dentistry.[4] But Fox's 1803 publication, *Natural History of the Human Teeth*, is considered the first scientific treatise on orthodontics, that was later developed by the distinguished American dentist Edward Hartley Angle, who at the end of the 19th century published his classification of malocclusions and went on to found the Angle School of Orthodontia in St. Louis.[5]

There may not have been a therapeutic revolution in dentistry until long after the profession was established, just as there was none in medicine as a whole until the "laboratory revolution" at the end of the 19th century; but what I merely wish to point out is that the early identity of dentistry was aligned with the principles of scientific inquiry.[6] It began to define the mouth as a more complex domain of investigation rather than just a home to bad teeth. Its practitioners started speaking a philosophico-medical language that was familiar to a fashionable, urban clientele. However, cosmopolitan culture in the 18th century was small. The majority of Europe's population lived in the countryside. In the provinces, as Christine Hillam has shown in her study of dentistry outside of London in the mid-eighteenth to the mid-19th century, those who worked on teeth "emerged from the ranks of the watchmaker or goldsmith, others from the world of the hairdresser or patent medicine vendor. There was no one to give these enterprising men a proper training; they were self-taught or had picked up hints from the advertising leaflets of their rivals. Subsequent generations considered them very ignorant and so, of course, they were by later standards."[5] Indeed, a dentist in 1877 commented

that "In London, at the commencement of the century, there were not, I believe, a dozen Dentists … [while] in the provincial towns they had no existence."[7] He was being rather strict about the identity of the dentist, but it is notable that the problem of identity was compounded by the fact that there was no regulation of the practice of dentistry. In England, the General Medical Council did not establish a Dentists Registry until 1879, that was meant to restrict the practice of dentistry to graduates with a License in Dental Surgery issued by the Royal College of Surgeons. Few were prosecuted for illegal practice, however. It was not until the Dentists Act of 1921 that the situation changed.

But, referring back to the earlier period, if dentistry—one of the new scientifically-defined medical specialties of the 18th century—was essentially city-based and established its authority among the learned minority, what exactly did this mean for the contemporary concern over the oral health of the majority? The emergence of the dentist—a product of the rise of scientific medicine—tells us something about the culture that puts value in the languages of science. Patrons of science were elite, and paid handsomely to be informed (if also entertained, in the appropriate settings) about the secrets of nature unveiled through the experimental investigations of the "natural philosophers," who in the 19th century would come to be called scientists. Their investment extended to medicine, where physicians were mainly paid to tell their patrician patients what they wanted to hear. The point is that as medicine and dentistry become more associated with science, they enter with science the privileged arena of credulous knowledge catered for the interests of the rich. Fauchard, who coined the word dentist, died a rich man owing, his biographers say, to his lucrative Parisian practice. However, the historian of medicine Colin Jones points out that a contemporary of Fauchard's also died rich, despite falling into the category of a mountebank of the old regime, collecting fees for removing teeth while traveling the countryside. His argument is that we should not read scientific dentistry as an inevitable "triumph" over alternate forms of treatment. But Jones does not pursue the patients' point of view. It may be, as I have already suggested above, that the new dentist was—at least throughout the 18th century—unable to do much beyond what quacks could do. So what cultural forces are at work to differentiate them? More importantly, how does this differentiation work to create different kinds of patients with different views about the practice of dentistry?

As in many areas of medicine, the creation of a new kind of medical practitioner summoned the corollary creation of a new category of patient. The new dentist of the 18th century distinguished himself from earlier tooth-drawers by emphasizing preventive therapy (advice on oral hygiene) rather than dexterous tooth extraction. But that information is of service only for the right kind of patient: those who could afford and follow the advice. The moment that dentistry was obtaining parity with other scientifically-informed professions was the moment that disparity was created among the patient population, at least in terms of which mouths became the object of scientific intervention. The way that toothache was treated depended both on who the practitioner was and who the patient was. The creation of these different cultural categories—the culture of the scientific dental practitioner and the culture of the rural, as opposed to the cosmopolitan, patient—moves beyond an historical narrative to engage with fundamental ethical questions about healthcare. I would like briefly to reflect on the fashioning of "the dentist" and "the patient" as a way of illustrating how these different cultural categories emerge and how they come to occupy different ethical worlds.

Patienthood

Specialization in medical practice is a thoroughly examined topic with contributions from economic history, medical sociology, and from professional practitioners themselves.[8,9] But the emergence of the dentist as a specialized medical practitioner seems not to fit very neatly in conventional analyses. Dentition was not merely an outcome of the division of labor that inevitably branched off from increasing volumes of medical knowledge about the body, but was also concerned to create a product. That product was not just a healthy mouth, but a happy patient. In interesting ways, dentistry emerges as a medical specialty that simultaneously works to compartmentalize the body, to focus only on the mouth, while also transforming the social consciousness of the patient. In fact, some of the (albeit rudimentary) technologies of early dentition created the very category of the dental patient while opening the door for people to voluntarily become such patients.

Christine Hillam makes an interesting claim about 18th century demand for dental services. "Dental practice profited from (and contributed to) the increased fixation with self-image, for few medical or cosmetic procedures of the day could have such an evidently beneficial effect on self-presentation as dental treatment at a time when the acquisition of gentility assumed such importance."[7] Indeed, as an English traveler to France observed in 1783, "There are two objects of which French ladies are peculiarly solicitous to make a display, their eyes and their teeth: in the brilliancy of the first, and the whiteness of the last, they

think no woman can surpass, if equal them. Of late years however, the English women are become more careful of their teeth than they were used to be ….”[10] Assessing contemporary cultural attitudes about the transformation of the mouth from grotesque site—owing to which teeth were practically never represented in portraiture—to a site symbolic of technological triumph, purity and brilliancy, helps us to understand the humor of Rowlandson as well as the self-pathologisation of patients.[1] As we learn from the psychology of cosmetic medicine, what is being “treated” is often a complex psychosomatic attitude linked to self-esteem and sexuality rather than organic pathology.[11]

The 18th century dental patient is akin to a 20th century cosmetic surgery patient, where certain socioeconomic conditions and a cultural privileging of one kind of faith in medical intervention come to shape the clinical encounter. This analysis fits with our understanding of the medical marketplace. It helps to explain how Paris became the leading production center for toothbrushes, for instance.[12,13] This whole cultural context helps illuminate the dynamics of the emergence of dentistry and the social conditions to which dentistry was responding. It is easy to assume the pre-existence of a pathological state—a disease—about which there is eventually enough information for a practitioner to specialize in its diagnosis and treatment. Yet, as the medical historian George Rosen argued in his book on the creation of the specialty of ophthalmology, there are conditions separate from the existence of a disease that give rise to a medical field, namely relating to professional turf wars and technological imperatives.[14] More recently, the medical sociologist Sarah Nettleton referred to the emergence of dentistry in a more theoretically-framed way. “That is,” she writes, “that mouths, dental diseases, and teeth are not pre-existent natural entities, but rather objects realized through the discourse that surrounds them.”[15] Not dissimilarly, the historian Colin Jones posited that in the 18th century the “...mouth was becoming the imaginary site around which revolved both a nascent academic industry and a new and broader commercialism.”[1]

These claims might seem odd. What does it mean that the mouth was not a “pre-existent natural entity” or that it was an “imaginary site”? Their words are misleading. It is hard to argue the non-pre-existence of the mouth or claim that it is imaginary. What they are suggesting, however, is that a pathological condition only becomes the object of medical attention—is only recognized as existing—once the medical profession comes to “imagine” or develop the language and tools to define and analyze it.[16] And because pathologies bring people with them to the clinic, people become transformed into patients. But by extension of this theoretical framework, neither is the patient a “pre-existing natural entity.” Some people decide to become patients while some people don’t. Sometimes it is about money; sometimes it is about fear; sometimes it is about vanity. As sociologist David Armstrong has written, “The transition from person to patient did not signify the simple and absolute distinction between health and illness; people made their own personal judgments and decisions about illness—a judgment that might well not accord with medical opinion.”[8] Whatever the circumstance, “patienthood” is an identity defined through social relations, and as such can be examined as a cultural category separate from a pathological entity such as caries or crooked teeth.

The idea that patients are “constructed” as categorical beings is not new: scholars have long demonstrated how schizophrenic, autistic, hysterical, etc., patients become labeled by medical specialties that often redraw the boundaries of illness and disease. The different editions of the *International Statistical Classification of Disease and Related Health Problems* (ICD) or the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) are always doing the job of what the philosopher Ian Hacking calls “Making Up People.”[17,18] One reason I find the category of the dental patient interesting, however, is because there *should be no* such category. As suggested, categories are necessarily about inclusion and exclusion, yet every single person in the world who has teeth should be a dental patient. Whose teeth never require attention? Can such a purview—an extension of the “clinical gaze”—be claimed for any other medical discipline? Regardless of whether the person “volunteers” to become a patient or not, everyone should have the right to be seen by a dentist. I suggest that it was this realization—that shifted attention from a kind of person to an entire population—that established the core ethical mission of dentistry.

This consciousness developed in the 19th century in the context of government support for public health reforms. It is not until one *can* do something that one realizes one *should* do something. In the 1830s, dentists became engaged with charitable institutions. In London, dental dispensaries were established such as the London Institution for the Diseases of the Teeth (1839) that provided free dental treatment to nearly 6,000 poor in its first four years. Other dispensaries followed elsewhere in London (1855), Birmingham (1858), Edinburgh (1860), and Liverpool (1860).[19] In 1841, J.L. Levinson wrote an appeal in the *Lancet* seeking to establish a bond of association among all the dentists who still practiced for their individual interests, calling for a Faculty of Dental Surgeons and framing a code of ethics. Some inspiration for this came from developments in America, where the first dental journal,

American Journal of Dental Science, was launched (1839), followed the next year by the first dental school, the Baltimore College of Dental Surgery, and the American Society of Dental Surgeons (both in 1840).

One objective here was to start regulating dental practice for the protection of patients as well as to promote a professional identity in order to gain the trust of the public. Some thought that dentistry had limited public impact because it had such limited visibility in the hospital. Keeping the practice geared toward wealthy patients was not in the interests of the profession. As one writer in the dental journal *Forceps* wrote, "Diseases of the teeth are not confined, either to the paying orders or to the metropolis and large provincial towns, where dentists are more plentiful than blackberries in their suburbs, but occasionally affect inhabitants of the country, where they of necessity come under the care of the general practitioners, and the poor of the metropolis, who must go to a parish surgeon who knows little of the subject, or to a hospital where the student knows less."[20] Yet collectivism and political action were not immediately forthcoming. Because of the absence of any reference to dental hygiene in the *Report of the Sanitary Conditions of the Labouring Population of Great Britain* (1842) or the landmark Public Health Act (1848), few perceived an urgency to the reform and purview of dental practice.

In many ways, the medical and political scene was set; the ethical agenda prescribed. Yet, in the words of medical historian Edna Robertson, dental public health was a "dog that didn't bite."[21] Public health policy, it has been argued, was mainly in the business of fighting infectious, life threatening diseases.[22] Since dental diseases were not recognized as affecting mortality rates by the medical profession, officers of health or indeed the public, there remained an indifference to dental community service and state provision. As the dental advocate from Cambridge (who opened the first children's dental clinic in the UK in 1907) Dr. George Cunningham wrote in 1887, "It is our duty as well as our right to agitate for the due recognition of preventive and remedial dentistry as an essential part of state medicine and public hygiene." Yet he grew despondent when he read the lectures on public health offered by the Medical Officer of Health for Glasgow, James Burn Russell, that talked at length about sewers but said nothing of the mouth and teeth. In a rather measured tone a few years later, Cunningham reflected on the progress of public health reforms, noting that "The growth of the science of public health is certainly one of the most notable features of our age, but the importance of the teeth as affecting health has not yet been adequately recognised."[23]

At the beginning of the 20th century, however, things looked like they were starting to change. The call was renewed that "dental science exists not for the dentist but for the people."[24] In 1910 George Newman, Chief Medical Officer for the Local Government Board of England, noted that "the centre of gravity of our public health system is passing in some degree from the environment to the individual and from the problem of outward sanitation to problems of personal hygiene."[15] Indeed, attention to what went into the body rather than what went out was an important feature of preventive medicine. As M.F. Boyd wrote in his 1920 book, *Practical Preventive Medicine*, "the mouth and nose are the portals of entrance of the greatest importance from the number of infective agents which are introduced through them."[25]

Sarah Nettleton discusses much of the early 20th century interest in dental public health. She draws on the work of the French philosopher Michel Foucault who is known for his theories about the relationship between knowledge and power. Put simply, the more knowledge one acquires about an object the more power one has that affords greater degrees of control over the object. He used medical knowledge about the human body as one example where he interprets the promotion of public health as an apparatus of state power and control over the population. He plays on the pun of the word "discipline" to mean a collective order of specialized knowledge (an academic discipline) and the act of imposing order on a subject (like disciplining a child). The widely understood moral of Foucault's message is that we should be cautious and critical about expert knowledge, its normative judgments about the objects of its investigation, and its power to control things. Nettleton applies this to dentistry and can be interpreted to conclude that the reason people fear the dentist is because of its "disciplinary power."[26] Fear, vulnerability and control are often leitmotifs of dental folklore. While not taking a Foucauldian approach, the cultural historian David Kunzle points out that in most representations of tooth-pulling produced from the seventeenth to the nineteenth centuries, it is the poor who are depicted as patients. He calls this an act of "disempowering and humiliation of those already powerless, humble, and, *ipso facto*, innocent."[27] If the analysis is not about political oppression, dentalphobia might then be implicated in analysis of sexual oppression. Jill Rait, the professor of historical theology at Duke University, reminds us that in Christian theology the *vagina dentata* has been subjected to Jungian interpretation to represent "the destructive side of the Feminine, the destructive and deadly womb, [that] appears most frequently in the archetypal form of a mouth bristling with teeth."[28]

But I digress. Rather than trying to graft the practice of dentistry onto analyses of disciplinary power relations, it fits our purposes better to examine the ways that teeth were made into an objective measure of the health of the population. That is to say, we need to inquire how the mouth attained the same status as the sewer—as the site of important public interest.

A Site of Important Public Interest

New models of epidemiological data collection and various movements to survey and assess the health of the population, particularly school children, led to increased awareness of the need for oral health intervention. Dental epidemiology was used in early 19th-century Britain to ascertain the age of children working in factories—notoriously difficult information to obtain at the moment of factory reforms to regulate child labor. This appears to be one of the earliest methods whereby teeth were used as an index for determining other biological information—in this instance, maturity.[29] Toward the end of the 19th century, a dentist from northern Britain collected data regarding the prevalence of caries among children and started a campaign for compulsory dental inspection in schools, that eventually led to the School Dental Service in 1898.[30] This led to a massive increase in epidemiological data on dental diseases across Britain from which a report by the Medical Research Council in 1925 was able to observe an uneven distribution of the prevalence of caries. The authors of the report speculated that the condition of the children's teeth could be linked to "some quality or impurity of the drinking water," in accord with an observation made by Frederick McKay of the US Public Health Service who was looking into the problem of mottled enamel in teeth. These questions and data led to Harry Churchill's chemical investigations that, in 1931, identified those "impurities" as the presence of fluoride, leading to another well-known history.[31]

Oral hygiene was further recognized as a measure of the health of the British population by the National Insurance Beneficent Society. This institution represented the Friendly Societies that were asked to administer the workers' compulsory health insurance scheme established by the National Insurance Act of 1911.[32] In 1921, the Society solicited the help of dentists to provide inexpensive services, noting "the ill effect of bad teeth upon a person's general health."[33] Thus, the medical management of the mouth was a cost-saving strategy, recognizing that bad oral health portends more expensive illnesses.

In America, charitable interests were also a driving force in the evolution of dental public health. As Clifton and Lois Dummett have shown, the Illinois dentist Charles Edwin Bentley was a pioneer in the Oral Hygiene Movement of the late 19th century. He directed his attention to promoting educational programs in public schools and stressing the importance of oral hygiene in relation to child welfare. He agreed with others, such as Dr. George Hunt, editor of *Oral Hygiene* and dean of Indiana Dental College, recognizing health disparity as a consequence of economic and sociologic conditions of American society and endorsed plans for the state sponsorship of free dental clinics. He called upon the dental profession to oversee these clinics as a matter of civic responsibility: "...for any group is of value only in proportion to its contribution to the public welfare," wrote Bentley. "Our work, heretofore, has been largely confined to developing a culture of our own, let us grasp man's higher privilege and devote our earnest efforts to the benefit of our fellows."[34]

This sentiment, what the historian of the American Dental Association Robert McCluggage called "the idealistic motive" and what I am referring to as the "ethical core" of professional identity, was echoed by others. "The primary obligation of the profession is public service," stated Homer C. Brown, President of the ADA in 1913. The editor of the Association's *Journal* repeated the message, writing that "Our duties relate to the community as well as to the individual."[35] Indeed, others were more explicit in putting the ethical responsibility to promote education and allegiance to the improvement of the human race at the center of a professional identity. In a number of speeches and publications on the status of medical and dental education offered around 1927, Frederick Waite, a medical professor at Western Reserve University declared: "A profession, especially one of the learned professions, is different in its ethical status, from a craft, a vocation, or a business…. The guiding idea of a profession should be altruism, the giving of the best service permitted by the particular qualifications of that profession."[36]

Clifton and Lois Dummett once wrote that: "Traditionally, the dental profession took pride in its entrepreneurship and its independence," and they wrote of the profession's "confidence" and "self-reliance." But in the early 20th century with the increased attention in "social aspects" of dental practice, particularly relating to public heath, there was newly-perceived need to reform the professional identity in order to win over the trust of the public. By the 1940s, this was of national importance. The Great Depression, the world wars, and the calculation that millions of people were not receiving adequate medical care and dental treatment stimulated direct action by President Truman. In 1948 the first meeting of the National Health Assembly was convened to investigate ways that health services could be

extended to all US citizens through federal health insurance. As many will know from another Clifton and Lois Dummett book, Harold Hillenbrand was called upon to represent dentistry.[37] Hillenbrand was serving as general secretary and executive director of the American Dental Association, and he assembled a team of academic and private practice dentists to write their section of the final report. Recognizing the importance of preventive dentistry but noting that twenty two states had no public health dentists, the report made a number of recommendations about community dental health education and the need to recruit more dentists to the profession.

Yet, the Oral Hygiene Movement met with various forms of professional and social resistance from those who viewed it as paternalistic and an encouragement to pauperism. Even in a recent American textbook, public health dentistry is still referred to as "a new subject."[38] Just as with the case of Britain in the 19th century, the dental public health movement in early 20th-century America turned out to be a "dog that didn't bite." Why not? And what does this say about the ethical core around which the profession attempted to establish its identity?

Three main problems seem to have stood in the way of the social mission that was "dental public health." First, in some respects, the challenges and short-comings of fulfilling the ethical mission of providing dental public health is a consequence of dentistry's own success. It amounts to what I call the "professionalization paradox." Dentistry simultaneously built a convincing case that it was necessary to pay attention to the oral health of every individual and therefore it was a necessary component in the health care of the population; but in order to recruit the practitioners to meet this demand, the social status and prestige of dentistry needed to be elevated. It is difficult for a medical profession that requires such lengthy and expensive specialized training to be molded in the form of public service. This was a challenge recognized by the American Dental Association. In the words of its historian, "the Association has tried to vindicate the professional and scientific claims of dentistry upon the public while laboring to raise the social and professional level of its practitioners."[35]

Second, many efforts to promote awareness of oral hygiene met with derision from critics who smelt interest-laden commercialism. There was an ethical tension in the public promotion of its own knowledge and services. After Charles Edwin Bentley offered a speech on the importance of establishing dental examinations in public schools, an incredulous Chicago reporter inquired about "what graft" lay behind such an apparently philanthropic gesture.[34] In the 1920s, the American Dental Association rejected support for the promotion of public health publicity materials by the Dental Welfare Foundation because its members were manufacturers of dental education materials, and they later even rejected disseminating their message through paid advertisements in the press.[35]

Finally, its association with the politics of health insurance tied it to the concerns of private practitioners for their own future. In the 1940s, when President Truman rekindled the debate about compulsory health insurance (after Roosevelt gave up on it to save Social Security), the American Dental Association joined the AMA in issuing warnings proclaiming that this would amount to the end of private practice. "This legislation is a threat to the American way of life," thundered ADA President Walter Scherer. "Our states' rights, our personal freedom, the sacred human relationship that has always existed between professional men and their patients, is being threatened." This was treading on delicate ground, however, lest the public interpret this sort of reaction as being "anti-social."[35] Following the second quashing of the compulsory health insurance scheme and the interest shown by the US Public Heath Service in community fluoridation programs, the whole approach to (and ideology of) dental public health seems to have assumed a different form. In 1959, Robert McCluggage wrote that the American Dental Association had a "policy of placing responsibility for local problems in the hands of the local profession."[35]

At that time it may have looked like regionalism was the likely model for dental organization and public health awareness. But over the course of the second half of the 20th century, a new consciousness has emerged and coupled with a new calling for the profession; namely, global dental health. Alongside the concerns over public health and dental education articulated by the ADA, another dental organization had been developing its own approach to the management of dental diseases: the International Association for Dental Research, founded in 1920. In a fiftieth-anniversary publication of the IADR published in 1973, the writers called upon its members to finally realize the full impact of its own name and truly become an "international force" in dental research.[39] This year, the current president of the IADR, Deborah Greenspan, Professor of Oral Medicine at UCSF, reaffirmed the call. "Let us continue to [really] put the 'International' into the IADR," she said. In her talk, titled "Oral Health is Global Health," she wondered whether the profession was focusing enough of its attention on efforts "to control oral disease globally," or whether health problems were being compartmentalized. "In most of the countries of the world," she wrote, alluding to the enormity of the challenge, "manpower or capacity is woefully inadequate for the task."[40] Indeed, it is not at all dissimilar to

the difficulties that faced the mission of dental public health a century ago. There were challenges that we can learn from by examining this history. Perhaps the most important message is that for any profession to develop an identity for itself that matters to the world, it needs to be built around that core ethical principle of providing service to humanity. Greenspan's call reminds us that this is still the core professional ethic in dentistry.

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