Trends in Dental Public Health in the United States and Canada

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DENTAL public health programs—if they are to have any meaning—must be a forceful expression of the interests and the needs of people. They cannot be planned, talked about, or judged apart from the social, intellectual, and economic context in which they exist. Over the last 15 or 20 years that context has been vastly altered. As a result, both the scope and content of dental programs also have changed.

The most important of the broader social trends influencing the dental and public health professions in both the United States and Canada is, without question, the gradual acceptance of increasing responsibility on the part of government for the health and welfare of its citizens.

Evidence of this social movement, which has found expression in a series of legislative proposals and actions, can be seen most clearly in Canada, particularly in its western Provinces. There social legislation affecting health services has been broadened rapidly during the last decade. The Hospital Insurance Act and the Saskatchewan Medical Care Insurance Act are the best known examples.

In both countries the influence of community forces on the health professions is increasing steadily. Nothing which has happened in the last 30 years is of greater significance or of more importance to dental public health. This increasing influence of community forces clearly means that the public views good health care as a right, not a privilege. It means that on this continent neither the medical nor the dental profession can arbitrarily organize and control its practice without due respect for the wishes and the needs of the community. It means that, inevitably, there will be changes in the methods of organizing and delivering health services, including dental care.

These changes in social philosophy have altered the role of the public health dentist as well as the attitudes of the dental profession toward that role. Where once the public health dentist was looked upon with some suspicion, now he is more likely to be seen by the dental profession as a friend and ally in a rapidly changing world.

Thoughtful leaders within the profession realize that the trend toward more formal planning for social purposes is not a plot fabricated by the public health profession but a reflection of a basic change in the attitudes of the people. The public health dentist, with his understanding of professional problems and his competence in community affairs, can be a decisive influence in the development of health programs which serve the best interests of both the public and the dental profession. That is exactly the role that today's public health dentists are trying to assume.

Against this background of major change in society's attitude toward government and professional attitude about public health, I should like to review some specific trends in dental

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public health on this continent in order to show what we are doing and why and how we are going about it.

Professional Manpower

The first trend in public health practice is the increasing concern by health agencies about the broad problems of professional manpower. A few years ago, when we spoke of manpower, we were referring to a problem whose outline was only beginning to emerge. Because population growth in both Canada and the United States was out of all proportion to growth in the number of practicing dentists, we knew that we were headed for trouble.

We recognized, however vaguely, that existing levels of supply were substandard. They passed as adequate only because the large majority of those in need of treatment seldom saw a dentist. We believed it foolish to assume that future levels of dental demand could either be permitted or expected to remain unchanged.

The first efforts by health agencies to explore the manpower problem were designed to develop a realistic formula for long-range projections of the need for dentists. The formula was developed, and today we not only know approximately how many dentists we must train to pace population increases but we also understand more clearly the impact which economic growth and such social changes as urbanization and higher educational levels have on dental demand and dental manpower requirements.

What we know is not encouraging. Simply to maintain current ratios, both Canada and the United States must increase markedly the numbers of dentists they train. Public health agencies are therefore no longer concentrating solely upon the demonstration of a need for an increase in professional resources; they are actively engaged in the practical business of meeting that need.

There is, first of all, an intensification of effort in both Canada and the United States to build additional training facilities—the equivalent of some 20 larger-than-average schools for the United States, a near doubling of present capacity for Canada. With this expansion, Canada will be able to improve her supply ratios somewhat. The United States will be able to avoid any further decline in relative supply.

In the United States, the Department of Health, Education, and Welfare is sponsoring legislation which would authorize Federal Government grants for the construction of dental schools. The American Dental Association, the American Association of Dental Schools, and other professional organizations have testified before Congress in favor of this legislation. The Canadian Dental Association, in its brief to the Royal Commission on Health Services, has recommended the construction of four new schools and the expansion of several others. In each country the dental profession, in recommending and supporting Federal aid, has served notice that school expansion is not a need which should concern only the profession. The public at large must share this responsibility, a change the public seems willing to accept.

What else needs to be done? Obviously the available dental manpower will have to become more productive. One way of accomplishing this objective is to make greater use of auxiliary personnel. In the United States, the Public Health Service has been working closely with the dental profession and dental educators in teaching student dentists how to work with chairside assistants. We began with a few experimental projects because we had to learn what should be taught and how to teach it. These projects were eminently successful, and through a system of support grants, almost all U.S. dental schools now include in undergraduate programs training in the use of chairside assistants.

Yet we have never agreed on the nature or the extent of the assistant's role. What should we train these young women to do? The answer to that question cannot be given simply in terms of our own personal preferences and prejudices. What we say must be a measure of the future, not the past. The Commission on Survey of Dentistry puts it this way (*1a*): "The full contribution of auxiliary personnel to dental practice will not be fully realized merely by increasing their numbers. A careful reexamination of the functions of the hygienist and the assistant is in order. However reluctant to do so, the profession should analyze the dentist's

technical procedures and determine those that can be delegated to lesser trained personnel."

I believe that the profession is ready to support some significant changes in the functions of auxiliaries and this itself is a significant trend. Consider the fact that a little more than a decade ago, the dentists in this country abruptly terminated an experiment to evaluate the usefulness of the auxiliary that New Zealand calls the dental nurse. Yet, today it is the official policy of the American Dental Association to encourage experimentation with the duties of auxiliaries. There has been a parallel change in attitude in Canada, where the dental association, pointing to "the veritable impossibility of a major improvement" in the dentist-population ratio, regards an extension of the auxiliary's duties, particularly the hygienist's, as an important ingredient in manpower planning. These policies are an official and intelligent admission that there are tasks performed by the dentist which could be performed just as well by someone with less education.

In view of the legislation authorizing experimentation with hygienists' training in Canada, with the formal training of assistants beginning here, and with the building of several new dental schools a very real possibility in both countries, we should be acting more incisively upon that admission. For any significant redistribution of duties will obviously affect what we teach and where and how we teach it. Our future schools and their curriculums should be designed accordingly.

Because the definite trend toward a general manpower shortage is possibly one of the most serious dental health problems of our times, it has become, and rightly so, the focal point of a great deal of public health activity. But some particular shortages also demand careful attention. These shortages will not be automatically solved by an increase in numbers.

There is a shortage of dentists in rural areas. Some more remote sections of Canada and the United States have no dentists at all. Dental care may never be available in such areas unless special effort is made to attract a resident practitioner or to provide, as an alternative, the services of traveling dentists in mobile units.

The use of traveling dentists is standard in several Canadian Provinces. In the United States this practice has been given an interesting and valuable twist: in some areas, mobile units owned by the dental society are manned by private practitioners. But the best solution is obviously the resident practitioner. The question is how to recruit him for areas offering little in the way of cultural fringe benefits.

Canadian dentists propose a possible solution. They would have dental schools give preference to qualified students from rural areas. They also suggest bonuses for dentists who agree to locate in areas which currently have no practitioners. Intense student recruitment programs by local dental societies is another possibility, one that a Canadian society has tried with marked success.

Dental health programs, especially those at the State and local levels, have been hampered by shortages of both men and money. Canada also is faced with a similar situation. The people in each country pay a high price for this brand of economy. For many of the programs which could materially reduce the incidence of dental diseases and the pyramiding of unmet dental needs continue to be no more than modest miniatures of the real thing.

Research in Dental Public Health

This brings me to the second trend which can be identified. Happily, it is possible to say that the people in both countries are far more aware of the problems in dental public health and more interested in seeing them solved than they have ever been before. The dental profession has played a leading part in arousing their interest and concern. Public health agencies and the Canadian and American Dental Associations have pointed up the inequities which exist between the budgets allocated to dental activities and to those of the other health sciences. In both countries, independent study commissions established to assess the status of dental health have strongly recommended that official health agencies at national and State or provincial levels expand and extend their dental public health programs.

One sobering aspect of current dental public health practice is the almost total neglect of research in methods of program operation and administration. In the last 10 years, there has

been a tremendous increase in basic and clinical research in dentistry. In 1962, more than $17 million was allocated to the National Institute of Dental Research alone for support of intramural and extramural research and research training, more than 24 times its allocation in 1952. More than 140 institutions are receiving support from the National Institute of Dental Research for research, training, and fellowships. Yet almost none of this increased emphasis has been directed to research in public health practice.

This is not a problem to be dismissed lightly or excused on the basis of first things first. Our real reason for being in public health is to put the findings of basic research to work for the benefit of the public, to use knowledge with the greatest effectiveness in the shortest possible time. If we fail, then much of the point of learning is lost, and the public is less than well served.

As an example, through basic epidemiologic research we have the controlled fluoridation of public water supplies, a safe, economical, highly effective preventive for dental caries. Yet over the last few years, efforts to institute community fluoridation programs have failed more often than they have succeeded.

We do not really understand why this should be true. And though the future of fluoridation depends upon our knowing, we have not, as the Commission on the Survey of Dentistry points out, made much of an effort to learn (*1b*). Only one university and one public health agency are engaged in any extensive research to discover the reasons for nonacceptance or how fluoridation can be effectively promoted.

Basic and clinical research will certainly continue to increase. We will be given new methods of prevention and control as a consequence. If variations on the pattern of acceptance of fluoridation are not to occur with each new discovery, then it is incumbent upon us to expend much more time and effort on research in program administration, community health practices, and the whole broad field of communication.

The absence of progress and the lack of a discernible trend in dental public health research in this instance is of real concern, and as significant as more desirable developments. A larger portion of all future dental grants must be devoted to research in public health. I would like to see the establishment of strong college courses, postgraduate and continuation training, and workshops in research methods in community health practice. I would like, in short, to see our ability to use knowledge keep pace with our ability to attain it.

The complexities of modern society are creating dental problems too big to be solved by any one group, too serious to be overcome by remedies out of the past. That is why public and private dental organizations are working together in planning coordinated corrective and preventive programs. That is why dental public health is committed to action—action which either supplements the efforts of private dentistry or strikes at problems whose solutions lie beyond the prevailing patterns of dental practice.

Once, in any effort to bridge the gulf between need and demand for dental services, the role of dental public health was largely that of health educator. We simply tried to improve our techniques of teaching good health habits and of convincing people that adequate dental treatment was essential to their well-being.

Today we continue to be educators to the public, but this is only one facet of our responsibility—not its sum total. However well they learn the value of dental treatment, people cannot profit from learning if there is no care available to them. Many are sick; they are old; they are poor; they are emotionally disturbed. Dental care remains beyond their reach. Since there are people like this, there must be public agencies willing to accept the responsibility of providing dental care. Health agencies are already providing services to many beneficiaries of public welfare, although too often the majority receive only emergency care.

We have made notable progress in developing the treatment techniques needed for the chronically ill and aged. We are conducting prototype programs for the care of handicapped children, the victims of cerebral palsy and the mentally or emotionally disturbed. There is a trend on the part of community and State public health agencies to offer continuing care programs for all such disadvantaged groups on a communitywide basis.

But millions of people in the United States

are neither poor enough to qualify for public assistance nor yet able to pay readily for the dental services they require when they require them. It may be that the great majority of the financial in-betweens in this particular group can be brought within the pattern of private practice through one of the systems of prepaid insurance for financing health care. Hospital and surgical insurance are already an American commonplace, so much so that most people, whatever their income bracket, have coverage of one kind or another.

Dental Prepayment Plans

So I come to the last trend I wish to discuss, a trend barely discernible, yet becoming clearer each day. Dental prepayment plans are relatively new, and they still lag far behind medical coverage both in the number of plans available and in the number of people enrolled. Ten years ago, coverage for dental care was almost unheard of. Today, 876,000 people are enrolled in private plans offering continuing services, and, in addition, 350,000 public welfare patients are being served through dental service corporations. Furthermore, it has been estimated that 15 million people will be under dental prepayment plans in another 10 years. Some estimates, looking to a mass demand from labor unions, run much higher, but the more conservative estimate is big enough to underscore the importance of prepayment to the future of dental health and dental practice.

In Canada, somewhat the same trend is evident. Dental care programs for about 200,000 public assistance beneficiaries are operating in 5 Provinces. Dental treatment is provided by private practitioners on a fee-for-service basis, the bills are paid from public funds, and the provincial dental society administers the program. The development of contracts with nongovernment groups has not yet materialized in Canada, although the dental profession has done some preliminary work in preparation for prepayment plans.

The development of dental insurance plans emphasizes the urgency of manpower planning. It most decidedly suggests that both dental public health and private dentistry have a stake in the future of these plans. If they are carefully constructed and administered, they can raise the levels of demand without any sacrifice in the quality of the care. They can raise the dental health standard of the general public without interfering in any way with the prerogatives of the dental profession. But it should be remembered that predictions of future growth in prepayment are in no way dependent upon the willingness of the profession to guide that growth. These plans will continue to increase if the people want them, with or without the assistance of the dental profession.

Both self-interest and the public interest can best be served if private dentistry and public health step up current studies of prepayment, develop prototype programs offering a variety of plans and approaches, and, at the same time, work closely with those private groups and organizations who are ready to begin a prepayment plan and are looking to the profession for help. To do less than this can only lead to chaos and a loss of professional prestige.

Neither these changes in approach nor the programs they produce are universally popular. Many dentists still consider any change in past or present practice arrangements as detrimental. They deny that prepayment dental care plans are necessary or even wanted. There are dentists who refuse even to consider the possible impact of insurance plans because they are opposed to them on principle. By opposing, they think, they end them.

Certainly life would be a good deal simpler if the public were committed to a doctrine of dental infallibility, if every problem dissolved beneath our disapproving stare. I doubt that either the public or the problems will be quite so obliging.

Consider the course of events in certain Canadian Provinces where, in the face of a strong professional opposition, dental mechanics have been licensed to make dentures directly for the public. The Canadian Dental Association diagnoses the probable causes as the shortage of dentists, the increase in the number of older people requiring appliances, "and perhaps the growing desire to buy everything at a discount—even health services"(2).

The problems which threaten dental health standards are no longer the exclusive concern of the dental profession; they are of deep con-

cern to the general public as well. More importantly, the action needed to solve those problems is no longer the sole responsibility or right of dental professions. The public also has a decisive role to play in determining what the goals in dental health should be and in working to attain them.

The public has a responsibility to provide for the expansion of dental training facilities, a responsibility it proposes to meet through governmental aid to school construction. Effective public action can also bring into being the stronger dental public health staffs and activities that are so desperately needed. The marshaling of public interest and public action at the community level is the best hope we have of building the special programs which are necessary to care for the aged and the handicapped. Fluoridation can become a fact in hundreds of communities through incisive action by lay groups. With the advent of prepaid dental care plans, the public can finally and effectively bridge the financial gulf which separates so many people from the care they need.

In all of these areas, it will be the public's actions or the public's refusal to act which shapes the future of dental health. In none of them can the profession hope to exercise an effective veto. I see no reason why we should want to do so.

What we can do is to realize that growing public concern, far from being unwarranted interference, is one of the most valuable of our dental resources. Through the leadership of both public health and private dentists public interest and support can be translated into realistic, hard-hitting preventive and remedial action. Out of it we can hammer programs which serve the public's interest and protect our profession's standards. To do otherwise—to assume, in such an age as this, that dental public health and dental practice alone are mysteriously immune to change and alteration—is, at the very least, self-deluding. This assumption could be dangerous, a needless abrogation of professional prerogatives and an indefensible evasion of professional responsibilities.

REFERENCES

(1) Final report of the Commission on the Survey of Dentistry in the United States. American Council on Education, Washington, D.C., 1961, (*a*) p. 88; (*b*) p. 52.

(2) Brief submitted to the Royal Commission on Health Services by the Canadian Dental Association, 1962, p. 17.

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