Summary: Possible Futures for Dental Practice and Dental Education

L. Jackson Brown, D.D.S., Ph.D.; Kent D. Nash, Ph.D.

Dr. Brown is Editor of the Journal of Dental Education; and Dr. Nash is President of Nash & Associates, Inc. Direct correspondence and requests for reprints to Dr. L. Jackson Brown, 15997 Garriland Drive, Leesburg, VA 20176; jbrown7520@verizon.net.

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The trends presented in this issue have the potential to impact the dental profession profoundly. As stated repeatedly, we all can know what has happened if we dig into the data a little. Part of the task of this issue is to relate that recent history in terms of its potential economic implications for the dental profession.

In contrast, none of us knows exactly what will happen in the future. We make no pretense to be soothsayers. Rather than choose one future scenario, we prefer to offer several alternative scenarios and elucidate the implications of each. While we may place some relative probability on the likelihood of each scenario, we are content to lay them out and let the readers decide for themselves which is more likely.

Three Scenarios

The Optimistic Scenario

While the recent trends we have observed are concerning, they will not continue. They are the result of a series of events external to dentistry. The overall economy will regain robust growth. The expenditures for oral health care services will recover from their temporary lethargy and exhibit robust growth. The growth will result both from the growth in the population and the increased utilization of services by a larger percentage of the population. If the private sector does not produce this demand, public funds will be allocated to support the demand of the disadvantaged. This increase in expenditures represents an increase in expressed demand. The dental delivery system will become busier, and appointment schedules will be filled. Dentists will be required to provide more services. Their net incomes and the salaries of their staff will grow.

This will certainly make a dental career an attractive alternative. Applications to dental school will remain stable or even increase. The need for increased capacity in the dental delivery sector will permit all dental schools, existing and those yet to graduate a class, to attract well-qualified students. The increase in applicants will provide well-qualified graduates to accommodate the increased capacity of dental education. Students will be willing to pay higher tuition, and the traditional model of dental education will prosper alongside newly implemented business models.

Our assessment is that the probability for this scenario is not high, but also not completely implausible.

The Middle Scenario

Dental expenditures will recover somewhat, but will not regain the vigorous growth that was exhibited during the 1990s. However, net incomes will stabilize due to increased work schedules and more efficient production of services. New opportunities may come online to partner and integrate more deeply with the rest of the health care sector. Private insurance coverage will remain about the same. Public funding will not decline and may increase. Dental schools will create new business models that will control costs and reduce the rate of increase of tuitions. Not all of the schools that are being considered will actually open for business. Net incomes of dentists, while not exhibiting robust growth, will still provide a very good living for dentists, and salaries for staff will perform similarly. Applicants may not increase markedly, but they also will not decline. Schools may face greater competition for students to fill the enlarged aggregate class size, but they will be able to do as a result of a decline in the applicant to matriculant ratio.

This scenario has a reasonable probability of being realized, but also a substantial probability that the scenario will be a little less rosy than just described.
large practices cannot do this, except in limited cases in densely populated areas. This suggests that two-to-five dentist practices may increase, while solo practices may decline. More of those practices may be part of a larger organization that provides some services to their practice network centrally.

Group practice organizations consisting of several to many individual practices will continue to increase their share of the dental services market. It is too soon to know if they will become the dominant organizational structure to deliver dental services; however, we are convinced there will always be a major role for individually owned and operated private practices.

Future Scope of Responsibility of the Dental Profession

The scope of responsibility of members of the dental team may change. For many, the unanswered questions are the nature of the changes, when they will occur, and the details of those changes. Will dentists be more extensively prepared to interact with physicians? We believe that is likely, at least, for a portion of the future dentists. We are less certain that it will occur for a majority of dentists.

The interaction with other health care professionals is likely to increase, as is interprofessional education. The exact form is not completely understood, but is likely to increase dentists’ competence in communicating with these health professions and helping them manage their patients through better coordination of oral health services with the management of relevant medical comorbidities. The opposite should and probably will happen. Other health personnel, especially physicians, need to know more about oral disease and be more cognizant of how their responsibilities can help dentists manage oral disease.

It is less likely that dentists will provide a significant number of services that are currently provided by physicians or other health care professions. New diagnostic options are emerging in which the fluids of the oral cavity can play a role. New therapies that involve the oral cavity but are also within the scope of responsibility of some specialties of medicine may also develop. It is an unanswered question how these new capabilities will be divided between medicine and dentistry.
Future Dental Workforce Team

After reading all of the information provided in this issue as well as other pertinent literature, we believe that the dentist will, and should, remain the leader of the oral health care delivery team. The delivery team will continue to expand, certainly with existing types of staff members, but new oral health professionals are likely to emerge.

The analyses of dental therapists presented in this issue are based on assumptions that would maximize their potential impact. Those assumptions may prove to be too optimistic, especially the assumption of perfect substitutability between dental therapists and dentists for procedures both can perform. If that is the case, then the estimated impact of dental therapists will turn out to be less than estimated in these articles.

Let us explain what this term “substitutability” means in economic parlance. It means that there is no discernible difference in the production or quality of services between two types of producers. We will illustrate with a series of examples.

An example of complete non-substitutability is the substitution of a lawyer for a heart surgeon. Almost complete non-substitutability would be the substitution of an internist for a heart surgeon. An example of more equal but not perfect substitutability would be the substitution of a general practitioner of dentistry for an oral surgeon to perform complicated third molar extractions. Still more equal but not perfect substitutability would be the substitution of a general practitioner of dentistry for an endodontist for complicated molar endodontics. An example of near-perfect substitutability would be two randomly selected groups of general practices. They would be near-perfect substitutes for most intracoronar restorative procedures.

This issue of substitutability, along with frequency of performance and proficiency in particular procedures, is the reason that specialties exist in medicine and dentistry. Readers can begin to understand that perfect substitution between dental therapists and dentists (from an economic, not a quality of restoration standpoint) is a very strong assumption—one that we are not aware has been tested empirically.

However, even after basing their analyses on assumptions that would maximize the potential impact of dental therapists, the authors conclude that the overall demand for services that dental therapists could perform is not sufficiently large in the general population to permit a large role for dental therapists in private practice. The authors are careful to point out that they are not contending there would be no impact from the use of dental therapists. They also do not state that dental therapists would not be useful in any private practice. They do state that their role would be limited and may not be the most cost-effective approach to address the problems that dental therapists are intended to address. This is their expressed opinion. Readers are free to agree or disagree.

Those same authors see a potential role for dental therapists to deal with underserved populations. However, their impact will again be limited. It will take substantial time to develop sufficient numbers of dental therapists and require the construction of an educational system for that purpose. Innovative new models of the delivery of care to underserved populations could substantially augment the impact of dental therapists, dental hygienists, or both. These innovative approaches deserve empirical testing. Some of these studies are ongoing.

In addition, dental therapists can play a vital role in the provision of care to remote populations. The large question for their role in remote areas is staying power. Will they stay in those remote locations? The article by Gerry Uswak describes the forty-year history of dental therapists in Canada, especially Saskatchewan.

This is not the last word on dental therapists; far from it. More studies will, and should be, conducted. As economists, we believe deeply that the market should be trusted to help make decisions on workforce. Where therapists can be used effectively, they will be. Where they are not effective, they will not be utilized. Economists are very hesitant to restrict entry to markets or to pick winners and losers. We are much more comfortable with letting markets determine outcomes, as long as the safety of the public that we are pledged to serve is ensured.

Caveats to Reliance on Markets

Few economists subscribe to the total and unfettered reliance on markets; neither do we. First, markets must be able to produce the product that is wanted. Public goods, such as law enforcement and national defense, are difficult if not impossible to address with markets. They require group decision making and pub-
public budgets. Economists call these types of products “public goods” because they must be provided through public institutions with taxing authority.

Second, as a nation and as a profession, we have an obligation to protect the safety and the integrity of our citizens. The products we produce must be safe and their characteristics honestly portrayed to potential customers. “Buyer, beware” should only go so far. From the studies that we are aware of, dental therapists can perform their scope of responsibility safely, but must have some supervision and backup to ensure against unlikely events that unexpectedly expand the circumstances beyond their scope of competence.

Third, a person’s or firm’s (business organization’s) behavior should not work to benefit the person or firm but result in the detriment of others. For example, I should not be able to pollute a stream that runs through my property if it causes my neighbors’ gardens downstream to wither and die. Producers should not be permitted to pollute the environment. Economists call these phenomena “externalities.” Almost everything we do has some impact on others. Economists differ strongly on when and how to intervene with regard to externalities.

Finally, as a people, we should not permit our fellow citizens to suffer hunger, disease, or other serious deprivations, especially if it is through no fault of their own. We have an obligation to help the less fortunate. Almost all economists believe some aid to the less fortunate is indicated. Again, economists differ strongly on when to help, how to help, and how much to help.

Options to Improve Access to Dental Services for the Disadvantaged

Several of the authors address, to varying extents, options to improve access to care for those who do not have access. Most of those without access to care are economically disadvantaged. When disadvantaged individuals do not have the financial resources to access dental services, in the short term at least, a transfer of funds must be used to underwrite their demand.

In the longer term at least, other courses of action are possible and are probably necessary in combination. The most effective long-term approach is to expand the economic base of a region. Get economic growth started, in hopes that it will become self-sustaining. This approach has not been completely neglected in the United States, but the results have not resulted in vigorous economic growth for many areas. Second, support of improved education is important. This will raise the human capital of the area and enhance the probability of finding well-paying jobs, with the proviso, of course, that the jobs must exist, which brings us back to the first point. Third, health education and promotion can help. Widespread availability of passive preventive modalities to prevent the initiation of oral disease is indispensable. Fortunately, most of the U.S. population enjoys tremendously successful preventive services for oral disease.

To the credit of public policymakers, most of these approaches have been tried. Although individual patients and families have benefited, the efforts may not have been continuous enough or large enough to make a substantial population difference. We must face the fact that some areas, especially sparsely populated regions, may not be able to support their population because the potential economic base is simply not there.

Our position is that more direct intervention to the dental sector will be required to produce the improvements in oral health of the disadvantaged. Numerous approaches are available for direct intervention; some are described in the articles in this issue. One of our favorites is the Michigan Healthy Kids program. Unfortunately, approaches such as that are mandates whose financial obligations are difficult to control.

Options to improve access are not mutually exclusive. All of them, however, require support for the demand for oral health with public funds. The possibility of large increases in public funds is sobering. Only 5 percent of dental expenditures derive from public funds, and that percentage has been stable for close to fifty years. At this time in our history, public funds are scarce and competed for strongly. This may not be the time for large and expensive programs. Small steps, however, may be feasible.

Final Thoughts

There is much that is good about our profession. It has been said, and we agree, “Dentistry is the profession that works.” We must preserve that which is good, while we confront the challenges we face. We have outlined three future scenarios for the broad profession. There may be others. Discover or invent them. Debate them. Propose and design new studies. Never quit trying. We still believe the future is in your hands.