Brief Report

The role of oral health in an evolving health care delivery system: An interview with Bruce Donoff, D.M.D., M.D.*

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A R T I C L E   I N F O

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A B S T R A C T

This interview is focused on the role that dentistry, and oral health more broadly, can play in improving the quality, accessibility, and value of health care delivered in the United States. The interview touches on the importance of oral health, transitioning from interprofessional education to interprofessional practice, and the opportunity for dental professionals to participate in value-based reimbursement models, among other related topics.

Dentistry, and oral health more broadly, exist in a silo in our educational, delivery, and payment systems. As the U.S. health care system attempts to shift from volume to value, why is oral health important for health care leaders to consider and be aware of?

I believe oral health may actually act as a catalyst for a better health care system for America. Victor Hugo once said, "Nothing is more powerful than an idea whose time has come." This may be that time for oral health. The separation of dentistry and oral health from medicine is based upon the history of siloed education, delivery, and payment systems. Yet increasingly, knowledge exists that poor oral health is a risk factor for chronic diseases such as diabetes, osteoporosis, and heart and lung disease.1 John McDonough recently noted that oral health might be "the next big thing" in health care policy.2

In fact, recent promoters of oral health integration have included large insurers such as UnitedHealthcare, Aetna, Cigna, and United Concordia, each of whom have published studies showing that dental coverage for those with chronic diseases such as diabetes and congestive heart failure can lead to reduced medical costs.3–6 In 2016, Avalere Health estimated that, for patients with chronic diseases and conditions, if they had dental coverage and received periodontal treatment, that their estimated health care spending would have decreased.7 It would have been 29.8% lower for diabetics, 19.8% lower for those with heart disease, and 37.8% lower for those with a history of stroke. Though some suggest insurer conflict of interest as most market and sell dental coverage, this is a compelling development.

Oral health could be a major impetus for access for all care, inclusion of our underserved and aging populations, as well as cost control. Pilots that combine medical and dental insurance coverage might be that catalyst. As we are seeing more consolidation across the health care industry in both the provider and payer space, I think this might be an appropriate time to put the mouth back in the body.

In 2015, you launched the Initiative to Integrate Oral Health and Medicine at Harvard School of Dental Medicine (HSDM). Can

* Biography of Interviewee: Dr. R. Bruce Donoff has served as Dean of Harvard School of Dental Medicine (HSDM) since 1991. He was born in New York City, and attended Brooklyn College as an undergraduate. He received his DMD from the Harvard School of Dental Medicine in 1967 and his MD from Harvard Medical School in 1973. Dr. Donoff’s professional career has centered on Harvard’s Faculty of Medicine and the Massachusetts General Hospital’s Department of Oral and Maxillofacial Surgery. He began as an intern in 1967, served as Chairman and Chief of Service from 1982 through 1993, and continues to see patients today. In addition to leading HSDM as its Dean, Dr. Donoff has made major contributions in research to the specialty of oral and maxillofacial surgery with interests in wound healing, bone graft survival, sensory nerve repair and oral cancer. He has published over one hundred papers, authored textbooks, and lectured worldwide. He recently helped launch the HSDM Initiative - Integrating Oral Health and Medicine, a project of great importance to him. Dr. Donoff served twelve years on the Board of the Oral and Maxillofacial Surgery Foundation and is former President of the Friends of the National Institute of Dental and Craniofacial Research. He is the editor of the MGH Manual of Oral and Maxillofacial Surgery and a member of the Editorial Board of the Journal of Oral and Maxillofacial Surgery and the Massachusetts Dental Society Journal. Dr. Donoff has received numerous honors during his academic career, including the American Association of Oral and Maxillofacial Surgeons Research Recognition Award, the William J. Gies Foundation Award for Oral and Maxillofacial Surgery, Fellow of the American Association for the Advancement of Science, the Alpha Omega Achievement Award and the Distinguished Alumni and Faculty Awards from the Harvard School of Dental Medicine. In 2014, he was a Shils-Meskin awardee for leadership in the dental profession.

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you tell us a bit about the Initiative's mission and work?

The mission of the Initiative is to transform dentistry by pioneering new models for teaching, providing and funding care, as well as creating new methodologies for understanding the health and economic outcomes of care integration. Integration has been at the core of HSDM's mission as well, which aims to transform dental medicine by removing the distinction between oral and systemic health.

Initiative work and projects have included support of innovative pilot projects for new models of education, training, and clinical practice, the measurement of clinical outcomes, and the evaluation of financial models of care delivery to provide an evidence base required to demonstrate the value of oral health integration for policymakers and other stakeholders. With the Initiative's support, we have been able to procure Health Resources and Services Administration funding for the establishment of a national center of excellence in oral health competencies for primary care providers, as well as a national center to identify and close gaps in care coordination for the vulnerable elderly. We have shared our work with both medical and dental stakeholders at leadership forums in 2014, 2016, 2018, and 2019.

You have a unique perspective on medicine and dentistry by having obtained both a dental and a medical degree in your training as an oral and maxillofacial surgeon. What insights have you gained by being in both worlds?

The greatest insight comes from my oral and maxillofacial surgery (OMS) residency at Massachusetts General Hospital, a component of which was served as a resident in general surgery. I see a disconnect between the training pathways in the professions. Although general practice residencies (GPRs) are available to dental school graduates, most students choose to go directly into practice based on a clinical competency licensure exam. Only New York state offers licensure based upon completion of a general practice residency year. Former HSDM Dean Dr. A. Leroy Johnson noted that dentistry is “the only profession where the degree is granted before the graduate is ready to practice.”

I also see a lack of awareness of dentistry, and oral health in general, from medical trainees. When I taught physical diagnosis to Harvard Medical students, they would note “HEENT” for head, ears, eyes, nose, and throat, and write “pharynx benign.” They looked right past the teeth, mouth, and tongue. This perpetuates the separation of the mouth from the body. Lack of knowledge about the mouth and oral health leads to many patients visiting emergency rooms for pain receiving pain medication and expensive tests.

In efforts to improve the value and cost effectiveness of care, medicine has attempted to move towards value-based reimbursement mechanisms and away from fee-for-service payments. Dentistry is still largely fee-for-service. Do you see an opportunity for value-based reimbursement for dental professionals?

The Initiative’s 2018 summit, entitled “Achieving Quality and Value in Health Care Through Integration,” focused on this issue. There is a role for dentists in value-based reimbursement, but many challenges remain. A large challenge that medicine and dentistry face in the shift towards value-based reimbursement is reliable, achievable, and appropriate outcome assessment. In addition, other barriers have been noted including dental providers in Accountable Care Organizations, including the lack of integrated health information technology and the fact that dentists are not used to practicing in coordinated care and large group practice settings. Finally, organizations that have experimented with oral health integration have consistently cited reimbursement challenges as the principal barrier to launching, expanding, or sustaining such programs. New payment models will be needed to catalyze and support experimentation for dentist participation in value-based reimbursement and delivery models.

As a clinician, you spend a lot of time delivering health care and thinking about how to improve it. What does a fully integrated, patient-centered approach to care look like to you?

A fully integrated, patient-centered care consists of not just co-location, but also cross training. Primary care personnel would be trained to provide oral health risk assessments, anticipatory guidance, specialist referral, and deliver basic oral preventive measures such as fluoride therapy. Dental providers would be trained to provide certain components of annual wellness exams such as screening and immunizations, and contribute to chronic disease management through medication adherence, blood pressure measurement, and INR monitoring. Dental personnel would take a more holistic view in care delivery, including spotting early warning signs of disease or even looking for signs of drug abuse. Cross training and bidirectional service provision is essential for patient-centered care and ensuring that patients are always at the center, especially given that there are 27 million Americans that visit a dentist each year but not a physician, and 108 million that visit a physician but not a dentist.

Health professions schools are growing in their embrace of interprofessional education by combining classes and creating shared experiences for medical, dental, and nursing students, among others. What barriers do you anticipate in the transition from interprofessional education to interprofessional practice?

The main barriers in moving from interprofessional education to interprofessional practice are financial, including educational costs, insufficient general practice residencies for dental school graduates, and the cultures of the dental and medical professions. If we are to make a dent in the shortage of primary care providers, we will need to engage in interprofessional collaboration and practice. The Surgeon General’s first ever report on oral health in 2000 is set to be followed by a report in 2020 to document progress in oral health over the past two decades. I fear that next year’s report will reveal that we are producing more words but little action.

Finally, where do you see untapped opportunities in the integration of oral health and medicine?

I see a major opportunity for the integration of oral health and medicine by merging educational pathways. This could mean educating an individual who is interested in oral health and primary care with both a dental and medical degree. This could occur by having a joint dental/medical degree program at the same university, and would be similar to existing dual degree programs such as MD/MBA, DMD/MBA, and DMD/MPH programs. We need to produce a group of champions with the requisite knowledge base who can sit at the table as equal partners of both medicine and dentistry in policy deliberations and decision making with professional groups, community groups, and government organizations.

References