NIH-PA Author Manuscript

NIH Public Access
Author Manuscript
J Public Health Dent. Author manuscript; available in PMC 2012 April 13.

Published in final edited form as:
J Public Health Dent. 2010 June ; 70(Suppl 1): S1–S5.

Improving oral healthcare delivery systems through workforce innovations: an introduction

Elizabeth A. Mertz, PhD, MA[1]**[Assistant Professor]** and **Len Finocchio, DrPH**[2]**[senior program officer]**

[1]Department of Preventive and Restorative Dental Sciences, University of California, San Francisco School of Dentistry

[2]California Healthcare Foundation

Abstract

The objective of this paper is to describe the purpose, rationale and key elements of the special issue, *Improving Oral Healthcare Delivery Systems through Workforce Innovations*. The purpose of the special issue is to further develop ideas presented at the 2009 Institute of Medicine (IOM) workshop, *Sufficiency of the U.S. Oral Health Workforce in the Coming Decade*. Using the IOM discussions as their starting point, the authors evaluate oral health care delivery system performance for specific populations' needs and explore the roles that the workforce can play in improving the care delivery model. The contributing articles provide a broad framework for stimulating and evaluating innovation and change in the oral health care delivery system. The articles in this special issue point to many deficits in the current oral health care delivery system and provide compelling arguments and proposals for improvements. The issues presented and solutions recommended are not entirely new, but add to a growing body of work that is of critical importance given the context of wider health care reform.

Keywords

health services accessibility; delivery of health care; dental health services; capacity building; Institute of Medicine; health personnel

Introduction to the special issue

The Institute of Medicine (IOM) held a landmark conference in 2009 on the "Sufficiency of the U.S. Oral Health Workforce in the Coming Decade" which highlighted the trends in the current oral health workforce, the problems of access to care, and disparities in oral health disease resulting from the inability of the current workforce to meet the oral health needs of many populations (1). New workforce models were discussed; some designed to meet specific unmet needs, while others were more focused on improving efficiencies in care delivery and creating linkages between oral health care and overall healthcare services.

The *Journal of Public Health Dentistry* (JPHD), the publication of the American Association of Public Health Dentistry (AAPHD), pursued sponsorship to create a special

© 2010 American Association of Public Health Dentistry

Correspondence Elizabeth A. Mertz, Department of Preventive and Restorative Dental Sciences, University of California, San Francisco School of Dentistry, 3333 California Street, Suite 410, San Francisco, CA 94118. Tel.: 415-502-7934; Fax: 415-476-4113; bmertz@thecenter.ucsf.edu.

Conflict of interest: None.

NIH-PA Author Manuscript

NIH-PA Author Manuscript

NIH-PA Author Manuscript NIH-PA Author Manuscript NIH-PA Author Manuscript

issue which would bring insightful and cogent analysis of the issues raised at the conference. The mission of the AAPHD includes improving the public's health through policy and program development leading to enhanced access to oral health care and prevention of oral disease. AAPHD members' efforts frequently focus on improving the oral health of underserved and marginalized populations.

This special issue of the association's journal expands on the workforce issues raised in the IOM workshop with the goals to: a) highlight the oral health needs of specific population groups; b) identify successes and challenges of current oral healthcare delivery; c) propose workforce innovations that would overcome access challenges; and d) present policy considerations aimed at advancing delivery system improvements. This introductory article provides an overview of the goals of the special issue, reviews the IOM's charge and workshop findings, highlights key issues raised in the contributing articles, discusses the broad context for oral healthcare system reform, and outlines potential directions for future actions.

The IOM

The IOM's mission is to serve as an advisor to the nation to improve health (2). The IOM was established in 1970 as part of the National Academy of Sciences, and works as a nonprofit organization focused on providing unbiased and authoritative advice to policy makers and the public (2). The IOM has previously examined oral health issues in a 1980 study and report entitled, *Public Policy Options for Better Dental Health*, and most recently the Committee on the Future of Dental Education (1995) produced *Dental Education at the Crossroads: Challenges and Change*, which outlined a broad agenda for dental education (3,4).

The 3-day workshop convened in February 2009 was co-sponsored by the Health Resources and Services Administration and the California HealthCare Foundation, and addressed three key questions (1):

- What is the current status of access to oral healthcare services for the US population?
- What workforce strategies hold promise to improve access to oral healthcare services?
- How can policymakers, state and federal governments, and oral healthcare providers and practitioners improve the regulations and structure of the oral healthcare system to improve access to oral healthcare services?

The workshop presenters outlined the broad array of challenges, potential solutions, and policy options for improving the oral healthcare delivery system. Presenters described the variability in access to oral health services and resulting disparities in oral health status across the diverse US population (1). Numerous workforce solutions were proposed to remedy access barriers for specific populations. The proposed solutions included retraining existing providers, developing new providers, changing scope of practice and supervision requirements, and integrating non-oral health providers into the care system. Finally, the workshop highlighted the importance of state and federal policy change given their respective roles in licensing health professionals and financing of safety net programs.

Workshop attendees also discussed how dental education capacity, professional associations' workforce policies, and financing mechanisms could drive new models of care (1). Many workshop participants expressed a desire to overcome interprofessional animosities and instead collaborate to build a better oral healthcare system. Ultimately, the

NIH-PA Author Manuscript NIH-PA Author Manuscript NIH-PA Author Manuscript

workshop and proceedings provide a large menu of options for improving the oral health delivery system through workforce and other system innovations (1). An IOM workshop, by design and charge, does not produce specific recommendations.

The articles in this special issue of the JPHD build from the IOM workshop findings. While reform of the overall oral healthcare delivery system would include other critical components such as financing and insurance, this issue focuses largely on understanding system improvement through workforce innovations. The authors' charge was twofold: a) to evaluate care delivery system performance for specific populations' oral healthcare needs; and b) to explain the roles that the workforce can play in improving the care delivery model.

The US oral health delivery system

The current US oral healthcare delivery system is a loosely organized patchwork comprised largely of private practices serving the vast majority of residents and a similarly piecemeal safety net system addressing a portion of unmet need. The private delivery system provides the majority of oral health care in the United States. This is a market-based delivery system owned and run by professionals and regulated at the state level composed primarily of dentists in private practice who are paid by third party payors or directly from consumers. The private delivery system and the workforce which inhabits it are the focus of the article by Wendling who highlights that this sector serves about two-thirds of the US population and employs approximately 92 percent of professional active dental practitioners (5). Education of providers and payment systems have been developed over time in alignment with this sector as it makes up the bulk of oral healthcare delivery.

The two-thirds of the US population served by this system are ambulatory, not economically disadvantaged, generally healthy and not living in remote or institutionalized settings. The other one-third of the population not receiving adequate services is typically poor, institutionalized or homebound, beset with multiple comorbidities, or living in remote areas (6). Edelstein's article describes the oral health safety net system tasked with serving these populations as a loosely defined set of services including private practitioners participating in Medicaid, the Veteran's Administration, Federally Qualified Health Centers, the Indian Health Service, and dental and hygiene school clinics, to name a few (7). The variety and variability of programs and policies comprising the safety net make it difficult to precisely quantify the overall capacity of all efforts, but it is clear that the safety net is not able to adequately address the magnitude and diversity of needs (7).

Principles and innovations for an improved delivery system

In their article, Tomar and Cohen propose a set of unifying principles and attributes to guide efforts to improve the oral healthcare delivery system using as a foundation, "principles of health, health care, and access to care as expressed by national and international authorities on the health of populations"(8). These principles and attributes include standards for system orientation and performance (comprehensive and evidence based), professional conduct (ethical and culturally competent), and finally, a system's relationship to society (empowering). The authors lament the distance between the ideal and current system, and argue that sufficient public demand, political will, and leadership can bridge this gap (8). This contribution provides an important framework for evaluating all aspects of our current system and developing proposals for reform.

Long-standing concerns regarding access to oral health care and oral healthcare disparities were crystallized in the 2000 Surgeon General's Report on Oral Health, and since then have been an important locus for motivating policy change and for developing programs to improve access to services. An example of a program which resulted in an increase in

NIH-PA Author Manuscript NIH-PA Author Manuscript NIH-PA Author Manuscript

utilization for underserved children, the Michigan Medicaid "Healthy Kids Dental Program," is provided by Wendling in this issue (5).

However, reductions in oral healthcare disparities are more difficult to connect to specific programs or policies given that the determinants of oral health cross a number of dimensions (9,10). Hilton *et al*. adapt the *Strategic Framework for Improving Racial/Ethnic Minority Health and Eliminating Racial/Ethnic Health Disparities* developed by the Office of Minority Health to examine the workforce's contribution to oral health disparities (11). The proposed evidence-based evaluation framework first addresses how the current workforce contributes to disparities, and secondly, how changes to the workforce may ameliorate some of the contributing factors. Importantly, this contribution also highlights the limitations of any single approach to solving the problem of disparities in health (11).

Moving beyond the principles and framework for broad system improvements, the next four articles examine delivery system issues in relation to specific population needs with a focus on workforce solutions to improve oral health. Many of the workforce innovations discussed have been a topic of interest to policymakers (12). All of the authors contributing to this issue make a strong case for why workforce innovations are important to efforts to improve the health of the various populations in need.

Wendling provides an overview of the private delivery system and how workforce innovations within this system have evolved over the past few decades. The private delivery system has benefited from numerous educational, scientific, and technological innovations over time (5). Wendling submits that innovation itself is not the goal, but rather is the means to improving oral health and will occur slowly and adaptively (5). The quantity of services provided in the private delivery system has been affected both by economic downturns, and an increasingly healthy population seeks dental care less often. The resulting excess capacity has led providers to seek creative ways to stimulate demand for services (5). The author proposes that the limitations of the private system in serving low-income and uninsured groups have been addressed, in part, through public–private partnerships and charity care. The remaining population groups with unmet care needs typically find some services in what is loosely termed the "dental safety net."

Edelstein examines the programs, policies, and providers making up the "dental safety net" that serves a variety of populations and identifies strengths and opportunities within the dental safety net, and also weaknesses and threats (7). Edelstein argues for the primacy of preventing and managing disease before outlining numerous strategies including dental workforce diversification, expanding training site opportunities, and the development of new workforce models. But, perhaps most importantly, Edelstein reminds us that addressing oral health inequities and safety net inadequacies will require multifactorial strategies, and the cooperation and leadership of the professions, government, advocates, and others. Underserved populations seeking care in the safety net are generally people with low income who do not have the financial means to access traditional care services. However, many underserved populations face challenges to achieving oral health which extend far beyond just the ability to pay for dental care.

Glassman and Subar present the unique challenges of improving oral health for dependent people in institutions who often have the greatest oral health needs and the fewest options for receiving it. Glassman and Subar argue for an expansion of the nexus of care beyond the traditional dental office and to become more patient-centric, which in this case means bringing care *into* the community (13). This raises a number of challenges including expanding the oral health-care knowledge of other healthcare providers (especially those that provide daily caretaking assistance), integration with the broader health delivery

systems, and developing and enhancing referral networks between community and office-based providers (13). The authors propose that new collaborative models of practice may be a promising avenue to provide this needed care.

Finally, Skillman *et al*. examine the challenges of delivering oral health services in rural communities where a mix of economic, demographic, and geographic barriers to care will require practical and flexible approaches to improving the oral health (14). Given the limitations of traditional dental practices in sparsely populated areas, the authors recommend prevention of dental disease through public health programs and leveraging other health service providers already available. Recruitment and retention of oral health providers to rural communities may need to be augmented by the promotion of new roles of existing providers or the creation of new providers to ensure the service availability in rural and frontier areas is both accessible and affordable. The authors also suggest, as do Glassman and Subar, that expanding the use of mobile services and technology may allow greater availability of care.

Garcia *et al*., in the final contribution to this issue, provide a compelling case for policy changes that are needed in finance, education, and regulation. As well, they ask us to think more systemically about the evaluation of new models of care (15). By using a framework for evaluation of innovations, whether they are workforce innovations or others, we can measure the impact on access to care for specific groups, the change in overall oral health status, and consider if an innovation can be brought to scale and sustained.

Considering the future

The recent federal healthcare reform legislation, The Patient Protection and Affordable Care Act of 2010, contains many provisions that will impact the oral health delivery system. The process it took to reform the healthcare system highlighted the immense challenges that incumbents in such an endeavor face. A recent perspective in the *New England Journal of Medicine* notes that the “current health care system is essentially a cottage industry of nonintegrated, dedicated artisans who eschew standardization” and that “growing evidence highlights the dangers of continuing to operate in cottage-industry mode”(16). Some of the challenges they cite are suboptimal performance; a gap between science and practice; unnecessary procedures leading to complications and costs; and large variations in the quality, safety, and quantity of care delivered (16).

The contributing factors and consequences found in the healthcare system are paralleled in the oral healthcare system. Federal healthcare reform is intended to increase health insurance coverage, regulate the insurance marketplace, expand financing for care, and promote higher-quality and more affordable services. While many groups, including organized dentistry, have advocated for increased Medicaid dental benefits and expanding the dental public health infrastructure, the dental improvements passed in reform will still fall short of making oral health care available to all those in need.

The articles in this special issue point to serious deficits in the current oral health delivery system, and provide compelling arguments and proposals for improvements. Several of the oral health provisions in healthcare reform will provide the financing and policy framework to implement innovations proposed by authors in this issue. The new requirements and incentives of healthcare reform will begin to reshape our oral health system of care, long isolated from the forces of change.

The issues presented and solutions proposed in this issue are not entirely new, but rather add to a growing body of work. The Surgeon General’s Report on Oral Health and Call to Action offered a roadmap for improving the science, practice, and outcomes of the oral

NIH-PA Author Manuscript NIH-PA Author Manuscript NIH-PA Author Manuscript

NIH-PA Author Manuscript

NIH-PA Author Manuscript

NIH-PA Author Manuscript

health delivery system, including improvements to the diversity, flexibility, and capacity of the oral healthcare workforce (17,18). The IOM workshop revisited the gaps between our current system and one that would produce oral health for everyone in the United States, and provided many concrete proposals for achieving this vision through the oral heath workforce. The articles in this issue connect proposals for innovation to specific sectors and populations where the need for improved oral health is greatest.

Acknowledgments

The authors would like to thank the sponsors of this special issue: The California HealthCare Foundation, The W.K. Kellogg Foundation, The Pew Charitable Trusts, and The DentaQuest Foundation. As well, we would like to express appreciation to the Editor-in-Chief, Dr. Robert Weyant, for his support and guidance in producing this special issue.

References

1. Institute of Medicine. The US oral health workforce in the coming decade: workshop summary. Washington: The National Acadamies Press; 2009.
2. Institute of Medicine. [2010 February 24] Institute of Medicine: about us. 2010. Available from: http://www.iom.edu/About-IOM.aspx
3. Institute of Medicine. Public policy options for better dental health. Washington: National Academy Press; 1980.
4. Field, MJ. Institute of Medicine (US). Dental education at the crossroads: challenges and change. Vol. xvii. Washington: National Academy Press; 1995. Committee on the Future of Dental Education; p. 345
5. Wendling W. Private sector approaches to workforce enhancement. J Public Health Dent. 2010; 70(Special Issue):S24–S31. [PubMed: 20806472]
6. Brown, LJ. Adequacy of current and future dental workforce: theory and analysis. Chicago: American Dental Association; 2005.
7. Edelstein, B. J Public Health Dent. Vol. 70. 2010. The dental safety net, its workforce, and policy recommendations for its enhancement; p. S32-S39.
8. Tomar S, Cohen L. Developing a new paradigm for the dental delivery system. J Public Health Dent. 2010; 70(Special Issue):S6–S14. [PubMed: 20545832]
9. Fisher-Owens SA, Barker JC, Adams S, Chung LH, Gansky SA, Hyde S, Weintraub JA. Giving policy some teeth: routes to reducing disparities in oral health. Health Aff (Millwood). 2008; 27(2): 404–12. [PubMed: 18332496]
10. Fisher-Owens SA, Gansky SA, Platt L, Weintraub JA, Soobader M, Bramlett M, Newacheck P. Influences on children's oral health: a conceptual model. Pediatrics. 2007; 120(3):e510–e520. [PubMed: 17766495]
11. Hilton I, Lester A, Thornton-Evans G. Oral health disparities: a framework for workforce innovation and solutions. J Public Health Dent. 2010; 70(Special Issue):S15–S23. [PubMed: 20806471]
12. Gehshan, S.; Takach, M.; Hanlon, C.; Cantrell, C. Help wanted: a policy maker's guide to new dental providers. Washington: Pew Center on the States and the National Academy of State Health Policy; 2009.
13. Glassman P, Subar P. Creating and maintaining oral health for dependent people in institutional settings. J Public Health Dent. 2010; 70(Special Issue):S40–S48. [PubMed: 20806474]
14. Skillman S, Doescher M, Mouradian WE, Brunson D. The challenge to delivering oral health services in Rural America. J Public Health Dent. 2010; 70(Special Issue):S49–S57. [PubMed: 20806475]
15. Garcia RI, Inge RE, Niessen L, DePaola DP. Envisioning success. J Public Health Dent. 2010; 70(Special Issue):S58–S65. [PubMed: 20806476]

NIH-PA Author Manuscript
NIH-PA Author Manuscript
NIH-PA Author Manuscript

16. Swensen SJ, Meyer GS, Nelson EC, Hunt GC Jr, Pryor DB, Weissberg JI, Kaplan GS, Daley J, Yates GR, Chassin MR, James BC, Berwick DM. Cottage industry to postindustrial care – the revolution in health care delivery. N Engl J Med. 2010; 362(5):e12. [PubMed: 20089956]
17. USDHHS. National call to action to promote oral health. Rockville: US Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health; 2003.
18. USDHHS. Oral health in America: a report of the surgeon general. Rockville: US Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health; 2000.