Editorial

Achieving oral health for all

Accepting the challenge

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Globally, oral diseases are the most prevalent of all noncommunicable diseases.[1] Conventional wisdom typically equates dentistry and the provision of oral health care to good oral health. Like much of health care, treatment directed at achieving oral health frequently is focused on managing and treating the symptoms of chronic diseases such as caries and periodontal disease. The health care system in the United States, and in most countries, is largely driven financially by treatment of existing disease more than focusing resources directed at achieving health. For many diseases, including caries and periodontitis, the balance between health and disease depends on a plethora of diverse factors including biological, psychological, social, and environmental determinants. For people with lower disease risk, treatment directed at prevention indeed can bring health. For the masses that develop oral disease, the road to health can be challenging at best and unobtainable at worst. Although understanding of the pathogenesis and underlying mechanisms for diseases has advanced, identifying a person's risk of developing an oral disease remains a challenge. Implementing effective interventions is an even greater conundrum.

For people at high disease risk, especially those with recurring disease, we do not have interventions proven to bring sustained health. Due to the many social determinants associated with oral diseases, we continue to see disproportionate disease levels residing in specific segments of the population. People with increased risk and prevalence of developing oral diseases include those with upstream factors associated with low income (eg, dietary issues, access to care, and medication use), underrepresented minorities, those with special health care needs, and the young and older people. People with elevated oral disease risk often have multiple upstream risk factors, thereby compounding the challenge of applying effective interventions that result in health vs disease. If we are to achieve our goal of oral health for all, what approaches are needed by the oral health care workforce?

Our challenge is how to frame the multiple issues on treatment and health into 1 coherent agenda.

For people with high disease risk, care models focused on the mitigation of disease morbidities increase the challenge of bringing an appropriate arsenal of tools directed at preventing disease. Interventions targeted at upstream determinants need to be an integral component of health care and not an afterthought. The concept of oral health care coalitions and integration of providers is not a novel concept but increasingly is being proposed as a necessary action to increase the number of patient contact points and types of care delivered and to achieve oral health for all.[2,3] Some examples include behavior modification, empathy projection, nutrition and dietary counseling, social work support, public health measures, interprofessional practice, ethics, and informative risk assessment or prognosis prediction. Evidence-based dentistry is more prevalent today, but is it being used more for treatment technologies and managing the disease rather than bringing a person to health?

In the United States, we spend approximately $4.5 trillion, or roughly 18% of the gross domestic product, on health care.[4] A graphic adapted from Roser[5] (Figure) presenting life expectancy vs per capita cost for health care shows the United States with both the lowest life expectancy and the highest per capita cost for health care among 21 countries. The US oral health care expenditure is approximately 4% of the total health care cost at $165 billion.[4] Of this, less than 3% is spent on public health, and only approximately 2% is directed toward prevention.[6] Let us ask the difficult question that the dental community should be engaging collectively: Does this approach to health care bring health? Some relevant groups with messages to consider include the National Institutes of

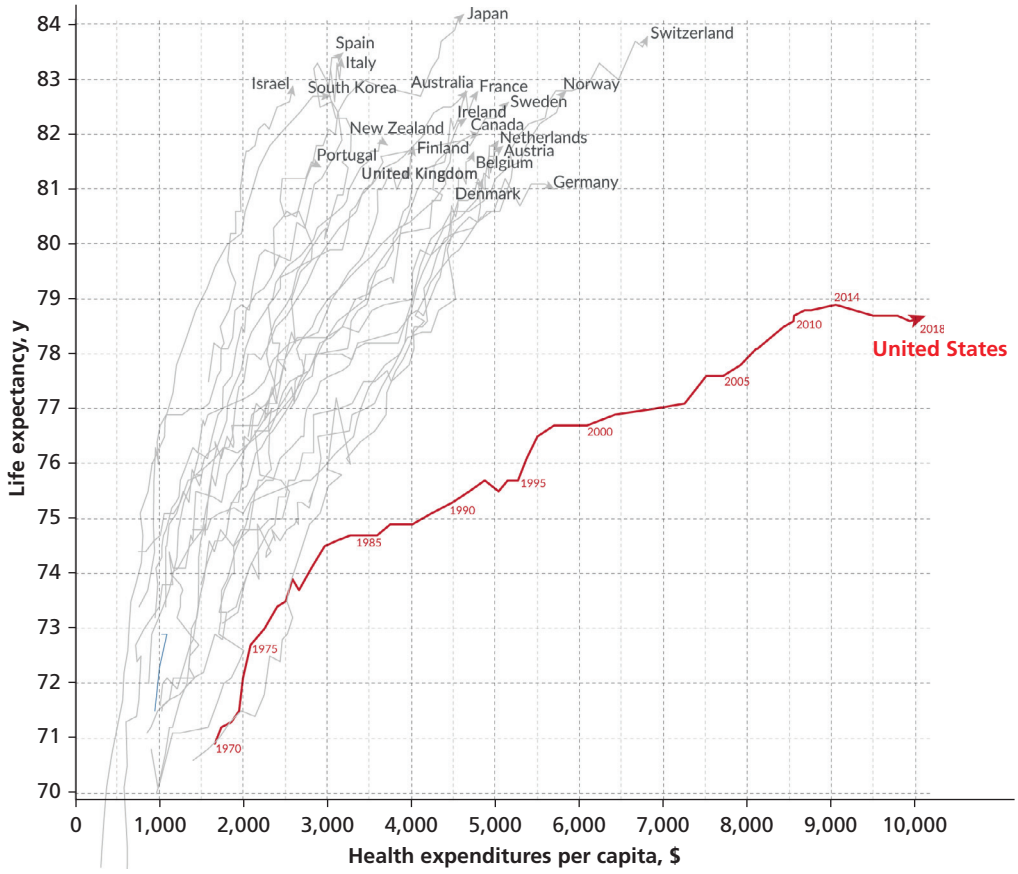

Figure. Life expectancy vs health expenditure from 1970 through 2018. Adapted from Roser.[5] *Data source*: Organisation for Economic Co-operation and Development.

Health, whose 2021 Oral Health in America report describes groups with long-standing elevated levels of oral disease and provides several calls to action.[7] The report shows gains in reducing untreated disease in children when insurance coverage has increased. In contrast, there was essentially no gain toward oral health in the adult population, with resources having remained flat.[7] A report in *The Lancet* calls for more inclusion of upstream social determinants to bring about greater dental health.[8] The report states the need to reorient the oral health agenda toward public health, recognizing the broader determinants of oral health and challenging the dominant approach focused on individual behavior and technology-focused clinical care.[8] A group led by Christopher Murray described a growing shift in the burden of disease to people with disabilities, with little baseline disease data and no proven interventions to bring health.[9] How do we move toward a society that supports the goal of oral health for all? Calls to action have included having the oral health care community move toward an integrated primary care health system with a focus on prevention. Actions directed at economic, trade, social, and welfare policies are needed. Increasing the number of people with oral health insurance that access the system is known to have a positive impact.[10] Support to improve Medicaid coverage for adults is 1 example of moving in this direction. Additional recommendations include having patients engage with primary care providers on a routine basis to provide ongoing preventive services in addition to disease mitigation and emergency therapies. National and state-level policies need to recognize and support the value of upstream interventions that can help reduce the need for disease mitigation and move people toward a health trajectory. The dental education system must inculcate graduates with the need for and complexity of providing preventive health care to the diverse populations we serve. Students need to understand there will be successes and failures and that helping people stay or move toward being healthy is a dynamic and iterative process.

The preponderance of evidence shows that dental treatment, especially high-cost technologically advanced care, will not bring oral health to the masses. There are calls to action and proposed solutions, and to tackle this issue there is much work to be done. Our challenge is how to frame the

multiple issues on treatment and health into 1 coherent agenda intellectually and culturally that will stimulate action to bring better health to all. ■

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1. GBD 2017 Disease and Injury Incidence and Prevalence Collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet*. 2018;392(10159):1789-1858.

2. Integration of Oral Health and Primary Care Practice. US Department of Health and Human Services, Health Resources and Services Administration. Accessed May 2, 2024. https://www.hrsa.gov/sites/default/files/hrsa/oral-health/integration-oral-health.pdf

3. Fisher J, Matanhire-Zihanzu C, Buse K. A new approach to oral health can lead to healthier societies. *BMJ*. 2024;385:q925.

4. National Health Expenditures 2022 Highlights. Office of the Actuary, Centers for Medicaid and Medicare Services. December 13, 2023. Accessed April 16, 2024. https://www.cms.gov/newsroom/fact-sheets/national-health-expenditures-2022-highlights

5. Roser M. Why is life expectancy in the US lower than in other rich countries? OurWorldInData.org. 2020. Accessed May 6, 2024. https://ourworldindata.org/us-life-expectancy-low

6. Pilar MR, Eyler AA, Moreland-Russell S, Brownson RC. Actual causes of death in relation to media, policy, and funding attention: examining public health priorities. *Front Public Health*. 2020;8:279.

7. Oral Health in America: Advances and Challenges Description: A Report from the National Institutes of Health. National Institute of Dental and Craniofacial Research, National Institutes of Health. Last reviewed January 2024. Accessed April 16, 2024. https://www.nidcr.nih.gov/research/oralhealthinamerica

8. Peres MA, Macpherson LMD, Weyant RJ, et al. Oral diseases: a global public health challenge. *Lancet*. 2019;394(10194):249-260.

9. Salomon JA, Wang H, Freeman MK, et al. Health life expectancy for 187 countries, 1990-2010: a systematic analysis for the Global Burden Disease Study 2010. *Lancet*. 2012;380(9859):2144-2162.

10. Okunev I, Tranby EP, Jacob M, et al. The impact of underutilization of preventive dental care by adult Medicaid participants. *J Public Health Dent*. 2022;82(1):88-98.