

Preface

After an intense year of planning, writing, and editing this volume, it is fair to surmise that our devotion to the topic of meeting the oral health care needs of older adults has become a professional obsession. We feared we might be losing perspective on the importance of advancing this objective given our coincident immersion in the ElderSmile program at the Columbia University College of Dental Medicine. And yet, in the April 30, 2007 issue of *The New Yorker*, Atul Gawande, MD, MPH, staff writer for science and medicine and assistant professor of surgery at Harvard Medical School, began his engaging essay titled, “The Way We Age Now” with two full paragraphs devoted to this very topic.

The hardest substance in the human body is the white enamel of the teeth. With age, it wears away nonetheless, allowing the softer, darker layer underneath to show through. Meanwhile, the blood supply to the pulp and the roots of the teeth atrophies, and the flow of saliva diminishes; the gums tend to become inflamed and pull away from the teeth, exposing the base, making them unstable and elongating their appearance, especially the lower ones. Experts say they can gauge a person’s age to within five years from the examination of a single tooth—if the person has any teeth left to examine.

Scrupulous dental care can help avert tooth loss, but growing old gets in the way. Arthritis, tremors, and small strokes, for example, make it difficult to brush and floss, and, because nerves become less sensitive with age, people may not realize that they have cavity and gum problems until it’s too late. In the course of a normal lifetime, the muscles of the jaw lose about forty per cent of their mass and the bones of the mandible lose about twenty per cent, becoming porous and weak. The ability to chew declines, and people shift to softer foods, which are generally higher in fermentable carbohydrates and more likely to cause cavities. By the age of sixty, Americans have lost, on average, a third of their teeth. After eight-five, almost forty per cent have no teeth at all.

(Gawande, 2007, p. 50)

Even as Gawande astutely noted how ill prepared the medical profession is to deal with the burgeoning numbers of seniors in the United States, the situation is even more dire in the dental profession. We view this volume as an evolution of an earlier editorial collaboration. The May 2004 issue of the *American Journal of Public Health* (M.E.N., editor-in-chief; I.B.L., guest editor) was designed to focus much needed attention on the egregious dearth of public health attention and public policy interventions in this arena. A “looming crisis” is how one of us characterized

the disproportionate impact of oral diseases on seniors and our failure as a society to adequately address this underappreciated health disparity (Lamster, 2004). The vision set forth in that editorial is the basis for our current activities to meet the oral health care needs of older adults, including this book.

Oral Health across the Life Course

In a subsequent editorial for the Swiss journal *Social and Preventive Medicine*, we argued that a life course approach to preventing and treating oral diseases may prove insightful, as it has for understanding the etiology of other chronic diseases (Ben-Shlomo & Kuh, 2002; Northridge & Lamster, 2004). Further, we believe that oral health status may usefully be viewed as a summary statement of many of the important measures of a life experience. Our theory is that oral health in later life results from individuals' lifelong accumulation of advantageous and disadvantageous experiences at the personal, interpersonal, community, and societal levels (Northridge, Sclar, & Biswas, 2003). These experiences differ according to gender, race/ethnicity, and especially socioeconomic factors such as education, income, and occupation. This is true not only for biological and psychological determinants of health but also for social and behavioral determinants, as encompassed in contemporary ecological theories of health and well-being (see, e.g., Krieger, 2001).

Understanding developmental processes of dental diseases and their socioeconomic patterns across the life course is crucial in determining optimal times for interventions to better limit the population health burden and reduce socioeconomic inequalities in oral health and health care. In a recent review in the *Annual Review of Public Health* titled, "A Life Course Approach to Chronic Disease Epidemiology" Lynch and Davey Smith (2005) cogently explained that a life course approach to chronic disease epidemiology explicitly recognizes the importance of time and timing in understanding causal links between exposures and outcomes within an individual life course, across generations, and on population level disease models. They also reviewed empirical evidence linking life course processes to coronary heart disease, hemorrhagic stroke, type-2 diabetes, breast cancer, and chronic obstructive pulmonary disease (Lynch and Davey Smith, 2005).

In arguing for the importance of contemporary and appropriate theoretical frameworks to ensure more effective action for oral health promotion, Watt (2002) highlighted life course analysis among other public health theories concerned with social determinants of health. Nicolau and colleagues have used the life course approach among Brazilian adolescents to examine, e.g., the relationship between social and psychological circumstances and gingival status (Nicolau, Marcenes, Hardy, & Sheiham, 2003) and the association between height and dental caries (Nicolau, Marcenes, Hardy, & Sheiham, 2005).

Another way to conceptualize individual life courses is that they are composed of multiple, simultaneously occurring trajectories through various dimensions of life (work, leisure, home) within specific sociohistorical contexts (see.,

e.g., Rossi, 1994). While improved nutrition and living standards after World War II have enabled certain populations to enjoy far better health than their forebears did a century ago, not all Americans have achieved the same level of oral health and well-being (Treadwell & Northridge, 2007). According to Allukian and Horowitz (2006), people are much more likely to have poor oral health if they are low-income, uninsured, developmentally disabled, homebound, homeless, medically compromised, and/or members of minority groups or other high-risk populations who do not have access to oral health care services.

Interdisciplinary Engagement

Several societal changes have left many seniors unable to afford any dental services whatsoever, let alone the most appropriate treatments (Lamster, 2004; Northridge & Lamster, 2004). Among the changes responsible for the lack of oral health care for older adults are: (1) rapid population shifts and the resulting larger numbers of older adults in the United States; (2) lack of routine dental service coverage under Medicare; (3) willful neglect; and (4) ageism (Treadwell & Northridge, 2007).

To meet the oral health care needs of older adults, we are convinced that interdisciplinary engagement is essential. Thus, in this volume, contributions were solicited from social workers, policy analysts, physicians, public health researchers and practitioners, demographers, and of course, dentists across different specialties.

We divided this volume into four major sections: (1) population health and well-being; (2) health and medical considerations; (3) oral health and dental considerations; and (4) professional recommendations and future needs. Of particular meaning to us was that several colleagues who hadn't appreciated the connections between oral health and their research specialties before writing their respective chapters became convinced of the linkage after completing their valued contributions. In the frequently invoked and notable words of former Surgeon General David Satcher, we need to reconnect the mouth to the rest of the body in health policies and programs (U.S. Department of Health and Human Services, 2000).

In order to eliminate oral health disparities among the elderly, interdisciplinary collaboration will be key (Pyle & Stoller, 2003). Our hope is that this volume will be used by public health researchers interested in aging, physicians interested in the connections between oral disease burden and a variety of systemic diseases, dentists interested in effectively treating older patients, policymakers interested in reforming access to and reimbursement for prevention and treatment of dental diseases, and those responsible for both large and small health initiatives directed toward improving the quality of life for seniors and their families, friends, and caregivers—that is to say, all of us.

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<http://www.springer.com/978-0-387-74336-3>

Improving Oral Health for the Elderly
An Interdisciplinary Approach
Lamster, I.B.; Northridge, M.E. (Eds.)
2008, XXVI, 510 p. 83 illus., Hardcover
ISBN: 978-0-387-74336-3