Policy Statement:

Older Adults and Oral Health:
A Continuing Challenge
Association of State and Territorial Dental Directors
Adopted: December 2024

Policy Statement

The Association of State and Territorial Dental Directors (ASTDD) supports comprehensive approaches to improving oral health access and status for older adults, emphasizing policy changes that integrate oral health into overall health care systems. Key strategies include collaborating with other organizations that work to promote healthy aging, enhancing geriatric education and training for oral health care and other health care providers, advocating for continued and expanded dental coverage in the ACA and Medicare, and promoting workforce and technology innovations that address access barriers. State and territorial oral health programs can have a pivotal role as a partner, coordinator and convenor in collaborative efforts, and in supporting innovative public health programs, essential for achieving long-term improvements in the oral health of the growing aging population.

Summary

Oral health, a vital component of overall health and well-being for all, often has been overlooked as a health issue and component of healthy aging for older adults in the U.S., defined as people aged 65 years and older. This paper provides background information specific to clinical as well as selected structural issues in the oral health of older adults for state oral health program directors and staff, stakeholders, partners and policymakers as a resource for working for policy changes that can improve older adults' access to oral health care services. The information here can support efforts to include oral health education and referral as part of any health-related programs serving older adults, and to increase training and continuing education opportunities for dental and medical providers in the provision of preventive and restorative care. The end goal is to improve oral health status well into the lifespan.

Poor oral health can exacerbate chronic diseases, regardless of age, but may be of particular concern in older adults by contributing to potentially life-threatening conditions. Programs and policies that improve access to oral health services for older adults can reduce the need for more expensive care, such as complications of other potentially serious health conditions, emergency department visits and hospitalization. Dental disease prevalence and its consequences, the challenges experienced by people who do not live independently, insurance coverage, access to health care and the social and structural determinants of health, workforce issues, technological developments, clinical treatment innovations,

interaction and collaboration with other health care providers, and dental professional education are among the topics in this paper.

Continuing challenges in access to oral health care for older adults in different stages and states of aging include a lack of broad understanding of the needs of older adults, and the mistaken notion that they are a homogeneous group based on age or diagnosis; the need for up-to-date and evidenced-based data connecting oral health and systemic health; limited workforce capacity and ongoing training and education that can facilitate providing care; and varying support for telehealth technologies and interdisciplinary approaches to providing care. Affordability and lack of or the limits of insurance pose serious barriers to older adults. Changing public perceptions of the importance of older adult oral health also requires collaboration and messaging to multiple audiences to increase awareness and to improve public policy, funding, and program planning.

NOTE: In 2018, ASTDD posted "Improving Oral Health Access and Services for Older Adults," a white paper addressing many of the issues included here. Much of that document remains relevant; this statement provides additional information and updates where relevant. The current statement also is intended to complement ASTDD's "Best Practice Approach Report: Improving the Oral Health of Older Adults," first published in 2018 and updated in 2023.

Problem

Introduction

Dr. C. Everett Koop, Surgeon General of the United States from 1982 to 1989, is famously quoted as saying, "You're not healthy without good oral health." Three decades later, in its *2015 World Report on Ageing and Health*, the World Health Organization defined healthy aging as "the process of developing and maintaining the functional ability that enables wellbeing in older age," with functional ability defined as "about having the capabilities that enable all people to be and do what they have reason to value."[1] Yet oral health, a vital component of overall health and well-being for all, often has been overlooked as a health issue and component of healthy aging for older adults in the U.S.

This paper provides background information specific to clinical as well as selected structural issues in the oral health of older adults for state oral health program directors and staff, stakeholders, partners and policymakers as a resource for working for policy changes that can improve older adults' access to oral health care services. In addition, the information here can support efforts to include oral health education and referral as part of any health-related programs serving older adults, and to increase training and continuing education opportunities for dental and medical providers in the provision of preventive and restorative care. The end goal is to improve oral health status well into the lifespan.

Poor oral health can exacerbate chronic diseases, regardless of age, but in older adults may contribute to potentially life-threatening conditions such as stroke, myocardial infarction, and aspiration pneumonia.[2,3] The absence of oral infection is essential prior to cancer treatments such as radiation, chemotherapy and infusion therapy. Poor oral health is also a factor in diabetes management, compromises in nutrition, and increased social isolation. These factors often are especially notable for frail older adults.[4] Programs

and policies that improve access to oral health services for older adults can reduce the need for more expensive care, such as complications of other potentially serious health conditions, emergency department visits and hospitalization.

The older adult population has been defined as the cohort aged 65 years and older, a threshold established in the U.S. when Social Security was signed into law in 1935.[5] The older adult population of the U.S. is growing rapidly, especially the "Baby Boomers" (persons born between 1945 and 1964), with ten thousand per day reaching age 65 by 2030.[6] Current projections show a continuing increase in the size of this cohort until at least 2060.[7] Over 67% of these older adults are keeping adequate numbers of teeth to chew food effectively, speak clearly, and maintain overall oral health,[8] but they remain at continuing risk for dental caries (tooth decay) and periodontal (gum) disease. Older adults who are edentulous (toothless) are at risk of stomatitis (mouth infections) and oral cancers, which can impact and complicate general health[9] as well as the management of many health conditions.

In the U.S., dental care is primarily provided in private dental offices or community-based non-profit clinics such as federally qualified health centers (FQHCs). This works well for about 70% of the population who are proactive, knowledgeable, and have financial and other resources such as reliable transportation.[10] These individuals are more likely to retain functional teeth and maintain good oral health. However, many older adults and people with disabilities, especially those receiving home health care or in nursing facilities, often cannot access dental care independently. They rely on family members or caregivers to facilitate and follow up on their dental visits. Many vulnerable adults lack such support. Since its inception in 1965, Medicare, a federal program, has not covered routine preventive and restorative dental care. Although more commonly included than in the past, adult dental benefits remain optional under state Medicaid programs, resulting in variability across states ranging from only emergency care to limited services to comprehensive coverage. Generally, low dental provider participation, a persistent problem in public programs, results in inadequate appointment availability and less care for publicly insured older adults.[11]

Oral Disease Prevalence and Consequences

Tooth decay

The prevalence of tooth decay among older adults is high worldwide; a systematic review of international studies published in 2021 indicated that untreated caries affected 2.4 billion people by the age of 70.[12,13,14] Factors include root exposure due to cervical recession (receding gums), xerostomia (dry mouth) associated with some health conditions and with prescriptions, lack of manual dexterity, decreased vision, and intellectual impairment, among others.[15] In the U.S., the total prevalence of untreated tooth decay among older adults is 16%, and increases to 33% among persons with lower incomes.[10] Untreated decay on the root surfaces of teeth has a prevalence of 16% in older adults. A higher prevalence of untreated root surface decay is associated with aging, tobacco use, male gender, infrequent dental visits, and inability to afford or access regular dental care.[4] Common consequences of untreated decay include tooth sensitivity, local tooth pain, infection and systemic complications and comorbidities. Tooth decay can also impair chewing and restrict food selection, which can negatively impact nutrition, quality of life, and general health. The final outcome of untreated decay is tooth loss,

with its own consequences, not only related to nutrition but also including changes to facial esthetics, which can lead to social isolation.[16]

Periodontal Disease

Adults are keeping their teeth further into older age cohorts than in the past, resulting in a higher prevalence of periodontal disease in older age groups. National data from 2009 to 2014 showed that the prevalence of periodontal disease (periodontitis or gum disease) in the U.S. was high (60%) among older age cohorts, ranging from 81% among current smokers and declining to 55.9% among non-smokers.[17,18] Untreated periodontal disease can cause sensitivity or local pain affecting teeth or soft tissue, infection, bad breath, tooth mobility, and finally tooth loss. Periodontal disease also has been linked to poorer outcomes for people with other systemic diseases that also have their etiology in inflammatory processes such as Type 2 diabetes, cardiovascular diseases, some respiratory diseases, inflammatory bowel disease and dementia. Because periodontal disease is correlated to cardiovascular diseases, it has also been associated with increased risk of death.[19] The mechanism underlying the relationship between periodontal disease and other systemic illnesses seems to be related to a common inflammatory process associated with all of them.[20]

Xerostomia

Xerostomia occurs when salivary glands cannot produce an adequate amount and quality of saliva to provide moisture for swallowing food, speaking clearly and to keep the mouth moist and lubricated for comfort. Saliva is also necessary to neutralize and flush away bacteria and viruses from the mouth. Dry mouth may cause taste disturbances, influence food choices, interrupt sleep, or cause a burning sensation in the mouth, all of which reduce quality of life. Because it changes the oral environment, it also increases the risk of caries and periodontal disease, and consequently may lead to tooth loss.[21] The prevalence of dry mouth is high among older adults. In a sample of 11,000+ patients receiving care at a U.S. dental school, 38.5% of the subjects reported dry mouth; the prevalence of dry mouth was correlated with multiple medications in a dose-dependent way; i.e., the more medications the higher the prevalence.[22] More than 1,100 prescription or over-the-counter drugs may cause dry mouth. [23]

Tooth Loss

The prevalence of total tooth loss increases as people age, and disproportionately impacts persons who have lower levels of education and income[10] (see also section below, on access to care and social and structural determinants of health). Although noted above as the consequence of certain oral conditions, tooth loss itself has serious outcomes for health. The consequences of tooth loss can affect self-confidence, social interactions, the ability to gain employment, and the ability to chew many foods, causing nutritional compromise.[24] Increasing loss of teeth has been implicated in an increase in the risk of cardiovascular diseases.[25]

Data collected between 2015 and 2018 for the National Health and Nutrition Examination Survey and reported in 2020 indicated the following:[8,24]

- The prevalence of total tooth loss ranged between 10.2% among persons whose income was 200% or more of the federal poverty guideline to 35.5% among those whose income fell below 100% of the guideline.

- Non-Hispanic Black older adults had a higher prevalence (25.4%) of complete tooth loss than Hispanic (15.3%) and non-Hispanic White (10.9%) older adults.
- The prevalence of complete tooth loss was about three times higher for older adults with less than a high school education (31.9%) compared with those with a high school education or greater (9.5%).

However, the data also indicated that from 1999–2000 through 2017–2018, complete tooth loss among all older adults declined significantly. This improvement may well be related to more access to care and exposure to fluoridated water and other fluoride modalities throughout their lifetimes.

Teeth extracted due to untreated decay and periodontal disease can be replaced by a variety of prosthetic devices such as bridges, implants, or dentures, but often cost is a challenge or barrier. Dentures are not a benefit in Medicare but are covered by Medicaid in 37 states and the District of Columbia.[26] However, coverage does not guarantee access to care, since participation in Medicaid programs by dental providers is voluntary.

Mucosal lesions and conditions

Older adults are susceptible to oral mucosal conditions (mouth sores and ulcers). The most common are candidiasis, lichen planus, and infections from herpes simplex and zoster. These lesions, most often related to denture wearing, include denture stomatitis (inflammation) and tissue overgrowth (hyperplasia) associated with ill-fitting dentures. [27,28] Since they may not be painful unless secondarily infected, they may not motivate individuals to seek dental care. Regular dental visits are essential for denture wearers to ensure timely identification and treatment of any issues.

Mucositis, presenting as a burning sensation or redness, can be a side effect of chemotherapy or some medications. Irritation and ulceration should be treated as early as possible because the discomfort may negatively influence food choices and impact nutrition, contributing to health problems.[27,28]

Lichen planus, a white lesion of the mouth, requires careful follow-up because of its potential to evolve into oral cancer.[27,28]

Oral and oropharyngeal cancers

The incidence of oral and oropharyngeal cancer increases with age; 80% of people diagnosed with oral and oropharyngeal cancer are older than age 55.[29] The American Cancer Society estimates that in 2024 there will be 58,450 new cases of oral and oropharyngeal cancer, as well as 12,230 deaths due to these conditions; this includes persons with or without teeth.[29] Denture wearers should be aware of the importance of regular oral examinations to screen for oral cancer even if they do not have any discomfort or pain, as oral and oropharyngeal cancer is generally asymptomatic.[30]

Smoking and alcohol use are the most common modifiable risk factors for oral and oropharyngeal cancers.[31] Another important risk factor is infection by the human papilloma virus (HPV).[32] The majority of lesions are squamous cell carcinomas located on the side of the tongue or the floor of the mouth. If the cancer is identified early, it is highly responsive to treatment. Most oral cancers are generally asymptomatic or painless; this means the patient is unaware of the lesion, and early diagnosis may not occur.[27] Therefore, an annual oral cancer screening by oral health professionals is extremely important

for all older adults whether or not they have teeth. Other health professionals such as physicians and nurses may also screen for oral cancers if they receive the appropriate training.[33]

Skilled nursing facility (SNF) and long-term care facility (LTCF)

As people age, an estimated 34% will manifest signs of frailty and functional dependence, reducing their autonomy.[34,35] They may need access to home health services or long-term services and supports (LTSS) at some juncture.[34,35] Data from the Centers for Medicare & Medicaid Services (CMS) indicate that as of July 2022 around 1.2 million individuals were living in over 15,000 certified LTCFs.[36] With the population of people age 65 and older estimated as 17.3% of the U.S. population, the proportion of older adults living in these facilities is small.[37]

Provision of dental care to residents in SNFs (nursing homes) has been historically limited and is problematic due to multiple barriers. These include insufficient training of dental professionals in geriatric dental medicine and dentists' concerns about time efficiency and patient complexity. Societal ageism also influences oral health care providers' reluctance to provide dental care in SNFs.[38,39] Families of residents face financial and logistical challenges, and by concerns such as disrupting routines and past negative experiences with dental care.[38] Routine dental expenses are not covered by Medicare and necessitate out-of-pocket payments.[40] Accessibility issues further hinder access to dental services, along with complexities linked to residents' medical conditions.[41] While offering dental care in SNFs and LTCFs presents advantages, overcoming barriers necessitates collaborative efforts among dental professionals, facility staff, and families to ensure optimal oral health outcomes for residents.[42] (See the Method section for examples.)

Lack of prioritization of oral health care in SNFs often is caused by organizational constraints, as well as a lack of enforcement of regulations such as the Omnibus Budget Reconciliation Act of 1987.[43] However, the regulations were not effectively enforced, leading to neglect of oral health issues.[44] In 1990, Medicare and Medicaid introduced new regulations emphasizing resident-focused care with outcome-oriented standards. This led to the development of the Resident Assessment Instrument, including the Minimum Data Set (MDS), for comprehensive functional assessments and individualized care plans. Despite these efforts, studies showed that MDS dental assessments often failed to identify oral health problems, and even when identified, did not consistently result in dental care.[42,44] Understaffing and high turnover of nursing staff, especially of nurses' aides, who carry out the majority of care, exacerbate the problem. In addition, staff may experience their own barriers to oral health and dental care.

Insurance

Private health insurance in the U.S. usually is tied to a person's employment, and 80% of Americans younger than age 65 who have work-related health insurance also have dental benefits.[45] In general, when people leave their employment, they lose their dental coverage, and when they reach age 65 many become eligible for Medicare.[1] Because of Medicare's statutory dental exclusion (section

[1] For a delineation of Medicare's benefit structure and another discussion of coverage of dental services in Medicare, download ASTDD's Best Practice Approach Report: *Improving the Oral Health of Older Adults*.

1862(a)(12) of the Social Security Act) Medicare does not cover routine oral/dental care. As a result, adding dental services would most likely necessitate an amendment to the Social Security Act.[46]

A person also may be eligible for Medicaid coverage. These "dual eligibles" have their primary health insurance coverage through Medicare and, due to limited financial resources that impact their ability to pay Medicare premiums, receive assistance from their state Medicaid program.[47] Often referred to as "Medicaid wraparound services," an estimated 9.5 million people were eligible in 2021 for this coverage, which includes dental care to the extent that it is covered by the state's Medicaid program.[48]

The Affordable Care Act (ACA) improved health insurance coverage for millions of Americans. Although generally not available after the age of 65, an individual can choose Marketplace coverage instead of Medicare if they have to pay a Medicare Part A premium.[49] Routine adult dental coverage is not included as an essential health benefit; most Marketplace plans do not offer it, although states may offer stand-alone dental plans for purchase.[50] Changes in CMS rules are planned to start taking effect in 2025 to change these parameters and are summarized below in the Method section.

To put this in context, "In 2022, almost all (94%) non-institutionalized people 65 and older obtained health insurance through Medicare. Medicare covers mostly acute care services and requires beneficiaries to pay part of the cost. Older adults must cover about half of their health spending with other sources. Almost half of older adults (46%) had some type of private health insurance, 6% had military-based health insurance, 7% were covered by Medicaid, and 1% had no coverage."[37]

There are exceptions to the Medicare exclusion. As of late 2024, Medicare clarified that it may cover specific dental interventions if they are "**inextricably** [*emphasis added*] linked to, and substantially related and integral to the clinical success of, a specific treatment of an individual's primary medical condition."[51] Dental procedures that are directly associated with covered medical treatments such as preparatory dental treatments preceding surgeries, e.g., heart valve replacements or organ transplants, are usually covered. Interventions to treat oral infections prior to initiating cancer treatment may be covered, as may care needed to treat complications such as stomatitis or other oral problems associated with head and neck cancer treatment.[51]

Dental Coverage Status and Utilization of Preventive Dental Services by Medicare Beneficiaries

- In 2019, 49 percent of Medicare beneficiaries living in the community had some dental coverage, and 51 percent had no dental coverage.
- Medicare beneficiaries with incomes between $30,000 to $49,999 and beneficiaries living in non-metro areas were least likely to have any kind of dental coverage (61 percent and 62 percent, respectively, had no dental coverage).
- White non-Hispanic beneficiaries, beneficiaries with incomes greater than $50,000, and beneficiaries living in metro areas were more likely to have private dental coverage compared with other groups.

https://www.cms.gov/files/document/dental-coverage-status-and-utilization-preventive-dental-services-medicare-beneficiaries-poster.pdf

Access to oral health care and social and structural determinants of health[2]

Poverty, inadequate housing, unemployment, and other social and structural determinants of health are detrimental to chronic health conditions.[10] Access to health care, including oral health services, may be impeded by several key challenges, including low health literacy, language barriers, inadequate housing, lack of reliable transportation, insurance gaps and provider shortages.[10] Older adults may face a higher risk of chronic oral and systemic diseases and worse health outcomes due to multiple risk factors such as lack of access to healthy foods, weak social networks, financial instability, and limited engagement with preventive health services.[10]

Older adults in rural areas may face additional challenges in accessing health care. About 17.5% of the rural population is 65 years old or older, compared to 13.8% in urban areas. Older rural adults are less racially and ethnically diverse, and reside less frequently in SNFs; instead, they live alone or with their families.[52] The closure of rural hospitals and SNFs further challenges the ability of many older adults to access health care. People living in rural areas experience longer travel times to reach all health care services compared to urban areas. This problem is compounded as many older adults face restrictions on their ability to drive as they age, a significant challenge without readily available public transportation.[53]

Dental care in rural areas is frequently limited. The U.S. Health Resources & Services Administration (HRSA) designates Dental Health Professional Shortage Areas[3]; as of April 2024, there were 6,826 designations comprising an estimated population of more than 57.7 million people.[54] Many dentists believe they cannot sustain financially viable practices in rural areas due to their student debt and difficulties in recruiting support staff. [55] The shortage of rural dentists leads to higher rates of untreated dental issues and longer waiting times, a further complication for older adults living in rural areas.[10] In general, barriers for rural populations include lack of dental insurance, difficulty or inability to pay out of pocket due to lower incomes and higher rates of poverty, limited availability of dental services, particularly specialist care, and the challenge of traveling significant distances to obtain care.[55]

Ageism, defined "as the stereotypes, prejudice, and discrimination directed towards people on the basis of their age," is another SDoH that is gaining increasing attention and recognition.[56] The problem is stated clearly in *Oral Health in America: Advances and Challenges* [Section 3B Oral Health Across the Lifespan: Older Adults: "Despite higher expectations than ever before for maintaining one's own natural teeth, society continues to accept declines in oral health related to aging and to make oral health care an elective, rather than a mandatory, part of overall health care."[10]

Workforce issues

Historically, society focused on treating acute infectious diseases and trauma. As the population has aged and with more people living longer, the emphasis has shifted to preventing, treating and managing chronic diseases associated with aging such as cardiovascular diseases, diabetes, depression, and dementia, among others. As a result, there is a need for more trained health care workers, including

[2] For a broader discussion of social and structural determinants of health as related to oral health, see ASTDD's policy statement, *Social Determinants of Health and Improving Oral Health Equity.*

[3] For more information on Health Professional Shortage Areas, see HRSA, Bureau of Health Workforce, Workforce Shortage Areas, https://bhw.hrsa.gov/workforce-shortage-areas

dental professionals. Moreover, a growing national workforce shortage attributed to multiple factors [57] has been exacerbated due to early retirement and staff burnout associated with the COVID-19 pandemic.[58]

Shortages of primary care providers and geriatric specialists in both medicine and dentistry will restrict the U.S. health care system's capacity to address the growing needs of its aging population. Issues include training capacity, salary, and competition with more remunerative specialties.[59,60] Advanced education programs in geriatric dentistry are crucial to address these needs: to produce geriatric dentistry educators, support research, and enhance clinical practice protocols. Advanced education programs can also provide intensive short courses and other continuing education activities for training current practitioners to better serve their older patients.[61,62] Unfortunately, the number of these programs has declined since 2015 because federal funding supporting them was withdrawn.[62]

Method

Interaction/collaboration with other health care providers, expanding the dental team, incorporating new treatment techniques

Primary care providers, including geriatricians, interact with older adults and their families more frequently than do dentists. During medical visits of their older adult patients, these health care professionals could, and should, routinely screen for oral health problems and advocate for care. Primary care providers can conduct timely and effective oral health screenings for their patients and determine when a referral for dental care is necessary.[63]

Access to dental care for frail and functionally dependent older adults, especially in rural/remote areas, could be improved by strengthening the dental care team with dental therapists, expanded scope/public health dental hygienists and expanded function dental hygienists, and adopting and emphasizing prevention and minimally invasive care techniques over more invasive restorative dentistry. These techniques require less use of aggressive techniques to remove decayed tooth structure and include the use of silver diamine fluoride, hand instruments, and glass ionomer fillings.

Prevention and management of problems associated with polypharmacy (multiple medications) such as dry mouth require interdisciplinary care, especially coordination between pharmacists and prescribers.[64] Medicare Part D (its prescription drug benefit) requires an annual comprehensive medication review be done by either a pharmacist or other qualified health care provider.[65] The relationship between polypharmacy and dry mouth has not been emphasized in medical and pharmacy schools.[64] To address this problem, oral health care professionals need to engage physicians and pharmacists in interprofessional education and practice.

As noted, whether as a consequence of one or multiple chronic diseases, older adults may become unable to maintain daily oral hygiene independently, whether at home or living in a care facility.[66] Oral hygiene care often falls to family members or professional caregivers who may not be aware of the patient’s oral problems nor have received training in how to care for their specific daily oral hygiene needs, particularly in instances of non-cooperative behavior for oral care, such as in those with dementia or who resist being taken care of. Effective approaches to oral care for these individuals have been tested

and some successfully implemented (see examples below). In an LTCF, the success of any oral health care program depends on the commitment of nursing directors and administrators to prioritize residents' oral health needs. Training nursing aides as oral health champions and hiring dental hygienists as part of the care team have been effective as long as sustained funding is available. [42,67,68,69]

Some nursing schools have tested integrating oral health into their curricula. A successful model is the New York University Rory Meyers College of Nursing Oral Health Nursing Education and Practice (OHNEP) Program, a core partner of the National Interprofessional Initiative on Oral Health (NIIOH). NIIOH is a national effort to increase oral health in education and practice of primary care clinicians and to influence change in clinical education, practice and policy. After ten years of development, implementation and evaluation, OHNEP's products and resources have been broadly disseminated and used nationally by undergraduate and graduate programs, with a perceived impact on increasing interprofessional oral health workforce participation capacity and improving health equity.[70]

A promising initiative is MOTIVATE (Maine's Oral Team-based Initiative Vital Access to Education program). An interprofessional program intended to enhance oral health education and practice of interprofessional health care teams in nursing homes, it uses a blended learning model, combining in-person and online learning.[71] A full description of the program may be viewed in ASTDD's "Best Practice Approach Report: Improving the Oral Health of Older Adults."[72] A new development is the related "MOTIVATE at Home" initiative, an oral health education program for care partners of older adults who live in their homes.

Dental insurance and access to care initiatives

Dental insurance rarely covers services in full but can facilitate access to care for many different population groups, including older adults.[73] However, as noted above, adults usually lose employment-related dental insurance at retirement, and as of 2024, Medicare does not yet cover routine dental care. Over the last decade, multiple efforts to broaden Medicare's dental coverage through federal legislation have been proposed. At the time of this report, a possible policy option could be to structure dental coverage as a voluntary supplemental benefit, similar to Medicare's Part D prescription drug benefit, that could encompass an annual preventive dental examination and cleaning.[74,74]

Changes in dental coverage offered through the ACA Marketplace may improve access to dental services for all older adults.[46] For Payment Year (PY) 2025, CMS removed the regulatory prohibition on Marketplace insurers from including adult dental benefits as Essential Health Benefits (EHBs), and each state may determine if it will add routine adult dental benefits as EHBs.[46] Without that prohibition, regulatory and coverage barriers to expanding access to adult dental benefits are also removed. For states beginning this process in 2025, adding routine adult dental services as an EHB would become effective for their issuers' PY 2027 plans. As noted in a CMS fact sheet on the rule, the change "also gives states the opportunity to improve non-pediatric oral health and overall health outcomes, which could help reduce health disparities and advance health equity since these health outcomes are disproportionately low among marginalized communities."

Many state dental associations, alone or with partners, have sponsored free dental care through events such as Missions of Mercy (MoM) and Remote Access Medical (RAM) programs. Older adults may have

significant barriers accessing these events, and the mean age of attendees is in their late 30's.[75] These programs, which provide needed urgent services, are held only once or twice a year, for a day or two, and are not a substitute for regular and ongoing care. "Free" or low-cost medical and dental clinics, funded by charitable donations or grants and largely or wholly staffed by volunteers, are available in some cities and towns. These clinics may have sliding fees or ask for donations and may have limited hours and long waiting lists. Many older adults cannot access these services due to financial, transportation, or health-related barriers.

Public health programs have recognized the above-mentioned problems and have specifically targeted access to oral health care for older adults. Program initiatives, models of care, business models, dental school outreach efforts, and new technology provide opportunities for improving access to care.

- Iowa's I-Smile Silver program facilitates access to dental, medical, and community resources for adults in 10 Iowa counties. To assist adults in locating services, program coordinators collaborate with dental and medical professionals, hospitals, businesses, civic organizations, and social service agencies. They coordinate dental appointments, identify funding sources, train health care providers, and advocate for oral health through participation in community events.[76]

- Program of All-Inclusive Care for the Elderly (PACE) is a federal program that integrates Medicaid long-term care services and oral health care with Medicare primary and acute care services. PACE ensures continuity of care across community-based and institutional settings by providing comprehensive, coordinated primary, acute, and long-term care to frail, dual-eligible individuals living in the community. The program employs integrated, bundled financing and holds full accountability for population-based outcomes. PACE operates as an opt-in, capitated program, enabling primarily dual-eligible participants to remain in the community while receiving services. Programs must provide and finance medically necessary oral health care, independent of state-specific adult Medicaid dental benefits. Care is directed by an interdisciplinary team mandated by CMS, but dentists are not required members. New enrollees must have a dental status assessment during enrollment, potentially by a dentist, but CMS does not mandate subsequent dental examinations. Appealing to the growing number of baby boomers who prefer to age in place, PACE offers insights into integrating dentistry within coordinated care for the dual-eligible population.[77] Another description of PACE may be viewed as an example in ASTDD's Best Practice Approach report, *Improving the Oral Health of Older Adults*.

- Apple Tree Dental, a Minnesota-based nonprofit 501c3 dental organization established in 1985, is nationally recognized for its pioneering approach to integrating dental care as part of overall health and well-being. An integrated team of professionals provides comprehensive preventive care and treatment at nine Centers for Dental Health and their on-site mobile programs that deliver care at approximately 150 community sites in collaboration with health, education, and social service partners. Initially focused on residents in nursing care facilities, Apple Tree has expanded its programs to serve additional populations, including older adults. Apple Tree has also helped local leaders in Louisiana, North Carolina, Massachusetts, Texas, and California

replicate its "community collaborative practice" model.[78,79] (See also the example in ASTDD's Best Practice Approach report.)

- Another proactive oral health care delivery model has been developed by the Pacific Center for Special Care in California, using a virtual dental home (VDH) model and telehealth technologies. The VDH system is founded on the principles of minimally invasive care in dentistry and focuses on prevention and early intervention techniques that can be implemented by allied dental personnel in community settings.[80]

In rural areas, solutions for delivering oral health care include improving prevention programs, increasing workforce flexibility, addressing distance barriers, and expanding the rural dental workforce by providing incentives to dental providers such as tax deductions and loan repayment programs. Other incentives may include simplifying the development of federally qualified health centers (FQHC) in rural areas.[53]

Although dental schools' primary goal is to educate new dental providers, they do provide care to older adults who can access their dental clinics. Several schools have developed special care clinics to treat people with special needs and frail and functionally-dependent older adults. Some dental schools have outreach programs that visit LTCFs and provide oral care for residents, and a few have outreach programs for people who are homebound. These programs vary in scope from prevention only to delivering comprehensive care.[81]

Recent technological developments have improved the delivery of oral care for people who are homebound or living in LTCFs. During the COVID-19 pandemic, the use of telehealth technology, already increasing employed, expanded. Initial screenings and consultations using teledentistry can reduce the number of in-person appointments by allowing data collection and initial diagnosis of soft and hard lesions of the mouth, saving staff time and reducing travel time. Portable handheld x-ray units allow for comprehensive care to be delivered beyond dental offices and clinics, and digital technologies have improved the provision of prosthodontic care in these settings.[82]

The approval of silver diamine fluoride (SDF) by the Federal Drug Administration has been useful in preventing, arresting, and managing caries among older adults, including those in LTCFs, along with the use of fluoride varnish for caries prevention. Silver modified atraumatic restorative technique (SMART), the combined use of SDF and glass ionomer, without mechanical caries removal, allows patients to be treated more efficiently in ambulatory settings.[66]

While most U.S. dental schools teach geriatric dentistry to predoctoral students, only 57% require compulsory geriatric clinical experiences.[62] Geriatric dentistry courses should include new techniques and technologies. As noted above, there have been attempts to establish postdoctoral geriatric dentistry programs supported by national grant funding. However, when the funding ended, the majority of the programs closed; by 2017, there were only six programs accepting fellows/residents, clearly insufficient to serve the growing aging population.[62] Other attempts to better prepare the dental workforce to provide care for older adults include training dental hygienists and expanded function dental assistants. Dental therapists have been authorized in 14 states.[83] These providers can offer education, preventive

care, interim therapeutic restorations, triage, and case management, especially in alternative care settings,[84] and determine when referral to a dentist is needed.

ASTDD's Best Practice Approach Report, *Improving the Oral Health of Older Adults*, provides practice examples illustrating strategies and interventions for improving the oral health of older adults.[72] It also outlines roles and actions for addressing older adult oral health for stakeholders, dental professionals, non-clinical team members, dental education professionals, policymakers and payers, allied health care professionals and LTCFs, and for S/TOHP, which can have a pivotal role as a partner and convenor.

S/TOHP can partner with other state and professional organizations such as state dental, dental hygienist, medical, nursing, and other associations that might have an interest in promoting healthy aging. They can engage with their state disabilities services or state unit on aging; work with partners (such as a state council on aging or a state oral health coalition) to create an advocacy network for older adults' oral health that will educate policymakers and work to ensure an older adult surveillance system that includes oral health; and develop oral health campaigns and collaborate with senior services and organizations to maximize outreach. Other examples include AARP and other retiree associations, primary care associations and healthy community coalitions. Collaboration with these groups can facilitate sharing information and resources with others such as community-based support organizations (e.g., home health providers, visiting nurse associations, hospice care organizations, nutritional support programs such as Meals on Wheels) and finally, municipal officials and policymakers.

In summary, continuing challenges in access to oral health care for older adults in different stages and states of aging include a lack of broad understanding of the social as well as the clinical needs of older adults, and the mistaken notion that they are a homogeneous group based on age or diagnosis; the need for up-to-date and evidenced-based data connecting oral health and systemic health; limited workforce capacity and ongoing training and education that can facilitate providing care; and support for telehealth technologies and interdisciplinary approaches to providing care. As individuals age, a great majority continue to live independently at home; some move in with family members or into assisted living facilities. Timely and appropriate assessment is key as well as matching individual needs with appropriate services. Changing public perceptions of the importance of older adult oral health also requires collaboration and messaging to multiple audiences to increase awareness and to improve public policy, funding, and program planning.[85]

Policy Statement

The Association of State and Territorial Dental Directors (ASTDD) supports comprehensive approaches to improving oral health access and status for older adults, emphasizing policy changes that integrate oral health into overall health care systems. Key strategies include collaborating with other organizations that work to promote healthy aging, enhancing geriatric education and training for oral health care and other health care providers, advocating for continued and expanded dental coverage in the ACA and Medicare, and promoting workforce and technology innovations that address access barriers. State and territorial oral health programs can have a pivotal role as a partner, coordinator and convenor in collaborative efforts, and in supporting innovative public health programs, essential for achieving long-term improvements in the oral health of the growing aging population.

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