The International Federation of Dental Hygienists

Prevention & Treatment

WHITE PAPER SERIES

Providing a Global Perspective on the Multi-Faceted Impact of Dental Hygienists

Aging and Oral Health: Implications for Patients and Oral Healthcare Professionals

This White Paper discusses the oral health of the aging population and offers recommendations for future action highlighting the role of the Dental Hygienist. Dental Therapists, Oral Therapists and Oral Health Therapists can also benefit from the information provided.

IFDH
INTERNATIONAL FEDERATION OF DENTAL HYGIENISTS

AUGUST 2025

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Prevention & Treatment WHITE PAPER SERIES

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The IFDH Prevention & Treatment White Paper Series is published over a three-year period to provide evidence-based guidance and information to its over 30 national association country members of Dental Hygienists, Dental Therapists, Oral Health Therapists and Oral Therapists.

The White Papers are valuable resources to use in advocacy efforts and for collaborating with like-minded stakeholders in dentistry, medicine and education.

The series shows the valuable role of the Dental Hygienist, Dental Therapist, Oral Health Therapist and Oral Therapist in advancing the World Health Organization's Global Strategy on Oral Health. The series includes:

- **Oral Health During Pregnancy**
- **Impact of Sustainability**
- **Cost Effectiveness of Prevention**
- **Aging & Oral Care**
- **Behavioral Change**
- **Oral Health for Medically Challenged Patients**

The series also shows other professions how Dental Hygienists, Dental Therapists, Oral Health Therapists and Oral Therapists are needed members of the healthcare team, and when empowered to practice to the full extent of their abilities, can ultimately improve the overall health of their patients and communities.

IFDH appreciates the support of Haleon in the production of this series.

IFDH INTERNATIONAL FEDERATION OF DENTAL HYGIENISTS

HALEON

Introduction

Aging is a multifaceted process that has a profound impact on oral health, reflecting a complex interaction between biological, social, and behavioral factors. As individuals age, their oral health trajectories diverge, being influenced by genetics, lifestyle, access to healthcare and underlying systemic conditions.[1] While some individuals maintain functional dentition and have good oral health, others experience significant deterioration, including tooth loss, periodontal diseases, dental caries, chewing and swallowing difficulties and decreased salivary flow,[2,3] often aggravated by co-existing chronic diseases that share common risk factors.[4] These disparities emphasize the need for a comprehensive understanding of individual differences in oral health outcomes among the elderly.

Functional impairments, which include decreased manual dexterity and cognitive decline, can make it difficult to adopt effective oral hygiene practices.[5] In addition, oral health inequalities are exacerbated by socioeconomic barriers, limited access to dental care and lack of awareness.[6] Oral health conditions in older adults are often neglected, contributing to pain, malnutrition and decreased quality of life and well-being,[7] with wider implications for general health conditions particularly cardiovascular diseases, diabetes, cancers and pneumonia.[8]

Recognizing these challenges, the UN Decade of Healthy Ageing: Plan of Action 2021-2030[9] and the World Health Organization's (WHO) Global Oral Health Action Plan 2023-2030[10] emphasize the integration of oral health into wider health systems, the strengthening and improvement of downstream promotion and prevention measures, the mobilisation of support for oral health promotion and the elimination of inequalities. By following UN's and WHO's recommendations, stakeholders can promote healthy aging and ensure that oral health is prioritized as a critical component of overall health and well-being.

Aging Demographics and Healthy Aging

The proportion of elderly people in the world population is increasing rapidly. According to United Nations data, the global share of people aged 65 and over has nearly doubled in the last 50 years. This figure is projected to grow by 2074, with the number of those aged 80 and over more than tripling. [11] This presents new challenges to individuals, families, communities, and governments as our aging populations move into an era of super-aging. [12] This global growing pace has a strong impact on trade, migration, economic growth, social systems, disease prevalence and patterns, and health care systems and societies require adaptations across all sectors. [13]

Aging is a physiological process generally defined as the accumulation of various changes that occur with advancing age. [14] For this reason, aging in the human species is inevitable and ubiquitous. [15] Despite being a universal process, it is experienced individually. [16] The lack of a universal definition of aging is because of its complexity that can be considered from various angles, according to social, behavioral, physiological, morphological, cellular, and molecular changes and how these changes interact with each other. [17]

Chronological age is the most popular method of defining age according to the passage of time since birth. Despite the simplicity and ease of use of this definition, one issue that remains unclear is the age at which an individual can be said to be "old". [18] Biological age is based on functional age and is mediated through the interaction of genes with environmental factors, increasing the body's susceptibility to insults. [19]

Being older beyond a certain chronological age is automatically interpreted as being vulnerable. The pioneer work of Rowe & Kahn [20] and Baltes & Baltes [21] about "successful aging" and "selective optimization with compensation" highlighted the essential role of social and environmental conditions in the health of individuals. Healthy aging has an adapting process, offering the possibility of becoming old without significant age-related diseases. The WHO (2002) launched the "Global Policy Guidelines for Active Aging" [22] stressing aging as a positive experience. In 2015 WHO published the "World Report on Ageing and Health", [23] proposing intrinsic capacity and environment as determinants of a person's functional ability. This is in line with the recent definition of healthy aging as "the process of developing and maintaining the functional ability that enables well-being in older age". [24]

Throughout the aging life course, it is essential to encourage capacity-enhancing behaviors and chronic illness prevention to enable a dignified late life. [17] Adopting a life-course approach means acknowledging the significance and interdependence of every period of life. The goal of life-course interventions is to minimize the early reduction of peak capacity and, perhaps more crucially, to preserve it for as long as feasible. [25]

The National Academy of Medicine [13] states that healthy aging can bring to societies capabilities to thrive, contribute to the successes of youth, and strengthen intergenerational cohesion. Actions needed to support individuals to live longer, and more healthy lives include:

- Reducing ageism (stereotyping, prejudice, and discrimination),
- improving social cohesion,
- ensuring financial security,
- boosting digital literacy,
- creating age-friendly communities,
- improving access to public transportation, and
- combating climate change.

Investing resources in preventive health care is possibly the most effective strategy for reducing adverse effects on the aging process today. [26]

Oral Diseases and Aging

The preservation of a functioning dentition, efficient masticatory function, and the lack or very slight presence of oral diseases such as dental caries and periodontal diseases are characteristics of healthy and successful oral aging. [27]

Dental caries, periodontal disease and tooth loss are highly prevalent in older people and often lead to impaired chewing function and poor nutrition, loss of self-esteem and social difficulties, [28] and also contribute to common systemic diseases [29] reducing quality of life and well-being. [30] Poor oral health in older adults can lead to a cascade of adverse effects on systemic health, contribute to frailty [31] and exacerbate other geriatric syndromes. [32]

Although the global age-standardized prevalence of tooth loss declined by 10.4% between 1990 and 2017, a significant portion of older persons continue to suffer from tooth loss. [33] Tooth loss is irreversible and disabling and has been described as the "ultimate marker of the burden of oral disease". [34] Tooth loss is a multifactorial process of complex etiology, predominantly attributed to dental caries and periodontal diseases that accumulate throughout life. Edentulism is the loss of all permanent teeth and represents a risk factor for malnutrition, obesity, cardiovascular disease, rheumatoid arthritis, pulmonary diseases, cancer, [35] dysphagia [36] and all-cause mortality. [37] The prevalence of edentulism varies widely across different regions with the most influential sociodemographic determinants being age, level of education, and socioeconomic status. [38] A few other determinants are also involved, including lifestyle and attitudes, knowledge, and beliefs about oral health. [39]

Untreated dental caries in permanent teeth represent the most prevalent oral problem worldwide. The incidence of untreated decay starts to rise around the age of 60 probably due to root caries.[40] Dental caries prevalence varies between countries from 25% to 99% for coronal caries and from 8% to 74% for root caries in community dwellers. The situation is even worse in institutionalized older adults with decayed, Missing and Filled Teeth (DMFT) ranging from 6.9 to 29.7.[41] In the elderly, the risk of dental caries, especially root caries, is increased by the lack of saliva and the presence of periodontitis and gum recession, and the decline in motor skills that make oral hygiene difficult.[42]

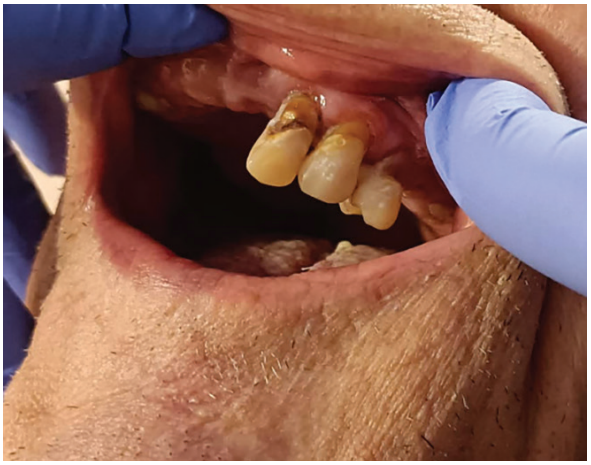


Figure 1: *Typical presentation of root caries in an older individual*

There are many risk factors for root caries[43] with dry mouth caused by polypharmacy being one of the most significant[44] *(Table 1)*. In nursing home residents additional risk factors are institutionalization, male gender, age, high functional dependency, and clasped teeth.[45] *(Figure 1)*

Severe periodontitis was the 31st most impactful Level 4 disease/condition globally, affecting close to 12.5% of the global population and is expected to increase to about 44% by 2050.[46] Epidemiological studies indicate a higher prevalence of periodontal pathology in individuals over age 65 with higher bone loss when compared to younger age groups.[47] Severe periodontitis can cause tooth loss, masticatory dysfunction, nutritional, cosmetic and speech impairments, and low self-esteem. In addition, severe periodontitis has also been linked to a higher risk of several systemic diseases and can worsen quality of life.[48]

Table 1 – Risk Factors for Root Caries

- Increased number of retained teeth
- Pre-existing root caries lesions
- High levels of plaque and inadequate toothbrushing behavior
- Coronal caries
- Exposed root surfaces
- High intake of free sugar
- Age-related systemic illnesses
- Polypharmacy
- Low salivary flow

Physiological changes in the oral mucosa due to aging (such as thinner, atrophic, and less elastic epithelium with decreased keratinization) can be significant.[49] They induce greater fragility and less resistance to external insults and a higher propensity to autoimmune diseases. Systemic disorders, malnutrition, medications, or poor oral

hygiene compounded by a fragile mucosa further increase cell damage and the risk for oral lesions and cancer.[50] Age is a risk factor for oral cancer with higher incidence in persons 65 and older.[51]

Several other lesions are reported in the literature as more frequent in the elderly, namely, traumatic ulcers, lichen planus, inflammatory autoimmune lesions, oral candidiasis and angular cheilitis, and vesiculobullous lesions.[52] *(Figure 2A & 2B)* Due to the high prevalence of these lesions, systematic surveillance of the oral cavity to detect them early should be part of routine examinations and oral health promotion programs.

Saliva is essential for maintaining the health, function, and balance of the mouth. The reported prevalence of dry mouth can be higher than 55% in older adults, reaching almost 100% in head and neck radiation therapy and Sjögren's Syndrome patients.[53] In healthy older people, changes are negligible, but with the effects of certain systemic diseases and commonly prescribed medications, salivary production decreases.[54] Several consequences of salivary hypofunction have been described[55] *(Table 2)*. Additionally, oral health-related quality of life was significantly influenced by xerostomia.[56]

Figure 2A: *Lip lesions requiring further assessment and diagnosis*

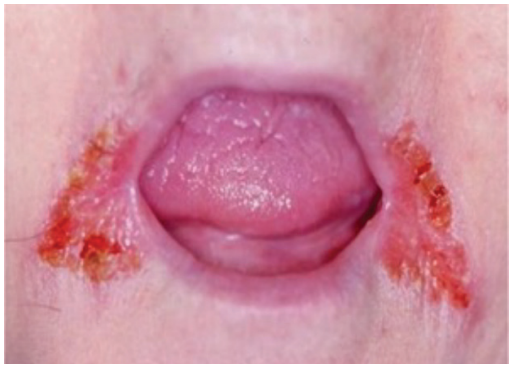


Figure 2B: *Angular cheilitis and tissue fragility in an elderly patient*

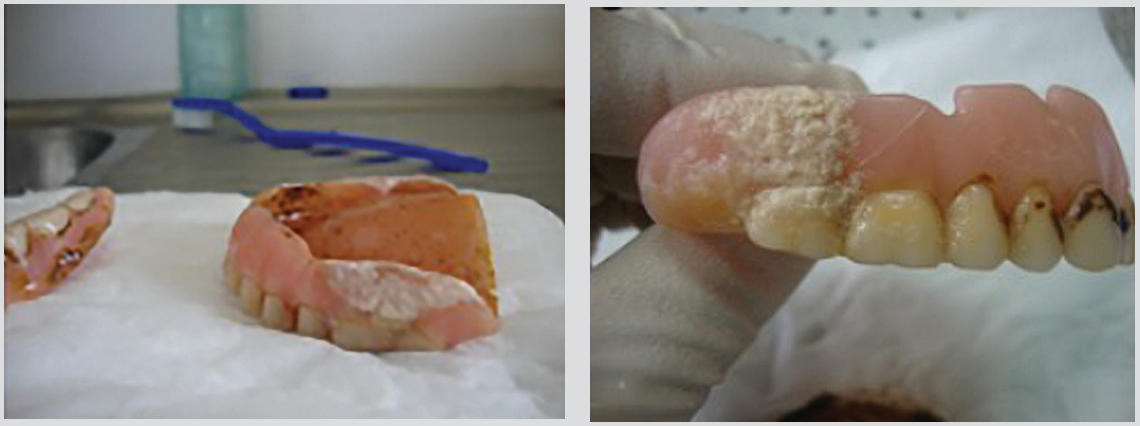
Table 2: Consequences of Salivary Hypofunction

- Dry mouth and lips
- Thirst and burning sensation
- Difficulty in chewing, supporting removable dentures, and sleeping
- Oropharyngeal infections (mucositis and candidiasis)
- Accumulation of mucus, food debris and plaque
- More severe periodontal diseases and caries,
- Changes in oral microflora
- Dysphagia and dysarthria
- Traumatic injury to the oral mucosa
- Dysgeusia
- Halitosis

Oral Rehabilitation Issues

The aim of rehabilitation is to restore the masticatory, phonetic and esthetic functions to improve patients' nutrition, quality of life, and their social activity. In European populations, there is a high prevalence of both fixed and removable protheses, particularly among older age groups. As there is a decrease in complete edentulism, there is a tendency toward fewer complete dentures, and increasing frequency of removable partial dentures and fixed prostheses.[57]

Any removable prosthesis must be properly adapted to the supporting tissues to favor retention, stability, and comfort. Poor adaptation may cause areas of compression, pain and discomfort, bone resorption and failure to maintain the residual ridge, as well as mucosal lesions.[58] Inadequate denture hygiene leads to plaque build-up, calculus, and discoloration *(Figure 3A & 3B)*. In addition to causing denture stomatitis, inflammatory hyperplasia, chronic candidiasis and halitosis, bacterial biofilm serves as a reservoir for potentially infectious microorganisms that contribute to caries and periodontal pathology on the supporting teeth. These microorganisms may also be involved in bacterial endocarditis, aspiration pneumonia, gastrointestinal infections, and chronic obstructive pulmonary disease.[59] Therefore, an effective oral hygiene regimen is important to control biofilm on dentures and thereby control associated oral and systemic diseases.



Figures 3A and 3B: *Examples of poor denture hygiene wit plaque biofilm, calculus, and stain accumulation.*

Dental implant rehabilitation has gained popularity in recent years. Some concerns (low success rate) about their placement in older patients appear to be scientifically unfounded. Implant placement and osseointegration are not always compromised by advanced age but depend on patient- and site-specific factors. As aging affects people differently, each patient's functional and cognitive status, medical condition, social context, economic situation, motivation, and ability to maintain oral hygiene must be considered.[60]

Chewing difficulty is one of the most reported oral motor disorders of aging, affecting 35% of nursing home residents. The decrease in the number of functioning teeth, periodontal diseases, edentulism, ill-fitting dentures, decreased masticatory force, sarcopenia, pain, xerostomia, and dysphagia are common causes.[61] Also, muscle fatigue, a decrease in bite force and lip function, and reduced tongue motor activity lead to an increase in the number and duration of chewing cycles, less effective chewing, and swallowing difficulties.[62] Reduced tongue muscle kinetics for the oral phase of swallowing, combined with reduced pharyngeal sensitivity, results in the accumulation of food and fluids in the oral cavity, as well as dental plaque, leading to dental caries, periodontal diseases, and increased risk of aspiration pneumonia.[63] Chewing difficulties represent an independent risk factor for the onset of frailty and should be included as a geriatric syndrome.[64]

Functional Capacity and Oral Health

Cognitive and physical decline associated with aging increase the risk of oral diseases. Age is associated with dependency in activities of daily living (ADL)[65] as well as instrumental ADLs.[66] Physical, psychological, or social dependency can result in individuals being partially or completely unable to carry out everyday tasks and adapt to their environment without help, which can be a significant implication for oral health.[65]

Oral problems become more complex and relevant as people age and become more functionally dependent, creating a growing need for oral health care. They are even more at risk as they rely on caregivers for assistance with daily oral hygiene. Elderly nursing home residents have been identified as the most vulnerable group, despite needing but not receiving oral health care.[67

Preventive measures are fundamental to promoting good oral and general health, including daily routines with particular emphasis on plaque control. Oral hygiene should be part of caregivers' routines for residents who are unable to care for themselves.[68] The lack of these routines puts older people at risk of poor oral and systemic health. Effective practices must not only recognize the importance of oral hygiene, but also ensure that oral hygiene is given the same priority as other daily practices.[69]

Accessibility to dental services is an important issue for functionally dependent older adults because it greatly affects the prevention, timely diagnosis, and treatment of oral disease.[70] Some barriers to accessing dental services and achieving quality oral health outcomes for older adults are listed in Table 3.[71]

Table 3: Barriers to Accessing Dental Services

- Cost and decrease or lack of coverage of oral health services
- General and oral health comorbidities
- Patient education needs, misconceptions and fears
- Medical-dental isolation, and lack of interdisciplinary collaboration and education.

Oral Systemic Connection

Healthy aging cannot be achieved without maintaining oral health and function. The interrelationship between oral health and systemic health has received considerable attention in recent years, with emerging evidence highlighting the profound impact of oral conditions on overall health and vice versa.[72] The mechanisms that underlie this link in the elderly are the same as in other age groups; however, they tend to be aggravated as age continues to progress. Human aging is characterized by a chronic, low-grade inflammation, and this phenomenon has been termed "inflammaging". This term is used for conceptualization of changes in response to lifelong stress. Inflammaging has been considered a hallmark of aging which is accompanied by cellular senescence, immune senescence, organ dysfunction, and age-related diseases. [73]

Periodontal disease is associated with a spectrum of systemic diseases, including diabetes, metabolic syndrome, obesity, eating disorders, liver disease, aspiration pneumonia, cardiovascular disease, Alzheimer's disease, rheumatoid arthritis, and cancer.[74] A chronic, low-grade inflammatory state (inflammaging) has been documented as a risk factor for other conditions with inflammation as the underlying etiology, such as the immune arthropathies, frailty, and sarcopenia.[75] While bidirectional relationships are acknowledged, multimodal relationships are possible explanations.[76]

Maintaining oral health is crucial for older adults, as it directly impacts their overall well-being. A healthy mouth can prevent systemic diseases, enhance quality of life, and promote longevity.

These multimodal interactions highlight the common pathophysiological mechanisms linking oral and systemic health. Periodontal diseases are initiated by dysbiosis in oral biofilms, leading to the proliferation of periodontal pathogens and their by-products, causing chronic inflammation. Local inflammation can spread systemically, contributing to systemic disease. Immune dysregulation, host genetics and epigenetic modifications from systemic diseases can amplify this inflammatory response, exacerbating periodontitis.[77] Many medications reduce salivary flow and/or alter the oral microbiota, creating a more favorable environment for the development of oral diseases. Antihypertensive and antihyperlipidemic drugs, diuretics, antihistamines, antiviral, anti-inflammatory and psychiatric drugs are among the many medications that reduce salivary flow and are used to treat a range of conditions that often affect older people.[78]

Oral and systemic diseases are also influenced by limited access to care[79] including limited preventive care and education, and low socioeconomic status, as well as behavioral and lifestyle factors that amplify the risk of both oral and systemic diseases.[80]

The decline in mental function that occurs with age often leads to behavioral changes that cause rapid deterioration in oral health. Conversely, this severe deterioration in oral health, expressed as severe periodontitis or extensive tooth loss, was strongly associated with cognitive dysfunction.[81] Cognitive impairment may cause delayed reporting of oral symptoms, difficulty accessing dental care, increased time and expertise required for chairside treatment, decreased effectiveness of oral health self-care, and increased reliance on caregivers for personal/oral hygiene.[42] On the other hand, poor oral health, including more missing index teeth and greater average pocket depth, may be risk factors for cognitive decline.[82]

Frailty and sarcopenia are associated with poor oral health. Frailty is a geriatric syndrome characterized by an individual's vulnerability to stressors due to a loss of physiological reserve in multiple body systems. Sarcopenia is also a geriatric syndrome characterized by a progressive and generalized loss of skeletal muscle mass and strength. Both syndromes are associated with musculoskeletal aging and an increased risk of adverse outcomes such as physical disability, poor quality of life and death.[83] There is a possible association between sarcopenia or its diagnostic factors (walking speed, hand grip strength or skeletal muscle mass) and oral factors, including number of teeth, occlusal support, periodontal status, occlusal force, chewing, tongue pressure and swallowing.[84] Sarcopenia has also been associated with dysphagia and poor prognosis in head and neck cancer.[85]

Collaborative care models, medical/dental hygiene integration, and community outreach oral health programs are ways to "leave no one behind."

Dysphagia, a geriatric syndrome that affects 10% to 33% of older adults, is particularly common in people who have had a stroke or who have neurological disorders such as Parkinson's or Alzheimer's disease.[86] Malnutrition, pneumonia, and dehydration can occur in patients with dysphagia. Patients may also have higher rates of death and admission to long-term care. Maintaining normal swallowing function is important for systemic health, normal nutrient intake, and the prevention of aspiration pneumonia, particularly in frail older people.[87] Proper oral hygiene is also thought to be essential for maintaining and improving respiratory health especially prevention of aspiration in the frail and elderly[88] and in post-operative infections.[89]

Researchers have introduced the concept of 'oral frailty', which is closely related to physical frailty. It is the gradual age-related loss of oral function, together with a decline in cognitive and physical function. Deterioration of oral health status (periodontal diseases, number of teeth, oral dysbiosis) accounts for 52% of the incidence of frailty. Difficulties with chewing, swallowing, and dry mouth account for 20%. Deterioration of oromotor skills (reduced tongue pressure, occlusal force, chewing function, change in sequential motor rates) accounts for 27% and oral pain for 1%.[90] As there are common risk factors between frailty, sarcopenia, cognitive decline and oral function, addressing these underlying factors may be an effective approach to preventing oral disease.[91]

Actions

The global phenomenon of population aging, and the burden of oral disease cannot be ignored. Oral health is a fundamental human right and has multiple and complex links with general health. The general health of older adults can be improved by preventing oral disease and promoting oral health. Despite these facts, few actions have been taken to optimize oral health in old age.

The "Global Strategy and Action Plan on Oral Health 2023-2030" [10] is based on two major statements, "*no one is left behind*" and that "*there is no health without oral health*." The pillars of the Action Plan are:

1. A public health approach to oral health,
2. Integration of oral health into primary health care,
3. Innovative workforce models to respond to population needs for oral health,
4. People-centered oral health care,
5. Tailored oral health interventions across the life course,
6. Optimizing digital technologies for oral health.

The following policy documents for promoting oral health in older adults align with these pillars.

The European Policy Recommendations for older adults oral health [92] identified three major areas for action by policy makers:

- Educational action plans for oral health in older adults for dental and non-dental healthcare providers,
- Health policy action plans with emphasis on oral health prevention, removing barriers to access to dental care, integration of oral health assessment into general health assessment, integration of oral health care into public healthcare coverage, and oral health promotion in institutional settings,
- and citizen empowerment for direct involvement in actions related to oral care of the older adults.

These recommendations should prioritize the frail and functionally dependent for implementing an oral health plan. *(Figure 4)*

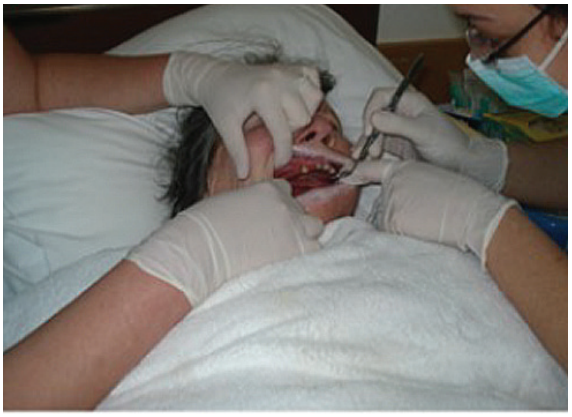


Figure 4: *Oral hygiene for functionally dependent elderly should be a priority*

The FDI Policy statement [93] calls on oral health professionals and organizations to go beyond the prevention and treatment of oral diseases and to work in partnership with their local communities to develop appropriate and consistent methods of identifying oral functional decline.

Chavéz, Kossioni & Fukai [3] call for the need to develop appropriate policies specific to the oral health needs (normative and perceived) of older people that are individualized, cost-effective, and sustainable, and that strengthen early disease prevention and control as a means of conserving public and private financial resources.

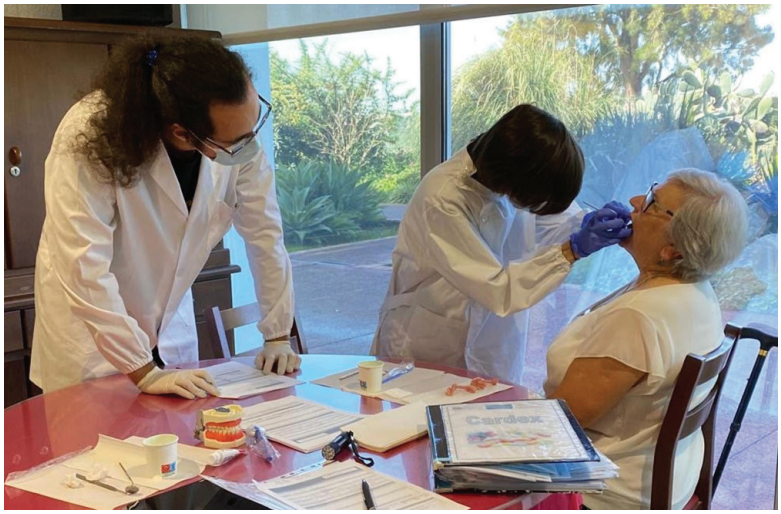


Figure 5: *Community-based programs can help support the oral health of older adults*

In a rapid review de Sam Lazaro et al [71] identified opportunities to support the oral health of older adults: expanding oral health coverage under Medicare and Medicaid, along with community-based programs and medical-dental partnerships, and using mid-level providers. *(Figure 5)*

In summary, to achieve the goals of the WHO Agenda for Healthy Ageing, all sectors of society must work to:

- Improve access to affordable dental care: expand health insurance coverage to include preventive and restorative dental care and improve reimbursement systems; [94,95]
- Encourage the establishment of community-based preventive programs focused on oral health promotion and disease prevention (e.g. mobile dental units); [96,97,98]
- Integrate oral health in geriatric care and long-term care; [99]
- Promote interdisciplinary health and social care by training primary care health professionals and geriatric specialists; [100]
- Promote health literacy and public awareness through culturally appropriate campaigns and educational initiatives; [101]
- Invest in research and innovation: tele-dentistry [102] self-monitoring of oral health status using oral health AI Advisors [103] and personalized care models [104] can be used to achieve early and timely diagnosis and early prevention, to improve service delivery, and patient outcomes

The Roles of the Dental Hygienist, Dental Therapist, Oral Therapist, and Oral Health Therapist

Essentially, the roles of these oral healthcare professionals are to promote oral health and prevent oral diseases with a focus on behavior modification. When treatment is warranted, Dental Therapists, Oral Therapists and Oral Health Therapists may also play important roles such as placing simple restorations to restore function and relieve pain.

Through routine examinations these preventive professionals can identify early signs of oral disfunction and disease, as well as other oral conditions, and apply preventive strategies and minimally invasive care in a patient-centered manner. These oral healthcare professionals are also prepared to understand the complexities of oral health issues in the care of older people and to practice in non-traditional settings.[105] With their focus on preventive oral care, hygienists are 'best poised' to help accelerate the integration of oral health with primary care, given the strong evidence supporting the cost-effectiveness of the care provided by primary oral health workforce providers (dental hygienists and therapists).[106]

The use of these professionals in institutional settings for older adults should be promoted since it provides a safe, efficient, and effective use of health resources[107] *(Figure 6)*. Mechanical oral care provided by Dental Hygienists, Dental Therapists, Oral Therapists and Oral Health Therapists in nursing homes is proven to be cost-effective,[108] lower the levels of oral bacteria and prevent serious infections.[109] It may also improve rehabilitation results and promote better swallowing.[110]

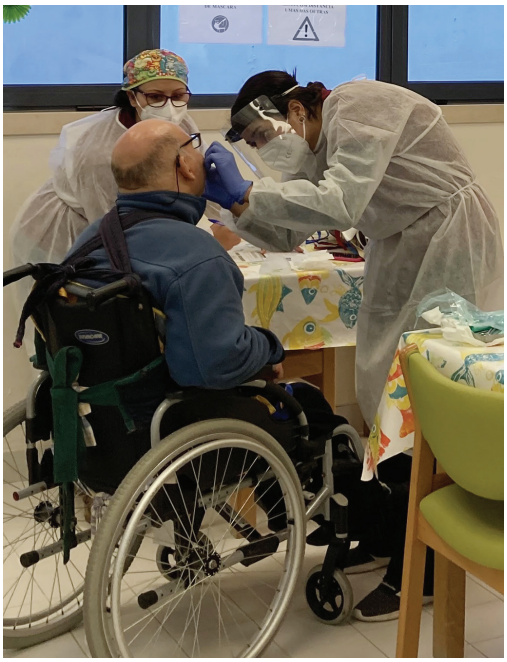


Figure 6: *The use of dental hygienists in institutional settings for older adults should be promoted since it provides a safe, efficient, and effective use of health resources.*

Individual hands-on guidance by dental hygienists provided on a regular basis increased the awareness of the nursing staff of their own limitations concerning oral health care.[111] The integration of dental hygienists into the long-term care health care team will accelerate the provision of preventive oral health treatments.[112]

Despite these facts research shows that these groups of professionals have been underutilized in interdisciplinary collaboration.[113] although their work in long term care is highly desired and feasible.[114]

The dental hygienist is one of the best resources for achieving the goals of the current global oral health strategy, contributing to universal oral health coverage, and providing preventive care and better health outcomes. Professionals should advocate and lobby for greater involvement and participation in oral health decisions and actions to promote the appropriate use of human resources. Policy makers should enable these prevention-focused professionals to practice to their full scope. Given the paucity of studies on the role of these professionals, particularly in the context of healthy aging, there is an urgent need for research to explore models where they are integrated and the need for additional competencies.

Further Reading and Resources

- https://ifdh.org/ifdh-2022-elderly-practices-survey/
- https://www.fdiworlddental.org/oral-health-ageing-population
- https://www.who.int/news-room/fact-sheets/detail/ageing-and-health
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IFDH
INTERNATIONAL FEDERATION OF DENTAL HYGIENISTS

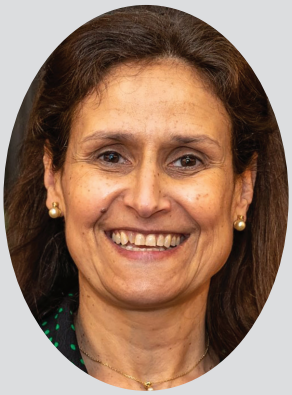
Mission

The International Federation of Dental Hygienists is an international non-profit association uniting national organizations of Dental Hygienists, Dental Therapists, Oral Therapists and Oral Health Therapists. By fostering leadership and collaboration, IFDH is the principal advocate for the oral hygiene profession globally and promotes excellence in oral health, education, research and practice.

Vision

IFDH is dedicated to enhancing the recognition of the Dental Hygienist, Dental Therapist, Oral Therapist and Oral Health Therapist as being the key provider of preventive oral health care worldwide and ensuring that oral health is integrated as a key aspect of our patients' overall health.

Author



Dr. Sandra Ribeiro Graça

Dr. Sandra Ribeiro Graça is the President of the Coordinating Council and Professor of the Dental Hygiene Program of the Lisbon School of Dentistry - University of Lisbon. Her research interests are public oral health, oral health of the elderly and populations with special needs. She is a member of UICOB - Oral and Biomedical Sciences Research Unit and RHODes - Network of Oral Hygienists for the Development of Science. She obtained her Diploma in Dental Hygiene from the Lisbon School of Dentistry in 1987 and her bachelor's in health sciences from the University of Washington, in 1993. She holds a master's degree in education, specializing in Higher Education Pedagogy, from the School of Psychology and Educational Sciences - University of Lisbon, in 2006, and a Doctorate in Oral Health Sciences from the University of Lisbon, in 2014.

In addition to her academic career, she is Vice-President of the Portuguese Association of Dental Hygienists (APHO) and, Portuguese delegate to the European Federation of Dental Hygienists and the International Federation of Dental Hygienists, since 2009.

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