

## GWEP-CC CASE STUDY:

# ADOPTING AGE-FRIENDLY CONCEPTS AT THE EASTMAN INSTITUTE FOR ORAL HEALTH THE FIRST DENTAL AGE-FRIENDLY HEALTH SYSTEM PARTICIPANT

## About the GWEP-CC

The Geriatrics Workforce Enhancement Program Coordinating Center's (GWEP-CC) Age-Friendly Case Study Series presents a broad range of cases from the Geriatrics Workforce Enhancement Programs (GWEPs) and their primary care partners, focusing on the different elements of their Age-Friendly journey implementing the 4Ms. Case study authors participated in the 2020 and/or the 2023 GWEP-CC Age-Friendly Health Systems Action Community and are recognized by the Institute for Healthcare Improvement (IHI) as either an Age-Friendly Health System Participant (Level-1) or Age-Friendly Health System – Committed to Care Excellence (Level-2).

For more information, please contact [GWEPCC@americangeriatrics.org](mailto:GWEPCC@americangeriatrics.org).

## Who We Are and Who We Serve: About Our Practice

The Eastman Institute for Oral Health (EIOH) is an academic dental institution that has retained its strong community service orientation while strengthening its educational and research activities during the past 100 years. Of our 180,000+ annual dental visits, 125,000+ are medically underserved, comprising basic, preventive, general dental services and complex multidisciplinary clinical care. EIOH's main campus site is the region's major emergency dental care provider.

The professional, technical, and administrative staff of EIOH comprises 240 faculty dentists, 275 staff, and 160 postdoctoral residents. EIOH has postdoctoral training programs in general dentistry, pediatric dentistry, periodontics, prosthodontics, orthodontics, orofacial pain, oral surgery, and dental public health.

EIOH is part of the University of Rochester Medical Center (URMC), one of the nation's leading academic medical centers. URMC, located in Rochester, New York, forms the centerpiece of the University of

Rochester's health research, teaching, and patient care missions. Geographically, the city of Rochester is located in the center of Monroe County and is surrounded by a ring of suburban and semi-rural towns.

Our patients represent a broad spectrum of sociodemographic groups from different geographic areas of western and central New York, encompassing 48 counties, many of which are federally designated rural areas. EIOH provides care to patients of all ages, ranging from infant to pediatric, adolescent, adult, and geriatric individuals. Racial/ethnic minorities, mainly Black and non-White Hispanic Americans, comprise approximately 47% and 10% respectively, of EIOH's patient population.

The main campus site, designated as a diagnostic and treatment center, has 89 treatment rooms (each with a dental chair and all necessary armamentariums for comprehensive dental care): Urgent Care on the

concourse level, General Dentistry, Orthodontics, and Pediatric Dentistry on the first floor, and Periodontics, Prosthodontics, and Specialty Care on the second floor. The community outreach program (“Smile Mobile” sites) has 24 treatment rooms at several fixed sites and 6 dental units in mobile vans.

For fiscal year 2022, EIOH provided oral health services to 43,699 patients, 5,361(12.3%) of whom were 65+ years old.

Patient Age (years)	Number of Patients
65–74	3,445
75–84	1,467
85–105	449
	5,361

As part of URMC’s overall transformation into an Age-Friendly Health System (AFHS), we aimed to establish the theoretical concept and practical elements of person-centered age-friendly dental care. Our overarching goal was to integrate the AFHS principles in the patient care offered by the Specialty Care dental clinic open to the Greater Rochester community and rural outreach counties. Our approach leverages locally available interdisciplinary resources and the collaboration reflecting undergoing efforts at the URMC Division of Geriatrics & Aging, the UR Aging Institute, and the UR Finger Lakes Geriatric Education Center, funded by the Health Resources and Services Administration GWEP.

The first conceptualization of our age-friendly journey began in July 2020 in the form of a geriatric faculty scholar’s proposal, promoting the development of the AFHS paradigm in dentistry. Once the project goals and processes were established, we conducted an 18-month pilot of 4Ms training for dental residents from February 2021 until August 2022. After summarizing the findings and experiences from the procedure notes of 100 individuals, we compiled our application for Level 1 AFHS recognition during the fall of 2022 and recognized as the nation’s first dental AFHS participant in April 2023.

## What We Are Doing: Description of How We Are Adopting the 4Ms

We challenge the ageist concept that age is often associated with deteriorating oral health, including the myth that aging is inevitably associated with poor dentition and loss of teeth. This initiative addresses oral health as a vital component of healthy aging by focusing on prevention and adaptive care principles. To achieve this aim, we developed a new 4Ms dental template to be integrated into patients’ electronic dental records. This 4M template serves as a checklist and guides dental providers in key processes of healthy aging, including oral health assessment, planning, and daily hygiene support. The elements of our initiative are consistent with the 4Ms described by the AFHS initiative: what matters, medication, mentation, and mobility.

We emphasized two Ms with the following objectives:

- **Mentation:** to increase baseline knowledge of dental residents to recognize the signs of cognitive decline or delirium
- **Medications:** to measure salivary adverse effects of anticholinergics that can cause central cognitive toxicity, which might be preventable if dental clinicians notice the early signs of dry mouth

We adopted a “mentation” training program<sup>1</sup> and developed a new 4Ms template (checklist) using available local educational resources at the EIOH and URMC. The detailed review of the most potent medications supplemented by a training program for screening cognitive changes is an ongoing project, and we assess every patient >65 years old.

All members of the dental team, including front desk staff, dentists, dental hygienists, dental assistants, residents, fellows, faculty, practice managers, social workers, billing and administrative support personnel, and quality improvement officers, were included in the project. The proposed changes in our clinic flow are based on sharing responsibilities and spreading 4Ms knowledge through the entire team. Our proposed “what matters”-centered oral healthcare has been initiated by a collaboration with the Alzheimer’s Association as a health systems partner both for

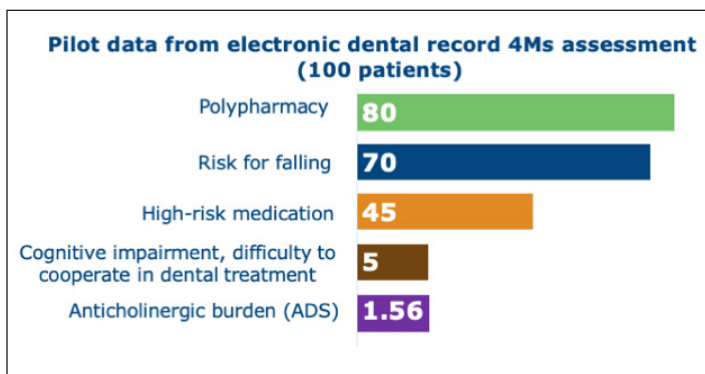
developing educational training and identifying community resources.

We integrated the 4Ms checklist into procedure notes to allow a comprehensive and efficient 4Ms screening, oral health assessment, planning, and daily oral hygiene support of each patient. The checklist fosters the adherence of dental providers to AFHS guidelines and confirms apprehension of the 4Ms in an ambulatory clinical setting.

## What We Found: Outcomes

The “mentation” training, conducted via e-learning (remote video conferencing) for residents, staff, and dental hygienists, was evaluated by learners’ satisfaction level.<sup>1</sup> The training module increased the residents’ satisfaction with didactic preparedness ( $4.45 \pm 0.97$ ) and knowledge acquisition ( $4.36 \pm 0.84$ ).

Dental postgraduate residents received training on how to use the new 4Ms template and to document the clinical management decisions in patients’ electronic charts.



In addition, 78% of older adults agreed with comprehensive dental treatments (as a potential dental “what matters” indicator), including teeth extraction. Only 57% brushed their teeth twice daily, and 23% could not brush without help (a potential indicator of “mobility” as it applies to both upper extremities and overall physical function).

## How We Spread the 4Ms and Became an Age-Friendly Health System Practice

We plan to monitor the process measures of 4Ms, including the number of 4Ms-compliant treatment plans and procedures, patient satisfaction, and the number of urgent geriatric visits. A 4Ms workgroup (including the chief operating officer, practice managers, and geriatric faculty) organizes ongoing learning opportunities for team members to encompass the understanding of complex issues in scheduling, transportation, safety, and risks of patient care. Regular updates and reminders, as well as educational e-letters, will be disseminated throughout EIOH. The aim is that each dental team member emphasizes prevention and disease management in an accessible, coordinated way using all available resources.

Faculty, residents, and staff will engage in formal and informal clinical teaching sessions on a need-based schedule coordinated by the 4Ms workgroup. The goal is to encourage communication and coordinate team activities to disseminate 4Ms principles and attitudes to improve the quality of care.

Weekly huddles that include members of the care team (front desk, scheduling, administrative support, clinic manager) and that precede patient appointments with clinicians (faculty, residents, hygienists) promote the effective transfer of information.

## Where and How We Started Testing or Piloting the 4Ms

To promote interprofessional collaboration, 4Ms screening-based referral needs will leverage URMC and local resources for the most appropriate care setting and consultation opportunities for older adult patients.

Our 4Ms workgroup includes clinic ambassadors, social care workers, and experts in various dementia-related topics. We formulated a mentation training pilot through a collaborative action plan between the Specialty Care Clinic at the EIOH partnering with the Rochester & Finger Lakes Region Alzheimer’s Association and the health systems leads for the New York Alzheimer’s Association Chapters. Needs assessment, clinical workflow analysis, and focus group discussions (residents and other staff) resulted in our pilot in e-learning.<sup>1</sup>

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## Lessons Learned

We are currently preparing the collection of clinical outcomes to assess inclusion of the 4Ms in dental care (Level 2 AFHS recognition) based on the process measures by the Institute for Health Care Improvement (IHI), which is created for hospital or ambulatory care. Our biggest challenge was creating a valid 4Ms template relevant to dental practice by tailoring IHI guidelines to dental care in a format that is familiar to dental residents and staff members. Although we searched all available literature, we could not find similar projects or formats that would be useful. Therefore, based on medical examples, we created an original pilot version of the 4Ms template relevant to dental workflow.

Oral health needs for older adults are a significant and growing gap in healthcare. More aging adults have intact dentition, and there are significant connections between oral health and systemic disease; yet, most healthcare professionals, including dental residents and hygienists, have limited training in geriatric dentistry. Our experience confirmed that integrating a 4Ms-related checklist in the dental chart efficiently increases both adherence to AFHS and quality of care.

## Reference

- 1 Arany S, Eliav E, Medina-Walpole A, Caprio TV. Postgraduate dental resident education: a pilot in age-friendly "mentation" training. *Spec Care Dentist*. 2023 May 5. doi: 10.1111/scd.12871. PMID: 37147183

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