

# **Training Health Care Professionals to Focus on the Oral-Systemic Health of Older Adults**

**ASTDD Healthy Aging Committee**

**January 25, 2018**



# General Reminders

- This webinar will be recorded and archived on the ASTDD website
- We would like to hold any questions until the end, so if you have questions, please make a note of them. When we are ready for questions, if you wish to ask one, please click on the Set Status icon which is the little man with his arm raised on either the upper left or the top of your screen. Click on “raise hand.” We will then call on you to ask your question over the phone
- Please respond to the polling questions at the conclusion of the webinar.

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# Educational Objectives

- Understand important links between oral health and overall health for the older adult population.
- Understand why it is important to learn to work with the older adult population.
- Identify where to find resources to expand their knowledge of working with the older adult population.
- Have increased knowledge about the challenges and rewards from working with older adults.
- Have a better understanding of interprofessional collaboration and how to incorporate it into their treatment of older adults.

# Speakers

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# *TRAINING FUTURE HEALTH CARE PROFESSIONALS TO WORK WITH OLDER ADULTS:*

## *DEVELOPMENT OF A COMPREHENSIVE GERIATRIC CURRICULUM*

Lillian M. Mitchell, DDS, MA, FACP

Director, Geriatric Dentistry

UAB School of Dentistry

Director, Fair Haven Oral Health Center

Birmingham, Alabama

January 2018

# DID YOU KNOW?

- By the year 2020
- There will be more older adults than there are children under the age of 14
- BUT CURRENTLY  
70% of the elderly population (or 23.2 million older than 65 years)  
Live in the community  
and visit the dental office independently



Sweetheart Dance 2013



# WHAT MAKES THE GERIATRIC ENVIRONMENT SO VALUABLE TO OUR STUDENT LEARNING AND TEACHING?

- Cultural diversity of patients, staff, other health professionals
- Health Literacy; communication challenges
- Opportunity for interprofessional learning and collaboration
- Clinical challenges – diagnostic, treatment planning, delivery of care



UAB Center for Aging Symposium dental student poster presenters



# CODA STANDARDS: SUMMARY

- Humanistic environment
- Communication and collaboration with other healthcare providers
- Assessment/care of special needs patients, including vulnerable older adults
- Interpersonal/communication skills to function in a multicultural environment
- Provide oral healthcare to patients in all stages of life
- Clinical experiences working with other healthcare professional students and practitioners (Interprofessional education and practice)
- Patient assessment should emphasize the importance of non-dental considerations and recognize the oral/systemic links to disease



# THE BEGINNING...

- UAB Center for Aging
- Geriatric Education Center (GEC)
- HRSA grant

IDT

Interdisciplinary Team Training

For Health Profession Students

(now called IPTT Interprofessional Team Training)



# WHEN 8 STUDENTS HAD NO WHERE TO GO FOR A CLINIC ASSIGNMENT.....

- We found a place at Fair Haven Retirement Community medical clinic!



Pilot program Jan 2010

The rest is history!







First day at Fair Haven! January 15, 2010



# PILOT PROGRAM



- Oral hygiene program at Fair Haven Retirement Center
- D2 students, existing medical clinic
- Inception of medical interns rotating with dental students
- First formal interprofessional program for UAB Dentistry

January 2010



# PROGRAM DEVELOPMENT

- **Partnered** with a retirement community; 6 levels of care
- **Pilot** oral hygiene program
- Medical interns training with dental students (**IPE**)
- Developed D2 and D4 **didactic courses** in Geriatrics

D2 course focuses on the demographics, communication and social/economic impact of the aging population; access to care, oral/systemic links and need for services, elder abuse

D4 course focuses on the diagnosis, treatment planning and integration of oral care into the overall assessment and care of the older adult, whether community-dwelling or in long term care; alternative therapies



# PROGRAM EXPANSION

## BUILDING THE ORAL HEALTH CENTER

SPRING, SUMMER, FALL 2011



- Grant support

Greater Birmingham  
Community Foundation

- Institutional support

Fair Haven

Retirement Center

- Gifts in kind

Henry Schein Dental

# OBJECTIVES

- Learning environment for dental students
- Special needs patients (older adult)
- Interprofessional education
- Collaborative care











# PROGRAM EXPANSION

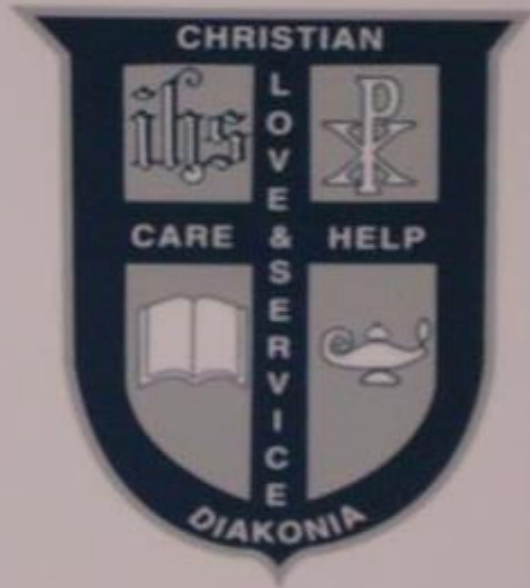
- Grant to build a dental clinic in the nursing home
- Opened full service dental clinic in the retirement community
- Welcomed patients from the surrounding communities
- Started the outreach rotation to other communities, state survey, screenings
- Began home visits (limited basis)
- Services provided onsite with portable equipment





# Fair Haven

## Retirement Community



A Community Collaboration

**UAB** DENTISTRY

Largest retirement community in the state of Alabama-six levels of care

The ONLY retirement community in the state with a full-service dental clinic

UAB physicians are medical directors

D3 and D4 required rotation as part of community learning program

Two D3, two D4 each week

Medical interns train with dental students half day a week

# WHERE WE ARE TODAY

- D2 and D4 didactic courses
- Full service geriatric dental clinic
- Patients from the surrounding communities and the residential retirement home
- Outreach rotations to senior centers and senior living housing apartments
- State survey, clinical screenings, BP, medication reviews, oral hygiene services onsite with portable equipment, home visits to the house bound
- Support from ADA Foundation Access to Care grant; Alabama Department of Senior Services grant
- Interprofessional Clinical Experience (ICE) at Fair Haven weekly
- Interprofessional Team Training (IPTT) University-wide twice a year

# FUTURE PLANS

- Expand the patient base
- Develop more interprofessional practice opportunities
- Complete the state survey; establish regular rotation sites for continuing care
- Rotations in the UAB Geriatric Medicine outpatient clinic
- Rotations in the UAB Highlands Hospital ACE Unit (Acute Care for Elders)



# OUTCOMES

## BESIDES PROVIDING NEEDED ORAL CARE...

- Dental students participation with older adults goes beyond the dental clinic!
- Sweetheart Dance
- Senior prom
- St. Patrick's Day party
- Poster presentations at Geriatric Education Center Interprofessional Symposium, UAB  
Center for Aging Symposium, UAB SOD Scholar's Day

Multiple winners over the last eight years

- UAB ASDA chapter projects at area AL and senior centers
  - Student leadership at local health fairs
-





Sweetheart Dance



# "Senior" Prom





# St. Patrick's Day party





# THANK YOU

UAB



the university of alabama at birmingham

# QUESTIONS???

UAB



# Oral Health: The Missing Piece of Geriatric Whole Person Care

Judith Haber, PhD, APRN, BC, FAAN

The Ursula Springer Leadership Professor in Nursing

Executive Director, TOSH & OHNEP Programs

NYU Rory Meyers College of Nursing



# Aging and Oral Health



- The mouth is a window to the whole body
- Poor oral health has a negative impact of quality of life
- 80% of older adults have one or more chronic diseases that have an oral-systemic connection



# Poor oral health in older adults is associated with:

- ❖ Poor nutrition
- ❖ Metabolic syndrome
- ❖ Diabetes
- ❖ Cardiovascular disease
- ❖ Dementia
- ❖ Cancer (oral or oropharyngeal cancers, upper GI and gastric cancers, pancreatic cancer, lung cancer, & esophageal cancer)
- ❖ Osteoporosis & Osteonecrosis
- ❖ Respiratory infections
- ❖ Rheumatoid Arthritis



(Clark et al., 2010)

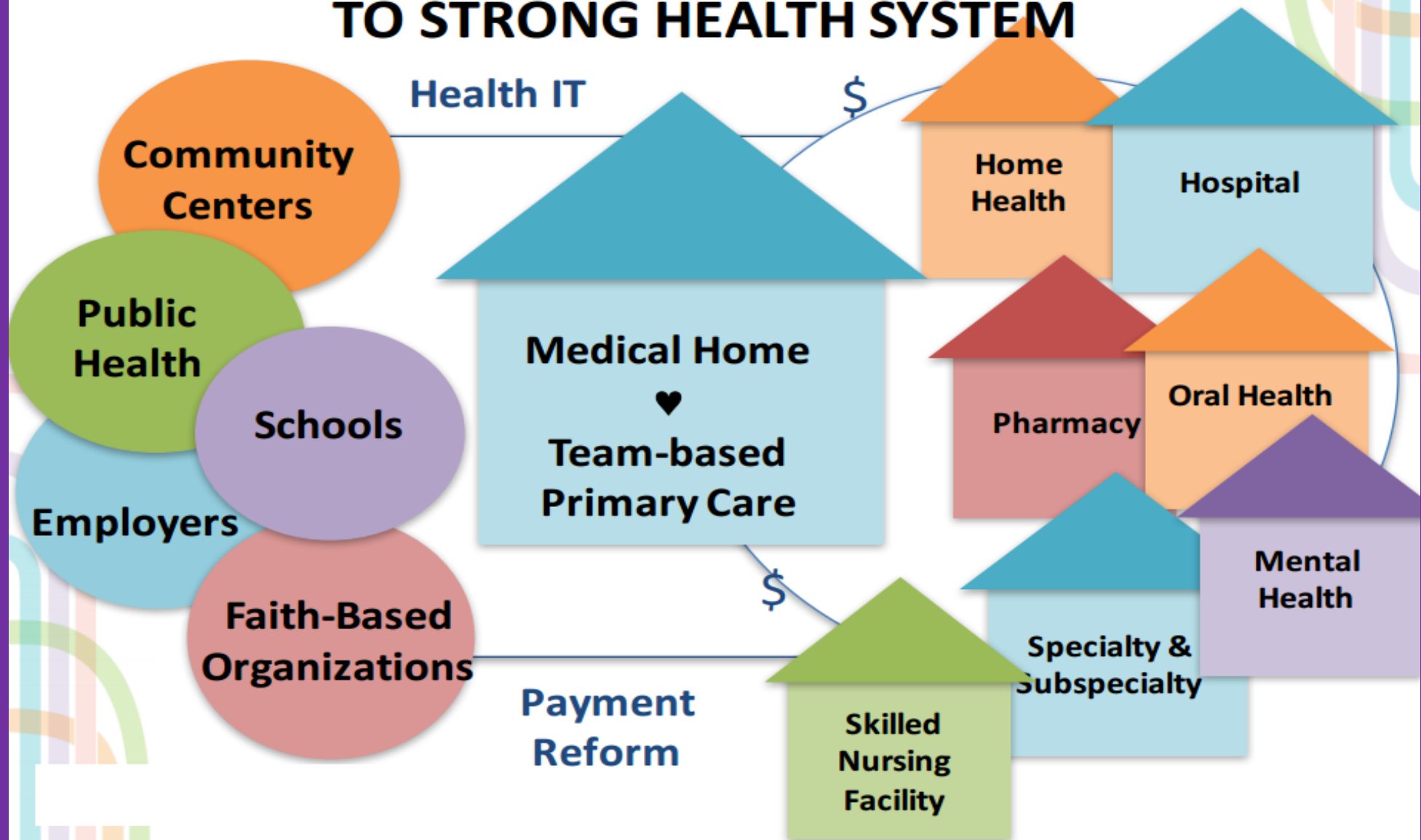


# Barriers to Accessing Oral Health Care for Older Adults

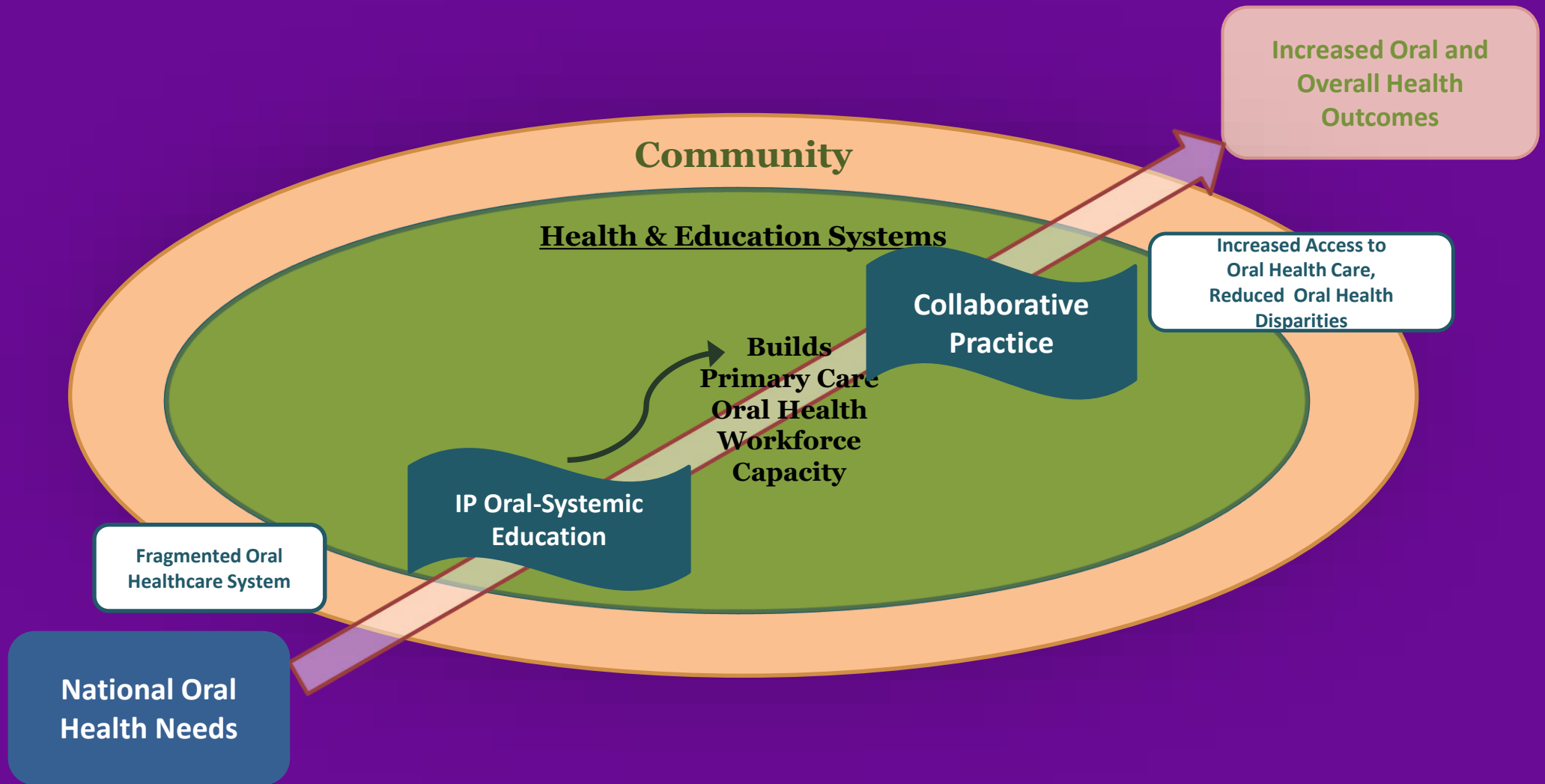
- Poverty
- Lack of Insurance Coverage
  - 70% of older adults lack dental insurance
  - Medicare does not cover preventive and outpatient dental treatment
- Limited number of dentists trained in geriatric dentistry
- Lack of mobility/transportation
- Disability
- Institutionalization
- Belief that they no longer need dental care



# PERSON-CENTERED PRIMARY CARE FOUNDATIONAL TO STRONG HEALTH SYSTEM



# Interprofessional Oral Health Workforce Capacity Model





# Why Nurses, Physicians, and Physician Assistants?

- On average, **72%** of Americans visit a primary care provider **6.5x** during a year
- The rate of visits to physicians' offices among the population 65 years of age is the **highest**
- People over the age of 65 years experience nearly **3x** as many hospital days per thousand than the general population
- Nursing is the **largest** health profession with **4 million** RNs, **234,000** NPs, and **11,800** MWs practicing in the U.S.
- There are **1 million** MDs and DOs and **115,000** PAs practicing in the U.S.



# Oral Health Delivery Framework (2015)



# HEENOT Article

## COMMENTARIES

attendance at healthcare appointments. *Cochrane Database Syst Rev*. 2012;7: CD007458.

79. Guy R, Hocking J, Wand H, Stott S, Ali H, Kildner J. How effective are short message service reminders at increasing clinic attendance? A meta-analysis and systematic review. *Health Serv Res*. 2012;47(2): 614–632.

80. Liang X, Wang Q, Yang X, et al. Effect of mobile phone intervention for diabetes on glycaemic control: a meta-analysis. *Diabet Med*. 2011;28(4):455–463.

81. Free C, Knight R, Robertson S, et al. Smoking cessation support delivered via mobile phone text messaging (txt2stop): a single-blind, randomised trial. *Lancet*. 2011;378(9785):49–55.

82. Piette JD, Mendoza-Avelares MO, Milton EC, Lange I, Fajardo R. Access to mobile communication technology and willingness to participate in automated telemedicine calls among chronically ill patients in Honduras. *Telemed J E Health*. 2010;16(10):1030–1041.

83. Piette JD, Mendoza-Avelares MO, Ganser M, Mohamed M, Martinez N, Krishnan S. A preliminary study of

a cloud-computing model for chronic illness self-care support in an underdeveloped country. *Am J Prev Med*. 2011; 40(6):629–632.

## Putting the Mouth Back in the Head: HEENT to HEENOT

Improving oral health is a leading population health goal; however, curricula preparing health professionals have a dearth of oral health content and clinical experiences.

We detail an educational and clinical innovation transitioning the traditional head, ears, eyes, nose, and throat (HEENT) examination to the addition of the teeth, gums, mucosa, tongue, and palate examination (HEENOT) for assessment, diagnosis, and treatment of oral-systemic health. Many New York University nursing, dental, and medical faculty and students have been exposed to interprofessional oral health HEENOT classroom, simulation, and clinical experiences. This was associated with increased dental–primary care referrals.

This innovation has potential to build interprofessional oral health workforce capacity that addresses a significant public health issue, increases oral health care access, and improves oral–systemic health across the lifespan. (*Am J Public Health*. 2015;105:437–441, doi: 10.2105/AJPH.2014.302495)

Judith Haber, PhD, APRN, BC, Erin Hartnett, DNP, CPNP, BC, Kenneth Allen, DDS, MBA, Donna Hallas, PhD, CPNP, BC, Caroline Dorsen, MSN, FNP, BC, Julia Lange-Kessler, DNP, CM, RN, Madeleine Lloyd, MS, FNP, BC, PMHNP, BC, Edwidge Thomas, DNP, ANP, BC, and Dorothy Wholihan, DNP, ANP, BC, PCNP, BC

**DURING THE DECADE FOLLOWING** publication of the Surgeon General's Report, *Oral Health in America*, health professionals, physicians (MDs), nurse practitioners (NPs), nurse-midwives (NMs), and physician assistants (PAs) began to align with the dental profession to heed Satcher's call to "view the mouth as a window to the body."<sup>1</sup> The most significant interprofessional movement that followed this report occurred with family practice and pediatric physicians coming together to work on preventive oral health initiatives for children in which those professionals would provide screenings, fluoride varnish, and referrals for children to find dental homes.

Mobilization of the overall health community to work collaboratively has been slower. Development of "Smiles for Life: A National Oral Health Curriculum"<sup>2</sup> represented an important interprofessional "tipping point" for engaging health professionals focused on treating populations across the lifespan in considering oral health and its relationship to overall health as an integral component of their practice.

Yet, evidence from national databases monitoring oral health data continue to reveal a high

incidence and prevalence of dental caries, especially in lower socioeconomic and minority group populations.<sup>3,4</sup> Data from the 2009–2012 National Health and Nutrition Examination Survey<sup>5</sup> reveal that approximately one in four children (14%) aged 3 to 5 years living at the poverty level have untreated dental caries. The survey data further reveal that 19% of non-Hispanic Black children aged 3 to 5 years and 26% of Hispanic children aged 6 to 9 years had untreated dental caries compared with non-Hispanic White children aged 3 to 5 years (11%) and 6 to 9 years (14%).<sup>6</sup> Although national statistics show an improvement in access to oral health care for children aged 5 years and older, the data reveal significant disparities in access to care for children aged 2 to 4 years.<sup>7</sup>

In the adult population, oral cancer morbidity and mortality rates have not declined over the past 10 years, at least in part related to absent or inadequate oral examinations,<sup>8</sup> and human papillomavirus is associated with the recent rise in the incidence of oropharyngeal cancer.<sup>9</sup> Among adults aged 65 years and older, only 30% have a dental benefit.<sup>10</sup> Primary care providers have been

challenged by the Institute of Medicine to play a significant role in improving these oral health disparities by building interprofessional oral health workforce capacity.<sup>10</sup>

One important component of the problem is that the majority of curricula for preparing health professionals have a dearth of oral health content and clinical experiences. Approximately 70% of medical schools include 4 hours or less on oral health in their curriculum; 10% have no oral health content at all.<sup>11</sup> Similarly, NPs and NMs have also not had a defined oral health curricular knowledge base nor a set of oral health clinical competencies.<sup>12–16</sup> The PA programs have generally followed medical school curricula and have not required curricular oral health content or competencies.<sup>17</sup>

The recent publication of several important national reports, two oral health reports by the Institute of Medicine,<sup>10,18</sup> the listing of oral health as one of the Healthy People 2020 Leading Health Indicators,<sup>19</sup> the release of the Health Resources and Services Administration document "Integration of Oral Health and Primary Care Practice,"<sup>20</sup> and the dissemination of "Oral Health Care During Pregnancy: A



<http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2014.302495>



# Smiles for Life: A National Oral Health Curriculum



The screenshot shows the homepage of the Smiles for Life website. At the top is a banner with the text "Smiles for Life A national oral health curriculum" and a photo of a diverse group of people. Below the banner is a navigation bar with links: Home, Online Courses, Downloadable Modules, State Prevention Programs, Resources, Links, and Contact Us. A secondary navigation bar includes: Welcome, Steering Committee, Endorsers, Funders, History, Citation, Sharing Our Website, FAQs, Video, and Utilization. The main content area features the title "Smiles for Life: A National Oral Health Curriculum 3rd edition" and a description: "Smiles for Life produces educational resources to ensure the integration of oral health and primary care." There are two columns of content. The left column, "For Individual Clinicians", includes a photo of a doctor and text about online access and CME credit. The right column, "For Educators", includes a photo of a classroom and text about academic implementation and ACGME competencies. A "Course Quick Links" sidebar lists eight courses: 1. The Relationship of Oral to Systemic Health, 2. Child Oral Health, 3. Adult Oral Health, 4. Acute Dental Problems, 5. Oral Health & the Pregnant Patient, 6. Caries Risk Assessment, Fluoride Varnish & Counseling, 7. The Oral Examination, and 8. Geriatric Oral Health. At the bottom, there is a video player for "Answering the Call: Joining the Fight for Oral Health" with a description and a link to an extended version.

**Smiles for Life**  
A national oral health curriculum

Home | Online Courses | Downloadable Modules | State Prevention Programs | Resources | Links | Contact Us

Welcome | Steering Committee | Endorsers | Funders | History | Citation | Sharing Our Website | FAQs | Video | Utilization

**Smiles for Life: A National Oral Health Curriculum** 3rd edition

Smiles for Life produces educational resources to ensure the integration of oral health and primary care.

**For Individual Clinicians**

We've made it easy for individual physicians, physician assistants, nurse practitioners, students, and other clinicians to access the curriculum and learn on their own time and at their own pace. Each of the courses is available online. Free Continuing Education credit is available.

**For Educators**

This curriculum format can be easily implemented in an academic setting. Included is a comprehensive set of educational objectives based on the Accreditation Council for Graduate Medical Education (ACGME) competencies, test questions, resources for further learning, oral health web links, an implementation guide, and detailed module outlines.

**Course Quick Links**

- Course 1: The Relationship of Oral to Systemic Health
- Course 2: Child Oral Health
- Course 3: Adult Oral Health
- Course 4: Acute Dental Problems
- Course 5: Oral Health & the Pregnant Patient
- Course 6: Caries Risk Assessment, Fluoride Varnish & Counseling
- Course 7: The Oral Examination
- Course 8: Geriatric Oral Health

**Answering the Call: Joining the Fight for Oral Health**

Watch this informative and inspiring video which outlines both the challenge and progress in improving oral health as a vital component of effective primary care. Click the full screen icon in the bottom right hand corner of the video thumbnail to view it full-sized. This video is approximately seven minutes in length.

An extended version (21 minutes) of this documentary is also available.



[www.smilesforlifeoralhealth.org](http://www.smilesforlifeoralhealth.org)

# The Oral Health Nursing Education and Practice (OHNEP) Program



The screenshot shows the OHNEP website homepage. At the top left is the OHNEP logo with the text 'Oral Health Nursing Education and Practice'. To the right are social media icons for Facebook, LinkedIn, Twitter, YouTube, and WordPress, followed by a search bar. A purple navigation bar contains links: Home, About, Education, Faculty Toolkit, Resources, Practice, News, Events, and Contact Us. Below this is a large banner image of a smiling young girl and a male dentist. Overlaid on the right side of the banner is the text 'Reducing Oral Health Disparities Across The Lifespan'. Below the banner, the 'News' section lists five items with a 'more' link at the bottom. To the right of the news is a section titled 'OHNEP LEADS THE WAY' with two paragraphs of text.

**OHNEP**  
Oral Health Nursing  
Education and Practice

f in t y w

Search

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**Reducing  
Oral Health  
Disparities Across  
The Lifespan**

**News**

- [Am J Public Health: Putting the Mouth Back in the Head: HEENT to HEENOT](#)
- [New USPHS OHCC Oral Health Delivery Framework](#)
- [Winter 2016 Newsletter Now Available!](#)
- [Grantee Spotlight: University of Texas Health Science Center Houston](#)
- [New Blog Post! Bullying: Nothing to Smile About](#)

[more](#)

**OHNEP LEADS THE WAY**

**OHNEP is at the vanguard** of helping nurse practitioners, nurse-midwives, nurses, and other health professionals incorporate oral health into patient care.

Why? **Oral health and general health** are interconnected. Research is finding that poor oral health like periodontal disease is associated with diabetes, cancer, heart and lung diseases, and progression of dementia and Alzheimer's, among others. Yet few health professionals are prepared to do routine oral health assessments.

OHNEP is changing that.

**As a national voice promoting** interprofessional oral health, OHNEP advocates, educates, creates and promotes resources that primary care clinicians can use to improve the quality of oral health care in their patients. The OHNEP website serves as a knowledge center and portal for best practices.

**Visit [www.OHNEP.org](http://www.OHNEP.org)**



# Oral Health Patient Facts

**Patient FACTS**  
www.acponline.org/patient\_ed

## Oral Health and You

**What Is Oral Health?**  
Oral health is not only about keeping teeth clean. It also refers to the jaw, lips, gums, teeth, tongue, and glands that make saliva. Good oral health is important to your overall health. Many health problems, like diabetes, heart disease, and other conditions, are linked with oral health. It's important to talk to both your dentist and primary health care professional (physician, nurse practitioner, physician assistant) about oral health.

**What Are Some Common Oral Health Problems?**

- A **Cavity** is a hole in your tooth caused by bacteria from plaque buildup. Eating sugary foods and drinks can make plaque worse. When plaque is not cleaned off the teeth, cavities can form.
- **Gingivitis** happens when plaque stays on your teeth for too long. Gingivitis can cause gums to be swollen and tender and bleed more easily. It can also cause bad breath. This is the beginning stage of gum disease.
- **Gum Disease (Periodontitis)** occurs when tartar builds up and contributes to infections deep in your gums. It can lead to loss of tissue, bone, and teeth and can increase your risk for other serious problems, like diabetes, heart attack, or stroke.
- **Dry Mouth** can be caused by medicines for high blood pressure, depression, or other health problems.

**What Are the Warning Signs of Poor Oral Health?**

- Red, swollen, tender, or bleeding gums
- Bad breath that won't go away
- Loose teeth
- Sensitive or sore teeth
- Receding gums (gums that pull away from the teeth)
- Dry mouth
- Long-lasting mouth sores

**How Are Oral Health Problems Diagnosed?**  
Most oral health problems are diagnosed after your mouth, teeth, gums, and tongue are examined. Your dentist may also use X-rays to help diagnose oral health problems.


**How Are Oral Health Problems Treated?**

- Cavities can be treated by filling or covering the holes in teeth. If a cavity or tooth decay is more serious, nerves in the tooth or the entire tooth may need to be removed.
- Gingivitis can be treated by a professional cleaning at your dentist's office. Good oral hygiene will keep plaque and tartar from building up again.
- Gum disease is treated by removing tartar and bacteria from your teeth and gums. If gum disease is more serious, you may need prescription antibiotic medicines or dental surgery.

**OHNEP**  
Oral Health Nursing Education and Practice

**ACP**  
American College of Physicians

National Interprofessional Initiative on Oral Health



**Patient FACTS**  
www.acponline.org/patient\_ed

## Oral Health and Diabetes

**How Are Diabetes and Oral Health Linked?**  
People with diabetes are at greater risk for oral health problems, like gum disease and tooth decay. Gum disease can also be a warning sign for diabetes. To lower risk for oral health problems, it is important to control blood sugar and practice good oral health habits. If you have diabetes, discuss any special care you may need with both your dentist and primary health care professional (physician, nurse practitioner, physician assistant).

**What Are Common Oral Health Problems Related to Diabetes?**  
Diabetes can make it hard for your body to fight off infection. This means you may be at higher risk for some of these problems:

- **Gum Disease (Periodontitis)** occurs when tartar builds up and contributes to infections deep in your gums. It can lead to loss of tissue, bone, and teeth and increases your risk for other serious health problems, like heart attack or stroke.
- **Oral Thrush** can cause uncomfortable creamy white patches in your mouth or small white cracks at the corners of your mouth.
- **Dry Mouth** can cause soreness, ulcers, infections, and cavities. Dry mouth may be caused by medicines for high blood pressure, depression, or other health problems.

**What Are Warning Signs of Oral Health Problems Related to Diabetes?**


- Red, swollen, or tender gums or other pain in your mouth
- Bleeding while brushing, flossing, or eating
- Loose or separating teeth
- Sores in your mouth
- Bad breath, bad taste in mouth, or loss of taste
- White patches in the mouth
- A sticky, dry feeling in the mouth

**How Are Oral Health Problems Diagnosed?**  
Oral health problems may be diagnosed after your mouth, teeth, gums, and tongue are examined. X-rays of your mouth may also help diagnose problems. If you are having any other problems related to your diabetes, talk with your primary health care professional.

**OHNEP**  
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National Interprofessional Initiative on Oral Health



**Patient FACTS**  
www.acponline.org/patient\_ed

## Oral Health and Older Adults

**What Is Oral Health?**  
Oral health is not only about keeping teeth clean. It refers to the jaw, lips, gums, teeth, tongue, and glands that make saliva. As you age, you become more prone to certain oral health problems. Oral health is important to discuss with both your dentist and primary health care professional (physician, nurse practitioner, physician assistant).

**What Are Common Oral Health Problems for Older Adults?**

- Gum disease (periodontitis) occurs when tartar builds up and contributes to infections deep in your gums. This can lead to loss of tissue, bone, and teeth. It can also increase your risk for other serious health problems, like diabetes, heart attack, or stroke.
- Tooth decay
- Mouth and throat cancers
- Dry mouth, which can be caused by medicines for high blood pressure, depression, or other health problems

**What Are the Warning Signs of Oral Health Problems?**

- Red, swollen, or tender gums or other pain in your mouth or teeth
- Bleeding while brushing, flossing, or eating
- Loose or separating teeth
- Dry mouth
- Sores in your mouth
- Lasting bad breath
- A change in the way your teeth or dentures fit together when you bite
- A lump or thickening inside the mouth
- A sore throat or a feeling that something is caught in the throat that doesn't go away
- Trouble chewing, swallowing, or moving certain parts of your mouth

**How Are These Problems Treated?**

- Gum disease can be treated by removing all plaque and tartar buildup from your teeth and gums through a deep cleaning. If gum disease is more serious, surgery may be needed.
- Certain medicines may be used, including prescription mouthwash, gel, or oral antibiotics for infections.
- Medicines that cause dry mouth may be changed. Special mouthwashes and sugarless candies or gum may also help with dry mouth.
- Oral and throat cancers may require different types of treatment, including surgery, radiation, or chemotherapy.

**OHNEP**  
Oral Health Nursing Education and Practice

**ACP**  
American College of Physicians

National Interprofessional Initiative on Oral Health



[https://www.acponline.org/patient\\_ed](https://www.acponline.org/patient_ed)

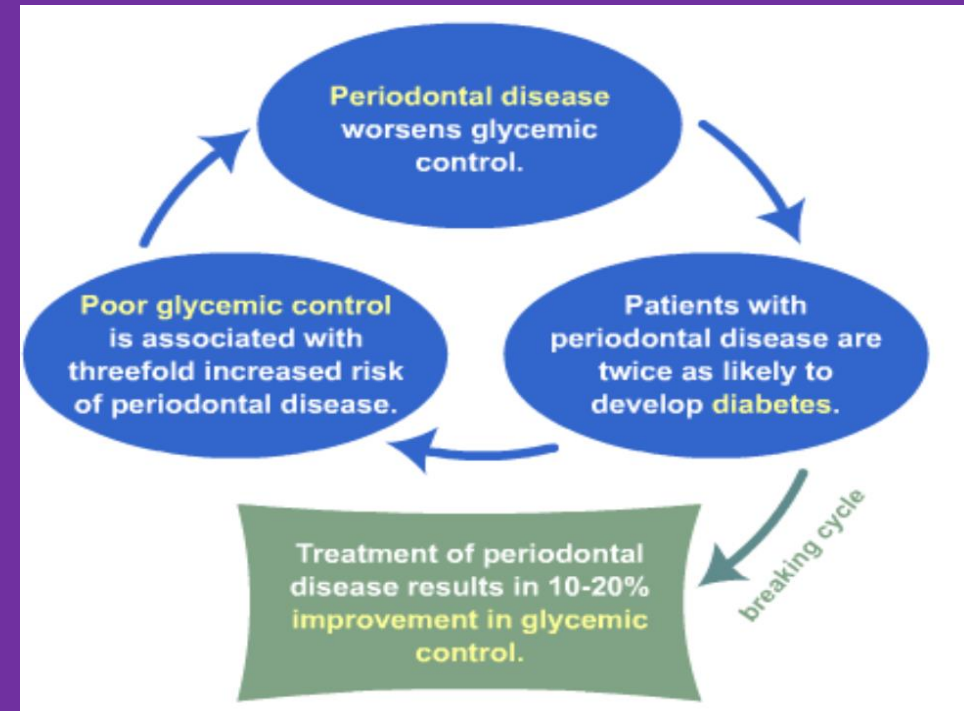


# Oral-Systemic Health in Geriatric Primary Care



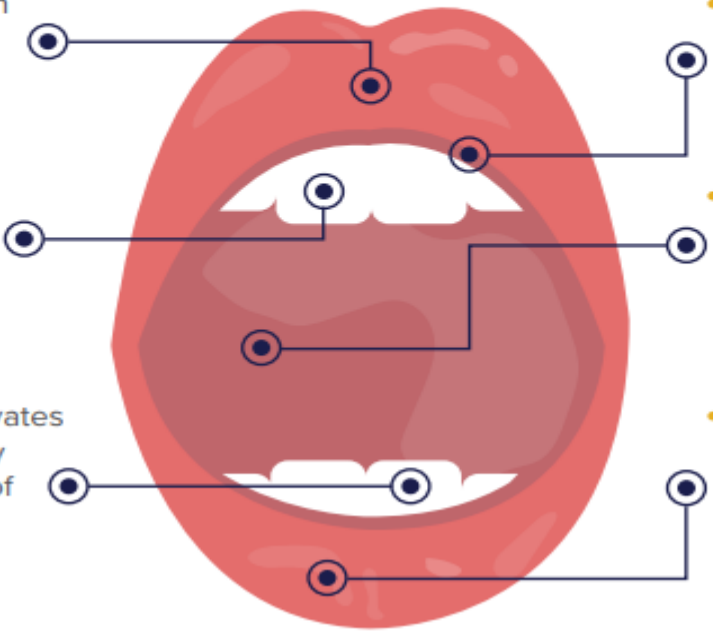
# Diabetes

- Adults with severe gum disease:
  - Have higher long-term blood sugar levels (A1c)
  - Have a higher risk of developing type 2 diabetes
  - Have a harder time controlling their type 2 diabetes
- Adults who are diabetic may have more mouth problems:
  - Increased risk for tooth decay, gum disease, tooth loss, dry mouth, and thrush



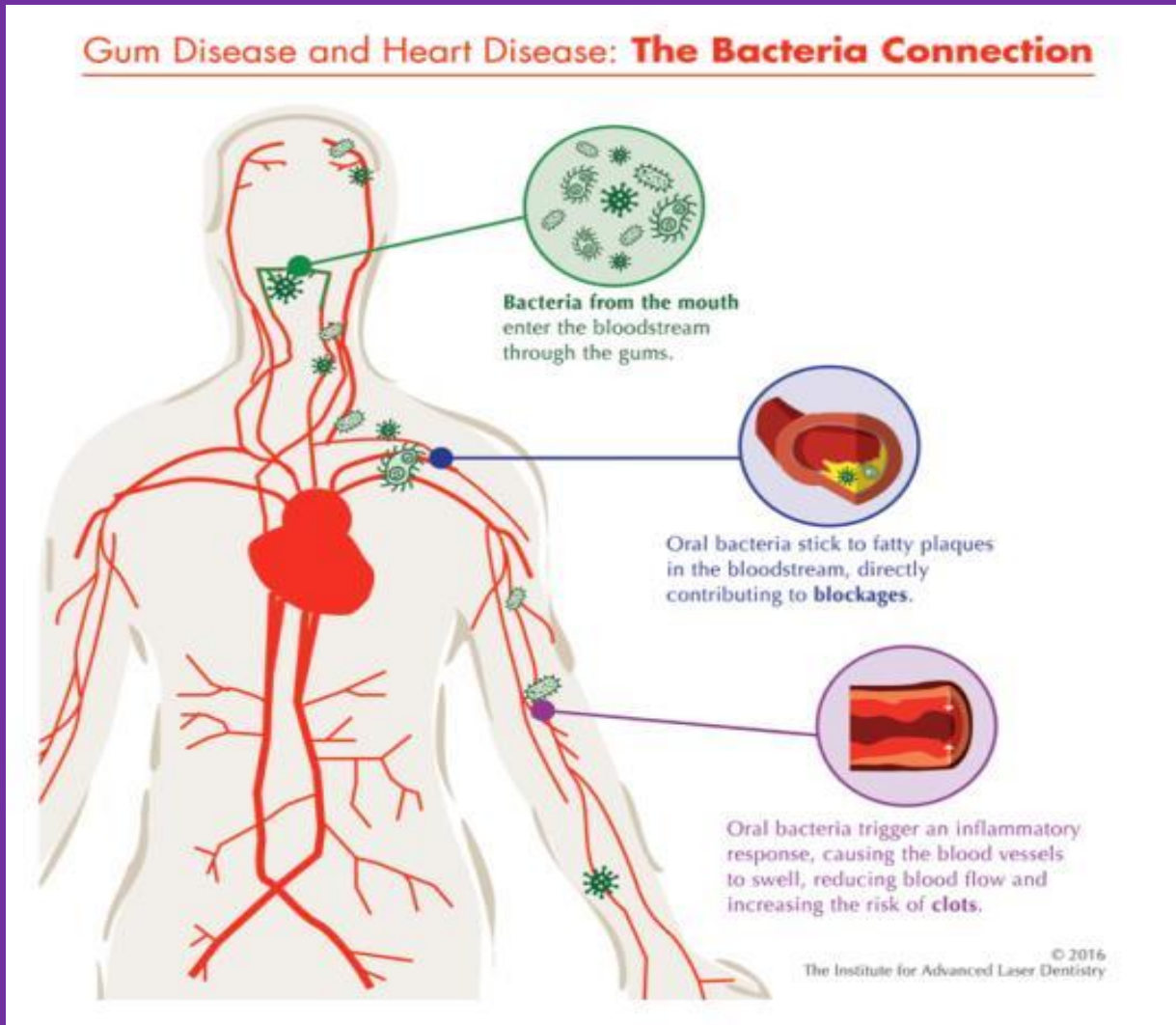
# Diabetes–Periodontal Disease: A Vicious Cycle

## HOW DOES THIS AFFECT MY DENTAL PRACTICE?

- 
- Periodontal disease is an early warning sign for metabolic syndrome (4)
  - In one study, untreated periodontal disease was linked to a 3-fold increase in mortality from heart and kidney diseases. (6)
  - Periodontal disease elevates HBA1C markers and may contribute to the onset of diabetes (6)
  - Perio therapy can reduce markers of inflammation, preventing heart complications (5)
  - Perio therapy reduces HBA1C levels, and promotes blood sugar control in diabetics (6)
  - Reducing HBA1C levels reduces the risk of death and serious complications from diabetes and heart disease(6)



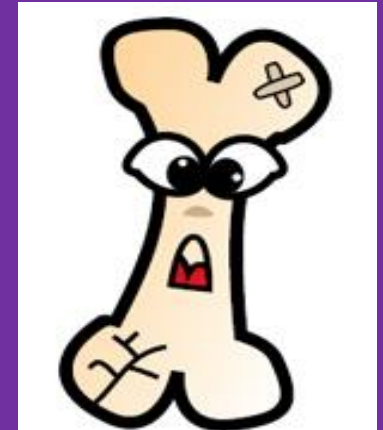
# Cardiovascular Disease



People with periodontal disease are almost **TWICE** as likely to have heart disease

# Osteoporosis & Osteonecrosis

- Osteoporosis:
  - May trigger dental and oral health issues, including gum or periodontal diseases and loss of teeth
  - Additional denture adjustment as jaw shape changes
- Osteonecrosis:
  - Side effect of bisphosphonates and other anti-neoplastic drugs
  - Symptoms include jaw pain, swelling and infection, loosening teeth, and drainage and exposed bone
  - Diminished quality of life



(Clark et al., 2010)

# Xerostomia

- Medications, radiation therapy, and rheumatic disease are common causes of dry mouth
- More than 90% of the elderly take prescription medication each week
- 57% take five or more medications daily
- Taste alteration (dysgeusia) is also associated with over 200 medications





# Nutrition

- Tooth loss, dentures, and decreased saliva can lead to alteration in diet
- Elders may experience the following:
  - Changed sensory perception of eating (texture and taste)
  - Lowered masticatory efficiency
  - Decreased intake of important nutrients



# Oral Health & Dementia

- Older adults with dementia-related conditions like Alzheimer's disease are at increased risk for tooth decay and gum disease
- May pay less attention to personal grooming and lose their ability to brush their teeth effectively
- Common dementia medications may complicate oral health by increasing risk for oral bacterial infections and xerostomia



# Oral-Systemic Health in Geriatric Acute Care



# Ventilator Associated Pneumonia (VAP)

- VAP crude mortality approximately 10-40%
- Increase LOS up to 4-14 days
- Annual cost \$2 billion dollars
- Providing oral health care is an effective intervention in reducing the incidence of VAP





# Non-Ventilator Hospital Acquired Pneumonia

- Most common HAI in U.S.
- Increased mortality → 18%-29%
- Extended LOS → 4-9 days
- Increased cost → \$28K to \$109K
- 2x likely for readmission <30 day
- Providing oral health care is an effective intervention in reducing the incidence of non-ventilator hospital acquired pneumonia



# Pathogenesis → Prevention

## Germ in Mouth

- Dental plaque provides microhabitat
- Bacteria replicate 5X/24 hrs



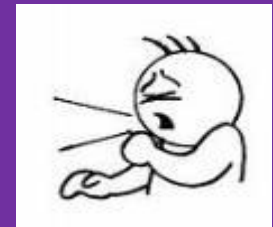
## Aspirated into Lungs

- Most common route
- 50% of healthy adults micro-aspirate in sleep



## Weak Defenses

- Poor cough
- Immunosuppressed
- Multiple co-morbidities



# Maintaining Oral Health at the End of Life

**Table 1. Prevalence of Oral Problems Among Palliative Care Patients**

Oral Problems	1991 <sup>10</sup>	1992 <sup>9</sup>	2000 <sup>11</sup>	2012 <sup>12</sup>	2014 <sup>13</sup>
Xerostomia and mouth dryness	97%	58%	88%	78%	98%
Oral soreness (mucositis)	31%	42%	16%	67%	50%
Candidiasis	-	70%	52%	34%	36%
Dysphagia	51%	37%	-	-	-
Denture problems	40%	71%	-	-	-
Poor oral hygiene	-	-	-	56%	-
Difficulty talking	66%	-	-	-	-

<sup>a</sup> Percent of populations affected.





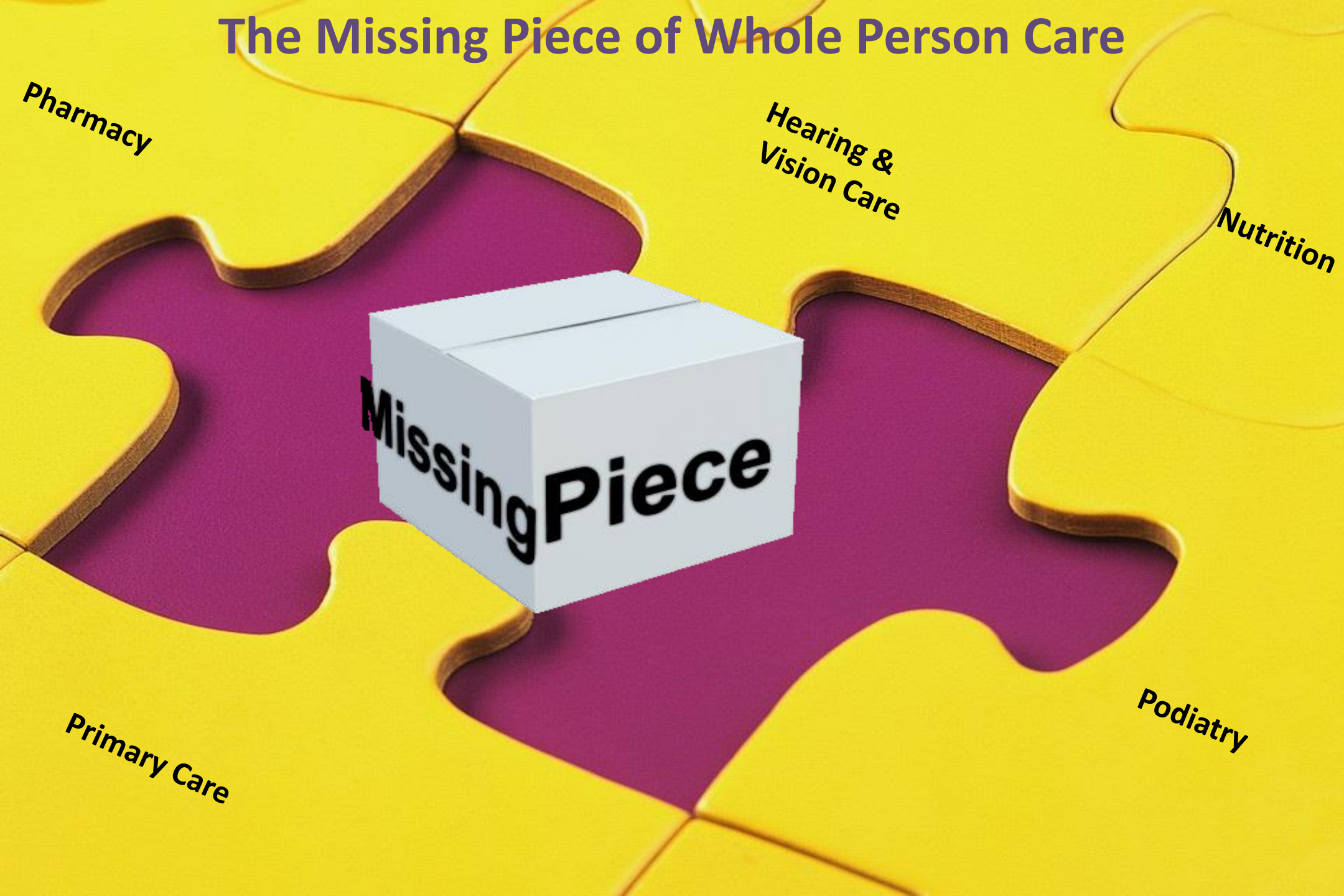


# Mouth Care Guidance in Hospice & Palliative Care

**Table 5. Preventive Oral Care for Palliative Care Patients<sup>3,22,27,53</sup>**

Task	Supplies/Equipment	Directions	Frequency
Keep lips moist	Petroleum jelly	Use a lip balm form	At all times needed
Keep inside of mouth moist	Enzyme-containing gels or rinses	Apply with oral sponge or mouth rinse	At all times needed
Brush teeth	Manual or powered brush with fluoride dentifrice	Use pea-sized amount of paste	After breakfast and at bedtime
Interproximal cleaning	Floss by itself or with floss holder	Caregiver to provide assistance as needed	At least once daily
Clean soft tissues	Soft brush or oral sponge	Moisten brush with water	Remove adherent debris, including dried mucus saliva
Clean dentures	Denture brush	Brush under running water	At least once daily and if food collects

# The Missing Piece of Whole Person Care



Pharmacy

Hearing &  
Vision Care

Nutrition

**Missing Piece**

Primary Care

Podiatry

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**MINNESOTA:  
COME FOR THE CULTURE**

**STAY BECAUSE YOUR CAR  
WON'T START**

# University of Minnesota & Walker Methodist Collaboration



UNIVERSITY OF MINNESOTA  
**School of Dentistry**  
Driven to Discover<sup>SM</sup>

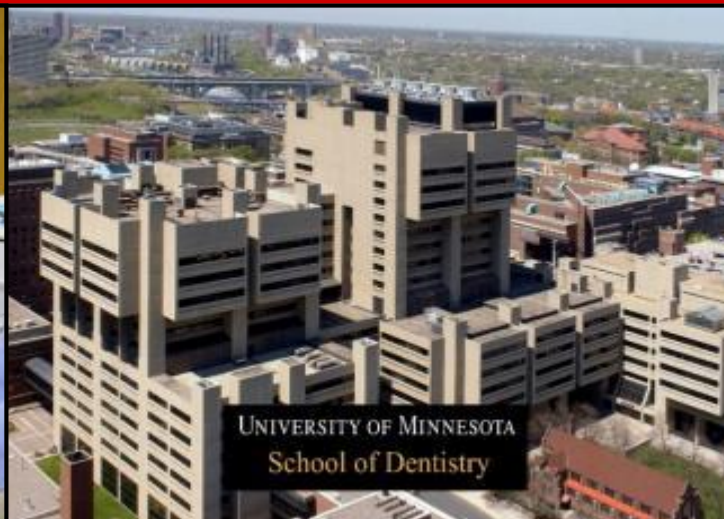






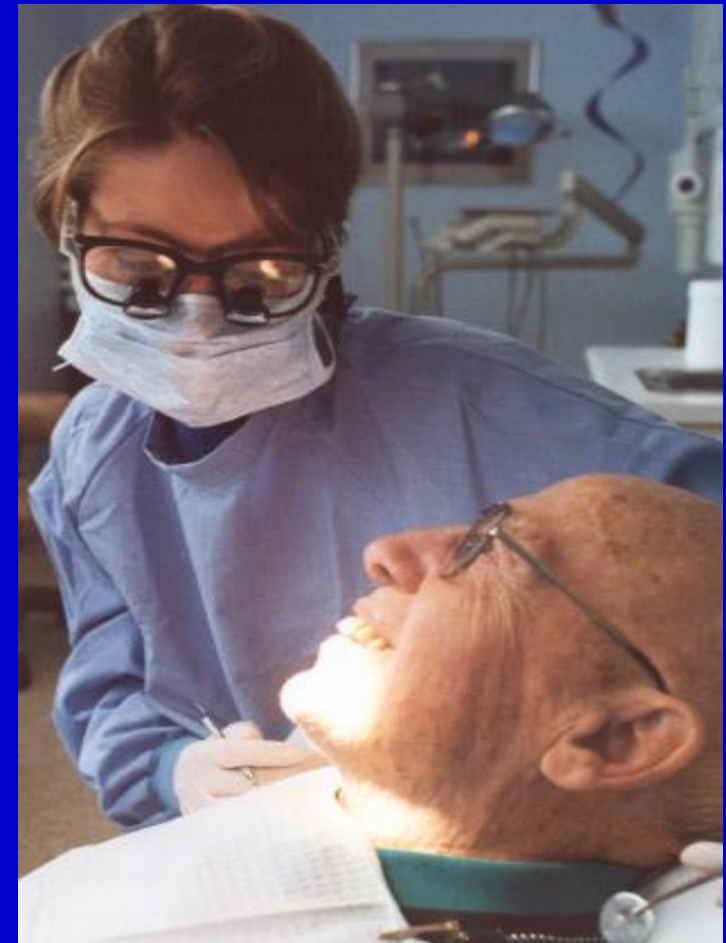
# *Oral Health Services for Older Adults Program*

## *University of Minnesota School of Dentistry*



# OHSOA MISSION

- **Train dental & non-dental professionals to provide better geriatric care**
- **Contribute new knowledge about geriatric oral health**
- **Improve access to high quality dental care for older adults with special needs.**





# Brief History

- First university-based geriatric dental fellowship/degree program in US (1981)
- Mini residency in long-term care established (1991)
- ADA Geriatric Oral Health Care Award (1995)
- MN Dept. of Health funded training expansion via Walker Dental Clinic (2006)
- M.H.H.A. Innovation of the Year Award (2007)
- "Growing Old with a Smile" DVD released with MN Dept. of Health (2010)
- Walker expansion with funding from MDH, Delta Dental, Bremer Trust, Stevens Square (2015-16)



## NEWS

# Minneapolis clinic gets award for senior dental care using UMN students

By [MAJA BECKSTROM](#) | Pioneer Press

PUBLISHED: November 2, 2016 at 11:33 am | UPDATED: November 8, 2016 at 6:52 pm

Walker Methodist Health Center's dental clinic received a national award this week for its innovative way of providing dental care for seniors. The Minneapolis clinic is staffed by University of Minnesota dental students, a model recognized with an innovation award from LeadingAge, a national association of senior housing and health care organizations.



## 2016 LeadingAge Innovation Award

# Geriatric Education

- **MS and/or Certificate:**
  - 36 fellows to date
  - 14 in faculty positions
- **200+ other learners/year:**
  - DDS, DH, DT students
  - Grad/Advanced Education Programs
  - AHC students in IPE
  - CDE & CME



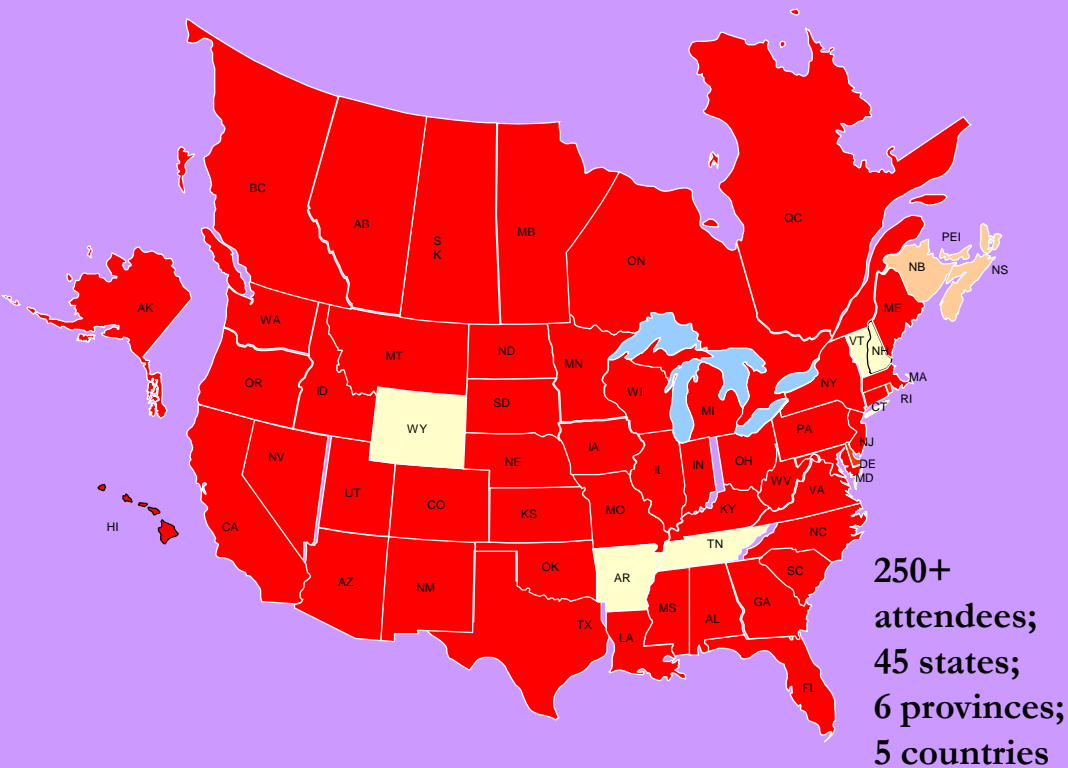
UMN Continuing Dental Education

<http://www.dentalce.umn.edu>

# Miniresidency in Geriatrics & Long-Term Care for the Dental Team

Wednesday-Saturday, Oct. 11 – Oct. 14, 2017

*A special opportunity to learn about the long-term system, dental program development, as well as geriatric dental care considerations.*







## Providing Dental Care in Nursing Homes: Challenges & Strategies for the Dental Team

A unique opportunity to learn about  
providing dental care in nursing  
homes and other long-term care  
environments.

May 15 - May 17, 2003  
Baltimore, Maryland



Presented by: University of Maryland, Baltimore College of Dental  
Surgery and Chesapeake Health Education Program (CHEP)



## KANSAS MINIRESIDENCY IN NURSING HOME CARE FOR THE DENTAL TEAM

Dentists, Hygienists,



Dental Assistants and  
Auxiliaries

October 23-25, 2003

Lakeview Village Retirement Community  
9100 Park Street  
Lenexa, Kansas 66215



Present:

## Kansas Miniresidency In Nursing Home Care For The Dental Team



For Dentists and Dental Hygienists

March 23 - 25<sup>th</sup>, 2006 at Adorers of the Blood of  
Christ  
1165 SW Boulevard, Wichita, KS 67213



# Contributing New Knowledge

- Community-based research
- Numerous publications, scientific presentations
- 6 national student research prize-winners
- \$3 million+ in grants:
  - NIH/NIDCR, CDC
  - HRSA
  - State/local government
  - Foundations & industry

## COVER STORY

### Dental treatment intensity in frail older adults in the last year of life

XI Chen, DDS, PhD; Hong Chen, DDS, MS; Christian Douglas, BS, MS; John S. Preisser, PhD; Stephen K. Shuman, DDS, MS

**P**atterns of death (also called “dying trajectories”) are distinctly different among older adults with different diseases and conditions,<sup>1</sup> suggesting that the impact of terminal functional decline on oral health may differ in patients with different dying trajectories. Older adults who die unexpectedly usually do not experience



a substantial loss of oral care function before death.<sup>2</sup> Deterioration of oral health may not be clinically significant in these people if oral hygiene and regular dental care have been maintained before death.<sup>2</sup> Patients with a diagnosis of cancer who are terminally ill often undergo remarkable functional decline in the last weeks or months of life.<sup>1</sup> Cancer therapy and management of the related symptoms may cause severe xerostomia; alter speech, taste and appetite; and substantially affect quality of life. Oral candidiasis, mucositis, atrophic glossitis and

## ABSTRACT



**Background.** Palliative care focusing on pain and infection is recommended for patients who are terminally ill. It is difficult to implement this strategy in practice because of the lack of clear guidelines. The authors conducted a study to examine dental treatment provided to a group of long-term care (LTC) residents in the last year of life.

**Methods.** The authors retrospectively followed 197 LTC residents (60 years or older) in the last year of life to death. On the basis of the dental services patients received between the new patient examination and death, the authors categorized the patients into three groups: no care (NC), limited care (LC) and usual care (UC). The authors developed a multivariable continuation ratio logit model with shared regression coefficients across two logits to identify the factors associated with the end-of-life dental care pattern.

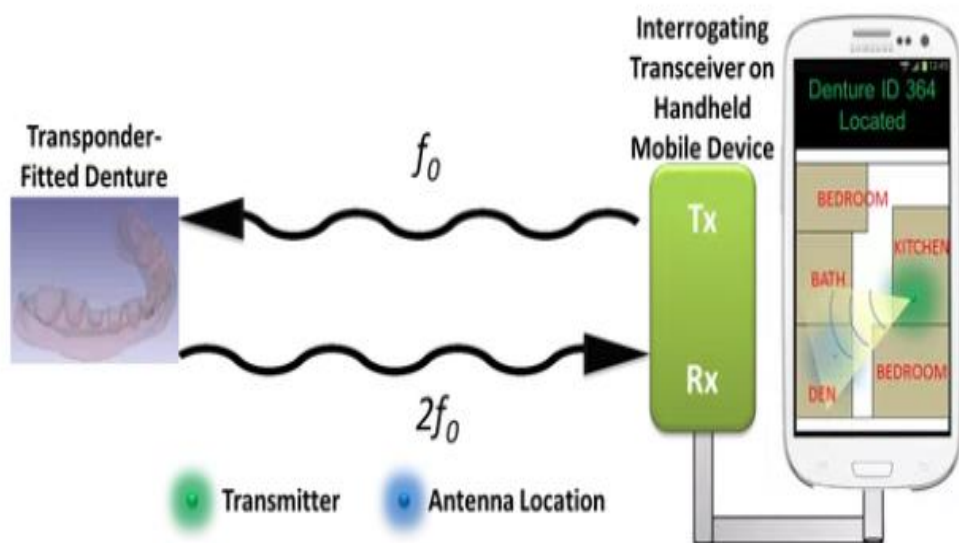
**Results.** The authors found that 50.8 percent of the patients received NC before death. Among those who received treatment, 62.9 percent received UC, and 60.7 percent of the patients in the UC group had completed their treatment in the last three months of life. A three-month increment in survival and having dental insurance resulted in 1.74 (95 percent confidence interval [CI], 1.32-2.30) and 2.59 (95 percent CI, 1.03-6.52) times greater odds, respectively, of receiving some dental treatment before death. Neither survival nor dental insurance, however, was associated with dental care intensity in the last year of life (that is, UC versus LC).

**Conclusions.** While most of the patients who were in the last year of life received insufficient dental care, comprehensive treatment was provided commonly to frail patients at the end of life, raising questions about quality of care.

# Current Grants (NIH & CDC)

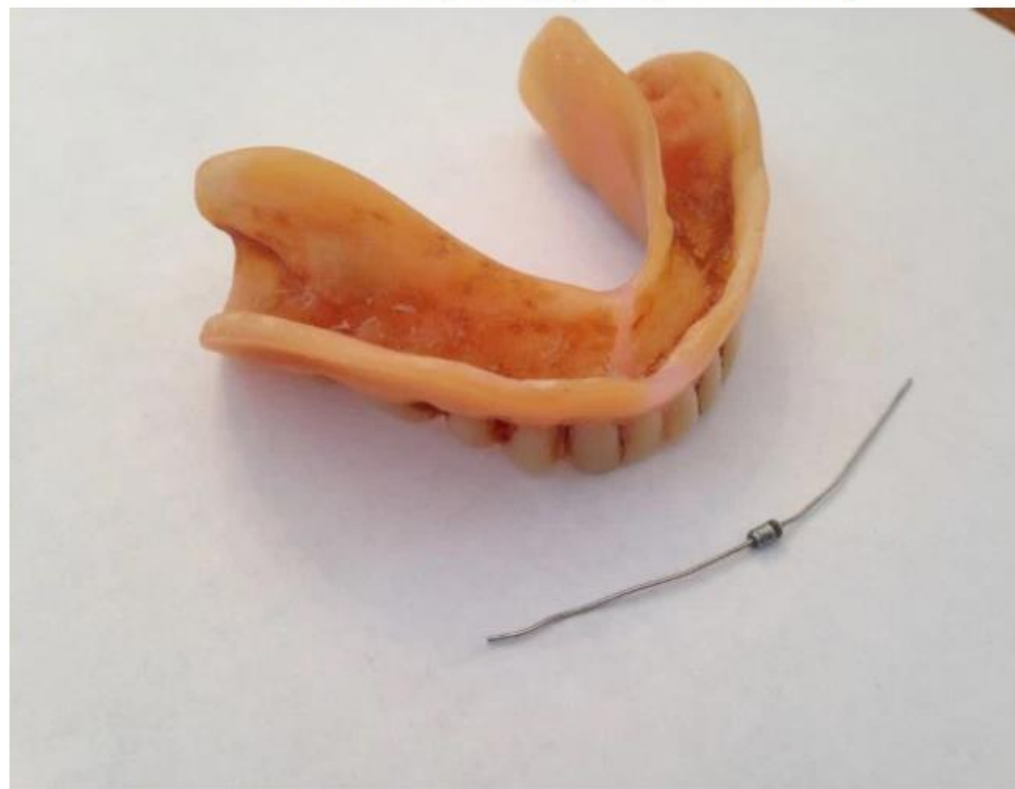
## Miniature Passive Device for Locating Lost Dentures in Care Facilities (NIH/NIDCR 1R43DE026377-01)

Shoreview aerospace company develops devices for elderly



How a sensor/passive antenna system could be used to find a missing set of dentures. (Courtesy ASTER Labs)

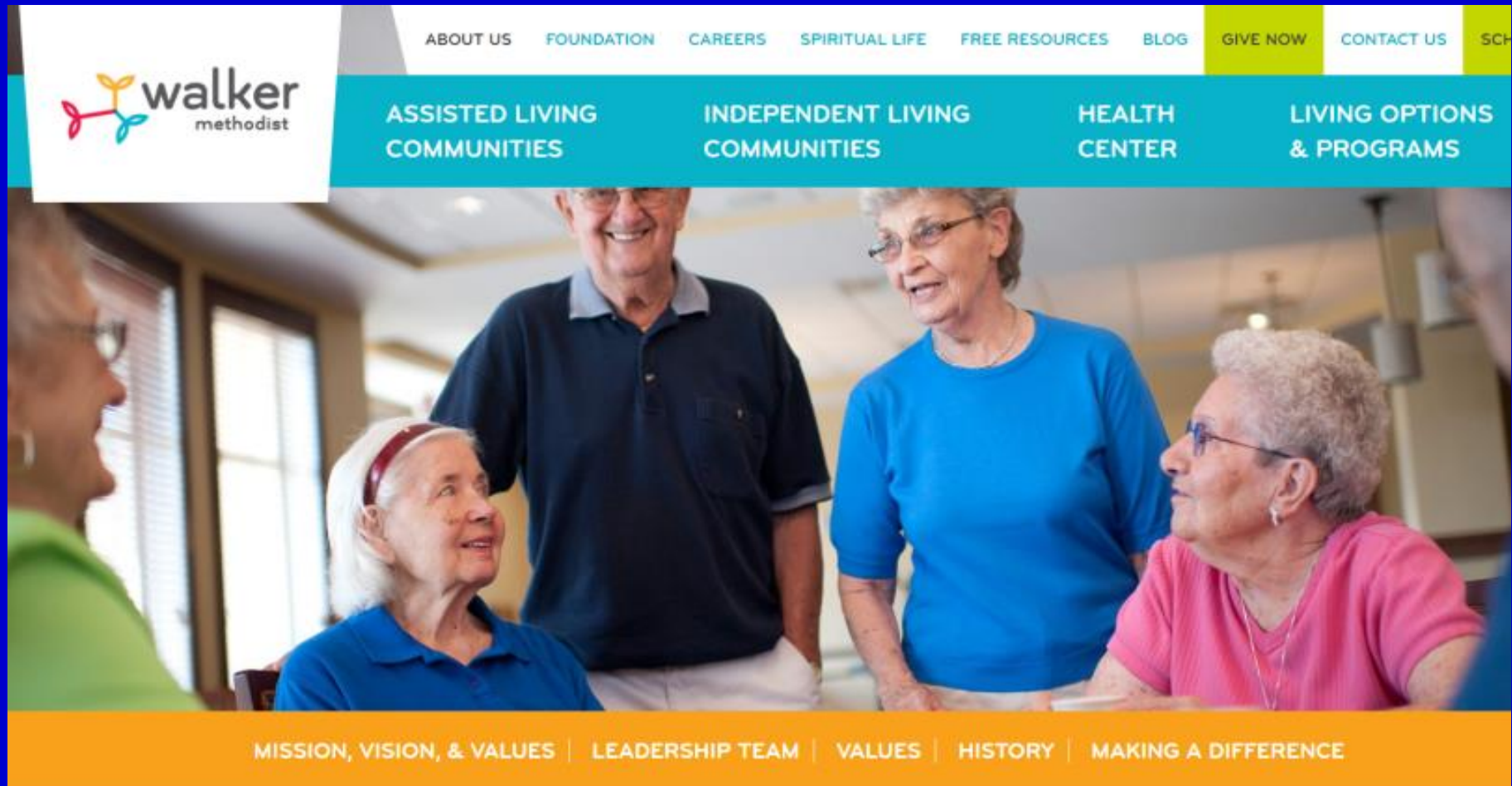
Shoreview aerospace company develops devices for elderly



An antenna like this could be embedded into dentures to help find them when they get lost thanks to a project being worked on by a University of Minnesota professor and a Shoreview research company. (Pioneer Press: Richard Chin)



# Walker Methodist





# Walker Methodist Dental Clinic

- Opened May, 2006 (MDH funded)
- UM-Walker Methodist partnership
- Objectives:
  - Clinical & interprofessional care & education
  - Expanded community geriatric care
  - Research opportunities
- Expansion completed 2016
  - MDH, Delta, Bremer, Stevens Square, funding (\$453,000)
  - Doubled capacity for clinical care and education





# Walker/U of MN Service

- **Community elderly & 15 area long-term care facilities**
- **Open to all 3<sup>rd</sup> party & State Medicaid plans**
- **MN Critical Access Provider**
- **Area resource for dementia care**
- **Since inception:**
  - **19,000 visits for 2400 patients**
  - **\$3 million+ in services provided**
  - **\$1 million+ in uncompensated care**





***Introducing a New Resource for Dental  
and Long-term Care Professionals. . .***

***"Growing Old with a Smile:  
Oral Care for Older Adults in Long-Term Care"***

- New DVD and Workbook for use by both long-term care facilities and dental providers to help train direct care staff about how to provide appropriate oral care.
- Developed and produced by the Minnesota Department of Health's Licensing and Certification Program and University of Minnesota School of Dentistry's Oral Health Services for Older Adults Program.



**DVD Menu**

- Introduction
- Oral Cares:
  - General Hygiene
  - Checking the Resident's Mouth
  - Routine for Natural Teeth (Brushing)
  - Flossing
  - Brushing Full or Partial Dentures
  - Use of Denture Adhesives
  - Managing Difficult Situations
  - Unconscious or Bedridden Patients
- Summary

**Workbook**

- PDF file on DVD can be printed & duplicated as needed.
- Review of all video materials
- Glossary of Terms
- Oral Health Quiz and Answer Key
- Additional Resource List

**Ordering Information:**

**For Long-term Care Professionals:**  
Minnesota Department of Health  
Division of Compliance Monitoring  
Phone: 651-201-4101  
E-mail: [health.fpc-web@state.mn.us](mailto:health.fpc-web@state.mn.us)

**For Dental Professionals:**  
Minnesota Dental Association  
Phone: 800-950-DENT (3368)  
E-mail: [info@mndental.org](mailto:info@mndental.org)



***CR Foundation Clinician's Report  
(January, 2011)***

- A 2011 "Best New Product"
- 81% of 21 CR Evaluators would incorporate into their practices
- 95% rated it excellent/good & worthy of trial by colleagues





# Lessons Learned

- **Collaboration** is key
  - No successes have occurred alone
  - Cost-sharing appreciated by all parties
- **Broad-based programs** more valuable & appealing
  - Clinical care for community + full spectrum LTC  
(e.g., NH's, TCU's, AL's, Group Homes, Dayhealth)
  - Multi-level educational programs  
(DDS, DH, DT, Grad/Advanced, IPE, CDE/CME)
- **Interprofessional** is where the action is
  - Better care, education, research & fund-raising!
- **Now is the time!**
  - Geriatric oral health initiatives more appealing than ever

## Pain Management



# Thank You!

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**shuma001@umn.edu**

**<http://ohsoa.umn.edu>**

**[www.walkermethodist.org](http://www.walkermethodist.org)**





# Speakers

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Dental Director of the UAB/Fair Haven Oral Health Center

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**Judith Haber, PhD, APRN, BC, FAAN**

Ursula Springer Leadership Professor in Nursing at the NYU Rory Meyers College of Nursing

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**Stephen K. Shuman, DDS, MS**

Associate Professor & Director, Oral Health Services for Older Adults Program, Department of Primary Dental Care, University of Minnesota School of Dentistry

Dental Director, Walker Dental Clinic, Walker Methodist Health Center, Minneapolis

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**Moderator:**

**A. Conan Davis, DMD, MPH**

Assistant Dean for Community Collaborations, UAB School of Dentistry

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