



## **2023 IHCP Works Seminar**

### **The Challenging Landscape of Connecting Oral Health and Physical Health-The Whole Health Goal**

**Presented By: Dr. Lisa Knowles and Dr. Jeffrey Wheeler**

*Providing health coverage to Indiana families since 1994*

# Agenda

- History
- Importance of Oral Health
- Vocational/Educational Impact
- Oral Presentation of Disease
- Dental/Physical Relationships
- Future MDwise Goals
- References
- Questions



# History

## Where we parted ways:

- Dentistry was not recognized during the establishment of US medical schools; this led to the independent establishment in 1839 and 1840 of the first dental school, association, and journal.



## What we learned when apart:

- In 2000 the landmark surgeon general's report on oral health documented impressive advances in dental science and practice, as well as oral health's connections to general health, raising national awareness about the importance of oral health to overall well-being.

## Why we must come back together:

- Healthy People 2020 identified oral health as one of the 10 leading health indicators, along with others, such as access to health, clinical preventive services, nutrition, social determinants and reproductive health.



Thus, why we have entitled our presentation:

# The Challenging Landscape of Connecting Oral Health and Physical Health-The Whole Health Goal

At MDwise, we like a challenge!



# Importance of Oral Health: Dimensions of Health and Well-being

- **Emotional Health:**

- Early age teeth are used for eating, speech development, and smiling. When teeth are lost early, this impedes development and a healthy self-esteem. Pain in teeth leads to fears and suffering. Misnomer that they are “just baby teeth.”

- **Physical Health:**

- As adults, pain in the mouth and gums can lead to nutritional deficiencies
- In children and adults, dental abscesses can lead to death due to sepsis.
  - Deamonte Driver: 12-year-old died from complications from a tooth abscess that spread to his brain
  - Vadim Kondratyuk: young father of two died when toothache spread to his heart

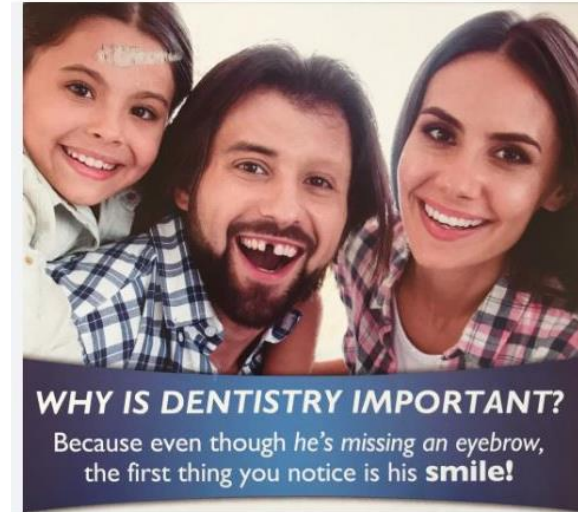
- **Social Well-being:**

- As adults, loss of teeth often leads to isolation and loneliness

# Vocational Wellness



**Have you ever noticed someone cover their smile?  
Are they going to be confident in a job interview?**



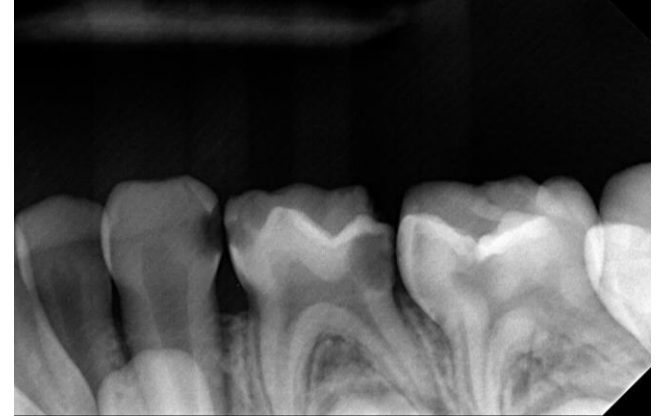
**Social media portrays teeth as important**

**In Indiana, overall, 9% of people consider mouth and teeth condition poor.**

- Low income: 20%
- 12% of low-income Hoosiers feel life less satisfying due to dental health
- 31% of low-income Hoosiers believe the appearance of mouth and teeth **affects their ability to interview for a job**
  - According to the [ADA's Health Policy Institute surveys](#) of the U.S. population, one in five low-income adults say their mouth and teeth are in poor condition – and one in three of them say the condition of their mouth and teeth affects their ability to interview for a job.
- Significantly more low-income Hoosiers avoid smiling, have dental pain, have sleep issues and take days off work due to their dental health

# Educational Impact

- Learning effects: Children in low-income families with limited access to preventive care will miss three times as many school days due to oral health problems
- [Oral Health and Well-Being in the United States | American Dental Association \(ada.org\)](https://www.ada.org)



# Oral Presentation of Disease

## Medical Conditions That May Have An Oral Correlation

- **Cancer:** many cancers can metastasize to the jawbone; oral cancer starts there
- **Inflammatory Diseases:** can manifest as periodontal disease, jaw pain
- **Diabetes:** loss of bone around teeth in undiagnosed or uncontrolled diabetes
- **HIV:** oral cancer, Kaposi's sarcoma
- **Dementia:** periodontal disease is correlated with Alzheimer's disease
- **Anxiety/Depression:** depression may cause lack of oral care, anxiety may cause clenching and grinding of teeth
- **Vitamin/Nutritional Deficiencies:** strawberry tongue in anemic patients
- **Behavioral Disorders:** sleep apnea/airway issues can cause misdiagnosis of ADHD, ADD
- **Disability/Early Aging:** lack of home care can be a sign of a disability/early aging



# Disease Specific Dental/Physical Relationships

- **Endocarditis:** An infection of the inner lining of the heart chambers or valves, which can occur when bacteria or germs from your mouth spread through your bloodstream and attach to specific areas in your heart
- **Cardiovascular disease:** Periodontal disease correlates with increased cardiovascular events like heart attack and stroke
- **Pregnancy and birth complications:** Low birth weights and premature deliveries
- **Pneumonia:** Aspirating heavy plaque can lead to increased risks of pneumonia
- **Diabetes:** More susceptible to periodontal disease, making blood sugar management more complicated
- **Dementia:** Research has established a clear animal model correlation between periodontitis and Alzheimer's Disease that serves as a basis for exploring exciting new clinical research areas and therapeutic targets

# Disease Specific Dental/Physical Relationships (continued)

- **Osteoarthritis:** Inflammatory response triggered by periodontal disease may also increase arthritic inflammatory responses
- **Obesity:** High cavity rate can be an indicator of dietary issues that can also lead to obesity
- **Medication Side Effects:** Many medications cause a dry mouth, leading to more cavities, oral irritations, and periodontal disease
- **Early Detection:** Prevents painful progression of dental disease, costly hospital use and missed days at work
- **Oral Cancer Diagnosis:** Early diagnosis is critical to survival of oral cancer

# Future MDwise Integrated Goals

## **Goals:**

- Early dental parent education through Primary Medical Providers **and** Dental Care providers
- Reduce Emergency Room utilization for preventable dental conditions, thus reducing costs
- Continued whole health connection and communication between dental and other providers.
  - The Referral System: Inform one another of problems
  - Medical consultations; MDwise is working on templates to make this easier
- Share information with State legislatures

## **Outcome goals for these interventions:**

- Start dental care early—by age one
  - Involve parents and providers in airway issues, tongue ties, fluoride, diet choices
- Encourage state-wide reporting of dental data
- Advocate for reimbursement rates that encourage providers to care for at risk population
- Improve awareness for Foster Child Program and Oral Health/Physical Health needs

# Final Thoughts

- Complete tooth loss has decreased by more than 75% for those aged 65 through 74 years over the past 5 decades in the United States.
- Improvements in tooth loss measures, such as edentulism and complete tooth retention, have been most significant among the nonpoor, **whereas those who are poor have experienced fewer improvements.**
- There is a positive relationship between tooth retention, overall health, and quality of life. Older adults retaining  $\geq 20$  teeth are less likely to experience poorer health. Having  $< 20$  teeth increases the likelihood for functional dependence and onset of disability and may affect successful ageing.
- The more teeth older adults retain as they age, the less likely they are to have adverse health outcomes. However, significant knowledge gaps remain which can limit decision-making affecting successful ageing for many older adults.
- We need to consider, as an important marker of oral health and function, the retention of a functional minimum of a natural dentition, rather than a simple numeric score of missing teeth.

# Call To Action

- Recognize patients may not see a physician and you are the ones to help screen for other medically related diseases
  - Create comprehensive medical history intake forms
  - Train team and doctors to ask whole health questions based on medical history forms
- Refer often and as needed
  - Learn when to refer to the primary care physician
  - Learn how to refer to the primary care physician or other medical specialists
  - Create a system in your workplace to track referrals and the follow up responses
- Take CE courses that expand your knowledge about whole health factors affecting dental health (sleep apnea, diabetes, pharmacology, mental health illnesses, motivational interviewing)
- Motivate patients to change their behaviors by teaching them oral and systemic health connections

# References

- [Oral Health and Well-Being in the United States | American Dental Association \(ada.org\)](#)
- [Tooth retention, health, and quality of life in older adults: a scoping review - PMC \(nih.gov\)](#)
- [Gum disease and heart disease: The common thread - Harvard Health](#)
- <https://www.reuters.com/business/healthcare-pharmaceuticals/alarming-rise-diabetes-globally-by-2050-study-2023-06-22/>
- [Diabetes, Gum Disease, & Other Dental Problems - NIDDK \(nih.gov\)](#)
- [New survey finds stress-related dental conditions continue to increase | American Dental Association \(ada.org\)](#)
- [Study Finds Arkansas Blue Cross Dental Program Improves People's Health – Blueprint](#)
- [The Dental-Medical Divide](#)
- [Tooth Loss among older adults according to poverty status in the United States from 1999 through 2004 and 2009 through 2016 https://pubmed.ncbi.nlm.nih.gov/30503018/](https://pubmed.ncbi.nlm.nih.gov/30503018/)

# QUESTIONS?



**Thank  
you!**