



# 2020 Surgeon General's Report

## *Oral Health in America: Advances and Challenges*

**Bruce A. Dye, DDS, MPH**

*November 2–5, 2019*  
*American Academy of Periodontology 105th Annual Meeting*



National Institute of Dental  
and Craniofacial Research

# Acknowledgement and Disclosure

SGR Project Co-Lead: Judith Albino, PhD

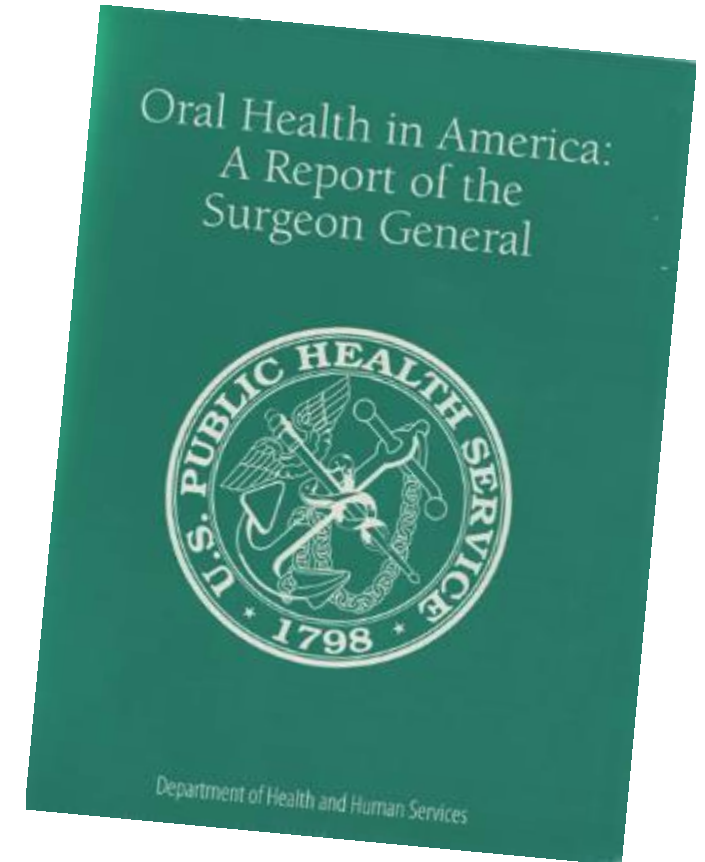
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***I don't have any financial affiliations or conflicts of interests to disclose.***

# First Surgeon General's Report on Oral Health

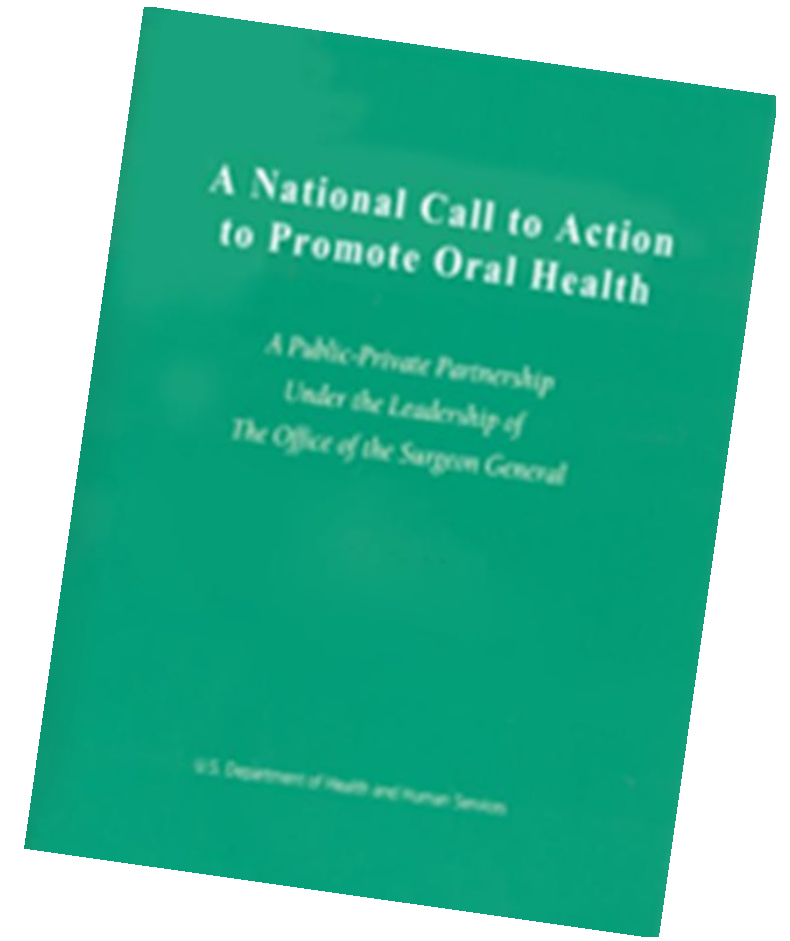
**Major Message of 2000: Oral Health is more than healthy teeth and is integral to the general health and well-being of all Americans.**

- Safe and effective measures exist to improve oral health and prevent disease
- Health risk factors, such as tobacco use and poor dietary practices, affect oral and craniofacial health



# The 2003 Call to Action urged that we:

- Change perceptions of oral health
- Replicate effective programs
- Build the science base and accelerate science transfer
- Increase oral health workforce diversity, capacity, and flexibility
- Increase collaborations



# How Has the U.S. Changed in the Last 20 Years?



- **Untreated dental caries and tooth loss**
- **Oral health disparities**
- **Oral microbiome and biomaterials**
- **Mental illness and substance abuse**
- **Oral HPV and E-cigarettes**
- **Health care expenditures**
- **Changing workforce**
- **Aging America**
- **Cell phones**

Source: <http://sphweb.bumc.bu.edu/>

# U.S. Surgeon General's Priorities

## “Better Health Through Better Partnerships”

- Substance Misuse: Opioids, Tobacco, and E-cigarettes
- Community Health and Economic Prosperity
- National Security: Military Eligibility and Readiness
- Vaccinations
- **Oral Health**



**JEROME M. ADAMS, M.D., M.P.H.**  
Vice Admiral, U.S. Public Health Service  
Surgeon General



# What are the Main Drivers in a Changing World?



## – Digitization of everything

- Communication
- Information/data management
- Technology

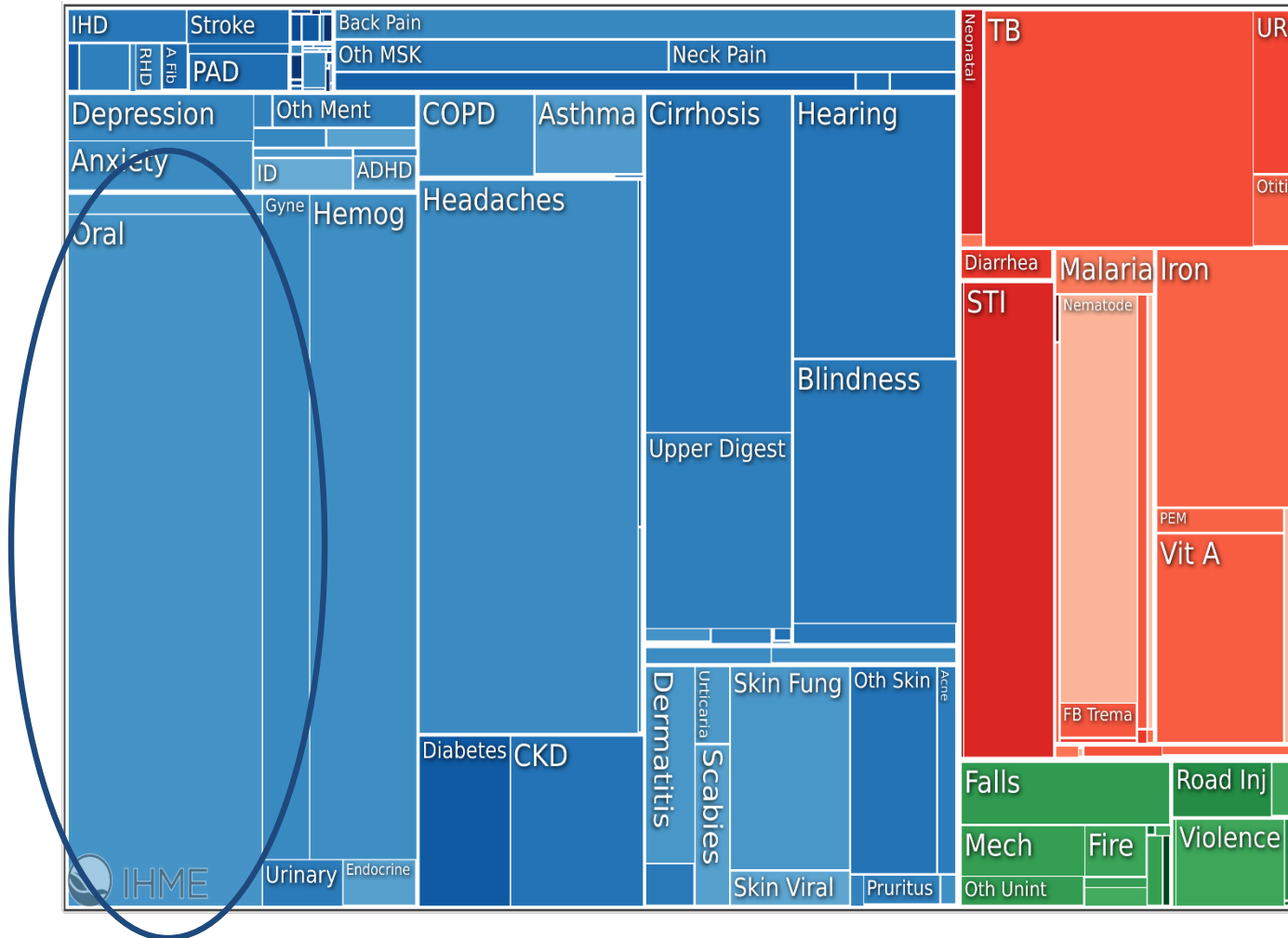
## – Delivery of services

- Consolidation/Interprofessional models
- Economic efficiencies

## – Demographic changes

- 1.5 billion more of us
- More diverse, more urban, older

# Global Impact of Oral Disorders



## – Global Burden of Disease

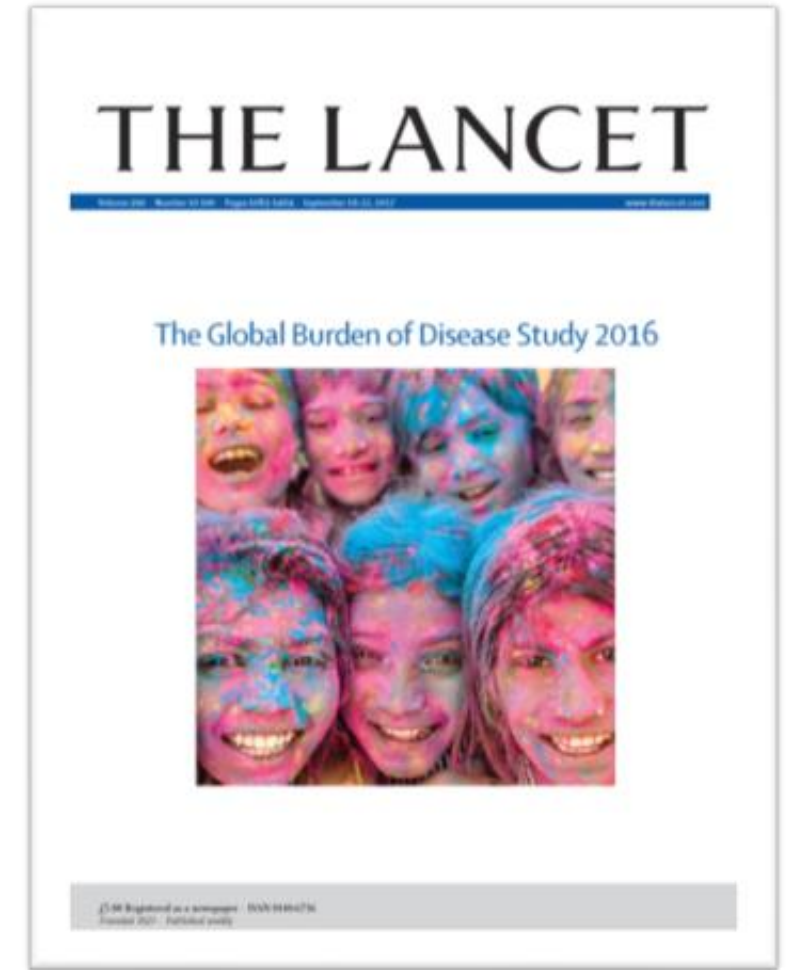
- Top 3 Prevalent Cases
  - Oral Disorders (3.5B)
  - Headaches (3.0B)
  - Tuberculosis (1.9B)



# Global Impact of Oral Disorders

## Oral Disorders are highly prevalent worldwide

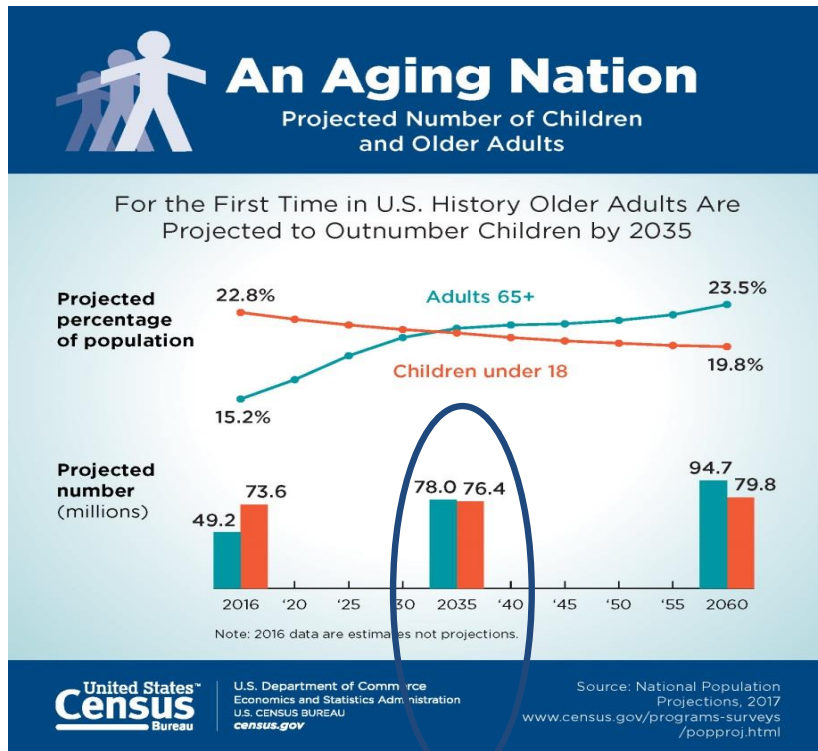
- Untreated caries in permanent teeth – 1st
- Severe Periodontitis – 11th
- Untreated caries in primary teeth – 17th
- Severe tooth loss / Edentulism – 29th



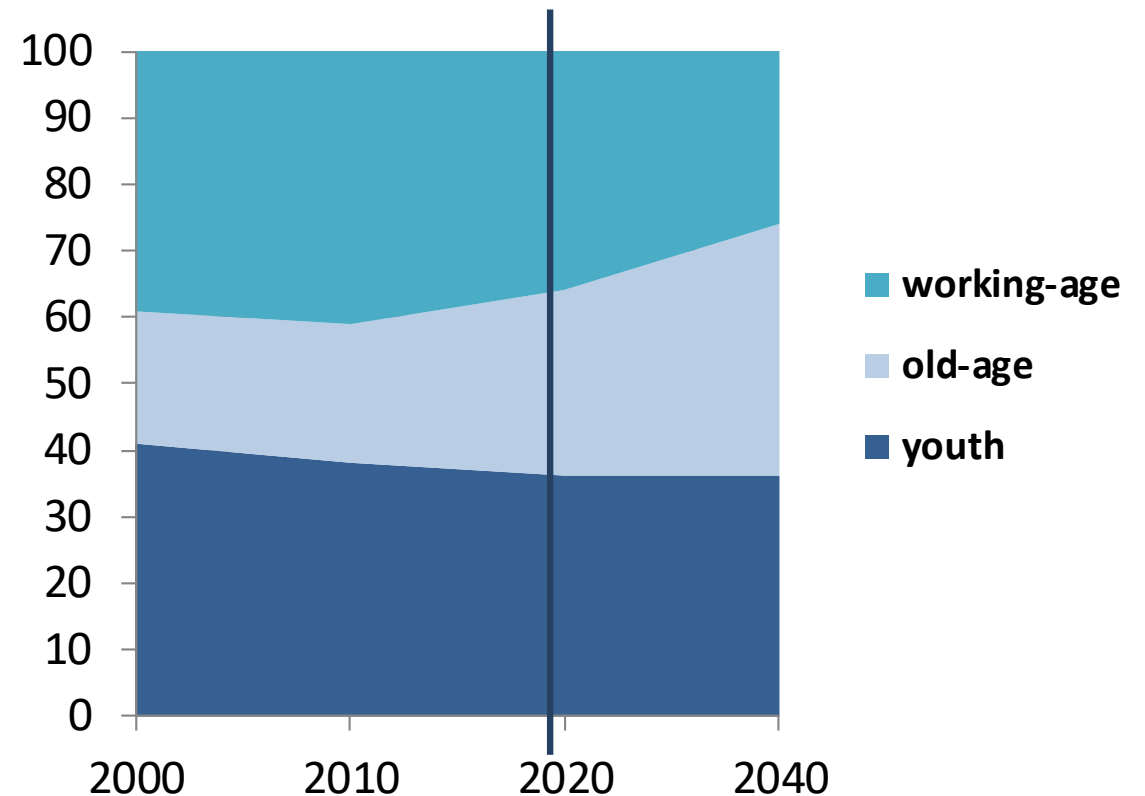
*Global Burden of Disease, 2016 Disease and Injury Incidence and Prevalence Collaborators, Lancet 2017, 390:1211-59.*

# Aging of America is Critical for Oral Health

*By 2035, there will be more older adults than youth in the U.S.*



*Changing Dependency Ratios can affect employment-based insurance coverage*

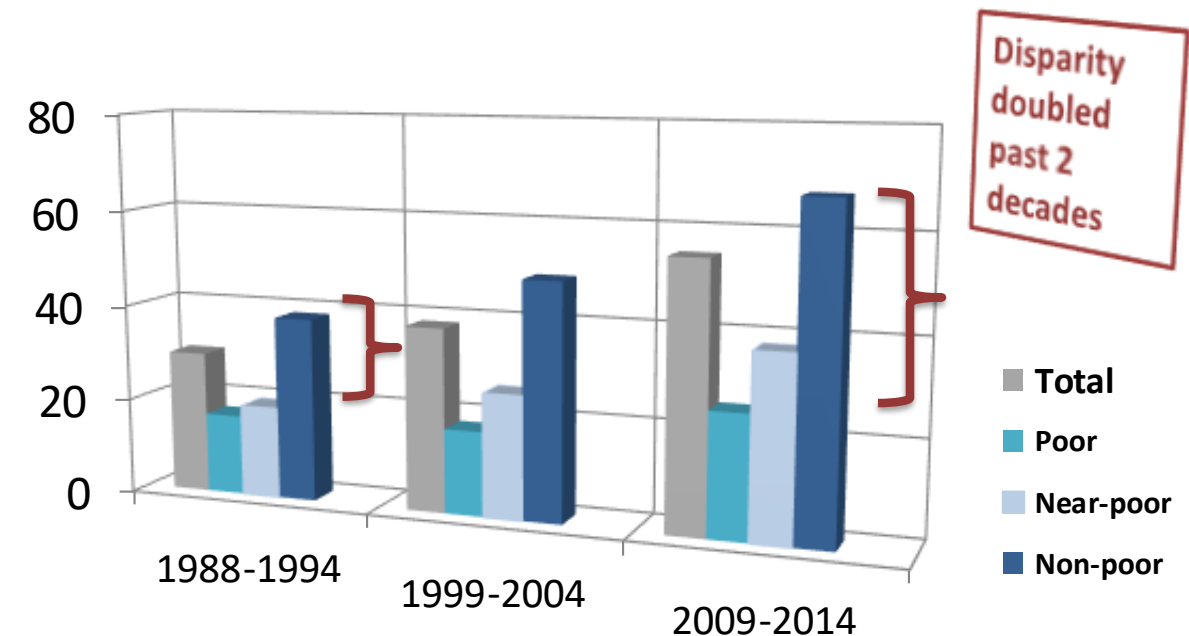


# Greying America: OH Advances and Challenges

## Total population and prevalence of edentulism in U.S. adults, 65–74 years



## Changes in functional dentition ( $\geq 21$ teeth) of U.S. adults, aged 65+ years



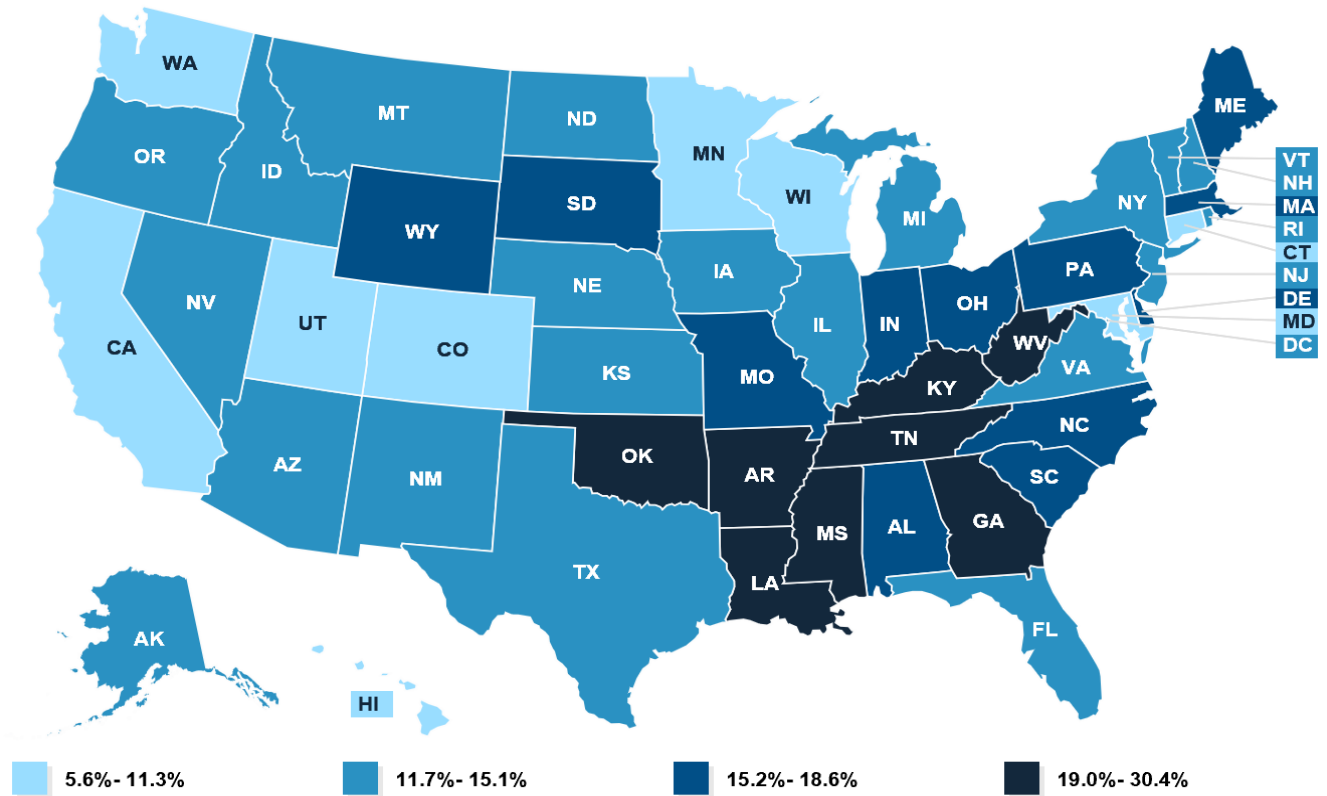
Source: Dye, BA, Weatherspoon DJ, Lopez Mitnik G. Tooth loss among older adults according to poverty status in the United States from 1999 through 2004 and 2009 through 2014. *J Am Dent Assoc.* 2019 Jan;150(1):9-23.

# Geography Influences Oral Health

## Percentage of adults aged 65+ years with no natural teeth (2016)

Declining Edentulism  
(**18%**), but disparities  
remain among lower  
income adults (**34%**)

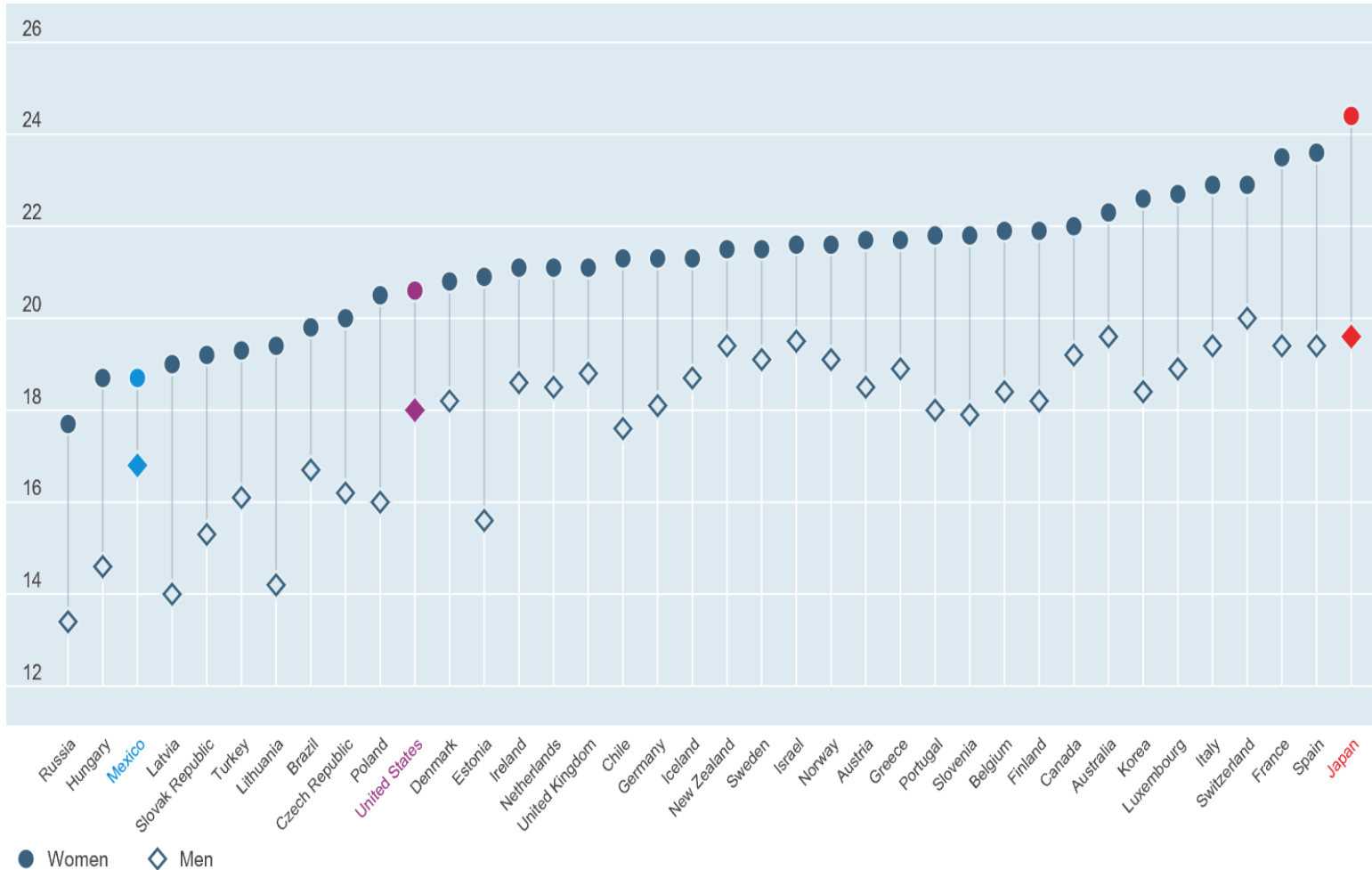
This disproportionately affects some adults based on *where* they live



*Source: Kaiser Family Foundation analysis of the Centers for Disease Control and Prevention (CDC)'s Behavioral Risk Factor Surveillance System (BRFSS) 2016 Survey Results. Accessed April 10, 2019.*

# Life Expectancy Differences by Sex

## 2017 life expectancy for men and women in 35 OECD countries



Gender differential in older age profoundly affects prevalence of some chronic diseases

# Oral Health Gender Disparities

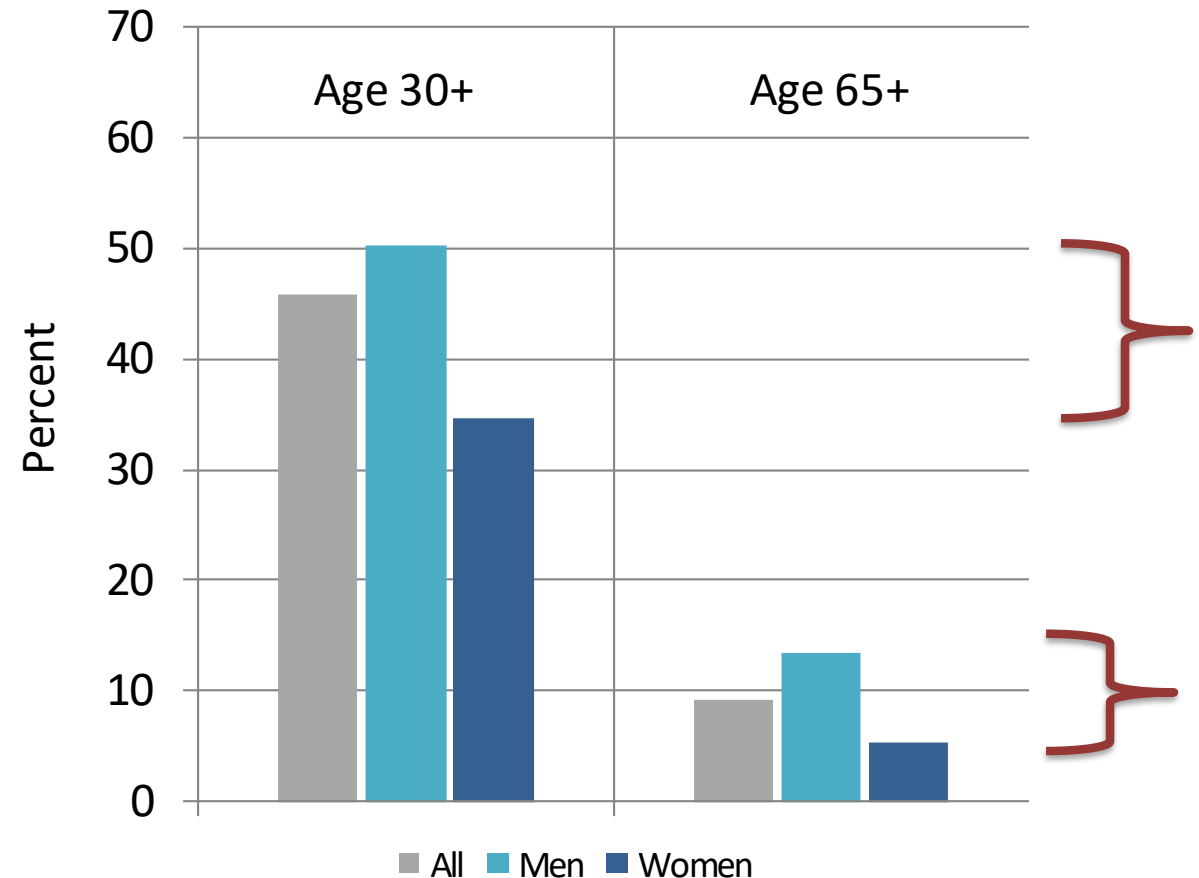
## Total and Severe Periodontitis in the U.S. by Gender, 2009–2014

Total periodontitis (42%) for adults age 30 and older:

- 50% (men)
- 35% (women)

Severe periodontitis (9%) for adults age 65 and older:

- 13% (men)
- 5% (women)



Source: Eke PI, Thornton-Evans GO, Wei L, Borgnakke WS, Dye BA, Genco RJ. Periodontitis in US Adults: National Health and Nutrition Examination Survey 2009–2014. J Am Dent Assoc 2018; 149(7): 576–588.

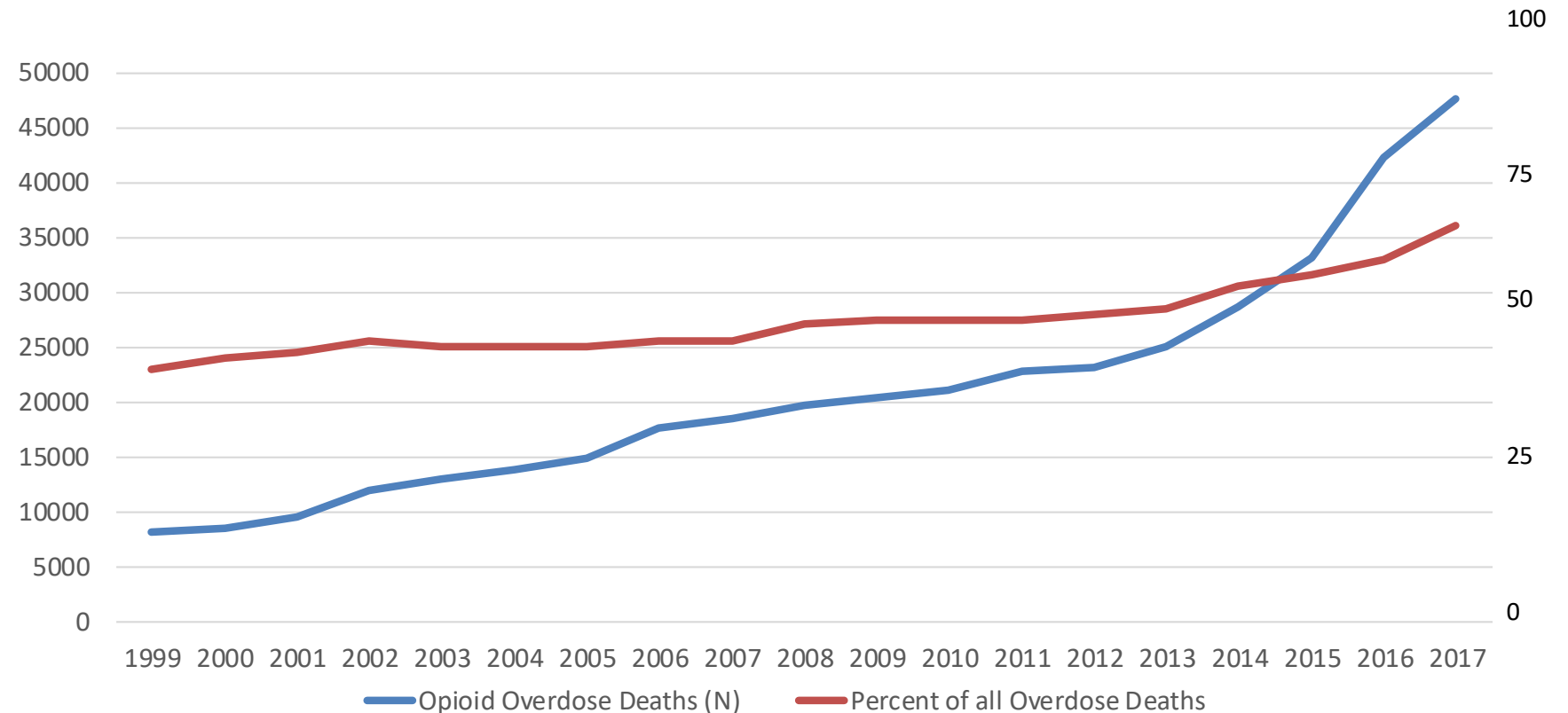


# Substance Abuse: Adults

6.7 million adults  
(3%) report drug  
dependence or  
abuse

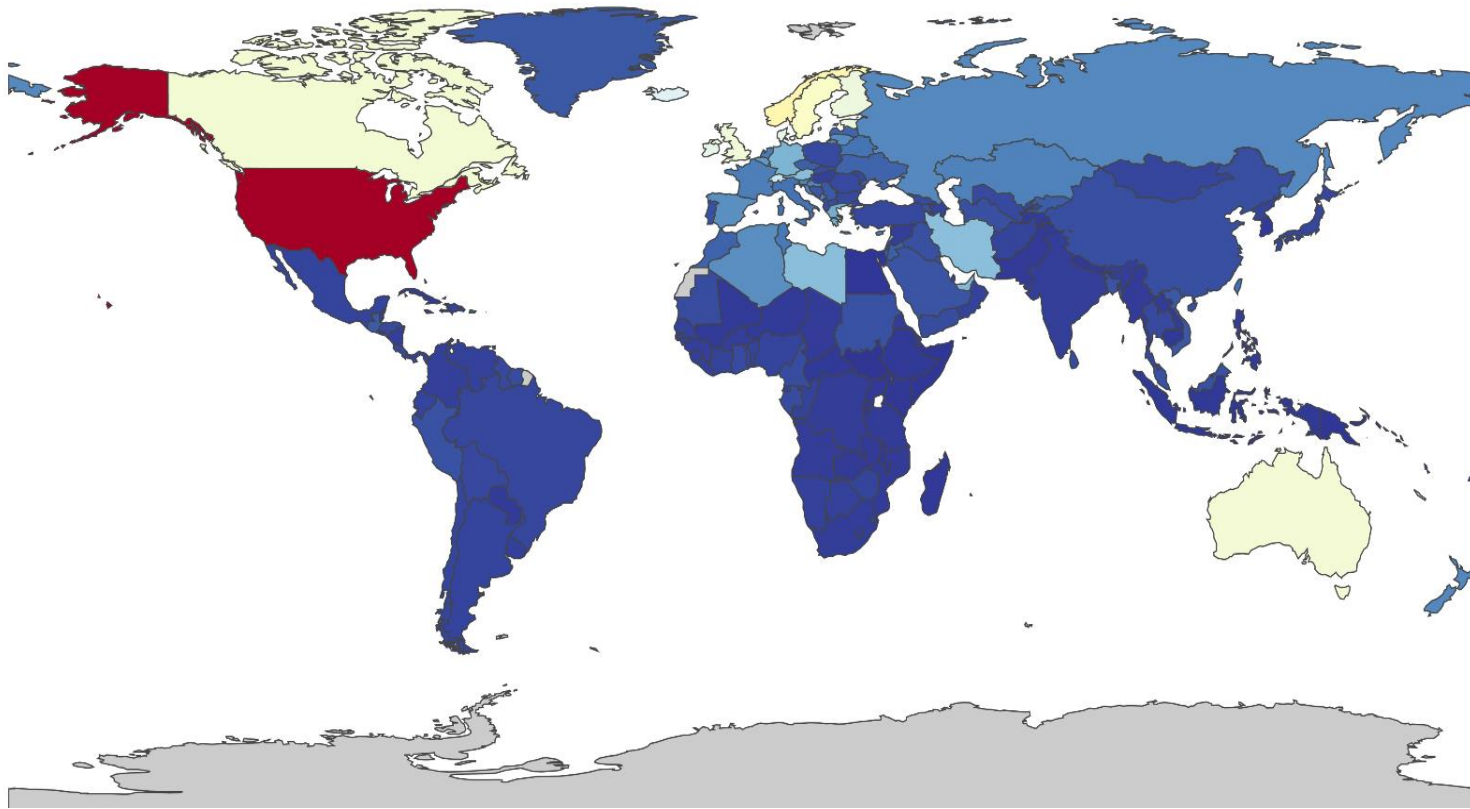
48,000 opioid  
overdose deaths in  
2017 (>65% of all  
overdose deaths)

## Prescription opioid overdose deaths



Source: Kaiser Family Foundation analysis of Centers for Disease Control and Prevention (CDC), National Center for Health Statistics. Multiple Cause of Death 1999-2017 on CDC WONDER Online Database, released 2018. Data are from the Multiple Cause of Death Files, 1999-2017, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. (Accessed May 24, 2019.) Kaiser Family Foundation. Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2016 and 2017. (Accessed April 10, 2019.)

# Global Mortality due to Substance Use Disorders

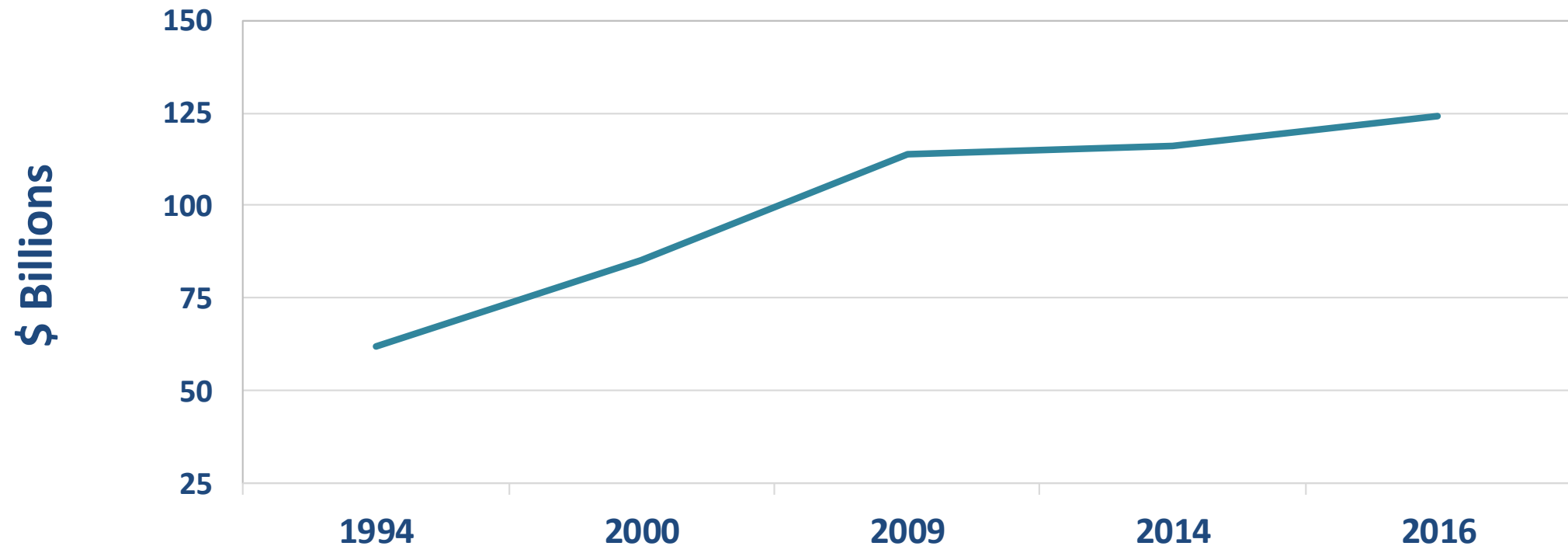


Among 15–49-year-olds in the United States, **19%** of all deaths were attributed to SUDs in 2017

- Canada: **9%**
- Mexico: **0.5%**

# Dental Care Expenditures: United States

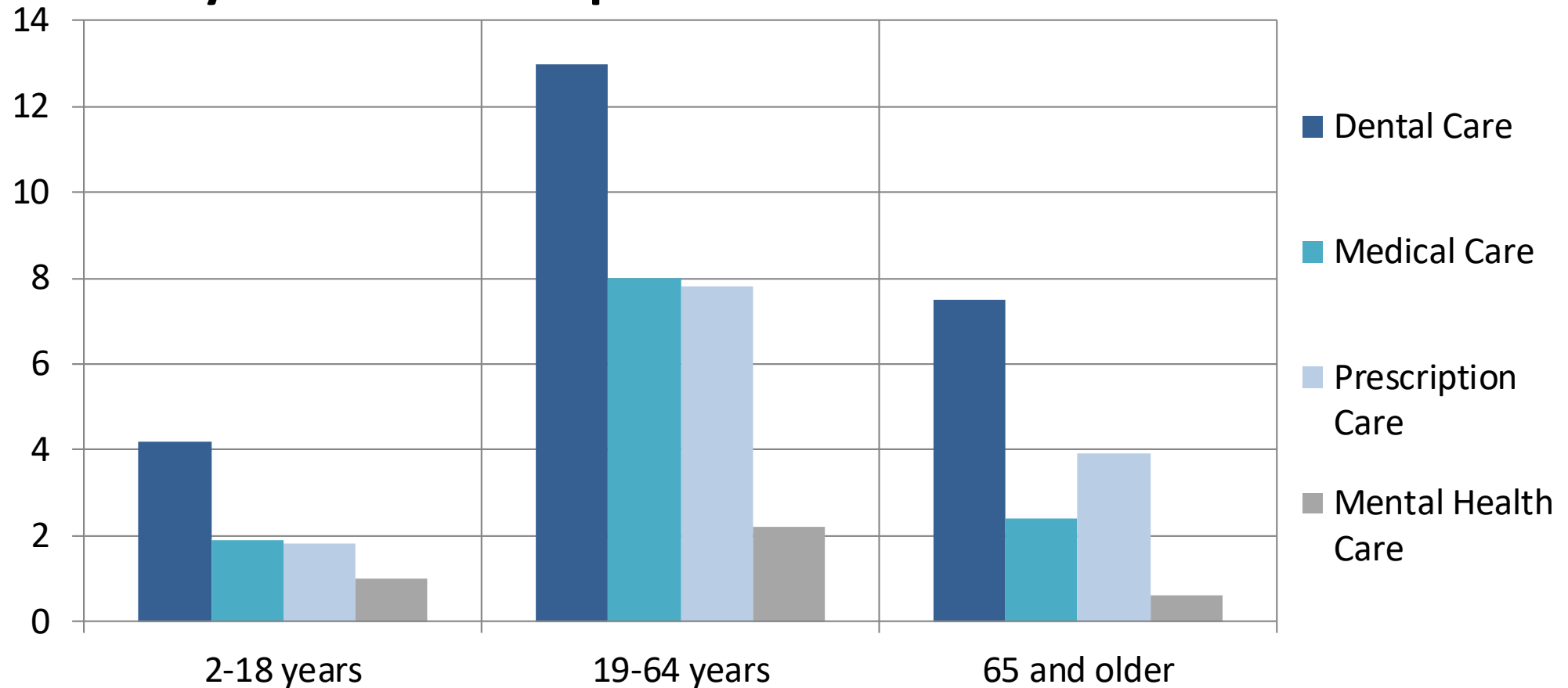
## Total inflation-adjusted dental expenditures in the United States



Source: HPI: <https://www.ada.org/en/publications/ada-news/2017-archive/december/hpi-report-shows-dental-spending-increased-again-in-2016>

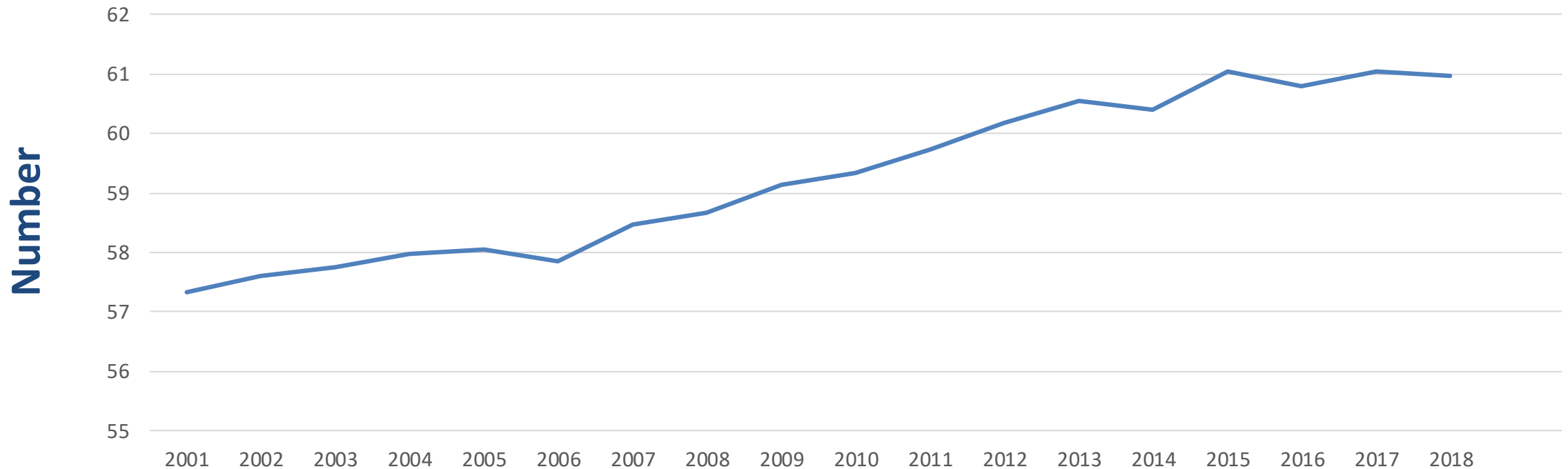
# Cost: A Major Obstacle to Health Care

**Percent of people who did not get selected health care services they needed in the past 12 months because of cost**



# Workforce: United States

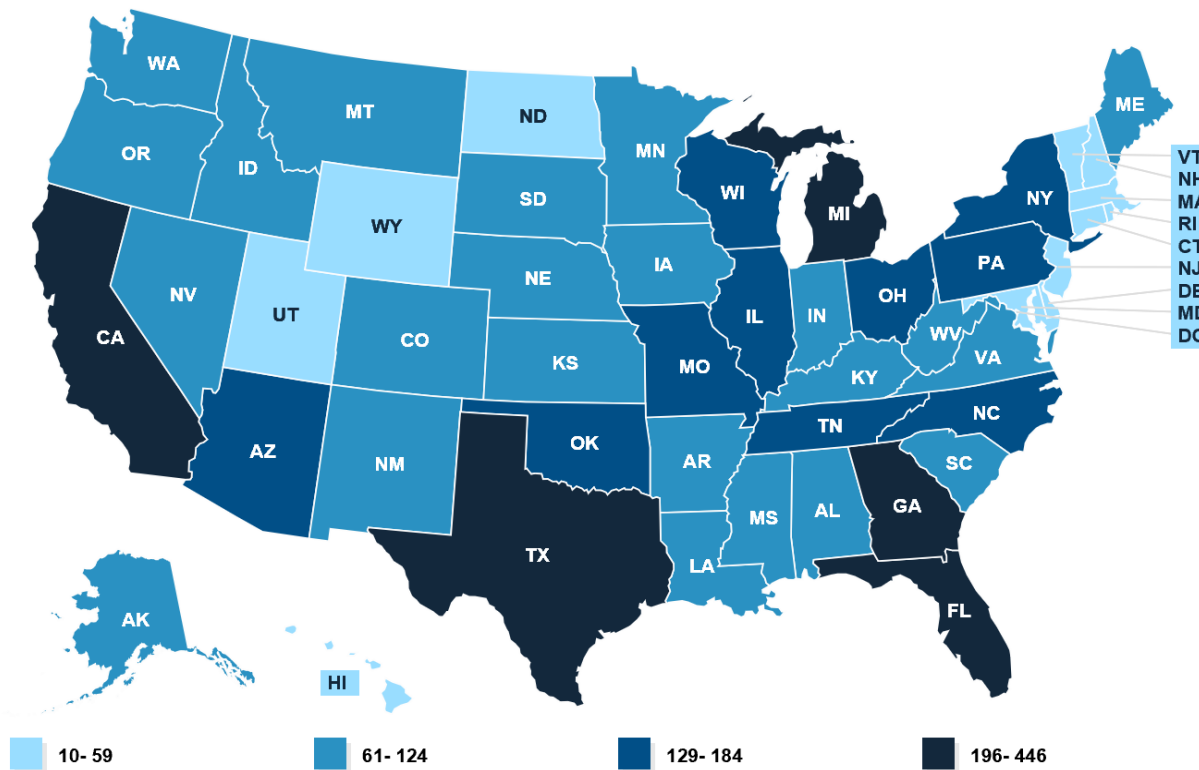
## Total Number of Dentists working per 100,000 people in the United States



<https://www.ada.org/en/science-research/health-policy-institute/dental-statistics/workforce>

# Access to Professional Dental Care Affects OH

# 5,862 Dental Health Professional Shortage Areas (HPSAs) affect 58 million\*



## Emerging Models of Care

## New Providers

## Dental Therapists

## Community OH Coordinators

## Physicians/Nurses

## New Settings

## Primary Care

## Schools

## Teledentistry

Source: Kaiser Family Foundation. Bureau of Health Workforce, Health Resources and Services Administration (HRSA), US Department of Health and Human Services, Designated Health Professional Shortage Areas Statistics: Designated HPSA Quarterly Summary, as of December 31, 2018.



# Developing the 2020 SG's Report on Oral Health



# The Charge from the Surgeon General

## Guiding the 2020 Report

The report will describe and evaluate **oral health** and the interaction between **oral health** and general health throughout the lifespan, considering advances in science, health care integration, and social influences to articulate promising new directions for improving **oral health** and oral health equity across communities.

# Focus: The 2020 Report

## **“Big” questions to answer**

- Where we are now,
- Where we have made advances since 2000,
- What challenges persist since the last report,
- What new threats are emerging, and
- What are some promising new directions for research and improvement in oral health?

# Development and Progress

## How are We Gathering Input?

### **SG Listening Session (November 2018)**

- Elicited input from more than 150 health professionals, researchers, educators, and other experts

### **Overview Webinar Inviting Public Comment (January 2019)**

- More than 1,850 Views
- Nearly 200 Comments

### **Public Solicitation to Inform Us of Promising Practices (2019)**

- Asked the public to share exemplary private-public partnerships for improving oral health – Over 100 activities submitted to date

# Development and Progress

## How Many People are Involved?

### Editorial and Writing Teams

- 6 Section Editors and 20 Associate Editors leading teams of writers
- Nearly 400 contributors

### Scientific and Technical Reviewers

- Nearly 75 subject matter experts recruited to review

# Structure of the Report: Six Sections

1. Effect of Oral Health on the Community, Overall Well-Being, and the Economy
2. Oral Health in Children and Adolescents
3. Oral Health in Working-Age and Older Adults
4. Oral Health Integration, Workforce, and Practice
5. Substance Use Disorders, the Opioid Epidemic, High-Risk Behaviors, and Mental Health
6. Emerging Technologies and Promising Science to Transform Oral Health



# Expectations for the 2020 Report

## It is anticipated that the 2020 Report will:

- Emphasize the importance of poor ***oral health*** as a public health issue
- Reinforce the importance of ***oral health*** throughout life
- Describe important contemporary issues affecting ***oral health***
- Outline a vision for future research and policy directions
- Educate, encourage, and call upon all Americans to take action

# How can the 2020 SGR influence dental practice?

## Highlight changes:

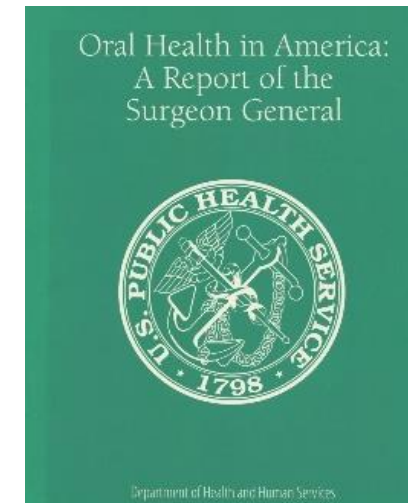
- Affecting disease patterns
- Impacting Oral Health workforce
- Suggesting new directions in science and technology that can improve practice
- Influencing patient populations
- Impacting oral health inequities
- Shaping new directions in professional education



*Image from WSJ*

# Questions

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*Copies of the 2000 Surgeon General's Report are available*

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