

OFFICE OF THE CHIEF DENTAL OFFICER



Surgeon General's Report on Oral Health



Oregon Oral Health Authority
September 23, 2019



RADM Timothy L. Ricks, DMD, MPH
Assistant Surgeon General, USPHS Chief Dental Officer





Oral Health in America: A Report of the Surgeon General



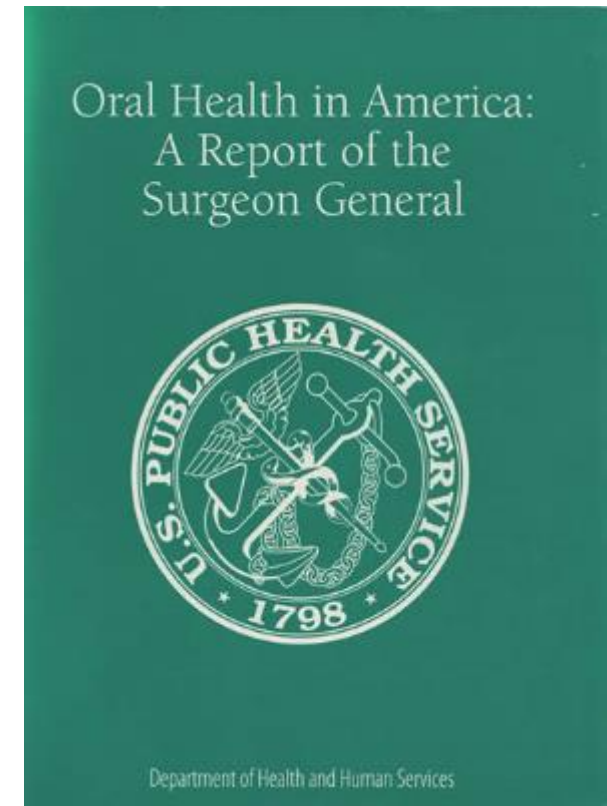
- First-ever report commissioned by the Surgeon General on oral health

- Available at:

<https://www.surgeongeneral.gov/library/reports/index.html>

- Major Message:

**Oral Health means much more than healthy teeth,
and is integral to the general health and well-being
of all Americans.**



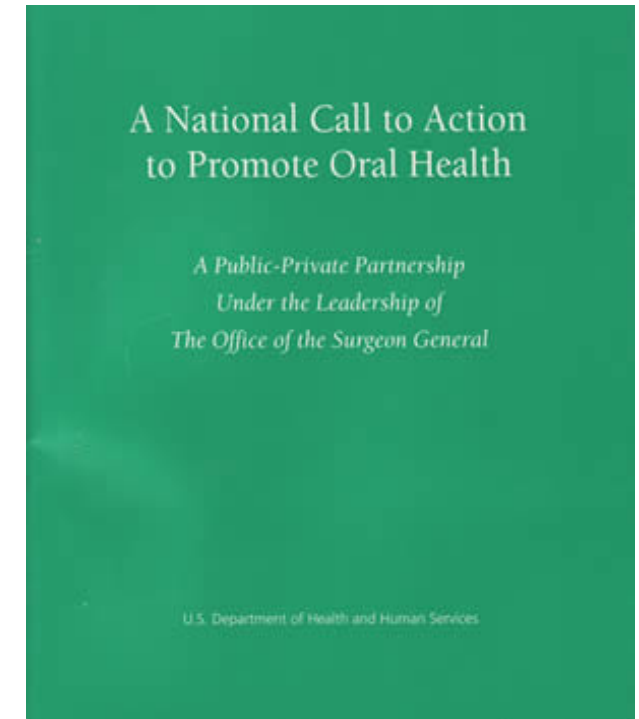


Oral Health in America: Call to Action (2003)



Goals were:

- To promote oral health
- To improve quality of life
- To eliminate oral health disparities





Five Key Actions



1. Change perceptions of oral health
2. Replicate Effective Programs and Proven Efforts
3. Build the science base
4. Increase Oral Health Workforce Diversity, Capacity, and Flexibility
5. Increase collaborations

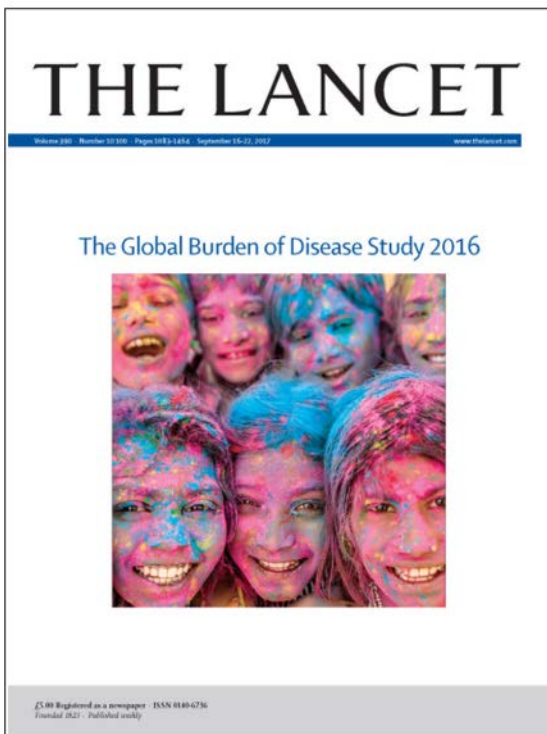




Haven't We Solved It By Now?



Global Burden of Disease



- Four oral health diseases ranked in the top 30 out of 328 conditions:
 - Untreated Dental Caries (tooth decay) in *permanent* teeth — 1st
 - Severe Periodontitis — 11th
 - Untreated Dental Caries (tooth decay) in *primary* teeth — 17th
 - Severe/Complete Tooth Loss — 29th



*Why do we need a
Surgeon General's Report on Oral Health now?*



Surgeon General's Priorities



“Better Health Through Better Partnerships”

- Substance Misuse: Opioids, Tobacco, E-cigarettes
- Community Health and Economic Prosperity
- Health & National Security: Military Eligibility and Readiness
- Vaccinations
- Oral Health: <https://youtu.be/snOxqakR2zk>



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



How has the U.S. changed in the last 20 years?



- Oral health disparities
- Aging of the population
- A changing workforce
- Mental illness & substance abuse
- Healthcare expenditures
- Emerging public health threats
- Advances in research and technology

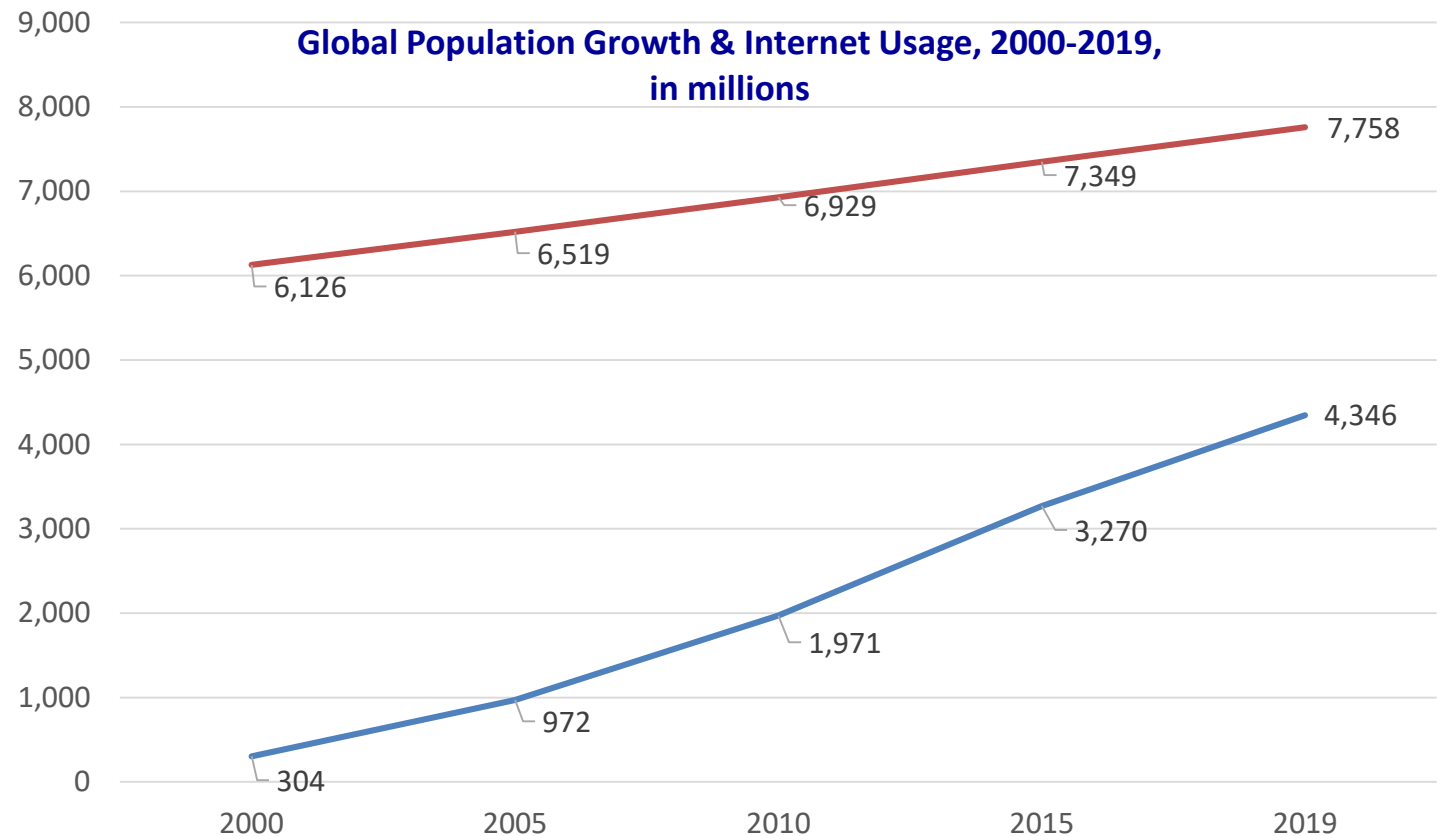




How has the world changed in the last 20 years?



- Digitation of everything
- Demographic changes
- Delivery of services



Internet World Stats. www.internetworldstats.com/emarketing.htm

Population Pyramid. www.populationpyramid.net/world/2019/



How has the U.S. changed in the last 20 years?

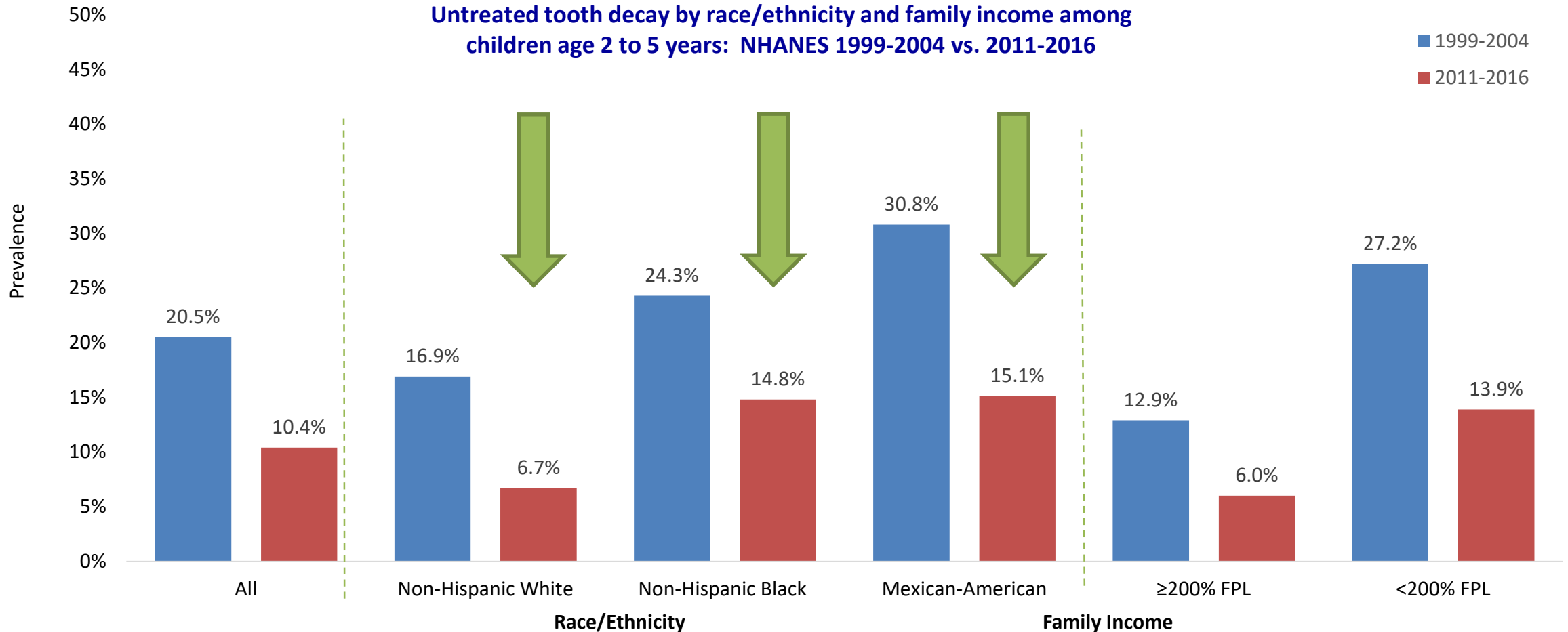


- **Oral health disparities**
- Aging of the population
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Oral Health Disparities: Preschool Children 2-5 Years

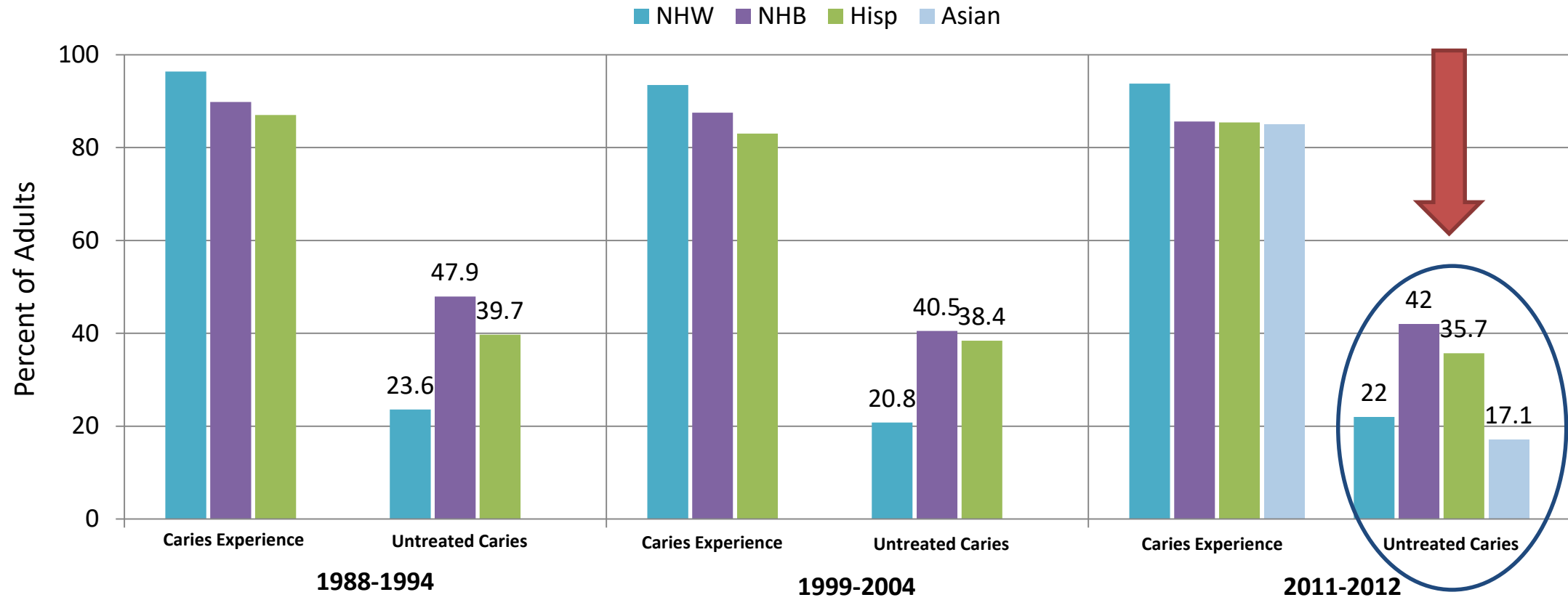




Oral Health Disparities: Adults 20-64 Years, Caries



Prevalence of dental caries in permanent teeth for adults age 20-64 by race/ethnicity in the United States



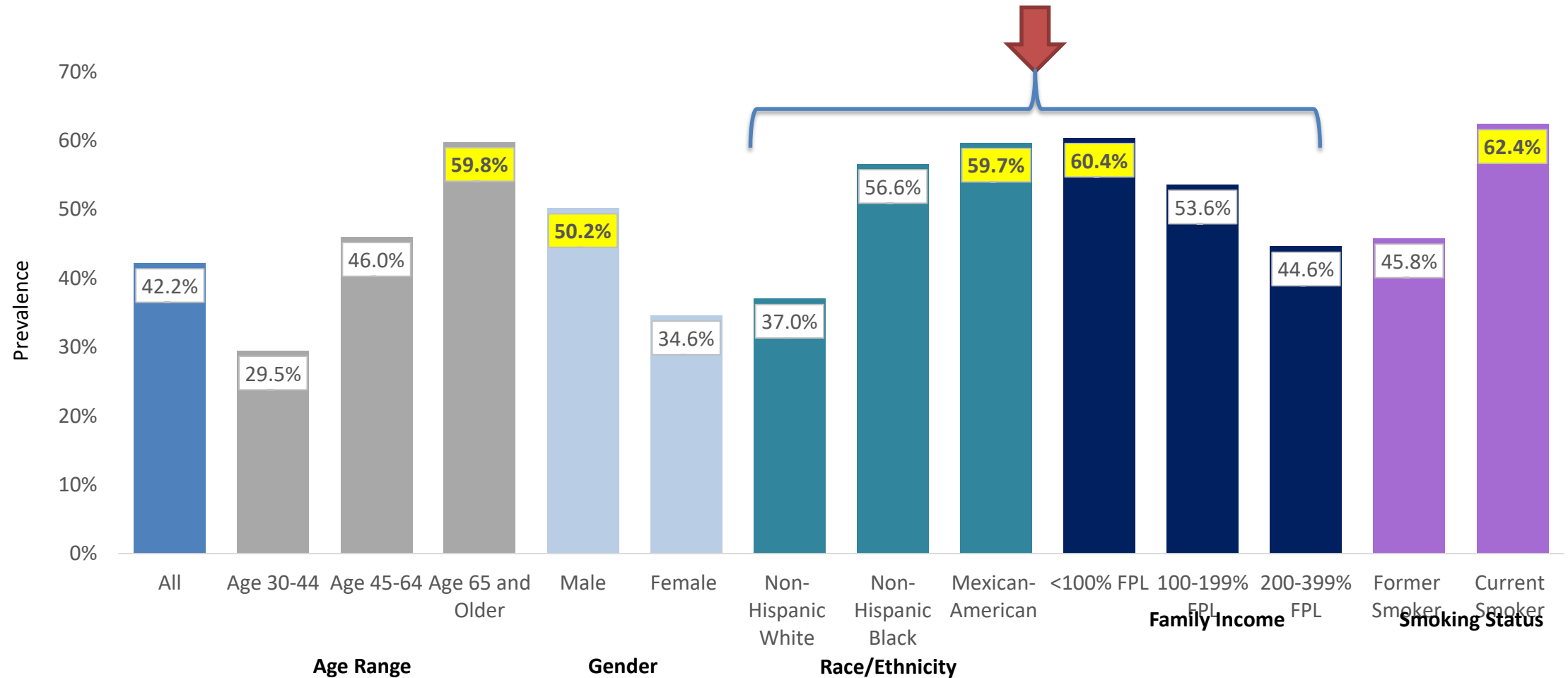
National Health and Nutrition Examination Survey, 1988-1994, 1999-2004, and 2011-2012. Caries Experience (DMFT>0). Untreated Caries (DT>0). Non-Hispanic White (NHW); Non-Hispanic Black (NHB); Hispanic (Hisp) in 2011-2012 or Mexican American in 1988-1994 and 1999-2004; Non-Hispanic Asian (Asian).



Oral Health Disparities: Adults 30 Years +, Periodontitis



Prevalence of periodontitis among adults 30 years and older, 2009-2014





How has the U.S. changed in the last 20 years?



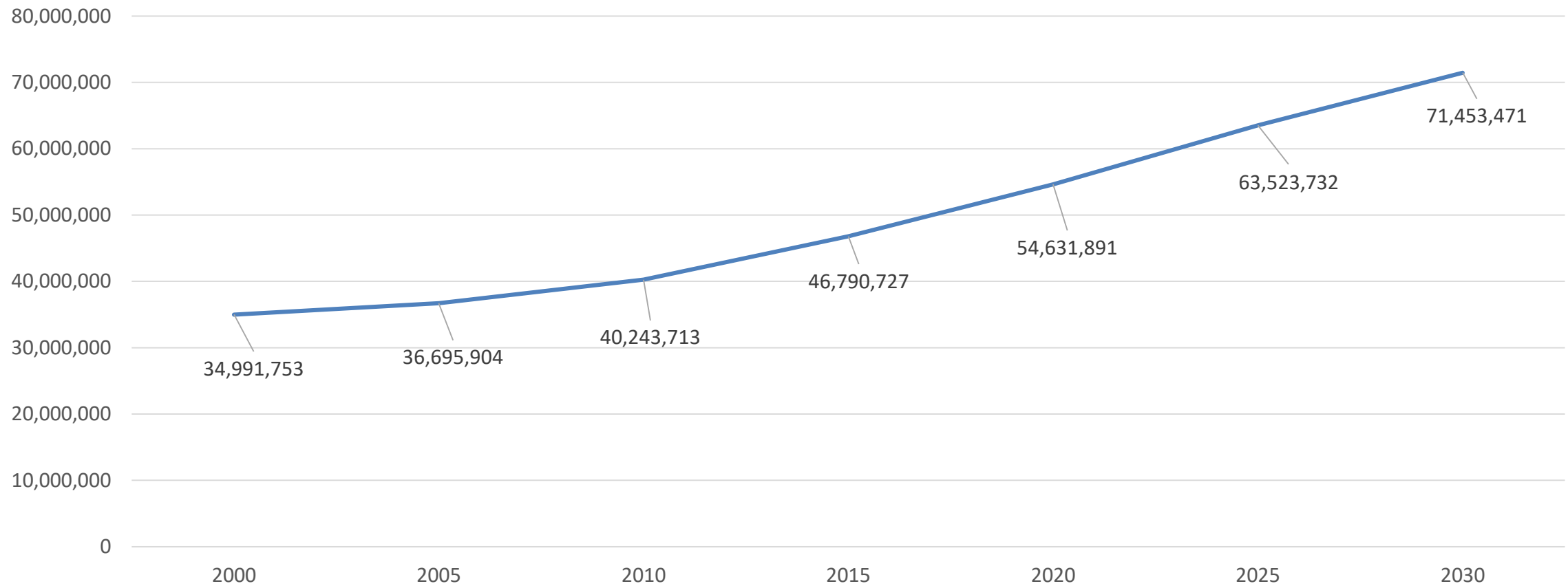
- ~~Oral health disparities~~
- **Aging of the population**
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The Aging Population: Population Growth

Projected Population Growth for Adults 65 and over, U.S., 2000 to 2030

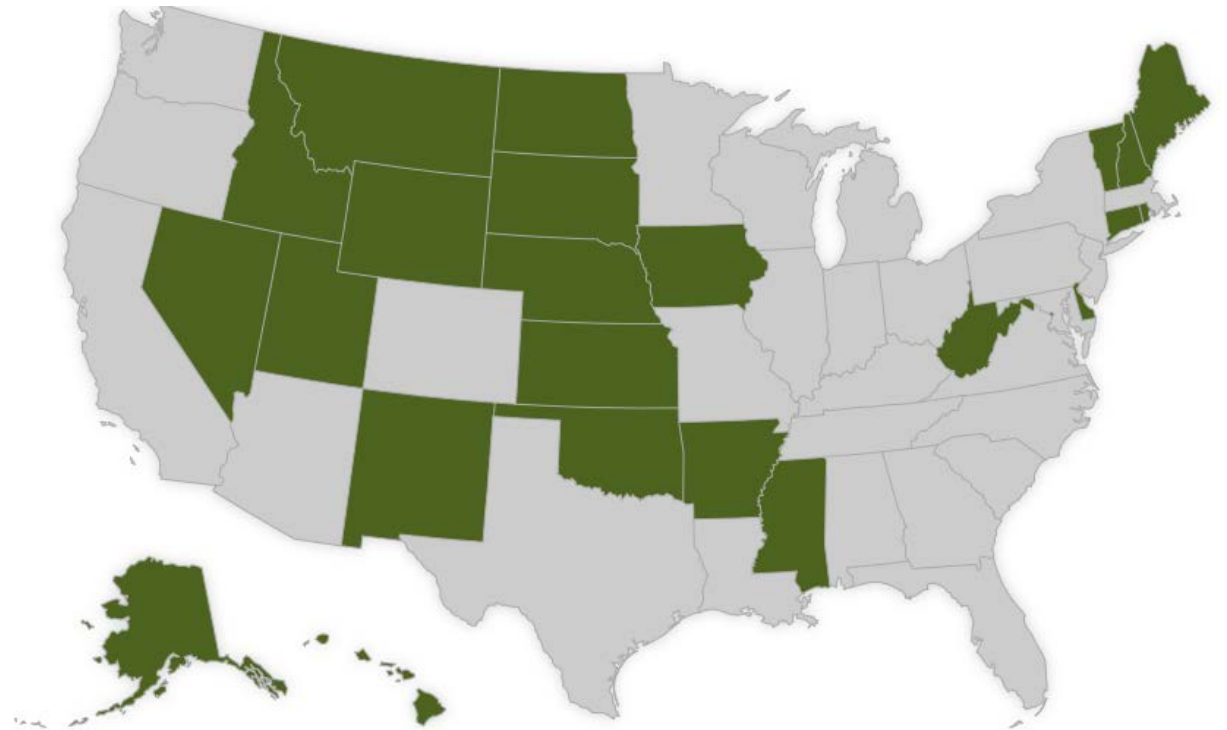




The Aging Population: Perspective



- Our current population of seniors is more than the population of 25 states combined
- Causes:
 - People are living longer
 - The Baby Boomers





The Aging Population: Perspective

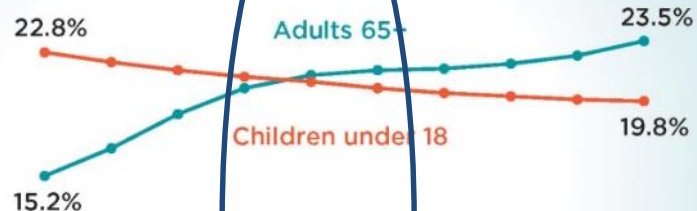


An Aging Nation

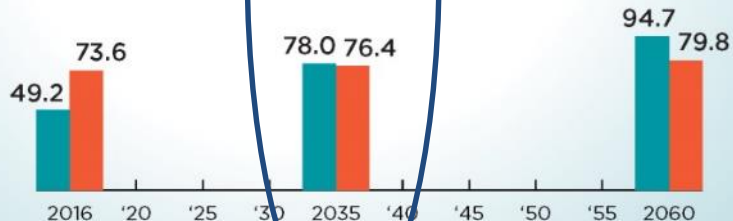
Projected Number of Children
and Older Adults

For the First Time in U.S. History Older Adults Are
Projected to Outnumber Children by 2035

Projected
percentage
of population



Projected
number
(millions)



Note: 2016 data are estimates not projections.

United States™
Census
Bureau

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
[census.gov](https://www.census.gov)

Source: National Population
Projections, 2017
www.census.gov/programs-surveys/popproj.html



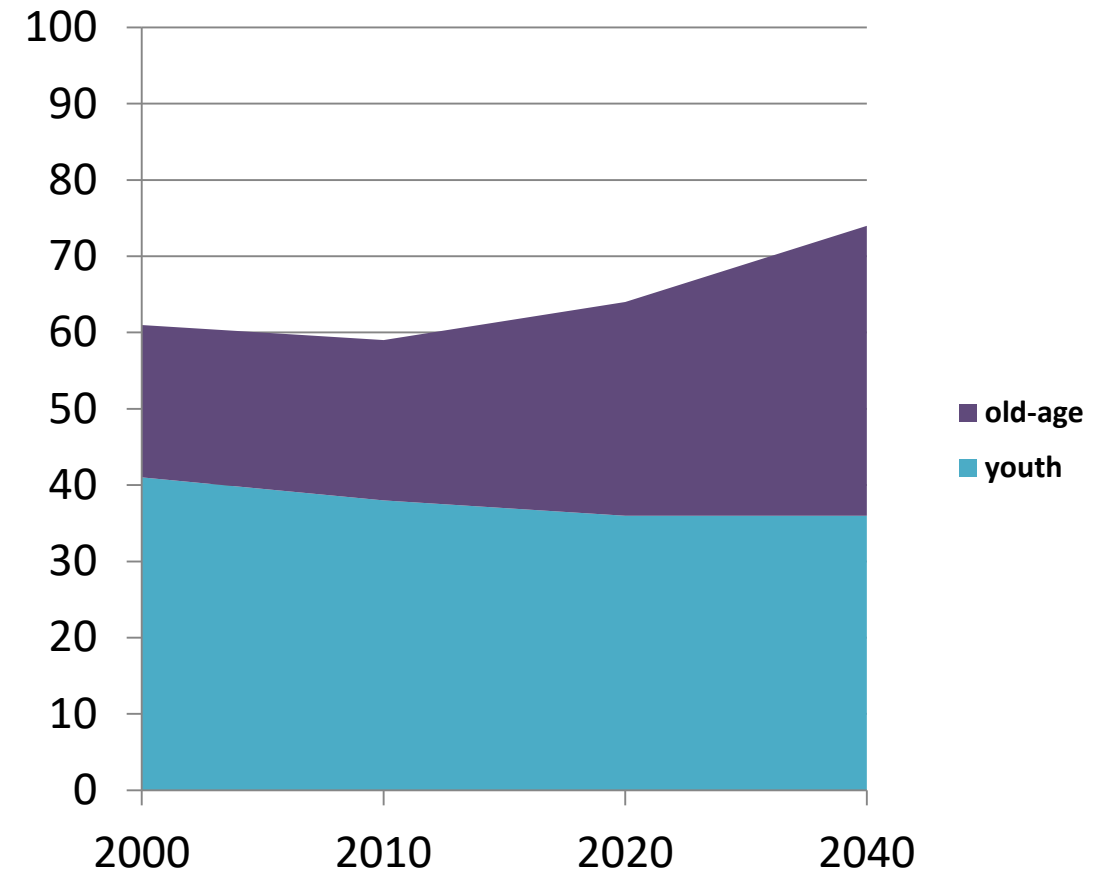


The Aging Population: Dependency Ratio



Changing Dependency Ratio

- 2000: 20 older adults: 100 working adults
- Today: 28 older adults: 100 working adults
- In 2040: *Older adults increase to 38:100*

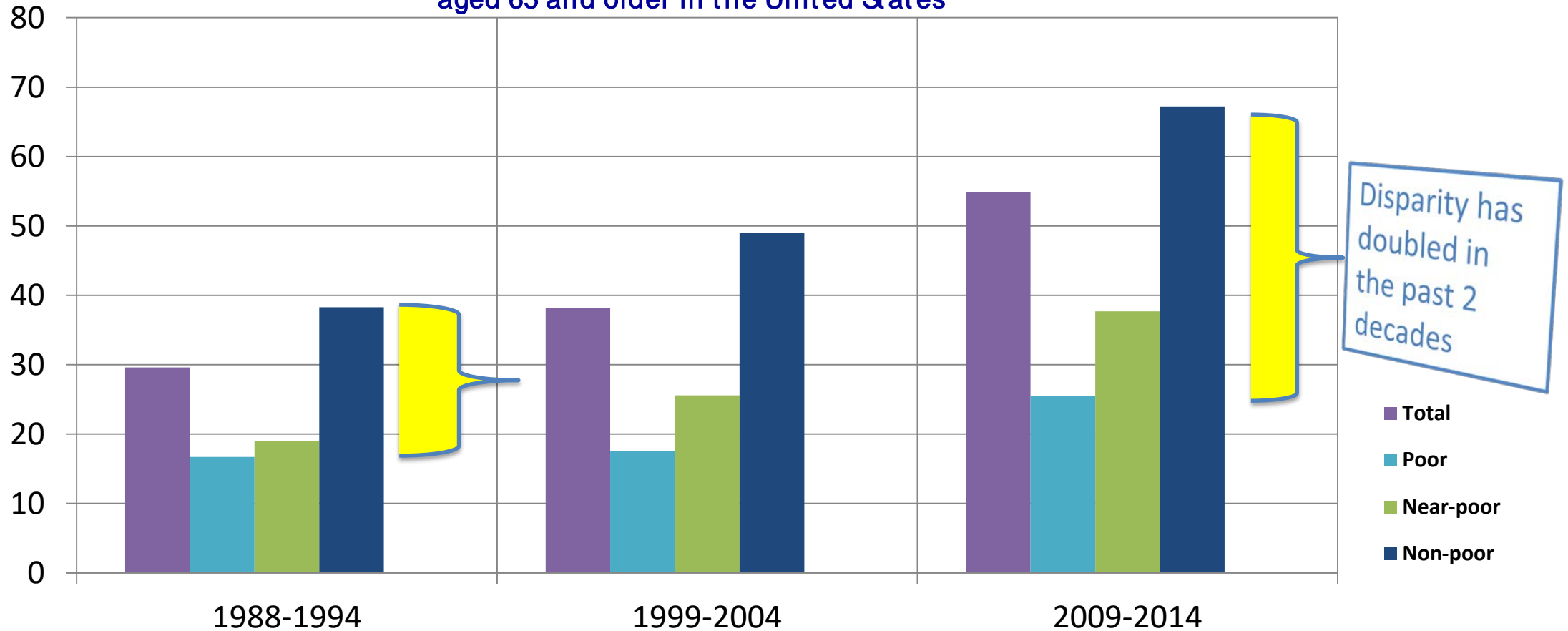




The Aging Population: Oral Health Disparity



Changes in functional dentition (≥ 21 teeth) among adults aged 65 and older in the United States



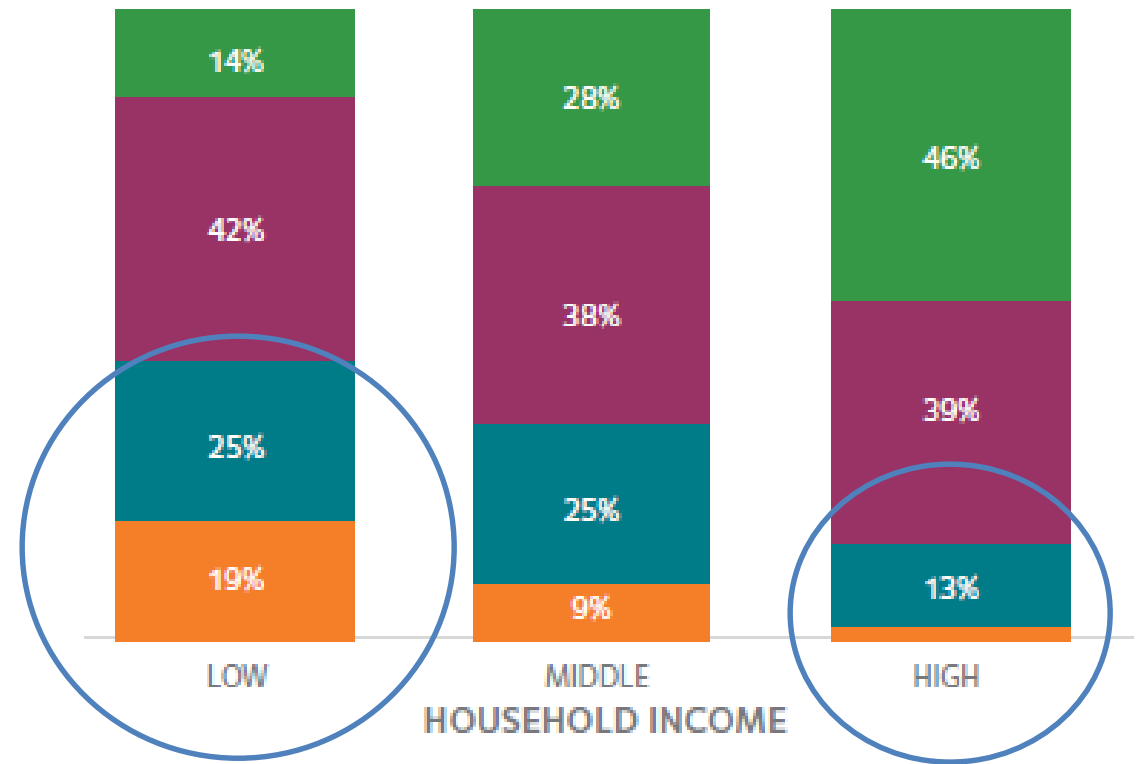
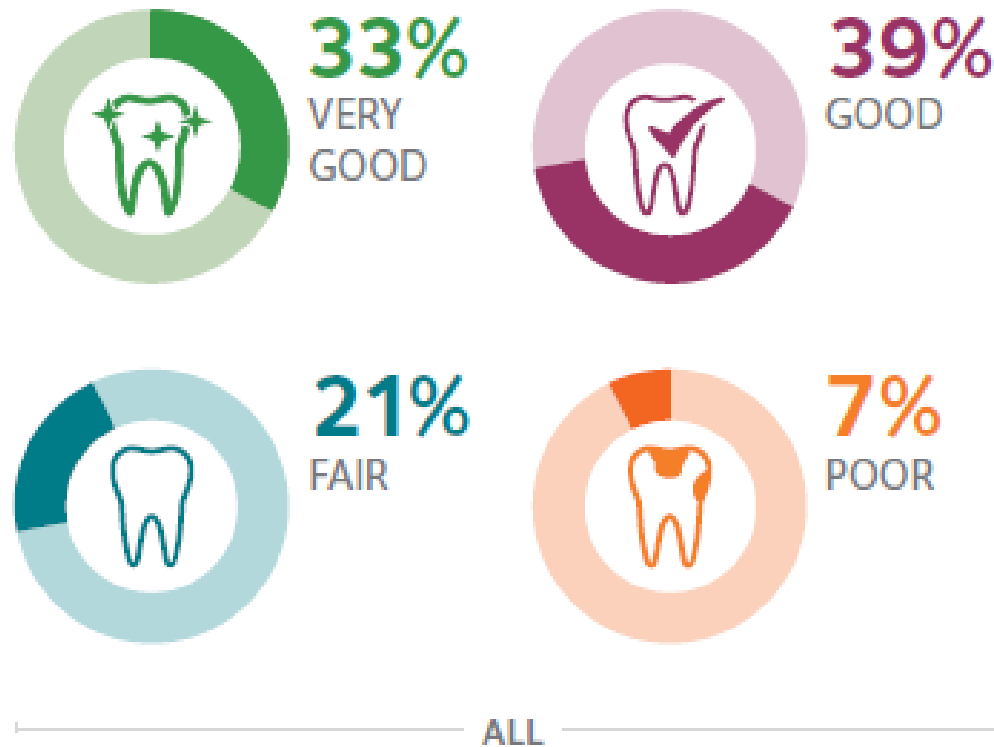
Source: Dye BA, Tan S, Smith V, et al. Trends in Oral Health Status—United States, 1988-1994 and 1999-2004. Vital and Health Statistics. Series 11, Number 248 (April 2007). Dye BA, Lopez Mitnik G, Weatherspoon DJ. Tooth loss among older adults according to poverty status in the United States from 1999 through 2004 and 2009 through 2014. JADA 2018;150(1):9-23.



The Aging Population: Self-Reported Oral Health



OVERALL CONDITION OF MOUTH AND TEETH AMONG SENIORS





How has the U.S. changed in the last 20 years?



- ~~Oral health disparities~~
- ~~Aging of the population~~
- **A changing workforce**
- Mental illness
- Substance abuse
- Healthcare expenditures
- Emerging public health threats

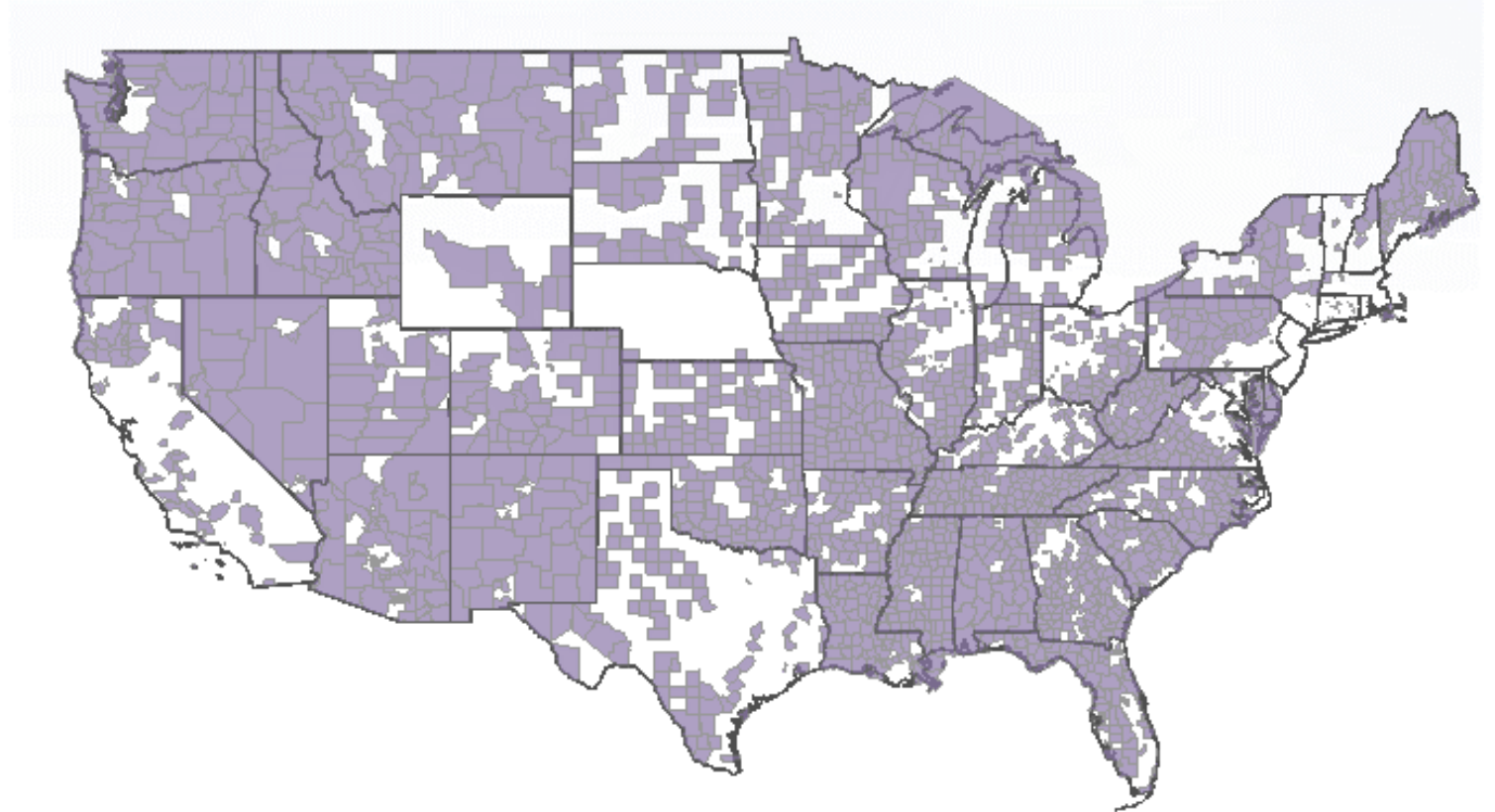




A Changing Workforce: Dentist Shortage Areas



- 58 million people
- 5,862 dental health professional shortage areas (HPSAs)
- 10,593 practitioners needed

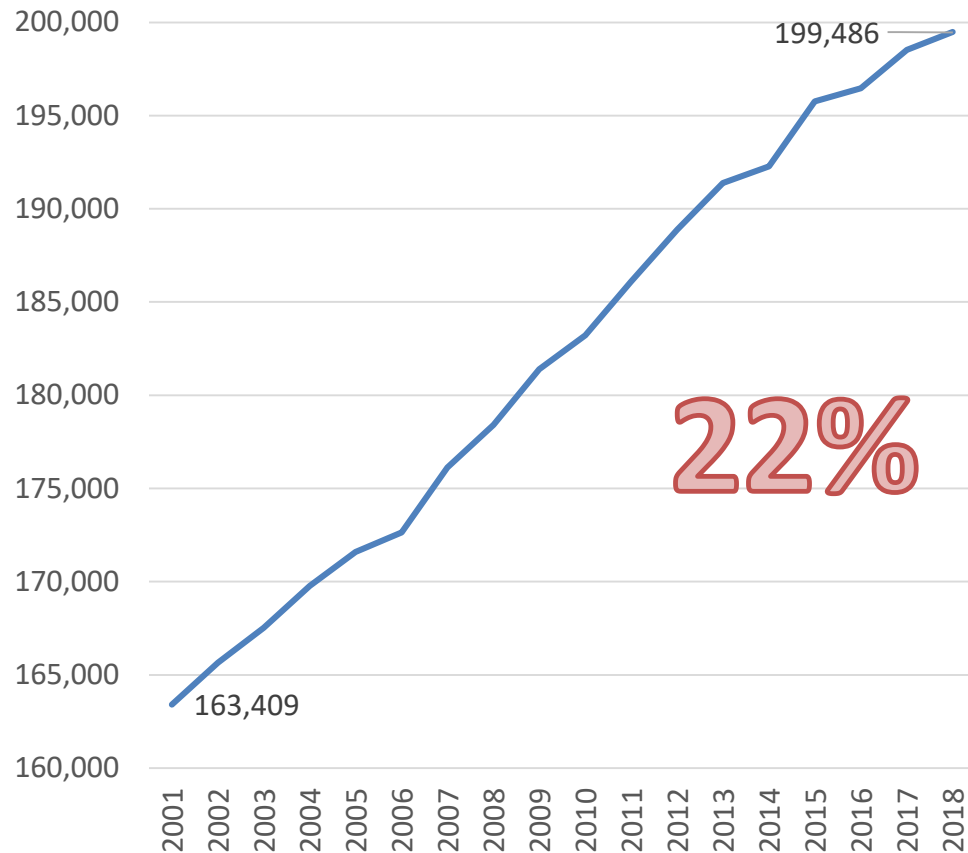




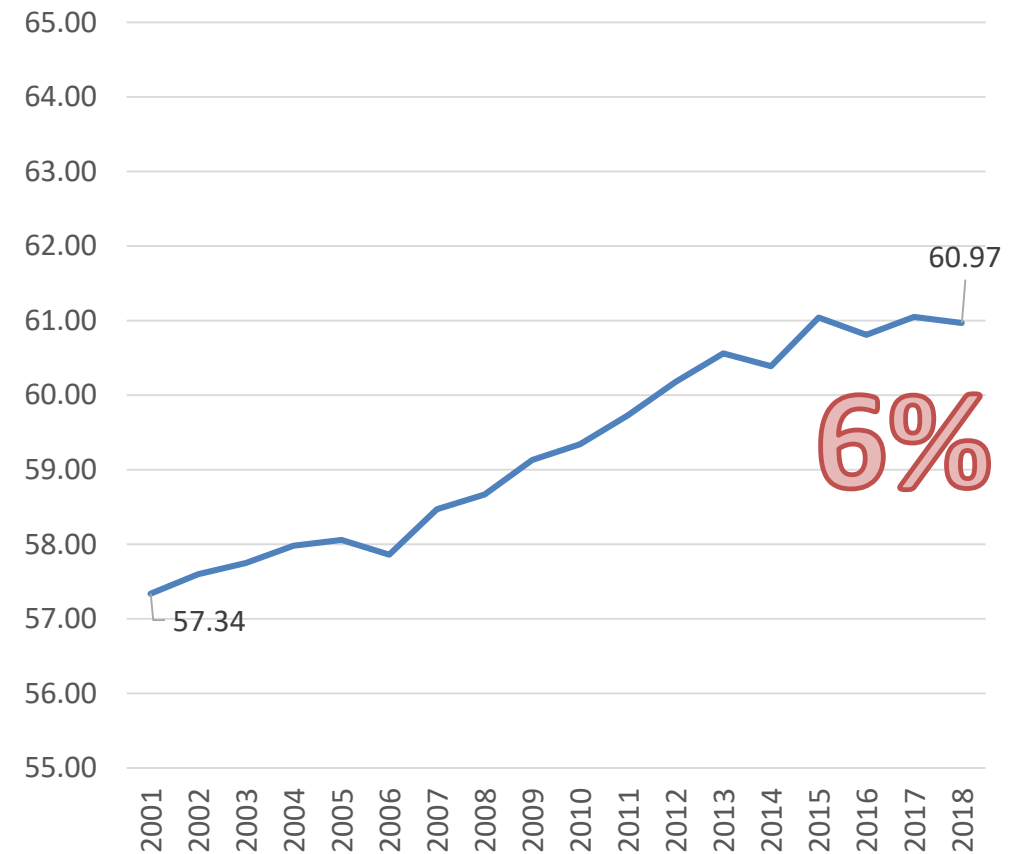
A Changing Workforce: Supply and Demand



Supply of Dentists, 2001-2018



Dentists per 100,000 population, 2001-2018



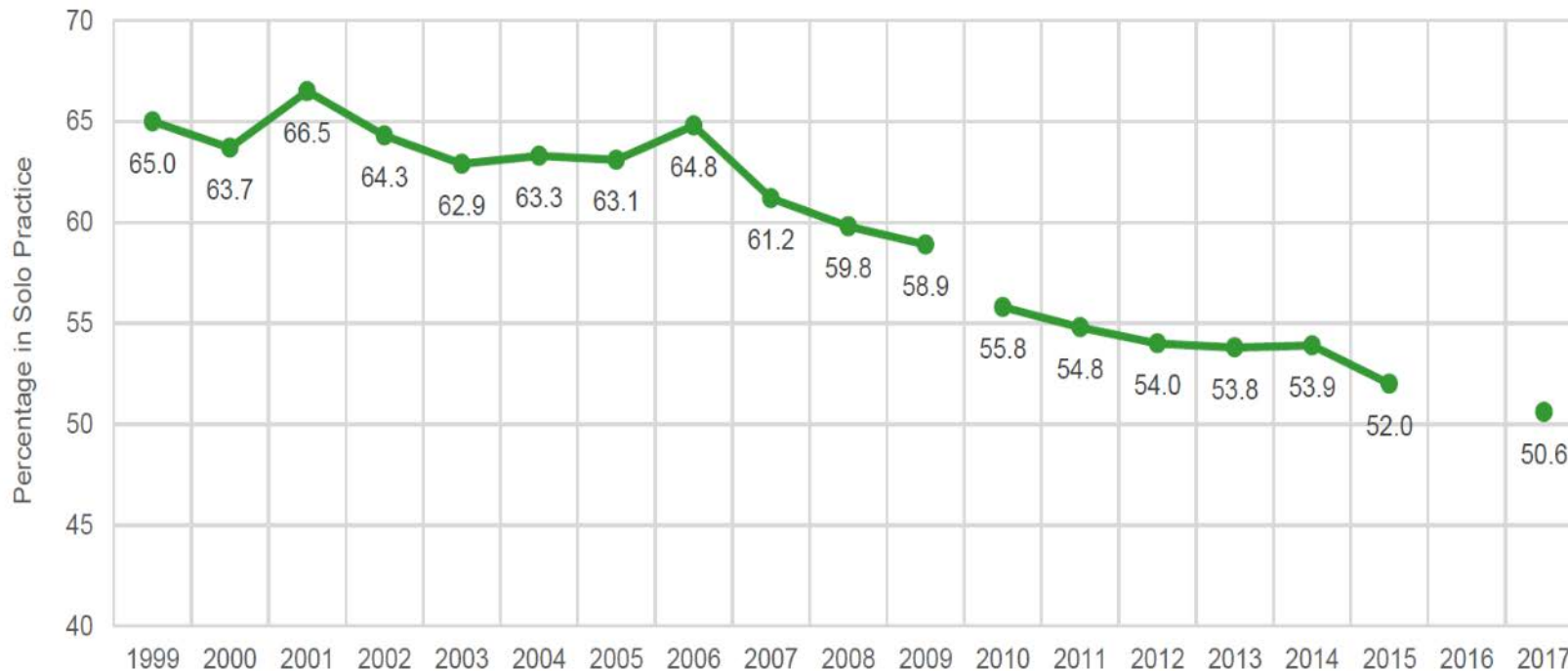


A Changing Workforce: Changes in Dentists' Practices

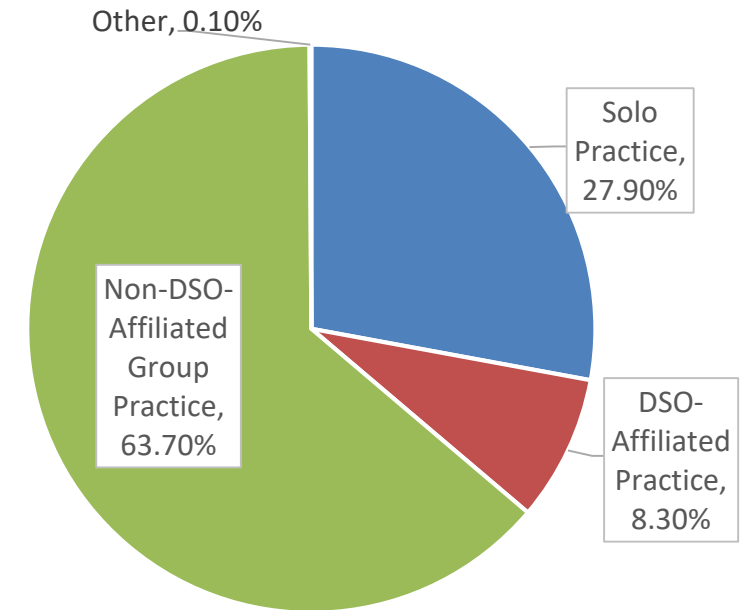


ALL DENTISTS

Percentage of Dentists in Solo Practices, 1999 to 2017



Dentist Practice Type, 2016

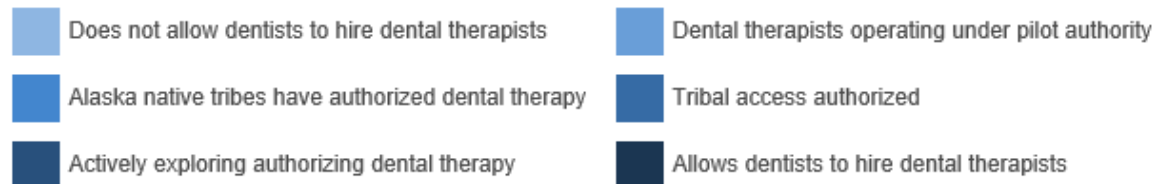
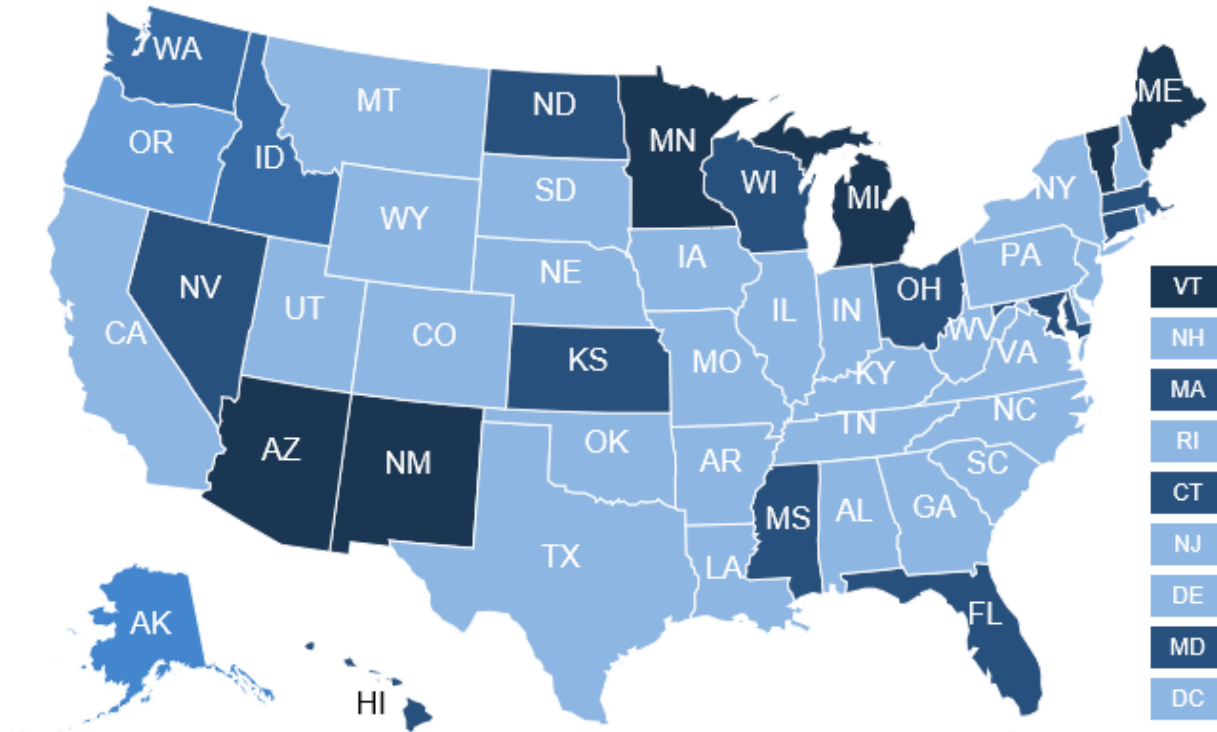


American Dental Association, Health Policy Institute. Fewer dentists are practicing solo. October 10, 2018, ADA News.

American Dental Association, Health Policy Institute. Supply of Dentists in the U.S.: 2001-2018, February 2019.



A Changing Workforce: The Rise of Dental Therapy



- Begun in 2000
- No universal model
- Authorized



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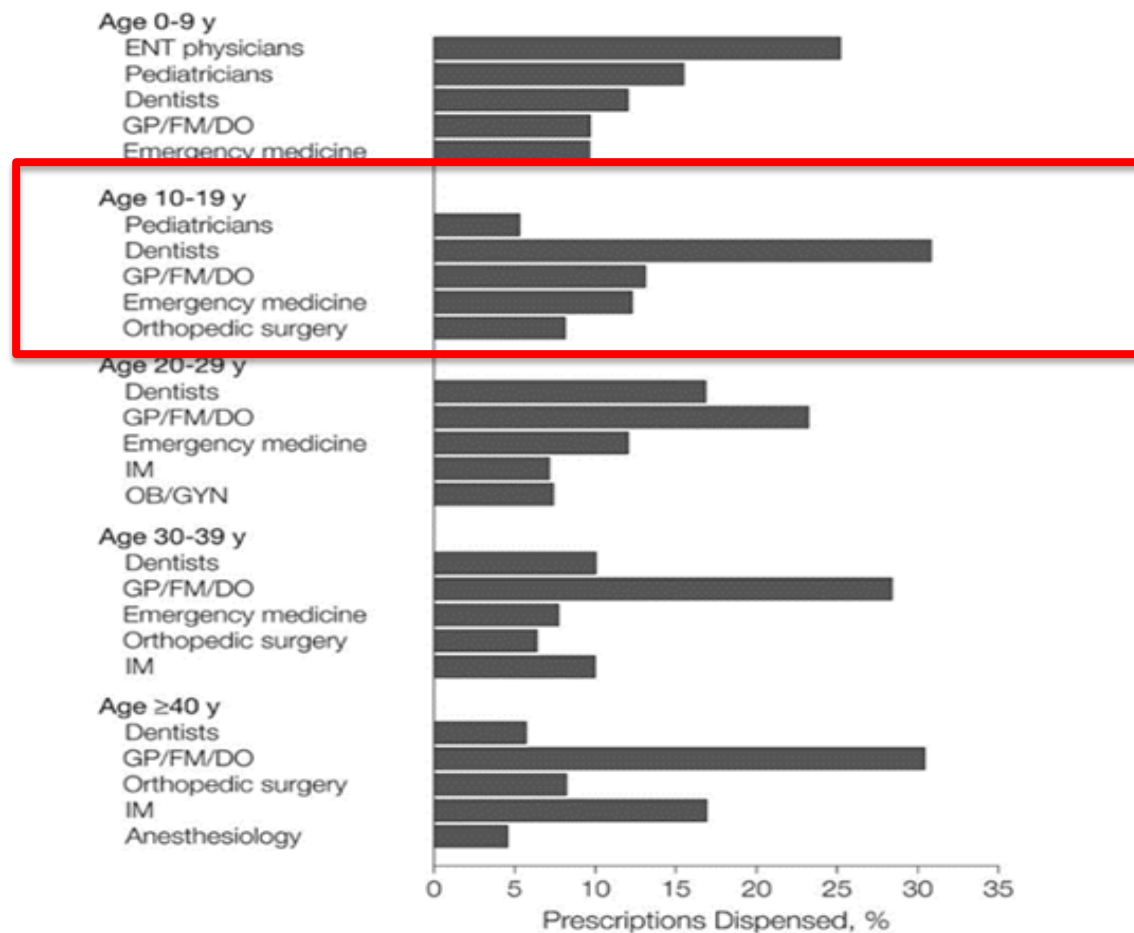




Mental Illness and Substance Abuse: Teenagers



Teenagers reporting
mental illness in the
past year (765,000)

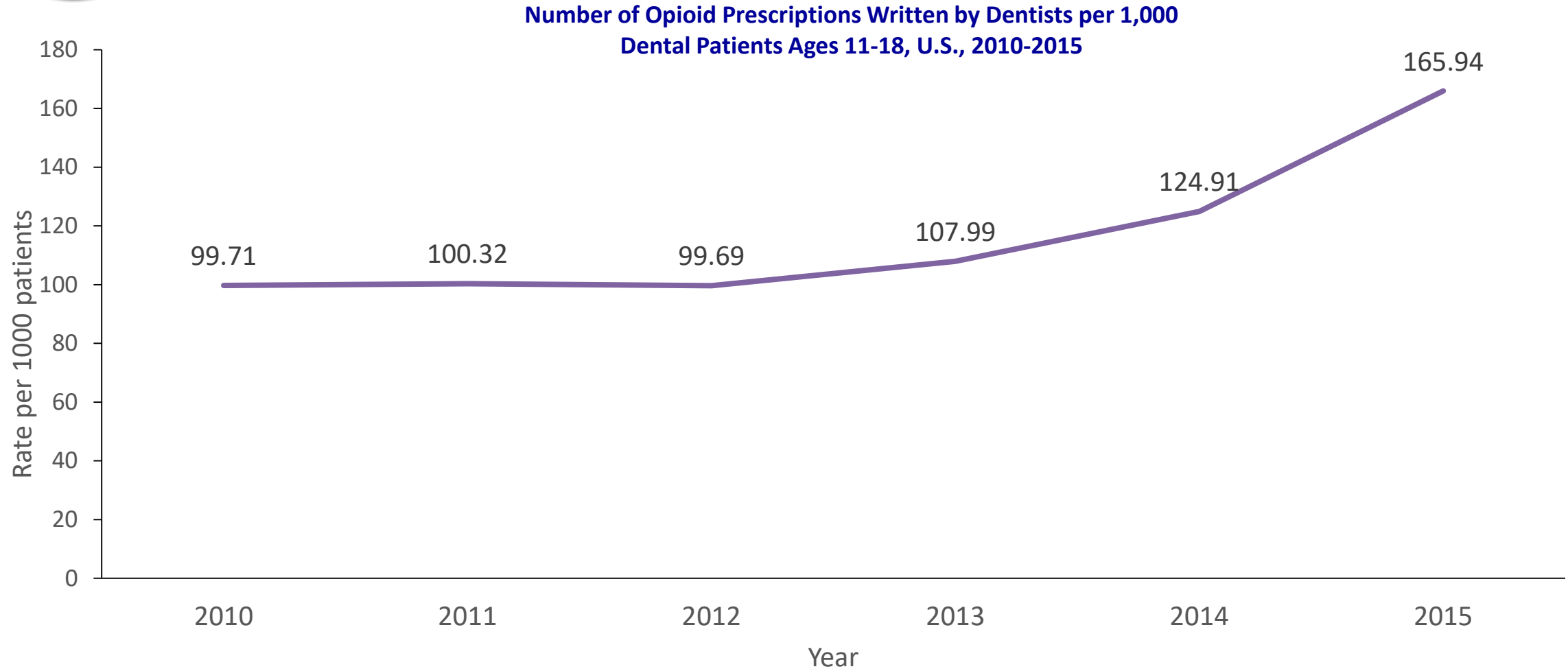


Kaiser Family Foundation. Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2016 and 2017. (Accessed 10 April 2019)

Characteristics of Opioid Prescriptions in 2009 – Journal of American Medical Association -- April, 2011



Mental Illness and Substance Abuse: Opioids & Teens



Gupta et al. *J Am Dent Assoc* 2018;149(4):237-45



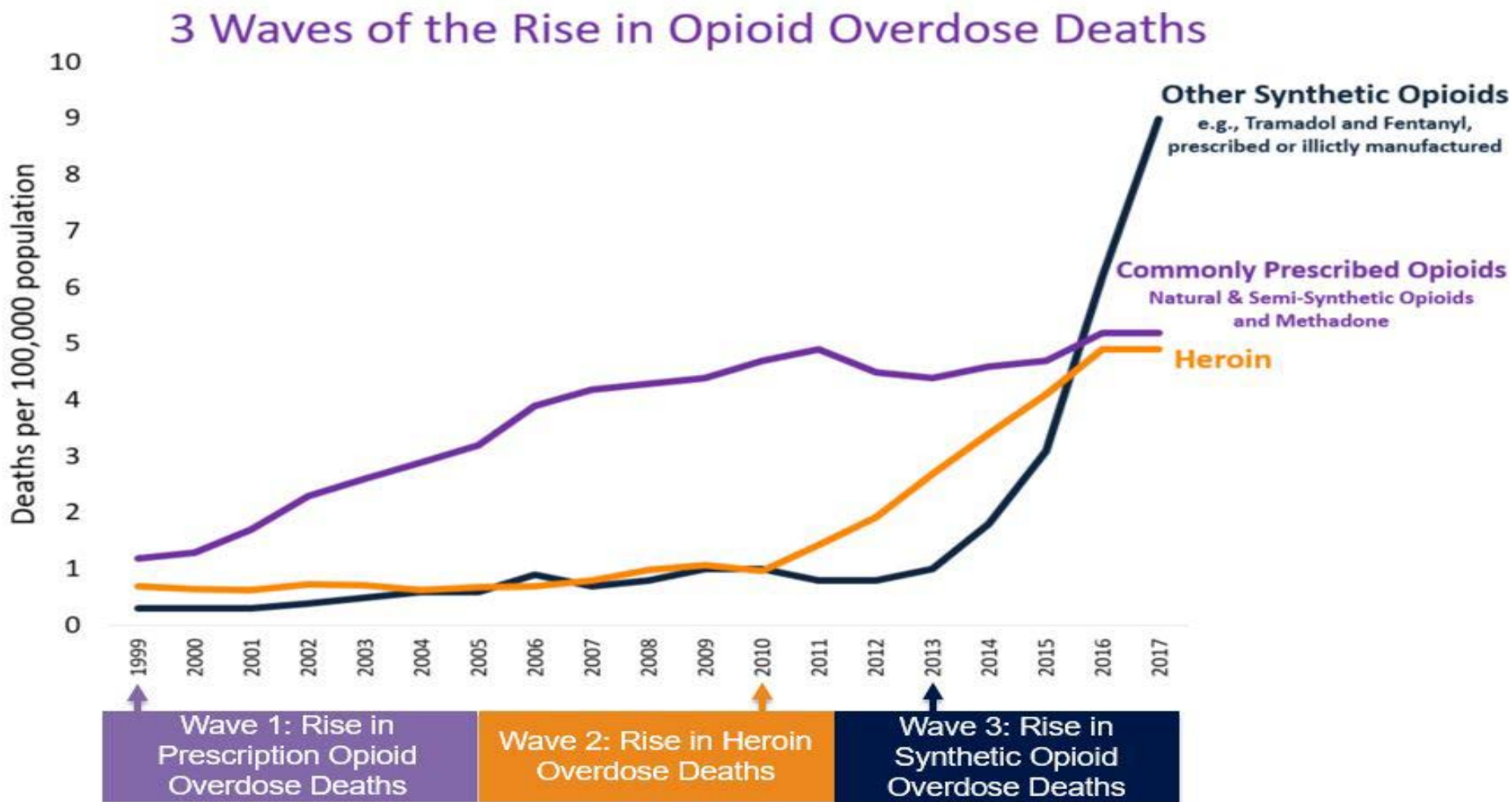
Mental Illness & Substance Abuse: Opioid Prescribing



Specialty	Opioid Rx <i>n</i> , millions (%)*	Total Rx <i>n</i> , millions (%)*	Opioid Rx/Total Rx %*
Family practice	52.5 (18.2)	946.9 (22.3)	5.6
Internal medicine	43.6 (15.1)	913.9 (21.5)	4.8
General practice	32.2 (11.2)	431.2 (10.1)	7.5
Surgery	28.3 (9.8)	77.6 (1.8)	36.5
Dentistry	18.5 (6.4)	64.0 (1.5)	29.0
Pain Medicine	14.5 (5.0)	29.8 (0.7)	48.6
Emergency Medicine	12.5 (4.3)	60.5 (1.4)	20.7



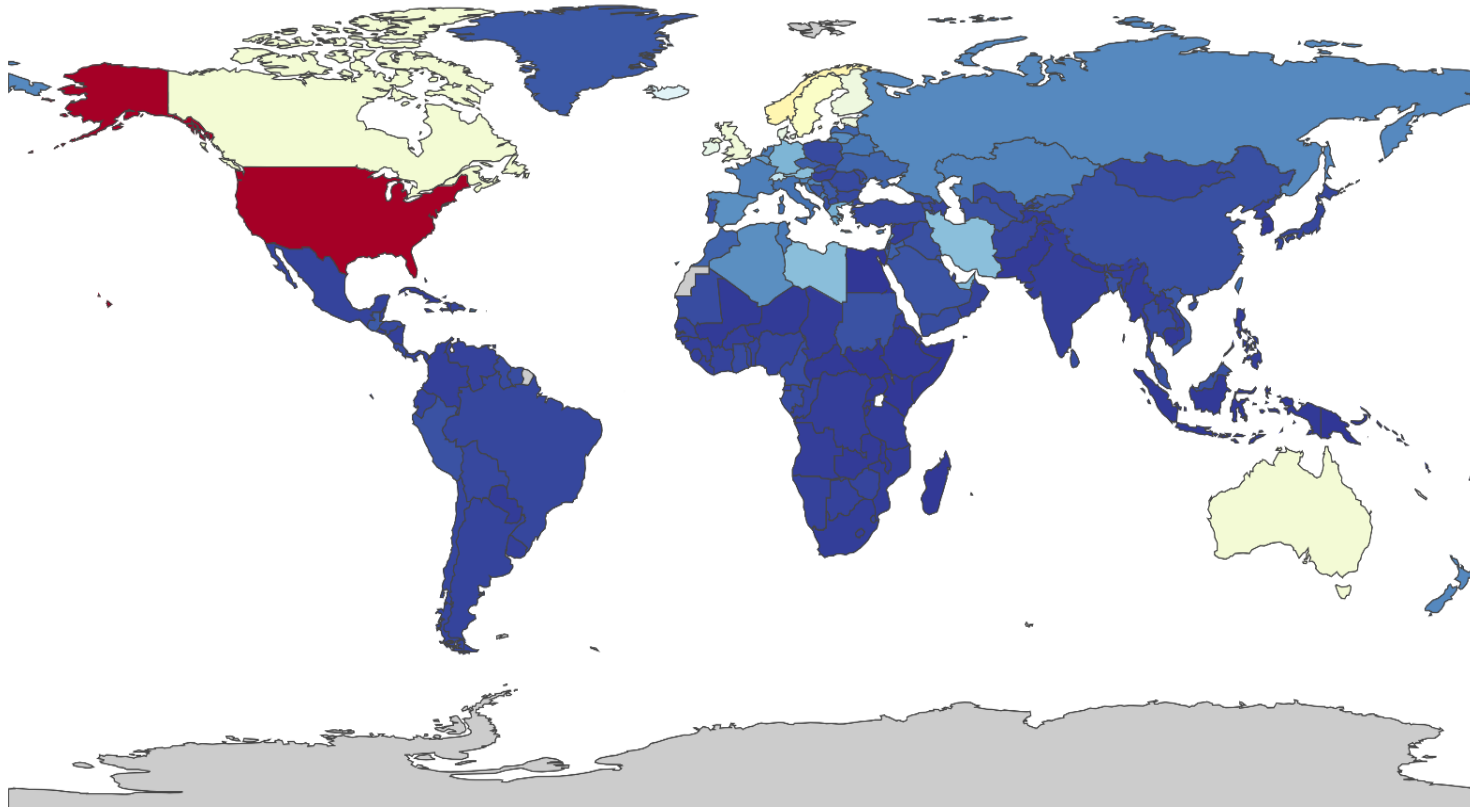
Mental Illness & Substance Abuse: Opioid Overdose Deaths



SOURCE: National Vital Statistics System Mortality File.



Mental Illness and Substance Abuse: Deaths attributed to SUDs



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

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



Surgeon General's Advisory on Naloxone and Opioid Overdose



*I, Surgeon General of the United States Public Health Service, VADM Jerome Adams, am emphasizing the importance of the overdose-reversing drug naloxone. For patients currently taking high doses of opioids as prescribed for pain, individuals misusing prescription opioids, individuals using illicit opioids such as heroin or fentanyl, health care practitioners, family and friends of people who have an opioid use disorder, and community members who come into contact with people at risk for opioid overdose, **knowing how to use naloxone and keeping it within reach can save a life.***

BE PREPARED. GET NALOXONE. SAVE A LIFE.





Surgeon General's Postcard on Opioid Misuse



WHAT CAN YOU DO TO PREVENT OPIOID MISUSE?



TALK ABOUT IT.

Opioids can be addictive and dangerous. We all should have a conversation about preventing drug misuse and overdose.



BE SAFE.

Only take opioid medications as prescribed. Always store in a secure place. Dispose of unused medication properly.



UNDERSTAND PAIN.

Treatments other than opioids are effective in managing pain and may have less risk for harm. Talk with your healthcare provider about an individualized plan that is right for your pain.



KNOW ADDICTION.

Addiction is a chronic disease that changes the brain and alters decision-making. With the right treatment and supports, people do recover. There is hope.



BE PREPARED.

Many opioid overdose deaths occur at home. Having naloxone, an opioid overdose reversing drug, could mean saving a life. Know where to get it and how to use it.



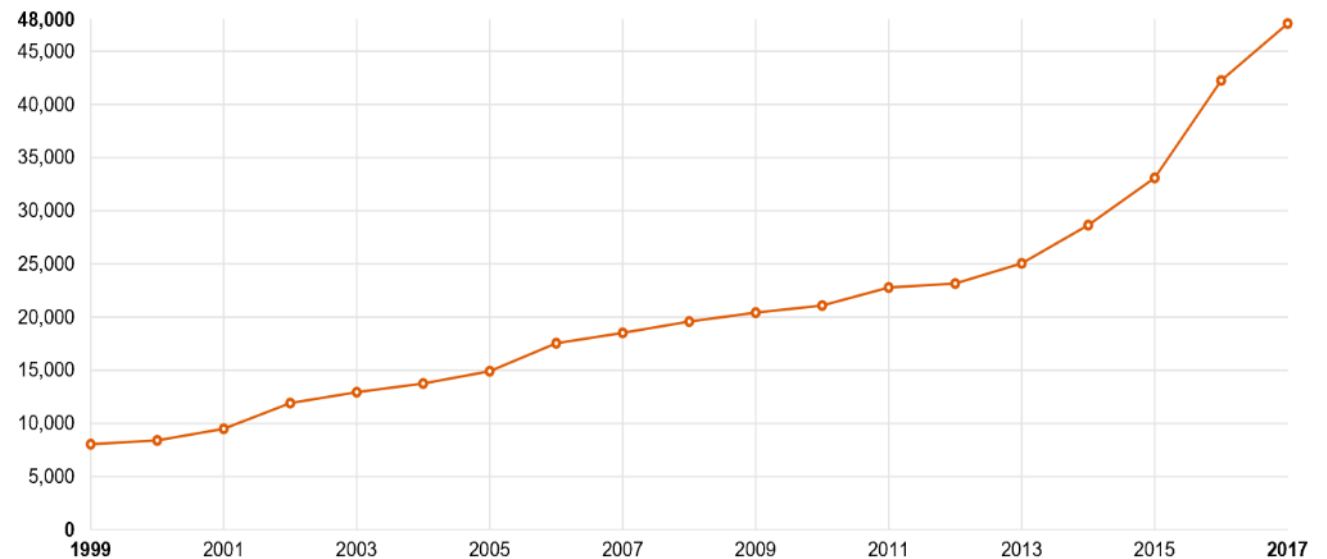


Mental Illness & Substance Abuse: Adults



- 45.6 million adults (18.2%)
- 6.7 million persons (3%) age 18 and older reported illicit drug dependence or abuse

Prescription opioid overdose deaths and death rate per 100,000 population (age-adjusted) in the US



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 10 April 2019)

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 at <http://wonder.cdc.gov/mcd-icd10.html> on January 10, 2019.



How has the U.S. changed in the last 20 years?



- ~~Oral health disparities~~
- ~~Aging of the population~~
- ~~A changing workforce~~
- ~~Mental illness & substance abuse~~
- **Healthcare expenditures**
- Emerging public health threats





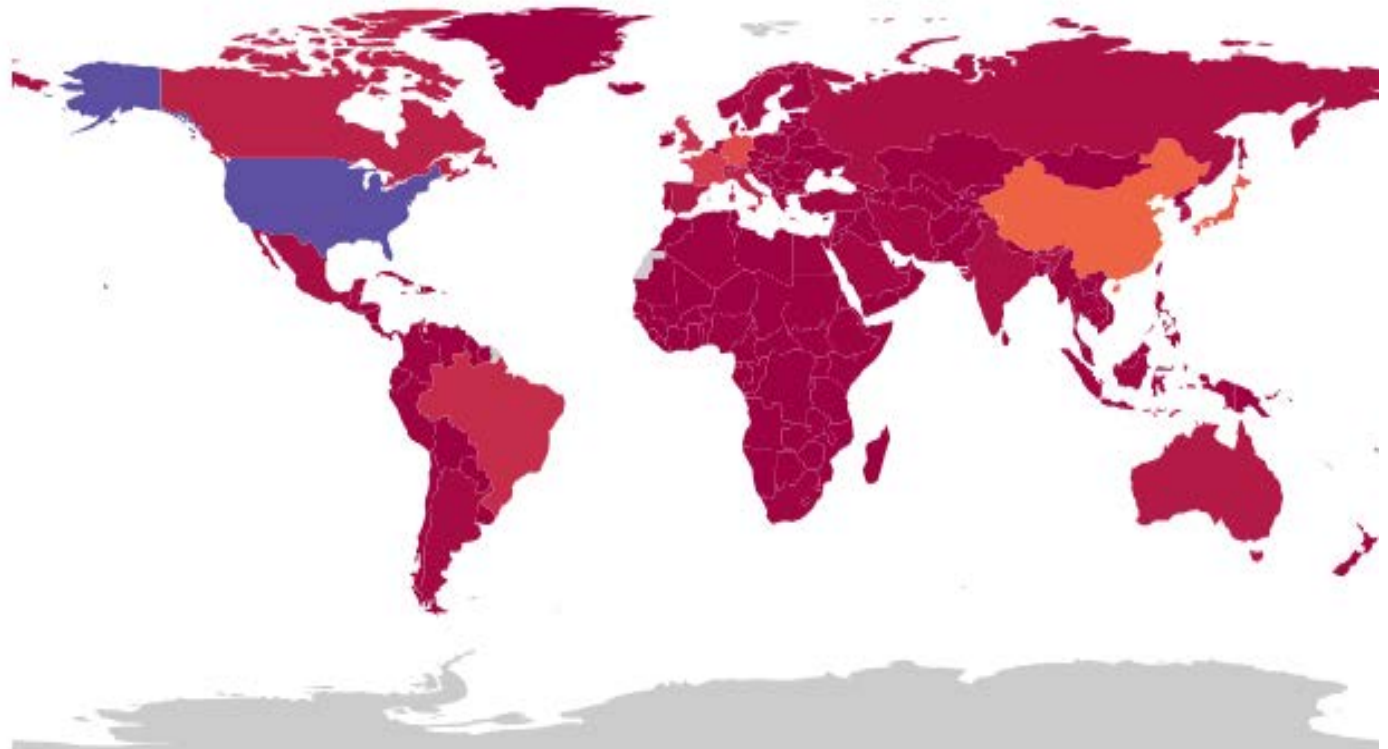
Global All Cause Total Health Spending



Total Health Spending by Country, 2016

In 2016, the United States spent **3.3 Trillion** dollars on Health care

- China: \$600 Billion
- Canada: \$177 Billion

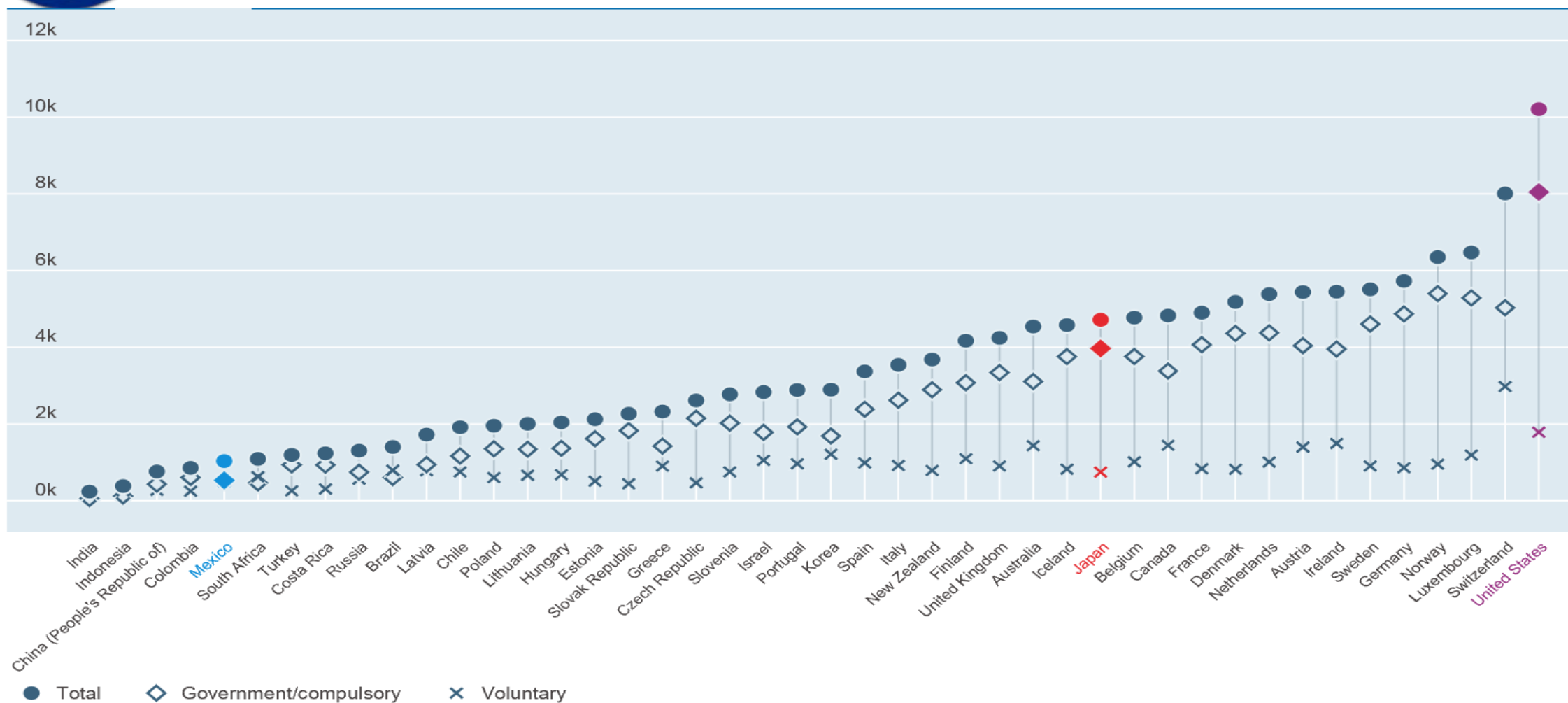


<https://vizhub.healthdata.org/gbd-compare/>

Financing Global Health, All cause total health care spending



Healthcare Expenditures: Per capita spending, global

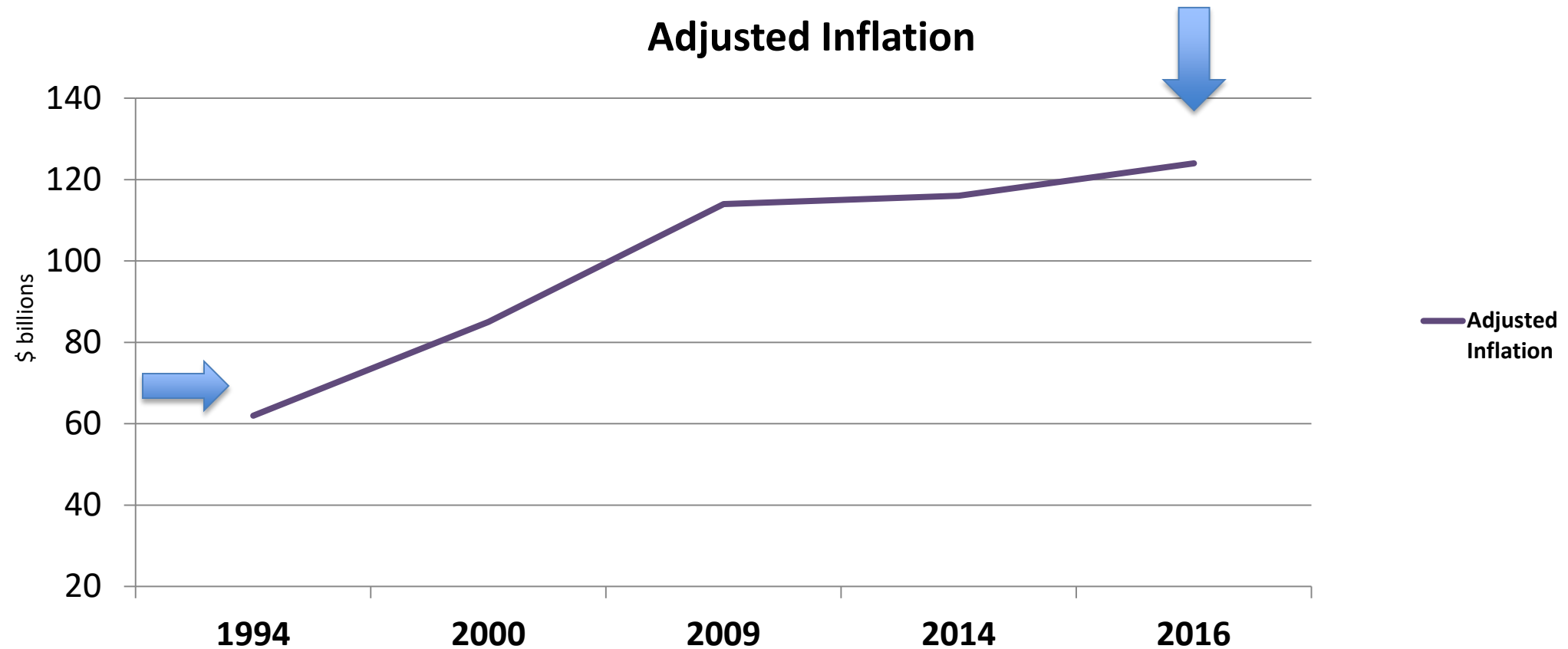




Healthcare Expenditures: Dental Expenditures



Total dental expenditures in the United States

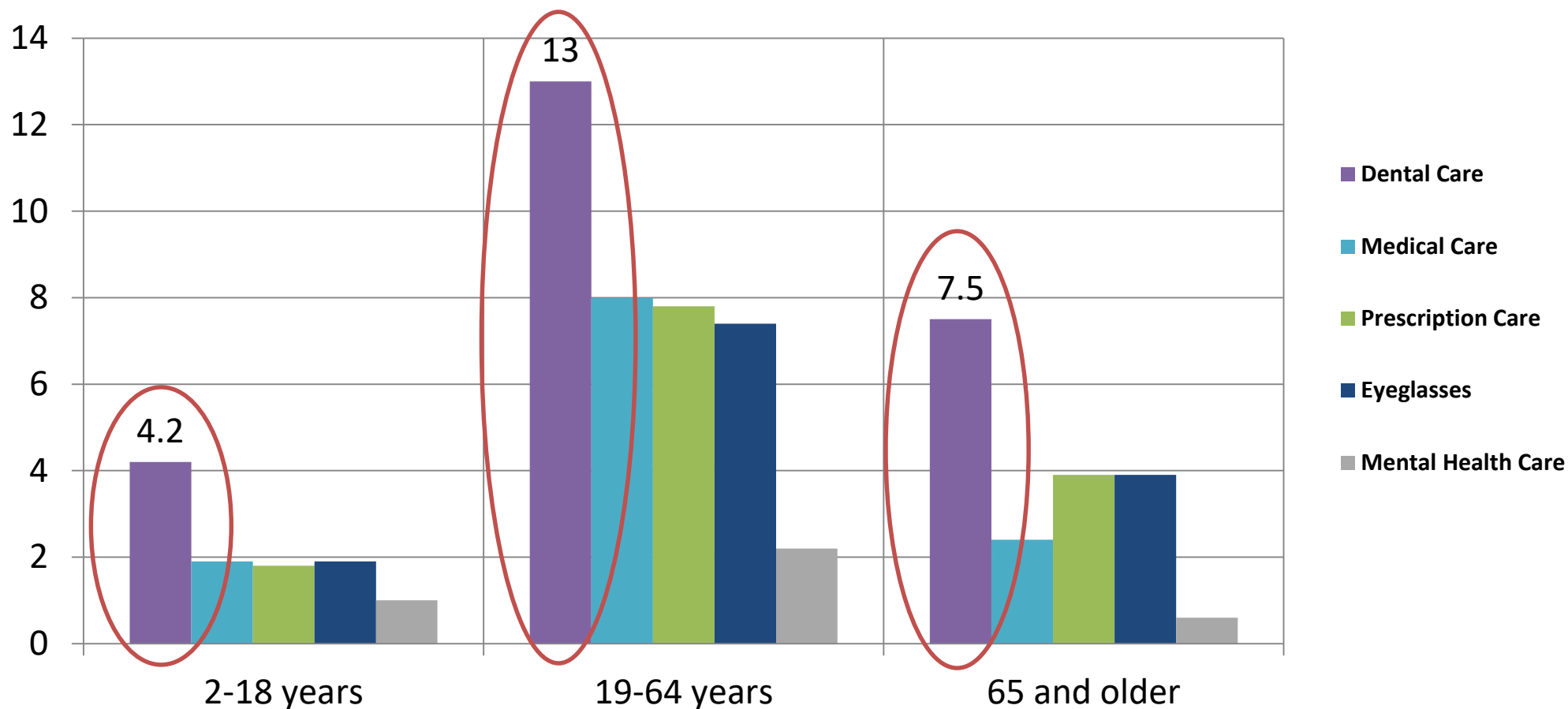




Healthcare Expenditures: Out-of-Pocket and Oral Health



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



Community Health and Economic Prosperity

An Initiative of the Office of the Surgeon General



Engaging businesses

To be **community change-makers** and forces for health in their communities



Implementing solutions

To help improve and sustain the **health of communities**, such as comprehensive smoke-free policies and affordable housing



Strengthening communities

To be **places of opportunity** for health and prosperity for all



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- **Emerging public health threats**





Vaccinations: Measles Outbreak



As of September 12, 2019: **1,241 MEASLES CASES ACROSS 31 STATES**

- This is the greatest number of cases reported in the U.S. since 1992 and since measles was declared eliminated in 2000.
- Measles can cause serious complications. As of September 12, 2019, 130 of the people who got measles this year were hospitalized, and 65 reported having complications, including pneumonia and encephalitis.
- The majority of cases are among people who were not vaccinated against measles.
- More than 75% of the cases this year are linked to outbreaks in New York and New York City. Measles is more likely to spread and cause outbreaks in U.S. communities where groups of people are unvaccinated.



Getty Images



Rise in Oropharyngeal-HPV Cancers

Number of HPV-Associated and HPV-Attributable Cancer Cases per Year

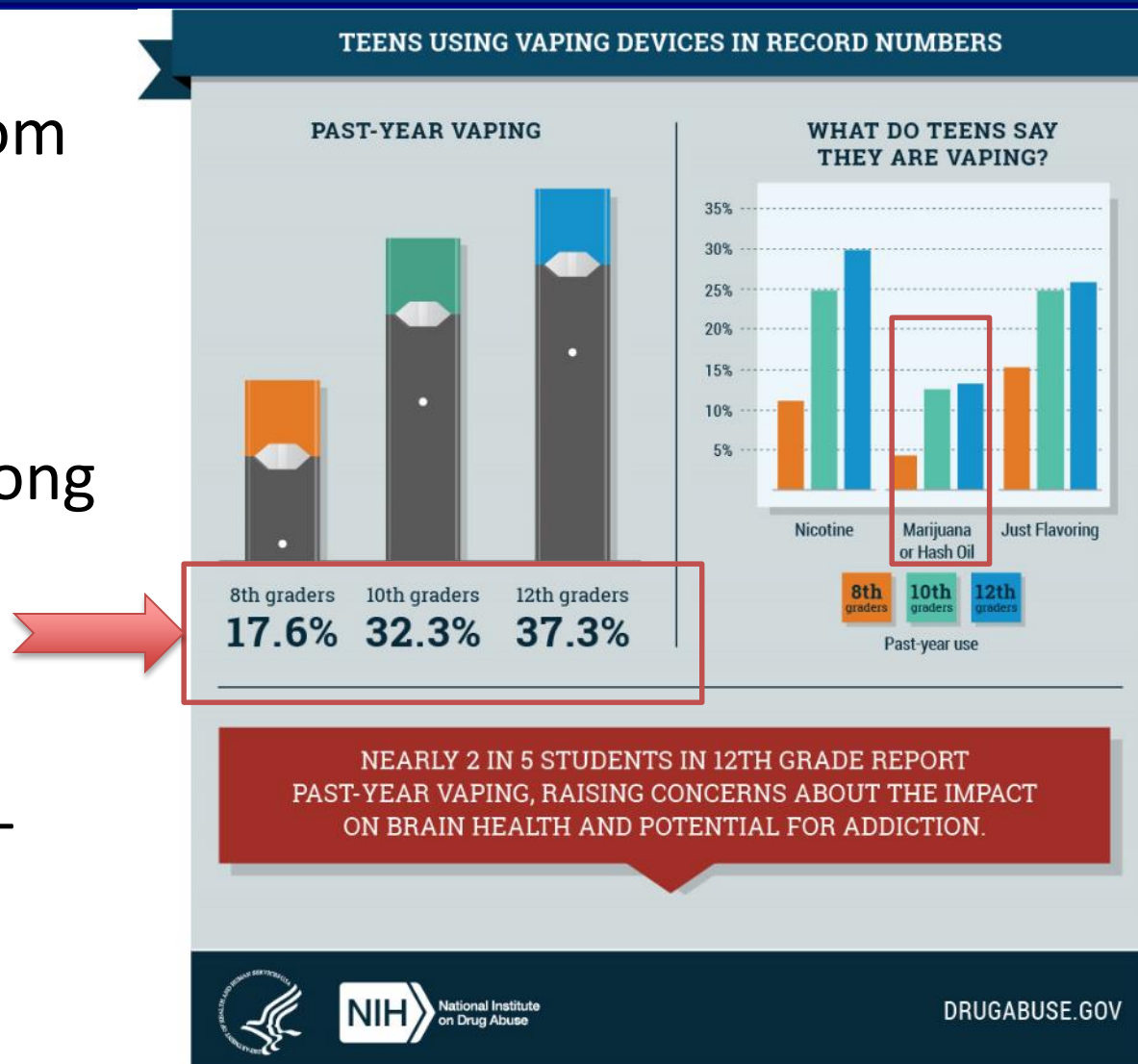
Cancer site	Average number of cancers per year in sites where HPV is often found (HPV-associated cancers)	Percentage probably caused by any HPV type ^a	Number probably caused by any HPV type ^a
Cervix	11,866	91%	10,751
Vagina	846	75%	635
Vulva	3,934	69%	2,707
Penis	1,269	63%	803
Anus	6,530	91%	5,957
Female	4,333	93%	4,008
Male	2,197	89%	1,949
Oropharynx	18,226	70%	12,885
* Female	3,412	63%	2,160
* Male	14,814	72%	10,725
TOTAL	42,671	79%	33,737
Female	24,391	83%	20,260
Male	18,280	74%	13,477



Emerging Public Health Threats: E-Cigarettes



- Record increase in vaping from 2017 to 2018 among teens
- Prompting first-ever SG Advisory on E-Cigarettes among Youth
- Nearly 1 in 11 students reported using cannabis in e-cigarettes in 2016





Surgeon General's Advisory on E-Cigarette Use Among Youth



*I, Surgeon General of the United States Public Health Service, VADM Jerome Adams, am emphasizing the importance of protecting our children from a lifetime of nicotine addiction and associated health risks by immediately addressing the epidemic of youth e-cigarette use. The recent surge in e-cigarette use among youth, which has been fueled by new types of e-cigarettes that have recently entered the market, is a cause for great concern. **We must take action now to protect the health of our nation's young people.***

KNOW THE RISKS. TAKE ACTION. PROTECT OUR KIDS.



E-Cigarettes and Pulmonary Disease



- 9/20/19: The CDC announced the updated number of confirmed and probable cases of lung disease associated with e-cigarette product use, or vaping. The new case count is the first national aggregate based on the new CDC [case definition](#) developed and shared with states in late August.
- As of September 20, 2019, **530** confirmed and probable cases of lung disease associated with e-cigarette product use, or vaping, were reported by [36 states and the U.S. Virgin Islands](#). Two-thirds of cases are people 18 to 34 years of age, and 16% are under 18 year of age. Of these, 72% are males.
- **Message: Any tobacco use, including e-cigarettes, is unsafe, especially for youth. Nicotine can harm the developing adolescent brain. We must do everything we can to reduce the use of e-cigarettes among middle and high school students to protect them from immediate lung injury and a lifetime of nicotine addiction.**
- **Deaths** (as of 9/12/19): Six total deaths have been confirmed in six states: California, Illinois, Indiana, Kansas, Minnesota, and Oregon.



Military Readiness



- 15-20% of all disease and non-battle injuries
- DoD total force dental readiness rates <50%
- Barodontalgia affects 11% of aircrews
- Substantial costs with MEDEVAC



UNFIT TO SERVE

OBESITY

IS IMPACTING NATIONAL SECURITY

THE PROBLEM



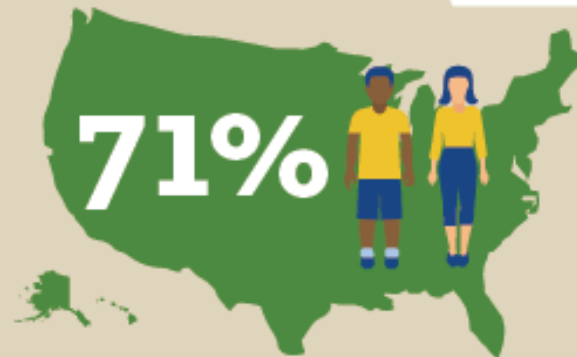
Approximately
1 in 5 children and
2 in 5 adults
in the U.S. struggle
with obesity.

Only **half of adults**
and about **one
quarter of youth**
get recommended
amounts of aerobic
physical activity.



About 1 in 4
young adults is
too heavy to
serve in our
military.

INELIGIBLE TO SERVE



71% of young people in the U.S. would not be able to
join the military if they wanted to.

3 most common reasons young people are ineligible.



Overweight
or obesity



Educational
deficits



Criminal or drug
abuse record



What does this all mean for this Surgeon General's Report on Oral Health?



The Surgeon General's Charge



“The report will describe and evaluate oral health and the interaction between oral health and general health throughout the life span, considering advances in science, healthcare 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?
- What are some promising new directions for research and improvement in oral health?



Framework for the Report



- Oral Health Across the Lifespan
 - Neonatal, Infant, and Child Life Stage
 - Adolescent and Teenager Life Stage
 - Young Adult and Adult Life Stage
 - Older Adult Life Stage
- Effect of Oral Health on the Community, Overall Well-being, and the Economy
- Effects of Addiction and Mental Health Disorders on Oral Health
- Oral Health Integration, Workforce, and Practice
- Emerging Technologies and Promising Science to Transform Oral Health



Using the input to shape content



- Six Section Editors and 20 Associates outline and expand topics and content
- 300 researchers and health professionals review science and practice and write text
- More than 50 experts critically read and revise
- Federal clearance procedures ensure that standards of the Surgeon General and the DHHS are met



Current Status – September 1, 2019



- First drafts received
- Initial review by editorial teams occurring
- Scientific and technical review begins in October/November
- Federal review after that



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, and
- Educate, encourage, and call upon all Americans to take action



Influence of the 2020 Report



Available in Fall 2020, the Surgeon General's Report will provide:

- Information that will impact population health, the economy, national security, health professions education, and public policy
- Information providing guidance for research, education, and practice related to oral health
- Promising approaches to achieving oral health equity for our country's diverse communities
- A road map to optimal oral health for all



Global Oral Health and the 2020 Report



How can the 2020 SGR Influence Global Oral Health?

- Learning
- Workforce Issues
- OH Inequities
- Shared Disease Burden and Shared Cost



Image from NASA



Dental Practice and the 2020 Report



How can the 2020 SGR Influence Dental Practice?

- Identify changes in disease patterns
- Identify trends and changes that impact the Oral Health workforce
- Highlight new directions in science and technology that can improve practice
- Clarify how patient populations are changing
- Raise awareness of practices that impact oral health inequities



Image from WSJ



Questions



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Follow-up questions or requests for
speaking engagements, please contact:

USPHSCDO@ihhs.gov



OFFICE OF THE SURGEON GENERAL

For Media Requests:

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E-mail: ashmedia@hhs.gov

Event Invitations Requests:

E-mail: sginvitations@hhs.gov

Link to Invitations Form:

<https://www.hhs.gov/webforms/surgeon-general-invitation-form/index.html>



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