



# Healthy People 2030 Oral Health Promotion Series:

*Increase the number of states and DC that have an oral and craniofacial health surveillance system OH-D01 (Developmental)*



June 14, 2023  
9 am PT, 12 pm EST





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The findings and conclusions in this presentation are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention.





Upon completion of this webinar, participants should be able to:

1. Describe the history and importance of national and state-based oral health surveillance systems.
2. Identify and describe various national-level surveillance systems.
3. Recognize the strengths and limitations of currently available national surveillance systems.
4. Describe the minimum components of a state-based oral health surveillance system.
5. Discuss the challenges states face in implementing an oral health surveillance system.



# Presentation Overview:

Part 1: Overview of Healthy People Oral Health Objective OH-D01 - Dr. Gina Thornton-Evans

Part 2: Oral Health Surveillance: Where do we stand in the nation? - Dr. Parth Shah

Part 3: State-Based Oral Health Surveillance Systems - Dr. Kathy Phipps

Q&A: Dr. Gina Thornton-Evans

Announcing Next HP 2030 Webinar: Dr. Gina Thornton-Evans



# Presenters



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# Part 1: Overview of Healthy People Objective

## Gina Thornton-Evans, DDS, MPH





- Title XVII – Public Health Act
  - Formulate national goals, and a strategy to achieve such goals, with respect to health information and health promotion, preventive health services, and education in the appropriate use of health care.
  - Coordinate disease prevention and health promotion activities, preventive health services, and health information and education within HHS.
  - Coordinate such activities in the private sector.
  - Establish a national health information clearinghouse.
  - Support projects, conduct research and disseminate information.







- 1979 Surgeon General's Report: *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* - Dr. Julius Richmond, Assistant Secretary for Health/Surgeon General.
- First report to establish national objectives to be achieved by 1990. Included a chapter on fluoridation and dental health.



# Healthy People Goals Over the Years



1990	2000	2010	2020	2030
<ul style="list-style-type: none"> <li>Decrease mortality: infants–adults.</li> <li>Increase independence among older adults.</li> </ul>	<ul style="list-style-type: none"> <li>Increase span of healthy life.</li> <li>Reduce health disparities.</li> <li>Achieve access to preventive services for all.</li> </ul>	<ul style="list-style-type: none"> <li>Increase quality and years of healthy life.</li> <li>Eliminate health disparities</li> </ul>	<ul style="list-style-type: none"> <li>Attain high-quality, longer lives free of preventable disease.</li> <li>Achieve health equity; eliminate disparities.</li> <li>Create social and physical environments that promote good health.</li> <li>Promote quality of life, healthy development, healthy behaviors across life stages.</li> </ul>	<ul style="list-style-type: none"> <li>Attain healthy, thriving lives and well-being, free of preventable disease, disability, injury and premature death.</li> <li>Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all.</li> <li>Create social, physical, and economic environments that promote attaining full potential for health and well-being for all.</li> <li>Promote healthy development, healthy behaviors and well-being across all life stages.</li> <li>Engage leadership, key constituents, and the public across multiple sectors to take action and design policies that improve the health and well-being of all.</li> </ul>





Increase the number of states and the District of Columbia that have an oral and craniofacial health surveillance system.





# Part 2: Oral Health Surveillance: Where do we stand in the nation? Parth Shaw, DDS, MPH



- “To keep close watch over someone or something” [Merriam-Webster dictionary]
- **Public Health Surveillance** is the ongoing, systematic collection, analysis, and interpretation of outcome-specific data for use in planning, implementing, and evaluating public health practice, closely integrated with the timely dissemination of these data to those responsible for prevention and control. [Centers for Disease Control and Prevention (CDC). Introduction to Public Health. In: Public Health 101 Series. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2014.]



- Foundation of dental public health practice
- Generates data for action: practice and research
- To evaluate patterns and trends of various oral/dental and craniofacial diseases
- Expands the scope, reach, and extent of known as well as unknown observations
- Contributes to prevention and control of diseases
- To execute core public health functions



# Oral Health Surveillance Systems



- **NHANES:** National Health and Nutrition Examination Survey
- **NHIS:** National Health Interview Survey
- **NSCH:** National Survey of Children's Health
- **YRBS:** Youth Risk Behavior Survey
- **BRFSS:** Behavioral Risk Factor Surveillance System
- **MEPS:** Medical Expenditure Panel Survey
- **SEER:** Surveillance, Epidemiology, and End Results





# NHANES: National Health and Nutrition Examination Survey



- A population-based cross-sectional survey administered by the CDC's National Center for Health Statistics (NCHS)
- To assess the health and nutritional status of adults and children in the United States
- Origin: 1960 | Continuous NHANES: 1999-Present
- Data: interviews + examinations + lab tests
- Primary source of dental surveillance
- Smaller annual sample size | Restricted geography



- Large-scale interview-based population survey
- Administered by the NCHS/CDC annually since 1957 to monitor the health of the nation
- Instrumental in providing data to track health status, health care access, and progress toward achieving national health objectives for > 50 years
- Large sample size/numerous variables/linking
- Lack of inclusion of all subgroup populations
- No verifiable medical data / Self-reported data

- The largest annual national and state-level cross-sectional survey on the health and health care needs of children (from birth to 17-years of age), their families, and their communities, sponsored by the Maternal and Child Health Bureau
- Started in 2001 as telephone survey | Redesigned to address-based survey in 2016
- Multiple, intersecting aspects of children's lives
- Self-reporting: Information/measurement bias

# YRBS: Youth Risk Behavior Survey



- A national survey: one of the two components of the Youth Risk Behavior Surveillance System
- Started in 1991 | Supported by CDC
- Conducted biennially among students in grades 9 to 12 who attend U.S. public and private schools during the spring of odd-numbered years
- The only surveillance data source to monitor use of oral health care among high school students at the national, state, and local levels
- Applicable only to the youths who attend school



# BRFSS: Behavioral Risk Factor Surveillance System



- Nation's premier system of health-related telephone surveys, which collect data about the U.S. residents' health-related risk behaviors
- Wide sponsorship: CDC, HRSA, AOA, VA, SAMHSA
- Established in 1984 | Became a nationwide surveillance system in 1993
- Collects actual behavior data, rather than on attitudes or knowledge - Gold standard for behavioral health surveillance
- Self-reported data: Measurement/Recall bias



# MEPS: Medical Expenditure Panel Survey



- A set of large-scale surveys of families and individuals, their medical providers, and employers across the United States
- Began in 1996 | Administered by the Agency for Healthcare Research and Quality (AHRQ)
- Most complete source of data on the cost and use of health care and health insurance coverage
- Much smaller sample size compared to the other surveys | Self-reported dental procedures



# SEER: Surveillance, Epidemiology, and End Results



- An authoritative source of cancer statistics in the United States
- Purpose: to reduce the cancer burden among the U.S. population
- Supported by: National Cancer Institute (NCI)
- Data collection began in 1973, now representing nearly 50% of the U.S. population
- Large number of cases | Collection of cancer specific outcomes | Generalizability
- Lack of co-morbidities' data | Patient migration





- Systematic collection of data from nationally representative samples
- Primary focus on dental caries and tooth loss
- Lack of periodontal disease surveillance
- Most datasets are neither complete nor completely accurate
- State-level surveillance is often overlooked



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- NSCH. National center for Health Statistics, Centers for Disease Control and Prevention. Updated February 22, 2022. Accessed June 1, 2023. <https://www.cdc.gov/nchs/slaits/nsch.htm>





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- Thorpe LE. Surveillance as Our Sextant. American Journal of Public Health. 2017 May; 107(6):847-848.





# Part 3: State-Based Oral Health Surveillance Systems

## Kathy Phipps, DrPH



# Historical Surveillance Roles



## Local Agencies

- Infectious disease surveillance
- Point of contact for disease reporting

## State Agencies

- Non-infectious disease surveillance
- Long-term state-wide interventions

## Federal Agencies

- Monitoring national trends
- Coordinating multi-state responses
- Support states & coordinate with WHO



Based on the non-communicable nature of oral health outcomes, *oral health monitoring generally falls within the domain of state agencies*, with federal agencies responsible for monitoring national trends. Expanding role for local jurisdictions.





# DO YOU REMEMBER THE Y2K PANIC?







What does Y2K have to do with state OH surveillance?





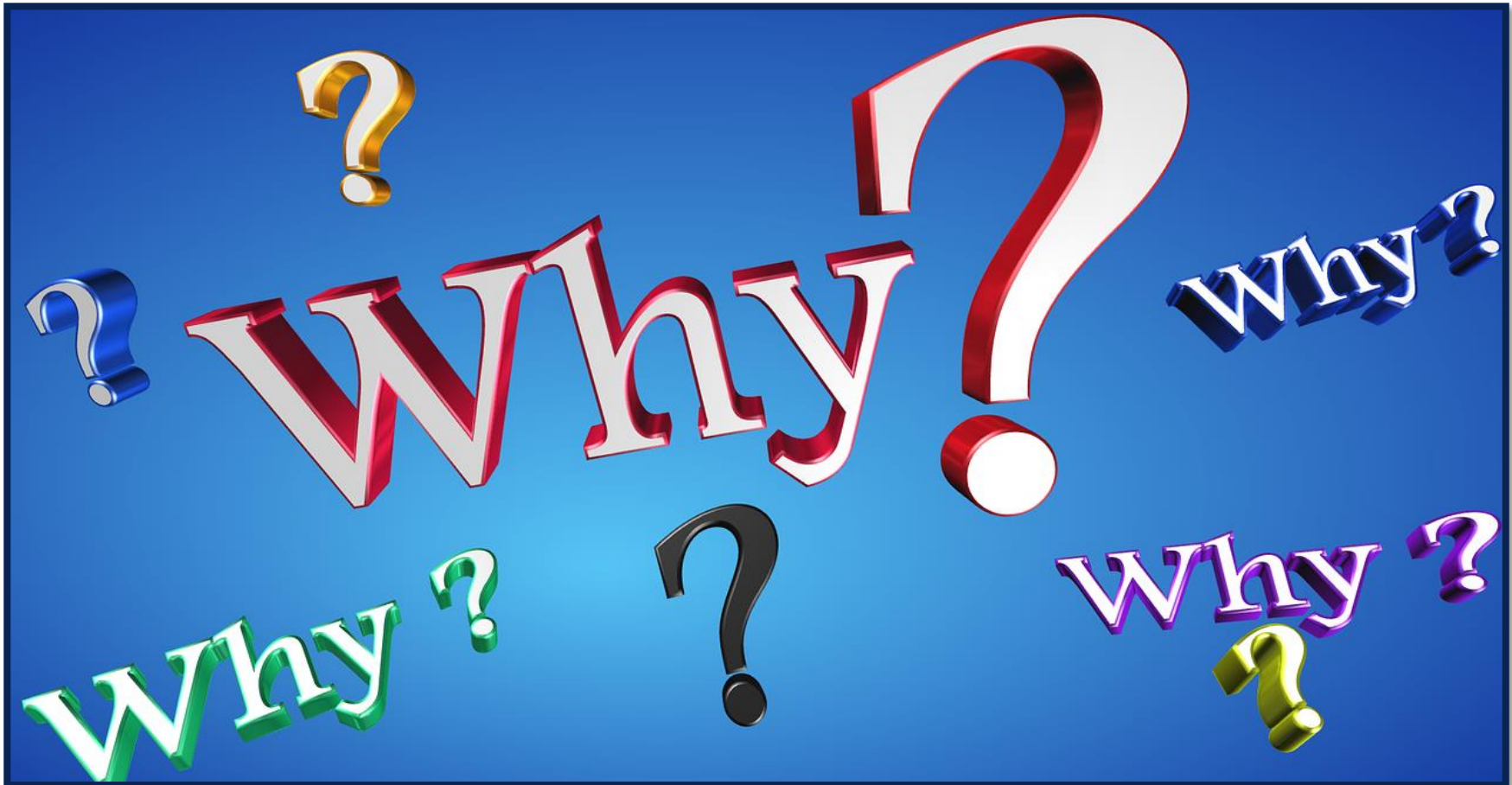
- In the 20th Century (pre-Y2K)
  - Oral health surveillance was primarily the domain of the federal government.
  - Although a few states collected oral health data, no state had a comprehensive system for oral health surveillance.





Pre-Y2K, state-based oral health surveillance systems were virtually nonexistent.





# Two Overarching Reasons



NO GUIDANCE ON  
WHAT AN OH  
SURVEILLANCE SYSTEM  
SHOULD INCLUDE

NO COST-EFFECTIVE  
WAY TO MONITOR  
ORAL DISEASE AT  
STATE/LOCAL LEVEL



# History of State OH Surveillance



1998

- CSTE approves 2 OH indicators for National Public Health Surveillance System (NPHSS)

1999

- CSTE approves 7 additional indicators for NPHSS
- BRFSS adds 3 OH questions to rotating core

2001

- CDC/ASTDD launch National Oral Health Surveillance System (NOHSS) website

2002

- CSTE includes 5 OH measures in Chronic Disease Indicators

2012

- CSTE approves 12 new/revised NOHSS indicators

2013

- CSTE publishes guidance on state-based oral health surveillance systems



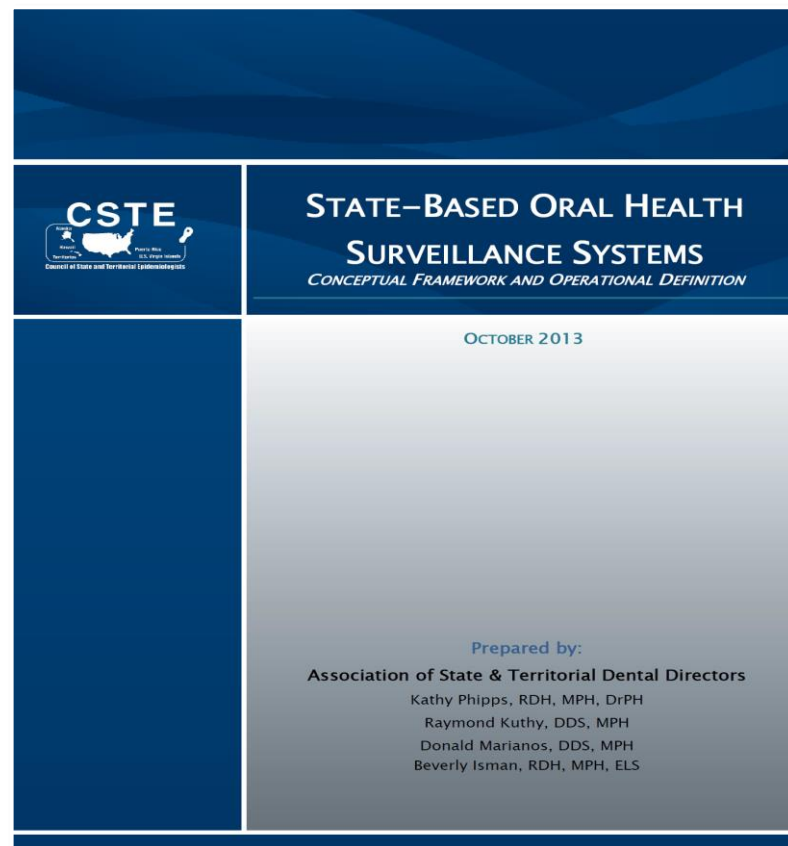
- Develops, maintains, and stewards surveillance indicators for...
  - environmental health
  - occupational health
  - chronic diseases (including OH)
  - injury epidemiology
  - other public health areas







- Approved by Council of State & Territorial Epidemiologists (CSTE)
- October 2013



<https://www.astdd.org/docs/state-based-oral-health-surveillance-systems-cste-whitepaper-oct-2013.pdf>





- A written oral health surveillance plan developed or updated within the previous 5 years
- Information on a set of 8 OH indicators
- Publicly available, **actionable data** to guide public health policy and programs disseminated in a **timely manner**



## Oral Health Surveillance Plan

### Core Indicators

#### Oral Health Outcomes

3<sup>rd</sup> Grade Oral Health Status  
(every 5 years)

Permanent Tooth Loss for Adults  
(every 2 years)

Incidence of & Mortality from Oral and Pharyngeal Cancer  
(every year)

#### Access to Care

Annual Dental Visit for Medicaid/CHIP Children  
(every year)

Annual Dental Visit for Children 1-17 Years  
(every 4 years)

Annual Dental Visit for Adults & Adults with Diabetes  
(every 2 years)

#### Intervention Strategies

Community Water Fluoridation  
(every 2 years)

#### Workforce, Infrastructure, Policy

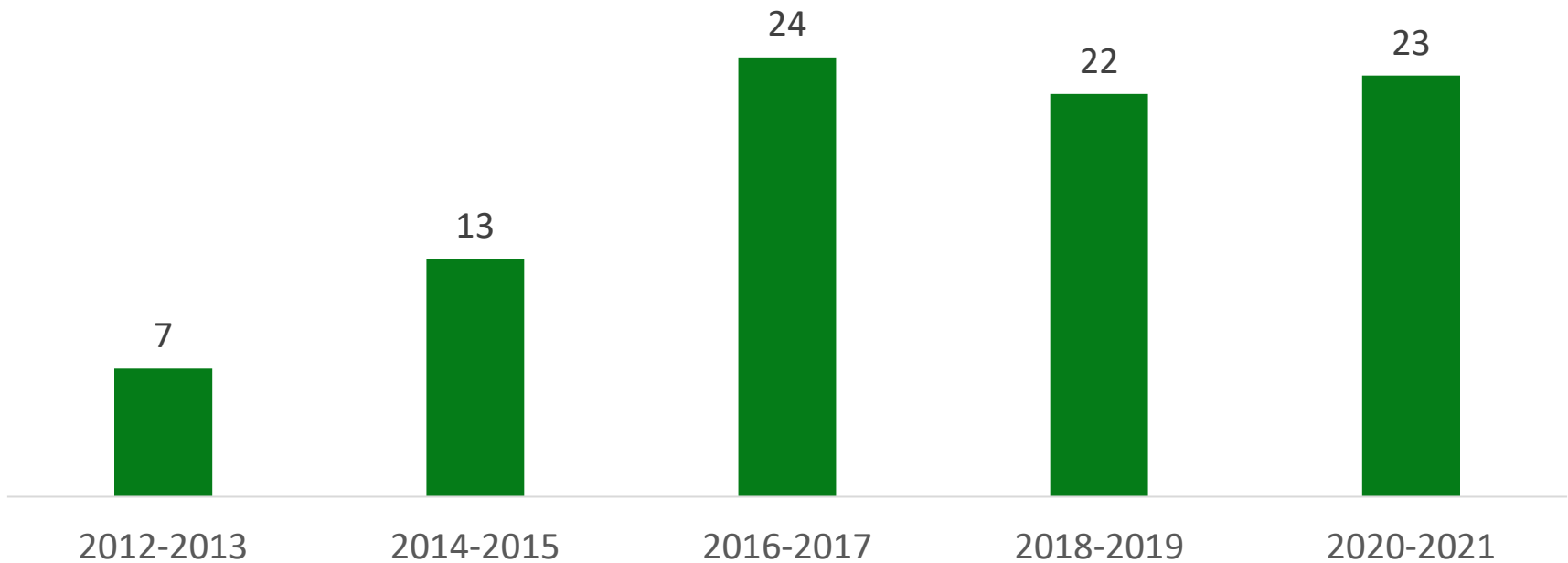
Data from Synopses of State & Territorial Dental Public Health Programs  
(every year)

***Publicly Available Actionable Data to Guide Public Health Policy and Programs Disseminated in a Timely Manner***

# States with an OH Surveillance System



Number of States with OH Surveillance System (CSTE Definition)



# States with OH Surveillance System



- 300% increase from FY2012-13 to FY2016-17
- No improvement since FY2016-17



# Reasons for Not Meeting Definition



- No written surveillance plan
- No 3<sup>rd</sup> grade data collected in last 5 years



- Limited epi capacity
- Limited understanding of surveillance among dental professionals
- Funding/staffing not available for collecting oral health survey data
- COVID – schools unwilling to participate in oral health surveys



- CSTE Framework
  - [www.astdd.org/docs/state-based-oral-health-surveillance-systems-cste-whitepaper-oct-2013.pdf](http://www.astdd.org/docs/state-based-oral-health-surveillance-systems-cste-whitepaper-oct-2013.pdf)
- ASTDD Surveillance Plan Template
  - [www.astdd.org/docs/surveillance-plan-template.docx](http://www.astdd.org/docs/surveillance-plan-template.docx)
- ASTDD Best Practice Report – Surveillance Systems
  - [www.astdd.org/docs/BPASurveillanceSystem.pdf](http://www.astdd.org/docs/BPASurveillanceSystem.pdf)







# Q&A

Dr. Gina Thornton-Evans  
DDS, MPH





- Date: August 2023 National Back to School Month
- Objective: OH-10: Increase the proportion of children and adolescents who have dental sealants on 1 or more molars
- Partners: ASTDD, NNOHA, IHS
- Continuing dental educations credits are available for those that participate in the live session. AAPHD will follow up with participants.
- Further information will be made available at a later date.



# For More Information:



- Healthy People 2030, Building a healthier future for all:
  - <https://health.gov/healthypeople>
- Oral Conditions:
  - <https://health.gov/healthypeople/objectives-and-data/browse-objectives/oral-conditions>
- Leading Health Indicators:
  - <https://health.gov/healthypeople/objectives-and-data/leading-health-indicators>
- Tools for Action:
  - <https://health.gov/healthypeople/tools-action>

