



# Oral Health Surveillance Plan 2011 – 2020



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# IHS DOH Surveillance History

- 1957 – 1978: continuous monitoring
- 1984, 1991, 1999: Oral Health Status Surveys (similar methodology)
- Feb. 2010: CDC National Oral Health Surveillance Summit (IHS participated)
- March 2010: Began development of long-range IHS Oral Health Surveillance Plan
- May-December 2010: Basic Screening Survey of 0-5 year-olds
- Dec. 2011: Final approval of surveillance plan

# Purpose

- Establish a system that can be used within the IHS Division of Oral Health to measure the prevalence and severity of oral diseases, the oral disease burden on the (AI/AN) population, and the impact that our efforts in prevention, education, and early intervention and treatment has made on the population.
- The plan establishes the core health indicators which will be measured, the frequency of measurement, and comparability with other national oral health surveillance systems.

# Acknowledgements

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## **Association of State and Territorial Dental Directors**

- Dr. Kathy Phipps

# Strategic Partners

- CDC



- NIDCR



- ASTDD



# Comparability of Survey Design

**Table 1. Comparison of Survey Indicators**

Indicator	IHS 1999 OHS	BSS/NOHSS	NHANES 2010
Caries experience	X (2-14, 15-19)	X (3 <sup>rd</sup> graders)	X (2+ years)
DMFT/dmft	X (2-19, 35-44, 55+)	X (optional)	X
DMFS/dmfs	X (2-19, 35-44, 55+)		
Incisor dmft	X (2-5 years)		
Untreated tooth decay	X (2-14, 35-44, 55+)	X (3 <sup>rd</sup> graders)	X
Severe ECC	X (2-5 years)		
Denture status and use		X (older adult)	X
Edentulism	X (35-44, 55+)	X (self-reported, 65+)	X
Fluorosis			X
Gingivitis			X
Loss of periodontal attachment	X (35-44, 55+)		X
CPITN	X (15-19, 35-44, 55+)		
Perceived oral health status			X
Preventive care/oral hygiene		X (self-reported, 18+)	X
Sealants		X (molars, 3 <sup>rd</sup> graders)	X
Smoking	X (15-19, 35-44, 55+)		X
Tooth count		X (older adult)	X
Diabetes	X (35-44, 55+)		
Dental visit		X (self-reported, 18+)	X
Loss of 6 or more teeth		X (self-reported, 65+)	
Fluoridation status		X	
Similar in all 3 survey designs		Similar between IHS OHS and NHANES	Similar between the BSS and NHANES

# Survey Methodology

- Basis Screening Survey
  - Community-based
  - Began in 2010



- Electronic Dental Record
  - Clinic-based
  - Begins in 2015



# Survey Indicators

- BSS indicators are based primarily on Healthy People 2020 oral health objectives:



<http://healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=32>

- EDR indicators are based primarily on previous oral health status surveys.



# Basic Screening Survey

- Community-based

Indicator	HP 2020 Objective	Data Source	1-5 years	6-9 years	13-15 years
Population Base			Community Sample	School Sample	School or Clinic
Caries experience (%)	OH-1	Screening	X	X	X
Untreated decay (%)	OH-2	Screening	X	X	X
Severity (dmft/DMFT)*	NA	Screening	X	X	X
Dental clinic utilization	OH-7	Screening/EDR	X	X	X
Preventive dental services	OH-8	Screening/EDR	X	X	X
Dental sealants (%)	OH-12	Screening	X	X	X
Surveillance years			2010, 2013, 2015	2011-12, 2017-18	2015,2020

# EDR Surveillance - children

Indicator	HP 2020 Objective	Data Source	2-5 years	6-14 years	15-19 years
Population Base			Clinic Sample	Clinic Sample	Clinic Sample
Caries experience (%)	OH-1	EDR	X	X	X
% with caries experience on 1-4 maxillary incisors	NA	EDR	X		
% with caries experience $\geq$ 1 maxillary incisor or dmft $\geq$ 6 (severe ECC)	NA	EDR	X		
Untreated decay (%)	OH-2	EDR	X	X	X
Untreated decay, permanent teeth only (%)	NA	EDR/Screening		X	X
dmft/DMFT, dmfs/DMFS	NA	EDR	X	X	X
Mean dmfs for maxillary incisors and posterior teeth	NA	EDR	X		
% with dmfs > 0 with max. incisor decay only, posterior decay only; posterior & incisor decay	NA	EDR	X		
Dental clinic utilization	OH-7	EDR	X	X	X
Dental sealants (%)	OH-12	EDR	X	X	X
% with dental sealants on 1 <sup>st</sup> molars, 2 <sup>nd</sup> molars, or both	NA	EDR		X	X
Mean number of sealed teeth	NA	EDR		X	X
% with fluorosis	NA	EDR		X	X
% using tobacco	NA	EDR		X	X
% with highest CPITN of 0, 1, 2, 3, 4	NA	EDR			X
% with perio pockets (< 4 mm, $\geq$ 4 and < 6 mm, $\geq$ 6 mm) for comparison with previous surveys	NA	EDR			X
% with loss of attachment (3 mm, $\geq$ 3 and < 5mm, $\geq$ 5mm) for comparison with previous surveys	NA	EDR			X
Surveillance years			2015, 2020	2015, 2020	2015, 2020


# EDR Surveillance - adults

Indicator	HP 2020 Objective	Data Source	35-44 years	45-54 years	55+
Population Base			Clinic Patients	Clinic Patients	Clinic Patients
Untreated decay (%)	OH-3	EDR	X	X	X
Severity (DMFT)*	NA	EDR	X	X	X
Tooth loss	OH-4	EDR	X	X	X
Destructive periodontal disease (%)	OH-5	EDR	X	X	X
Dental clinic utilization (%)	OH-7	EDR	X	X	X
Tobacco cessation (%)	OH-14.1	EDR	X	X	X
Oral cancer screening (%)	OH-14.2	EDR	X	X	X
Glycemic control (%)	OH-14.3	EDR	X	X	X
% with dental sealants on 1 <sup>st</sup> molars, 2 <sup>nd</sup> molars, or both	NA	EDR	X	X	X
% with fluorosis	NA	EDR	X	X	X
% using tobacco	NA	EDR	X	X	X
% with highest CPITN of 0, 1, 2, 3, 4	NA	EDR	X	X	X
% with perio pockets (< 4 mm, ≥ 4 and < 6 mm, ≥ 6 mm)	NA	EDR	X	X	X
% with loss of attachment (3 mm, ≥3 and < 5mm, ≥ 5mm)	NA	EDR	X	X	X
% with diabetes	NA	EDR	X	X	X
% that need biopsy	NA	EDR	X	X	X
% will all 28 teeth	NA	EDR	X	X	X
% with 20 or more teeth	NA	EDR	X	X	X
% with no natural teeth	NA	EDR	X	X	X
% with root caries	NA	EDR	X	X	X
Surveillance years			2015, 2020	2015, 2020	2015, 2020

# Future Consideration

- Inclusion into the NOHSS

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**Adult Indicators**

[Dental Visit](#)

[Teeth Cleaning](#)

[Complete Tooth Loss](#)

[Lost 6 or More Teeth](#)

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**Child Indicators**

[Dental Sealants](#)

[Caries Experience](#)

[Untreated Tooth Decay](#)

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**Fluoridation Status**

[Public Water Supply](#)

[Fluoridation Growth](#)

[Water Supply Statistics](#)

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[Cancer of the Oral Cavity and Pharynx](#)

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### National Oral Health Surveillance System

## Caries Experience

Percentage of 3rd Grade students with Caries Experience (treated or untreated tooth decay)

[See also information on State Oral Health Surveys](#)

Overview by State

**Sort list by:** [State](#) [Percent with Caries Experience](#)

State	School Year	Percent with Caries Experience	Response Rate <sup>1</sup> (%)	Percent eligible for the National School Lunch Program <sup>2</sup>		
				Sample		State
				Schools <sup>3</sup>	Students <sup>4</sup>	
Alabama	2005–2007	% CI (57.8–62.3) N 9301	73	51	NR	56
Alaska	2007–2008	% CI (56.1–62.9) N 826	48	42	NR	46
Arizona	2009–2010	% CI (71.3–78.6) N 3150	37	51	NR	48
Arkansas	2009–2010	% CI (62.1–65.3) N 4239	53	55	NR	65
California	2004–2005	% CI (69.1–72.8) N 10444	52	64	NR	57
Colorado	2006–2007	% CI (55.4–58.9) N 3012	79	40	NR	41
Connecticut	2006–2007	% CI (36.3–44.8) N 8755	81	37	NR	35
Delaware	2001–2002	% CI (44.5–50.0) N 1000	43	37	41	40

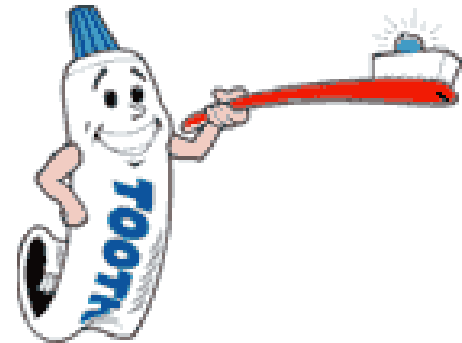
# Timeline

- Fall 2011:
  - 6-9 (BSS)
- Spring 2012:
  - 6-9 (BSS, continuation)
- Fall 2013:
  - 0-5 (BSS)
  - ECC mid-point
- Fall 2014:
  - 13-15 (BSS)
- Spring 2015:
  - 13-15 (BSS, continuation)
- Fall 2015:
  - 0-5 (BSS)
  - EDR surveillance (multiple age groups)



# Timeline, continued

- 2016:
  - No surveillance plan
- Fall 2017:
  - 6-9 (BSS)
- Spring 2018:
  - 6-9 (BSS, continuation)
- Fall 2019:
  - 13-15 (BSS)
- Spring 2020:
  - 13-15 (BSS, continuation)
- Fall 2020:
  - 0-5 (BSS)
  - EDR (multiple age groups)



# Sampling Methods

- BSS – randomized clinic samples, methodology will differ by age group
- EDR – data collected centrally from EDR sites
- We will try to not overload the same clinics year after year with multiple surveys.

# Report Release

## Step 1

- Data collected from sites (1 month)
- Central data entry (1 month)

## Step 2

- Develop draft report (1 month)
- Internal review team reviews report (1 month)

## Step 3

- Report and decision memo sent to HQ
- HQ reviews report and releases (or sends back for additional edits)



Questions?