

Nebraska

State Oral Health **Surveillance System Report, 2011 - 2017**



NEBRASKA
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DEPT. OF HEALTH AND HUMAN SERVICES

— 2018 —



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List of Abbreviations

ASTDD	Association of State and Territorial Dental Directors
BSS	Basic Screening Survey
BRFSS	Behavioral Risk Factor Surveillance System
CDC	Centers for Disease Control and Prevention
CHIP	Children's Health Insurance Program
CMS-416	Centers for Medicare and Medicaid Services
CSTE	Council of State and Territorial Epidemiologists
FQHCs	Federally Qualified Health Center
HDD	Hospital Discharge Data
HRSA	Health Resources and Services Administration
MCAH	Maternal Child Adolescent Health
NBDR	Nebraska Birth Defects Registry
NCR	Nebraska Cancer Registry
NDE	Nebraska Department of Education
NE CCCP	Nebraska Comprehensive Cancer Control Program
NE-OHSS	Nebraska Oral Health Surveillance System
NMP	Nebraska Medicaid Program
NOHSS	National Oral Health Surveillance System
NOHWS	Nebraska Oral Health Workforce Surveys
NSCH	National Survey of Children's Health
OOHD	Office of Oral Health and Dentistry
PRAMS	Pregnancy Risk Assessment Monitoring System
TFN	Tobacco Free Nebraska
UDS	Uniform Data System
WFRS	Water Fluoridation Reporting System
YRBSS	Youth Risk Behavioral Surveillance System
YTS	Youth Tobacco Survey

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About the Nebraska Oral Health Surveillance System (NE-OHSS) Indicators

The Nebraska Office of Oral Health and Dentistry has outlined the framework needed to monitor dental disease in the 2018 Nebraska State Oral Health Surveillance Plan. A total of 53 NE-OHSS indicators have been identified which are prioritized into Tier 1, Tier 2, or Tier 3 categories and arranged by indicator group and the criteria below. Tier 1 indicators will be prioritized first for data collection and analyses. Tier 2 and Tier 3 indicators will be collected as time and resources allow. **Tier 1 (in red)** has 9 indicators which are selected based on the Nebraska Healthy People 2020 objectives, National Oral Health Surveillance System (NOHSS) indicators and indicators related to Office of Oral Health and Dentistry’s priorities and the State Health Improvement Plan (SHIP). **Tier 2 (in blue)** has a total of 27 indicators based on U.S. Healthy People 2020 objectives and NOHSS indicators recommended by ASTDD and CSTE that do not fit into Tier 1. Lastly, **Tier 3 (in green)** has 17 remaining indicators that were identified as being important for surveillance but do not fit into the list of Tier 1 or 2.

Table 1: Tier 1 (Priority) Nebraska Oral Health Indicators by Data Source Monitored by NE-OHSS

NE Objective	US HP2020 Objective	Indicator Group	Indicator Topic	Indicator Measure	Data Source
OH-1	OH-7	Access to Care	Dental Visit	Percentage of adults aged 18 and over who visited a dentist or dental clinic for any reason in past year	BRFSS
OH-4	OH-8		Preventive Services	Percentage of low-income children and youth under age 18 who received any preventive dental service during the past year through the Medicaid EPSDT benefit	CMS-416
OH-9	OH-11		Receipt of oral health services at health centers	Percentage of total patients who receive oral health services at Federally Qualified Health Centers each year	UDS/HCAN
OH-2	OH-4.1	Oral Health Outcomes	Tooth Loss	Percentage of adults aged 45-64 years who have ever had a permanent tooth extracted due to tooth decay or gum disease	BRFSS
OH-3	OH-4.2		Tooth Loss	Percentage of adults aged 65-74 years who have had all permanent teeth extracted due to tooth decay or gum disease	BRFSS
OH-5	OH-1.2		Dental Caries Experience	Percentage of 3 rd grade students with dental caries experience (treated or untreated)	BSS
OH-6	OH-2.2		Untreated Dental Decay	Percentage of 3 rd grade students with untreated tooth decay	BSS

OH-7	OH-12.2		Dental Sealants	Percentage of 3 rd grade students with dental sealants on at least one permanent tooth	BSS
OH-8	OH-13	Community Intervention	Fluoridation Status	Percentage of population served by community water systems with optimally fluoridated water	WFRS

Table 2: Tier 2 (Recommended) Oral Health Indicators by Data Sources Monitored by NE-OHSS

US HP2020	Indicator group	Indicator topic	Indicator measure	Data Source
OH-7	Access to Care	Preventive Services	Percentage of preventive dental visit among children aged 1-17 years	NSCH
OH-7		Preventive Services	Percentage of dental visit among children aged 1-17 Years	NSCH
OH-7		Dental Visit	Percentage of adolescents in grades 9-13 making dental visits	YRBSS
OH-8		Preventive Services	Percentage of children aged 1-20 years enrolled in Medicaid or CHIP Medicaid Expansion with any dental service	CMS-416
D-8		Dental Visit	Percentage of adults aged ≥18 years with diabetes making dental visit(s)	BRFSS
OH-1.1	Oral Health Outcomes	Dental Caries Experience	Percentage of children aged 3-5 years attending Head Start with dental caries experience	BSS
OH-1.1; OH-1.2		Dental Caries Experience	Percentage of children attending kindergarten with dental caries experience	BSS
OH-2.1		Untreated Dental Decay	Percentage of children aged 3-5 years attending Head Start with untreated dental caries	BSS
OH-2.1; OH-2.2		Untreated Dental Decay	Percentage of children attending kindergarten with untreated dental caries	BSS
OH-3.2, OH-3.3		Untreated Dental Decay	Percentage of adults aged ≥65 years residing in long-term care or skilled nursing facilities with untreated dental caries	BSS
OH-3.2, OH-3.3		Dental Caries Experience	Percentage of adults aged ≥65 years attending congregate meal sites with untreated dental caries	BSS
OH-4		Tooth Loss	Percentage of adults aged ≥65 years with six or more teeth lost	BRFSS
OH-8		Dental Visit	Percentage of 3 rd grade children with an urgent dental need	BSS
N/A*		Dental Visit	Percentage of children aged 3-5 years attending Head Start with urgent dental treatment need	BSS
N/A*	Dental Visit	Percentage of children attending kindergarten with urgent dental treatment need	BSS	

N/A*		Dental Visit	Percentage of adults aged ≥65 years residing in long-term care or skilled nursing facilities with dental treatment need	BSS
N/A*		Dental Visit	Percentage of adults aged ≥65 Years attending congregate meal sites with dental treatment needs	BSS
OH-12.2		Dental Sealants	Percentage of 3 rd grade children who have received dental sealants on one or more of their permanent first molar teeth	BSS
OH-12.2		Dental Sealants	Percentage of children aged 6-9 years enrolled in Medicaid or CHIP Medicaid Expansion using dental sealants	CMS-416
OH-12.3		Dental Sealants	Percentage of children aged 10-14 years enrolled in Medicaid or CHIP Medicaid expansion using dental sealant(s)	CMS-416
C-6		Oral and Pharyngeal Cancers	Mortality from invasive cancer of the oral cavity or pharynx	NCR
C-6		Oral and Pharyngeal Cancers	Incidence of invasive cancer of the oral cavity or pharynx	NCR
OH-9.1	Community Intervention	School-based centers with oral health component	Percentage of school-based health centers that provide dental sealants	OOHD
OH-9.2		School-based centers with oral health component	Percentage of school-based health centers that provide dental care	OOHD
OH-9.3		School-based centers with oral health component	Percentage of school-based health centers that provide topical fluoride	OOHD
OH-10	Infrastructure	Oral Health Programs	Percentage of local health departments and Federally Qualified Health Centers that have an oral health program	HCAN and OOHD
OH-17		Oral Health Programs	Percentage of health agencies that have a dental public health program directed by a dental professional with public health training	OOHD; ASTDD Annual Synopsis

*Some NOHSS indicators do not have a corresponding US HP 2020 Objective.

Table 3: Tier 3 (Optional) Oral Health Indicators Monitored by Additional Data Sources

Indicator group	Indicator topic	Indicator measure	Data Source
Access to care	Teeth cleaning	Percentage of women who had their teeth cleaned before most recent pregnancy	PRAMS

	Teeth cleaning	Percentage of women who had their teeth cleaned during most recent pregnancy	PRAMS
	Teeth cleaning	Percentage of adult residents who had their teeth cleaned in the past year by a dentist/dental hygienist	BRFSS (State Added)
Oral Health Outcome	Dental Visit	Percentage of adults aged ≥65 years with urgent dental treatment need	BSS
	Dental Visit	Number of patients and visits to hospital-based emergency departments for dental conditions	HDD/BRFSS (State Added)
	Craniofacial Services	Number of infants born with cleft lip/cleft palate	NBDR
	Tobacco use	Percentage of youth who have ever used chewing tobacco, snuff or dip	YTS
	Tobacco use	Percentage of youth who have ever used chewing tobacco, snuff or dip in the past 30 days	YTS
	Tobacco use	Percentage of youth who have ever smoked cigarettes	YTS & YRBSS
	Tobacco use	Percentage of youth who have ever smoked cigarettes in the past 30 days	YTS
Infrastructure	Dental Workforce	Percentage of practicing dentists who work part-time	NOHWS/HPTS
	Dental Workforce	Percentage of practicing dentists who plan to retire in one to five years	NOHWS/HPTS
	Dental Workforce	Percentage of practicing dentists who accept any and all Medicaid patients	NOHWS/HPTS/MCNA
	Dental Workforce	Number of full-time equivalent (FTE) licensed practicing dentists	NOHWS/DHHS Licensure
	Dental Workforce	Number of full-time equivalent (FTE) licensed practicing dental hygienists	NOHWS/DHHS Licensure
	Dental Workforce	Number of licensed practicing dental hygienists with Public Health Authorization	NOHWS/HPTS
	Dental Workforce	Number of full-time equivalent (FTE) certified dental assistants	NOHWS/DHHS Licensure

Data from 43 of the 53 oral health indicators have been recorded in this surveillance report and can be studied for trend analysis. For ease of interpretation, the indicators have been further broken down into the following categories: Pregnant Women, Infants, School Children, Children & Adolescents, Adolescents, Adults, Cancer Patients, Medicaid, Workforce, Community Water Fluoridation, Infrastructure and Access.

Nebraska Oral Health Surveillance System

No survey conducted this year
 Question was not asked
 Data not yet available

Description of Indicator	Source (Frequency of Data Availability)	Tier	2011	2012	2013	2014	2015	2016	2017	
Pregnant Women										
Teeth Cleaning Among Women During Pregnancy	PRAMS (Annual)	3	52.0%	54.8%	55.5%	56.7%	54.4%	Pending		
Teeth Cleaning Among Women Before Pregnancy		3		62.2%	60.6%	62.0%	56.9%			
Infants										
Infants born with cleft lip alone	Birth Defects Registry (Annual)	3	9	13	10	12	13	15	16	
Infants born with cleft palate alone		3	8	14	13	14	15	22	14	
Infants born with Cleft lip and cleft palate		3	16	17	17	18	10	19	18	
School Children										
Dental Caries Experience Among 3rd Grade Children	Basic Screening Survey (every 5 years)	1					63.9%			
<i>Dental Caries Experience Among 3rd Grade Rural Children</i>								81.4%		
<i>Dental Caries Experience Among 3rd Grade Urban Children</i>								54.6%		
Untreated Dental Caries Among 3rd Grade Children		1						32.0%		
<i>Untreated Dental Caries Among 3rd Grade Rural Children</i>								53.3%		
<i>Untreated Dental Caries Among 3rd Grade Urban Children</i>								20.7%		
Dental Sealant Among Children 3rd Grade Children		1						56.2%		
<i>Dental Sealant Among Children 3rd Grade Rural Children</i>								48.6%		
<i>Dental Sealant Among Children 3rd Grade Urban Children</i>								60.3%		
Dental Caries Experience Among Children Aged 3-5 Years in Head Start		2						46.2%		
Untreated Dental Caries Among Childfren Aged 3 -5 Years in Head Start		2						29.5%		
Dental Caries Experience Among Children Attending Kindergarten		2								
Untreated Dental Caries Among Children Attending Kindergarten		2								
Children and Adolescents										
Preventive Dental Visit Among Children Aged 1-17 Years		NSCH (every 5 years)	2	77.2%					78.7%	
Dental Visit Among Children Aged 1-17 Years		2	77.5%					81.2%		

PRAMS: Pregnancy Risk Assessment Monitoring System; NSCH: National Survey of Children's Health

Nebraska Oral Health Surveillance System

 No survey conducted this year
  Question was not asked
  Data not yet available

Description of Indicator	Source (Frequency of Data Availability)	Tier	2011	2012	2013	2014	2015	2016	2017
Adolescents									
Youth have ever used chewing tobacco, snuff or dip	Youth Tobacco Survey (every 2-3 years)	3		41.0%		38.0%		39.0%	
Youth have ever used chewing tobacco, snuff or dip in the past 30 days		3		19.0%		20.0%		18.0%	
Youth who have ever smoked cigarettes		3		35.0%		29.0%		24.0%	
Youth who have ever smoked cigarettes in the past 30 days		3		12.0%		9.0%		7.0%	
Dental Visit Among Adolescents in Grades 9-12	YRBS (every 2 years)	2	75.1%		74.8%		75.2%		79.2%
Adults									
Dental Visit Among Adults Aged ≥18 Years	BRFSS (Even years)	1		67.6%		66.4%		68.7%	
Tooth Loss Among Adults Aged 45-64 Years		1		47.7%		45.9%		45.1%	
All Teeth Lost Among Adults Aged 65-74 Years		1		11.3%		10.9%		10.4%	
Dental Visit Among Adults Aged ≥18 Years with Diabetes		2		67.6%		62.6%		65.0%	
Six or more Teeth Lost Among Adults Aged ≥65 Years		2		47.2%		47.5%		45.3%	
Teeth Cleaning Among Adults in the past year by dentist/dental hygienist		3						67.4%	
Cancer									
Incidence of Invasive Cancer of the Oral Cavity or Pharynx	Cancer Registry (Annual)	2	250	208	251	254	270	Pending	
Mortality from Invasive Cancer of the Oral Cavity or Pharynx		2	61	47	29	50	59		
Medicaid									
Preventive Dental Service for Children Aged 1-18 Years Enrolled in Medicaid or CHIP Medicaid Expansion	CMS-416 (Annual)	1	45.3%	46.5%	50.4%	51.9%	51.2%	51.9%	51.9%
Any Dental Service for Children Aged 1-20 Years Enrolled in Medicaid or CHIP Medicaid Expansion		2	47.8%	48.7%	52.5%	54.1%	53.3%	53.9%	54.1%
Dental Sealant Use Among Children Aged 6-9 Years Enrolled in Medicaid or CHIP Medicaid Expansion		2	20.5%	20.7%	22.1%	23.8%	22.6%	23.8%	23.8%
Dental Sealant Use Among Children Aged 10-14 Years Enrolled in Medicaid or CHIP Medicaid Expansion		2	17.9%	17.9%	19.3%	22.0%	21.4%	22.0%	22.0%

YRBS: Youth Risk Behavioral Surveillance; BRFSS: Behavioral Risk Factor Surveillance System; CMS-416: Centers for Medicare and Medicaid Services Form Number 416

Nebraska Oral Health Surveillance System

 No survey conducted this year
  Question was not asked
  Data not yet available

Description of Indicator	Source (Frequency of Data Availability)	Tier	2011	2012	2013	2014	2015	2016	2017
Workforce									
Practicing dentists who work part-time in NE as primary practice location (<40 hours)	HPTS, OOHD (Annual)	3	532	545	560	553	540	551	555
Practicing dentists who plan to retire in one to five years		3							11.8%
Practicing dentists who accept any and all Medicaid patients		3		1,656	1,567	1,554	1,249	1,241	845
Full-time equivalent (FTE: 40 hours or more) licensed practicing dentists		3	498	489	490	509	521	530	515
Full-time equivalent (FTE) licensed practicing dental hygienists		3	1,186	1,263	1,271	1,359	1,355	1,448	1,423
Practicing Dental Hygienists with Public Health Authorization		3	60	72	77	86	82	92	78
Community Water Fluoridation									
Population Served by Community Water Fluoridation	WFRS (Annual)	1	71.8%	71.6%	71.5%	71.5%	71.5%	72.8%	73.4%
Infrastructure and Access									
Population Receiving Oral Health Services at Federally Qualified Health Centers	UDS, OOHD, HCAN	1	30.3%	32.1%	28.7%	27.8%	27.2%	28.3%	28.9%
Local health departments that have an oral health program		2		52.8%			36.8%	36.8%	63.2%
Federally Qualified Health Centers that have an oral health program		2	85.7%	85.7%	85.7%	85.7%	100.0%	100.0%	100.0%
Health agencies that have a dental public health program directed by a dental professional with public health training	OOHD, ASTDD Annual Synopsis	2	2	1	1	1	0	1	Pending
Number of Nebraskans visiting the hospital-based emergency departments for non-traumatic dental conditions	HDD	3	4,747	5,055	5,263	4,983	4,725	4,198	Pending
Number of visits to the hospital-based emergency departments for non-traumatic dental conditions	HDD	3	8,420	8,205	8,687	8,751	8,213	7,290	Pending

HCAN: Health Care Association Nebraska; HPTS: Health Professionals Tracking Services; WFRS: Water Fluoridation Reporting System; OOHD: Office of Oral Health and Dentistry; HDD: Hospital Discharge Data

Nebraska Oral Health Surveillance Findings:

Results of Nebraska Oral Health Objectives (Tier 1) Compared To National Estimates:

- OH-1: In 2016, in Nebraska, annual dental visits among adults aged ≥18 years (OH-1: 68.7%) were found to be marginally higher than the national reported BRFSS data (66.3%).
- OH-4: In 2013, 49.6% of children in Nebraska aged 1-20 years eligible for EPSDT for at least 90 continuous days received annual preventive dental services, which was higher than the national percentage (43.2%).
- OH-9: In 2013, about 28.7% of Nebraska patients received oral health services at FQHCs which was higher than the national estimate of 20%.
- OH-2: In 2012, for Nebraska Adults age 45-64 years who had a permanent teeth extracted due to tooth decay or gum disease, the rate was 47.7%, which was lower than the national average of 69.8%.
- OH-3: In 2012, for Nebraska Adults age 65-74 who had lost all-natural teeth due to tooth decay or gum diseases the rate was 11.3%, which was lower than the national average of 12.9%.
- OH- 5: The 2015-2016 Nebraska Basic Screening Survey of Young Children (age 6-9) found that 63.9% of 3rd grade children had dental caries experience, which was higher than the US average of 52%. Significantly, rural children had higher rates than urban children (81.4% compared to 54.6%).
- OH- 6: The 2015-2016 Survey also found that untreated dental caries among 3rd grade children in Nebraska (32%), was higher than the national average of 23%. Again rural rates were higher than urban (53.3% to 20.7%).
- OH-7: The 2015-2016 Survey also determined that 56% of Nebraska's 3rd grade children had dental sealants which was higher than the national average of 32%. But rural rates were lower than urban (48.6% to 60.3%).
- OH-8: In 2016, 72.8% of Nebraska's population was served by community water systems with optimally fluoridated drinking water which was lower than the U.S. average (74.7%).

Significant Trends of Other NE-OHSS Indicators:

- The use of any dental service among children aged 1-20 years enrolled in Nebraska Medicaid or CHIP Medicaid Expansion increased from 47.8% to 54.1% from 2011 to 2017.
- The use of dental sealants among children aged 6-9 years enrolled in Nebraska Medicaid or CHIP Medicaid Expansion increased from 20.5% to 23.8% from 2011 to 2017.
- The use of dental sealants among children aged 10-14 years enrolled in Nebraska Medicaid or CHIP Medicaid Expansion increased from and 17.9% to 22% from 2011 to 2017.
- Proportion of youth in Nebraska who have ever smoked cigarettes reduced from 35% to 24% from 2012 to 2016.
- Proportion of youth in Nebraska who have ever used chewing tobacco, snuff or dip reduced from 41% to 39% from 2012 to 2016.
- The number of practicing dentists who accept any and all Medicaid patients substantially reduced from 1,656 in 2012 to 1,241 in 2016.
- Proportion of FQHCs that now have an oral health program increased from 85.6% to 100% from 2011 to 2017.
- Number of patients in emergency departments for dental conditions increased from 4,747 in 2011 to 4,983 in 2014.
- Number of visits to emergency departments for dental conditions increased from 8,420 in 2011 to 8,751 in 2014.

Overall Recommendations:

The results presented in this oral health surveillance report indicate that there is a need to reduce children's decay rates by increasing efforts to improve access to dental disease prevention services, especially in rural areas. An oral health survey of Nebraska older adults should be conducted to further assess the status of that age group. The increased use of Hospital Emergency Rooms for Dental Conditions is a trend that should be monitored and reported more frequently in the future. There is a need to have more Nebraska dentists accept Medicaid patients. Cigarette use by Nebraska Youth has been reduced but Smokeless Tobacco use is still a concern. Nebraska is one of the top states for Refugee Resettlement and more oral health status information on this population group should be obtained.