Nebraska
State Oral Health Surveillance Plan

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DEPT. OF HEALTH AND HUMAN SERVICES

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NEBRASKA DHHS
Oral Health & Dentistry

Nebraska Oral Health Surveillance Plan

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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 Form Number 416
CSTE	Council of State and Territorial Epidemiologists
DEQ	Department of Environmental Quality
EPSDT	Early and Periodic Screening, Diagnostic, and Treatment
FQHCs	Federally Qualified Health Center
HCAN	Health Care Association Nebraska
HDD	Hospital Discharge Data
HPTS	Health Professionals Tracking Services
HRSA	Health Resources and Services Administration
MCAH	Maternal Child Adolescent Health
MCNA	Managed Care of North America, Inc.
NBDR	Nebraska Birth Defects Registry
NCR	Nebraska Cancer Registry
NDE	Nebraska Department of Education
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 Behavioral Risk Surveillance System
YTS	Youth Tobacco Survey

Introduction

Background

State Oral Health Programs are critical to the success of state and national oral health improvements in disease prevention and access to care. Since 1949, the Nebraska DHHS Office of Oral Health and Dentistry (OOHD) has worked to improve the wellbeing of all Nebraskans by promoting oral health through educational campaigns, increasing access to preventive services and reducing barriers to dental care. The OOHD is part of the Health Promotion Unit located within the Nebraska Department of Health and Human Services. The Office is staffed by the Dental Health Director and the Dental Health Coordinator and currently contracts for oral health epidemiology services. The Office partners with federal, state and local community organizations to perform essential public health functions which include reporting dental disease rates, developing polices to minimize dental disease and implementing dental disease prevention programs to improve oral health outcomes.

The Nebraska OOHD belongs to the Association of State and Territorial Dental Directors (ASTDD) which provides operational guidelines and technical assistance to each state's oral health program while coordinating nation-wide efforts to address oral health issues in the United States. The Office also follows the recommendations of the Council of State and Territorial Epidemiologists. The OOHD produced the first Nebraska State Oral Health Assessment & Dental Disease Burden Report in 2016 which described Nebraska's current dental needs, identified the available resources and defined five strategic focus areas to help bring dental health equity to all populations.[1] That report prioritized the obligation to create a written oral health surveillance plan to better understand, evaluate and disseminate the dental data that is available to accurately determine the oral health status of the residents within the State of Nebraska. This information is also located on the Nebraska DHHS Oral Health and Dentistry Dashboard.

Target Populations

The OOHD promotes oral health across citizens' lifespans, focusing on education and access to care for the entire population as well as specific high risk groups in the State of Nebraska. These vulnerable groups identified by the Nebraska Oral Health Needs Assessment & Dental Disease Burden Report include:

- Rural Residents
- Young Children
- Older Adults
- Low-Income and Uninsured
- Minority Populations
- Nebraskans with Disabilities
- Military Veterans
- New Immigrants and Refugees
- Pregnant Women

Nebraska Oral Health Surveillance System

In order to support the OOHD's goals to reduce dental disease in Nebraska, the OOHD implements and operates the Nebraska Oral Health Surveillance System (NE-OHSS). This Nebraska Oral Health Surveillance Plan establishes the oral health indicators to be measured in the NE-OHSS. This plan also describes the data sources and establishes the frequency with which data on these indicators will be collected and measured.

Purpose

The purpose of the Nebraska Oral Health Surveillance System (NE-OHSS) is to provide a consistent source of updated, reliable, and valid information for use in developing, implementing, and evaluating programs to improve the oral health of Nebraska's residents. Nebraska aims to assess oral diseases and their risk factors by collecting, analyzing, interpreting, and disseminating oral health data on a regular basis. These activities provide a mechanism to routinely monitor state-specific oral health data and the impact of interventions within specific priority populations over time. Continual assessment and evaluation supports the development of oral health programs and policies. Hence, a surveillance system is a critical component for the oral health program.[2] The logic model for NE-OHSS is located in Appendix 1.

Surveillance Definition

The Nebraska Oral Health Surveillance System uses the CDC's definition of surveillance which states that "surveillance is the continuous, systematic collection, analysis and interpretation of health-related data needed for the planning, implementation, and evaluation of public health practice."[3]

Goals and Objectives

The primary goal of the Nebraska Oral Health Surveillance System is to track the burden and trends of oral health status in Nebraska. The following objectives of the NE-OHSS are in accordance with the Oral Health Objectives laid out by the U.S. Healthy People 2020 (Appendix 2) and the Nebraska OOHD.

- Estimate the extent and severity of oral disease and risk factors.
- Measure utilization of oral health services.
- Monitor utilization and effectiveness of community- and school-based prevention programs.
- Detect emerging oral health issues.
- Identify populations at high risk and with unmet needs.
- Provide current and reliable scientific data to inform partners and stakeholders.
- Develop, implement, and evaluate oral health programs and policies.
- Provide information for decision making and public health resource allocations.
- Evaluate Nebraska's strengths and gaps in surveillance measurements and in surveillance of priority populations and identify opportunities to improve the NE-OHSS.

Surveillance Framework

The Nebraska Oral Health Surveillance System is modeled after the National Oral Health Surveillance System (NOHSS). The NOHSS is a collaborative effort between CDC's Division of Oral Health and the Association of State and Territorial Dental Directors (ASTDD). NOHSS is designed to monitor the burden of oral disease, use of the oral health care delivery system, and the status of community water fluoridation on both a national and state level.[4,5] Development and maintenance of NOHSS indicators are a collaborative effort of ASTDD, CDC, and the Council of State and Territorial Epidemiologists (CSTE).

Oral Health Indicators

The indicators that form the framework of the Nebraska Oral Health Surveillance System include 14 of the 17 indicators outlined in the CSTE operational definition of an oral health surveillance system for HP2020 OH-16.[5,6] The NE-OHSS also includes a subset of oral health indicators approved by CSTE for inclusion in NOHSS. For a public health surveillance system to be effective and responsive, it must adapt to new health challenges and data sources. Consequently, the indicators included in the surveillance system may change over time. The indicators currently included in the Nebraska Oral Health Surveillance System are outlined in Tables 1, 2 and 3. Refer to Appendix 2 for a detailed list of the indicators and their data sources.

Prioritization of NE-OHSS Indicators

There are currently 53 NE-OHSS indicators which are prioritized into Tier 1 (in red), Tier 2 (in blue) or Tier 3 (in green) according to 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.

All indicators

- Meet indicator selection criteria

Priority: Tier 1 (N=9)

- Nebraska Healthy People 2020 objectives, National Oral Health Surveillance System (NOHSS) indicators, and indicators related to OOHD priorities and the State Health Improvement Plan (SHIP)

Recommended: Tier 2 (N=27)

- U.S. Healthy People 2020 objectives and NOHSS indicators recommended by ASTDD and CSTE that do not fit into a Tier 1 indicator

Optional: Tier 3 (N=17)

- Remaining indicators that were identified as important for surveillance that do not fit into the Tier 1 or 2 indicator

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 3rd grade students with dental caries experience (treated or untreated)	BSS
OH-6	OH-2.2		Untreated Dental Decay	Percentage of 3rd grade students with untreated tooth decay	BSS
OH-7	OH-12.2		Dental Sealants	Percentage of 3rd 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	CMS-416
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 3rd 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 3rd 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 and 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 adults 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 the 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 have ever used chewing tobacco, snuff or dip	YTS
	Tobacco use	Percentage of youth have ever used chewing tobacco, snuff or dip in the past 30 days	YTS
	Tobacco use	Percentage of who have ever smoked cigarettes	YTS & YBRSS
	Tobacco use	Percentage of 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 Sources

The majority of the indicators in Nebraska's Oral Health Surveillance System are available from existing ongoing data sources, such as the Behavioral Risk Factor Surveillance System. The indicators that will require primary data collection are: (1) the prevalence of decay experience and untreated decay in Head Start and 3rd grade children, (2) the prevalence of dental sealants in 3rd grade children (3) the number of school-based dental sealant programs, (4) the number of community-based topical fluoride programs, and (5) the number of safety-net dental programs. Information on the oral health status of Head Start and 3rd grade children will be obtained using the ASTDD Basic Screening Survey (BSS) protocol. Additional information will be obtained through DHHS surveys of state, local and safety-net programs. In addition to the data sources described below, we will explore the use of other information to supplement surveillance data from Nebraska Adult Tobacco Survey, Nebraska School Health Screening Survey, Kids Count in Nebraska, and Nebraska Teeth Forever program. We will also explore the availability and reliability of oral health data provided via health information exchange.

Basic Screening Survey (BSS): The BSS is conducted every five years and is based on the ASTDD basic screening survey tool, an open-mouth screening to gather data on the presence of sealants, untreated decay, demineralization, and history of decay of 3rd graders, head starters, and older adults. Information is also gathered on insurance status and dental visit frequency. In 2005, the initial state 3rd grade survey was conducted followed by an updated survey of 3rd grade and head start survey in 2015-2016. In 2018-2019, OOHD plans to conduct an oral health screening survey of older adults.
Indicator measured among young children: Caries experience, untreated tooth decay, sealant prevalence
Indicator measured among older adults: Caries experience, untreated tooth decay, treatment needs

Behavioral Risk Factor Surveillance System (BRFSS): The BRFSS is a large telephone-based survey that is weighted to be nationally and state representative. The BRFSS is designed to measure behavioral risk factors in the adult, non-institutionalized population who are 18 years of age or older. States select a random sample of adults for a telephone interview. Questions related to oral health include the length of time since last dental visit, length of time since last dental cleaning and the number of teeth removed due to decay.
Indicator measured: tooth loss and dental visit among adults, older adults and adults with diabetes

CMS-416 Report: The annual CMS-416 report provides basic information on the Medicaid Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) program participation. The information is used to assess the effectiveness of state EPSDT programs in terms of the number of individuals under the age of 21 who are provided child health screening services, referred for corrective treatment, and receiving dental services.
Indicator measured: dental visit among children eligible for Medicaid/CHIP

Health Professional Shortage Area Designations (HPSAs): HPSAs are designated by HRSA and may be geographic (county or service area), demographic (low income or Medicaid population) or institutional (comprehensive health center, FQHC or other public facility). This may include ratios of dentists to the population without adequate access to dentists, including low-income and Medicaid-enrolled individuals.
Indicator measured: dental health professional shortage areas

Hospital Discharge Data (HDD): HDD is collected from hospitals, including inpatient and outpatient facilities. The Nebraska DHHS receives data from the Nebraska Hospital Association (NHA) annually. NHA works with hospital billing systems and clearinghouses to collect electronically transmitted Uniform Billing Form (UB-04) information on each hospital discharge reported from acute care, non-federal hospitals in the state. Hospital discharge records include date of admission and discharge, patient's age, gender, county of residence, and primary and secondary diagnosis codes.
Indicator measured: emergency department utilization

Nebraska Birth Defects Registry (NBDR): This registry collects data from birthing facilities within Nebraska to study the rates and trends of birth defects. All infants from newborn to one year of age who have a diagnosis code which falls into the ICD-9-CM range of 740-759, are a Nebraska resident at the time of birth, and weigh at least 500 grams are included in the Nebraska Birth Defect Registry.
Indicator measured: number of babies born with cleft lip and cleft palate to calculate a rate of babies born with cleft lip/cleft palate per 10,000 live births

Nebraska Cancer Registry (NCR): The NCR gathers data that describes how many Nebraska residents are diagnosed with cancer, what types of cancer they have, how far the disease has spread at the time of diagnosis, what types of treatment they receive, and how long they survive after diagnosis.
Indicator measured: incidence and mortality of cancers of the oral cavity and pharynx

National Survey of Children's Health (NSCH): The NSCH is a telephone survey sponsored by HRSA and conducted by CDC every four years to gather information about the health status and demographics of school aged children. The survey includes oral health questions about dental visits and dental problems.
Indicator measured: oral health, oral health problems, dental visit, and preventive dental visit among children 1-17 years (may be modified or deleted based on the redesign of NSCH)

Nebraska Oral Health Workforce Surveys (NOHWS): The NOWHS is a workforce survey conducted by the OOHD in association with organizations such as the Health Professionals Tracking Services, Managed Care of North America, Inc. (MCNA), Nebraska Dental Association and Nebraska Dental Hygiene Association. The survey tracks licensed oral health workforce-related information.
Indicator measured: number, activity, practice locations and demographic information of oral health workforce

***Pregnancy Risk Assessment Monitoring System (PRAMS)*:** PRAMS is a CDC-sponsored initiative to reduce infant mortality and low birth weight. PRAMS involves the collection of state-specific, population-based data on maternal attitudes and experiences prior to, during, and immediately following pregnancy. The PRAMS sample of women who have had a recent live birth is drawn from the state's birth certificate file.
Indicator measured: number and percentage of women who had their teeth cleaned during most recent pregnancy and of children aged 6-9 years enrolled in Medicaid or CHIP Medicaid Expansion using dental sealants

Uniform Data System (UDS) and Health Care Association of Nebraska (HCAN): HCAN in association with the UDS operated by HRSA contains information that is used to review the operation and performance of health centers.
Indicator measured: number of federally qualified health centers with dental clinics

Water Fluoridation Reporting System (WFRS): WFRS is a management and tracking tool that helps states manage the quality of their water fluoridation programs. WFRS information forms the basis for national reports that describe the percentage of the U.S. population on public water systems who receive optimally fluoridated drinking water. The DHHS/DEQ Drinking Water will report into the CDC's WFRS and provide data to OOHD.
Indicator measured: population served by fluoridated water systems

Youth Risk Behavior Surveillance System (YRBSS): A school-based survey conducted biennially to assess and monitor priority health risk behaviors that contribute markedly to the leading causes of death, disability and social problems among youth and adults in the United States. YRBSS includes national, state, territorial and local school-based surveys of high school students.
Indicator measured: percentage of youth who visited a dentist or dental clinic and youth who have ever smoked cigarettes.

Youth Tobacco Survey (YTS): The Youth Tobacco Survey is conducted in conjunction with the YRBSS. Students in grades seven through twelve are surveyed in the spring of odd-numbered years. This survey answers questions which are specific to the use of tobacco products, thoughts about tobacco, tobacco use portrayed through the media and exposure to tobacco smoke. This information can help the state and communities plan effective youth tobacco prevention initiatives.
Indicator measured: Percentage of youth who smoked cigarettes, chewing tobacco, snuff or dip in the past 30 days

Data Collection Timeline

The table below provides information about the data sources, the agency in which they are housed, and the timeframe for data collection.

Table 4: Oral Health Data Collection Sources and Timeframes

Data source	Agency/ Division	Timeframe
BRFSS	Nebraska DHHS	Annual with the oral health data rotating every 2 years
BSS	Nebraska DHHS/OOHD	Every 5 years
CMS-416	Nebraska DHHS	Annual
NBDR	Nebraska DHHS/MCAH	Annual
NCR	Nebraska DHHS/Health Statistics	Annual
NOHWS	Nebraska DHHS/OOHD, HPTS, NDA, NDHA	Annual
PRAMS	Nebraska DHHS/MCAH	Annual
UDS	HRSA/HCAN	Annual
WFRS	Nebraska DHHS/DEQ Drinking Water	Annual
YRBSS	Nebraska DHHS	Every 2 years
YTS	Nebraska DHHS	Every 2 years

Data Dissemination and Use

Surveillance results will be disseminated on a regular basis to interested programs and policy makers at the local, state and national level through presentations, reports, and briefs published on the OOHD's public website. Using the U.S. HP2020 Objectives, the Baseline Report for Nebraska's Healthy People 2020 Objectives and the Nebraska Healthy People 2020 Oral Health Objectives , the OOHD will generate reports containing current oral health data and any notable trends. These reports will also provide Nebraska specific data to the NOHSS and the ASTDD State Synopses and will be made available electronically and, as funds will allow, a limited number will be printed for distribution at meetings. Presentations, reports, fact sheets, infographs, and data briefs will be used to increase public awareness about oral diseases and their risk factors, monitor trends and disparities, develop new interventions, and expand existing programs.

Venues for presentation of surveillance results include but are not limited to the Public Health Association of Nebraska, Nebraska Dental Association annual meeting, Nebraska Oral Health Advisory Panel, Nebraska Dental Hygienists' Association annual meeting, the National Oral Health Conference, and the CSTE annual meeting. As the Nebraska Oral Health Surveillance System evolves, it will be enhanced by refining the indicators and improving the system's ability to communicate surveillance results. An Oral Health Communication Plan will be developed based upon the surveillance results.

Nebraska Oral Health Advisory Panel

The Nebraska Oral Health Advisory Panel advises the OOHD on activities to expand oral health care to all Nebraskans. They guide the formation of the Oral Health State Plan, collaborate with the OOHD on achieving new funding, and make recommendations on priority topics. The monitored trends and surveillance results will be shared with the panel regularly. The Oral Health Advisory Panel includes representatives from the followings programs, agencies and organizations:

- DHHS Division of Public Health
    - Office of Oral Health & Dentistry

    - School Health Program, Maternal Child Adolescent Health
    - Nebraska Planning Council on Developmental Disabilities
    - Office of Rural Health
    - DEQ Drinking Water
- DHHS Division of Medicaid and Long-Term Care
    - Dental Program
- DHHS Division of Child and Family Services
    - Refugee Health Program
- Nebraska Department of Education
    - Division of Early Childhood - Head Start State Collaboration Office
- University of Nebraska Medical Center, College of Dentistry
- Creighton University, School of Dentistry
- Nebraska Dental Hygiene Association
- Nebraska Dental Association
- Primary Care Association (Health Center Association of Nebraska)
- Dentist from Federally Qualified Health Centers
- Local Public Health Departments

Privacy and Confidentiality

The Nebraska Oral Health Surveillance System follows Health Insurance Portability and Accountability Act (HIPAA) standards for patient privacy and protected health information. The system limits identifiers collected to only essential data elements, and the data are stored on secure, private, electronic servers at the Nebraska Division of Public Health. Unique identifiers can only be seen by health department staff that have been trained on HIPAA, data security, and confidentiality. Unique identifiers will never be released to external partners and aggregate data will not be reported for counts less than five.

Evaluation

Evaluating the Nebraska Oral Health Surveillance System will ensure that the oral health indicators are being monitored effectively and efficiently to increase the utility and productivity of the system. A periodic evaluation will be performed to determine the system's usefulness in monitoring oral health trends over time, determining the effectiveness of interventions, and planning future programmatic and policy initiatives. The OOHD will evaluate the surveillance system based on the proposed CDC guidelines.[7] The evaluation of the surveillance system will provide recommendations for improving the quality, efficiency, and usefulness of the system. NE-OHSS will also be evaluated to determine the system's sustainability, the timeliness of analysis of surveillance data, dissemination and use of the reports by stakeholders, and the surveillance system's impact on policy and legislative actions.

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Appendix 1: Logic Model for Nebraska's Oral Health Surveillance System

INPUTS *(PLAN)*	**ACTIVITIES** *(DO & STUDY)*	**OUTPUTS** *(STUDY)*	**SHORT-TERM OUTCOMES**	**INTERMEDIATE OUTCOMES**	**LONG-TERM OUTCOMES**
			(STUDY & ACT)		
Staff • State Dental Director • Program Manager • Epidemiologist • Program staff • IT support **Data sources** • National surveys and administrative data • State surveys and registries • Local program data • New data collection to fill in gaps **Equipment** • Hardware (desktop computers, printers, IT server) • Software (SAS, ACCESS, MS Office, Internet access) **Other** • Funding • State law and reporting requirements **Partners and stakeholders** • Oral Health Advisory Panel • Training, TA, capacity building • Guidelines and evidence-base for oral health surveillance	**Data Collection** • Identify indicators • Acquire data from sources • Collaborate with other agencies for data sharing • Link existing data sources • Maintain/update data regularly **Analysis and Reporting** • Analyze data and interpret findings • Disseminate surveillance reports • Incorporate findings into oral health assessments **Data Management and Evaluation** • Ensure data security and confidentiality • Identify gaps in data • Evaluate and modify surveillance system as needed	• Oral health indicators database • Needs assessment report • Updated and revised surveillance plan • QA tools • Data surveillance and confidentiality protocols • Surveillance reports • Nebraska Oral Health State Health Improvement Plan • OOHD Communication Plan	• Increased monitoring of oral health trends • Increased complete, accurate, and timely oral health surveillance data • Increased availability and dissemination of oral health surveillance data • Increased use of data by stakeholders	• Increased evidence-based interventions, planning and evaluation • Increased number of LPHDs with oral health preventive programs	• Increased use of data by policymakers for developing and implementing oral health policies • Documented changes in oral health indicators • Decreased dental caries, oral cancer, tooth loss • Decreased oral health disparities

Appendix 2: U.S. Healthy People 2020 Oral Health Objectives

OH-1	Reduce the proportion of children and adolescents with dental caries experience in their primary or permanent teeth.
OH-2	Reduce the proportion of children and adolescents with untreated dental decay.
OH-3	Reduce the proportion of adults with untreated dental decay
OH-4	Reduce the proportion of adults who have ever had a permanent tooth extracted because of dental caries or periodontal disease.
OH-5*	Reduce the proportion of adults aged 45-74 years with moderate or severe periodontitis.
OH-6	Increase the proportion of oral and pharyngeal cancers that are detected at the earliest stage.
OH-7	Increase the proportion of children, adolescents and adults who used the oral health care system in the past year
OH-8	Increase the proportion of low income children and adolescents who received any preventive dental service during the last year.
OH-9	Increase the proportion of school-based health centers with an oral health component.
OH-10	Increase the proportion of local health departments and Federally Qualified Health Centers that have an oral health program.
OH-11	Increase the proportion of patients who receive oral health services at Federally Qualified Health Centers each year
OH-12	Increase the proportion of children and adolescents who have received dental sealants on their molar teeth.
OH-13	Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water.
OH-14*	(Developmental) Increase the proportion of adults who receive preventive interventions in dental offices.
OH-15	(Developmental) Increase the number of states and the District of Columbia that have a system for recording and referring infants and children with cleft lips and cleft palates to craniofacial anomaly rehabilitative teams.
OH-16*	Increase the number of states and the District of Columbia that have an oral and craniofacial health surveillance system.
OH-17	Increase health agencies that have a dental public health program directed by a dental professional with public health training.

* Unable to monitor the indicator due to lack of data availability in Nebraska

Appendix 3: Data Sources for the Indicators Included in Nebraska's Oral Health Surveillance System

Domain	Target Population	Indicator	Data Source
Oral Health Outcomes	Head Start	Caries experience	BSS
		Untreated tooth decay	BSS
	3rd Grade	Caries experience	BSS
		Untreated tooth decay	BSS
		Sealant prevalence	BSS
	1-17 Years	Parent's self-report of child's oral health*	NSCH
		Oral health problem in last year*	NSCH
	18-64 Years	Any tooth loss	BRFSS
	65+ Years	6+ teeth lost	BRFSS
		Complete tooth loss	BRFSS
	All Ages	Incidence of and mortality from cancers of the oral cavity and pharynx	NCR
		Emergency department utilizations	HDD
		Receipt of Oral Health Services at Health Centers	UDS/HCAN
Access to Care	Medicaid/CHIP	Dental visit	CMS-416
	1-17 Years	Dental visit*	NSCH
		Preventive dental visit*	NSCH
	18+ Years	Dental visit	BRFSS
	Adults with Diabetes	Dental visit	BRFSS
Intervention Strategies	All Ages	Community water fluoridation	WFRS
	School Children	School dental sealant programs	OOHD
	Children	Topical fluoride programs	OOHD
Workforce & Infrastructure	Dental Professionals	Number of dental professionals	DHHS and NOHWS
	Low-income Communities	Number of safety net dental clinic	OOHD
		Dental Health Professional Shortage Areas	HPTS

* May be modified depending on the redesign of NSCH

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