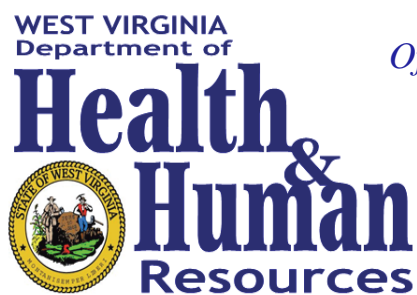


**West Virginia
Oral Health Program
Oral Health Surveillance Plan
2013-2018**



April 2013



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West Virginia Oral Health Surveillance Plan 2013-2018



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List of Abbreviations

ASTDD	Association of State and Territorial Dental Directors
BCF	Bureau for Children and Families
BDR	Birth Defects Registry (West Virginia)
BMS	Bureau for Medical Services
BPH	Bureau for Public Health
BRFSS	Behavior Risk Factor Surveillance System
BSS	Basic Screening Survey
CDC	Centers for Disease Control and Prevention
CHIP	Children’s Health Insurance Program
CSHCN	Children with Special Health Care Needs
DHHR	Department of Health and Human Resources (West Virginia)
DWS	Dental Workforce Survey
EPSDT	Early and Periodic Screening, Diagnosis, and Treatment Program
FQHC	Federally Qualified Health Center
HIPAA	Health Insurance Portability and Accountability Act
HP2020	Healthy People 2020
HSC	Health Statistics Center
ICAH	Infant, Child and Adolescent Health
NOHSS	National Oral Health Surveillance System
OEHS	Office of Environmental Health Services
OHP	Oral Health Program
OMCFH	Office of Maternal, Child and Family Health
PHI	Protected Health Information
PIR	Program Information Report (Head Start)
PRAMS	Pregnancy Risk Assessment Monitoring System
REP	Research, Evaluation and Planning
SBHC	School-Based Health Center
UDS	Uniform Data System
WFRS	Water Fluoridation Reporting System
WVBDE	West Virginia Board of Dental Examiners
WVCR	West Virginia Cancer Registry
WVOHSS	West Virginia Oral Health Surveillance System
WVSBHA	West Virginia School Based Health Assembly
WVVR	West Virginia Vital Records
YRBS	Youth Risk Behavior Survey
YRBSS	Youth Risk Behavior Surveillance System
YTS	Youth Tobacco Survey

Introduction

Historical Prospective

The West Virginia Oral Health Program (OHP) is administered by the West Virginia Department of Health and Human Resources (DHHR), Bureau for Public Health (BPH), Office of Maternal, Child and Family Health (OMCFH). West Virginia (WV) has the highest rate of tooth loss of adults age 65 and older in the nation,¹ but until 2010 the State had no oral health plan. The OHP also had no program funding or staff dedicated specifically to surveillance activities. Moreover, WV received significant negative national attention when a report by the Pew Center on the States entitled “The Cost of Delay: State Dental Policies Fail One in Five Children” gave WV a grade of F due to its lack of infrastructure.² Since then, WV has made significant investments to improve its oral health infrastructure. The OMCFH partnered with Marshall University and other key stakeholders in oral health to develop a statewide comprehensive oral health plan in accordance with the Centers for Disease Control and Prevention (CDC) recommendations. With the plan in place, the OHP was able to conduct statewide oral health surveillance of children and adults. The OHP also developed an oral health coalition and made an investment of \$1,000,000 in community health centers to purchase oral health equipment.

The OHP built on its successes during fiscal year 2011-2012, by transitioning the part-time dental director to full-time, hiring a full-time epidemiologist to conduct surveillance activities, and hiring and training four full-time community-based oral health sealant coordinators/fluoride specialists. The OHP completed and analyzed a survey of all dentists and hygienists in conjunction with the WV Board of Dental Examiners (WVBDE) license renewal in addition to completing a weighted random digit telephone survey to assess dental insurance coverage of children and adults. These activities furthered WV’s efforts to improve the oral health of its residents.

So far, WV has successfully used surveillance data in program planning and policy development. These successes include:

- Applied for and received a DentalQuest 2014 grant to facilitate medical and dental collaboration.
- Applied for and received a Health Resources and Services Administration (HRSA) grant which helped establish a dental student loan repayment program to increase the dental workforce.

There are several reasons for the need to implement an oral health surveillance system in WV. Objective one of the WV Oral Health Plan calls for the establishment and maintenance of a state-based oral health surveillance system in accordance with the CDC’s recommendations. Moreover, the 2003 Surgeon General’s report “National Call To Action To Promote Oral Health,” The Association of State and Territorial Dental Directors (ASTDD) report “Building Infrastructure and Capacity in State and Territorial Oral Health Programs,” and the CDC all recommend the development of an oral health surveillance system as an essential element in building the infrastructure for the improvement of oral health in a state.^{3,4}

Finally, Healthy People 2020 (HP2020) seeks to increase the number of States and the District of Columbia that have an oral and craniofacial health surveillance system (OH-16).⁵ Having a surveillance system in place helps identify key oral health indicators that will assist the OHP in finding usable, creditable data. This system will also be important for illustrating the burden of oral health disease and for developing recommendations to increase oral health access and care.

Definition of Surveillance

The West Virginia Oral Health Surveillance System (WVOHSS) uses the CDC's definition of surveillance. According to the CDC, surveillance is the continuous, systematic collection, analysis and interpretation of health-related data needed for the planning, implementation, and evaluation of public health practice.

Purpose

The West Virginia Oral Health Surveillance Plan aims to establish core oral health indicators that will be measured in the WVOHSS. It also establishes the frequency with which data on these indicators will be collected. The purpose of the WVOHSS is to continuously monitor the status and trends of oral health indicators in WV. The data will be used for immediate public health action, program planning and evaluation, policy planning and advocacy, and will serve as a valuable tool in helping the OHP identify how to better allocate its resources.

Target Populations

The OHP is concerned with promoting oral health across the lifespan. The OHP focuses on education and access to care for the entire population as well as specific high risk groups. These groups include:

- Pregnant women
- Minorities
- People of lower socioeconomic status
- Health professionals

Partners and Stakeholders

WVOHSS has formed partnerships with other programs within the OMCfH such as the Pregnancy Risk Assessment Monitoring System (PRAMS) and the Children with Special Health Care Needs Program (CSHCN) to collect and share data. The WVOHSS includes other stakeholders such as the Oral Health Coalition, West Virginia University School of Dentistry, Marshall University, West Virginia Schools of Dental Hygiene, primary medical care providers, WV School Based Health Assembly, Office of Healthy Schools, WV Offices of the Insurance Commissioner, WV Dental Association, WV Health Association, social service organizations, community programs, and consumer advocacy groups that use data for the promotion of healthy lifestyles and the prevention and control of oral health disease.

Goals and Objectives

Monitoring the status of oral health disease in the State's population is essential for setting achievable goals and objectives as well as for planning, implementing, and evaluating oral health programs. Therefore one goal of the WVOHSS is to track the trends of oral health indicators in WV. The objectives of the WVOHSS are to measure the burden of oral health disease in WV and to monitor progress towards both the OHP and the HP2020 Oral Health Objectives.

The objectives of the WVOHSS are:

- Monitor the burden and trend of oral health disease in WV
- Monitor preventive services, such as community water fluoridation and dental sealant placement
- Measure changes in oral health capacity
- Identify vulnerable population groups
- Collect and analyze data for all stated indicators

Activities

In order to meet the objectives, the WVOHSS will be utilized to undertake the following activities:

- Serve as a central repository for oral health data
- Identify gaps in the data
- Collect both primary and secondary data for all indicators
- Analyze and interpret data in addition to ensuring the quality of the data
- Complete and regularly update surveillance reports, burden document and fact sheets
- Disseminate the reports, fact sheets and burden document
- Report data to national surveillance systems

WVOHSS Components

The following are components of the WVOHSS

- Oral health surveillance logic model
- Oral health indicators monitored by WVOHSS
- Data collection/sources and data timeline
- Resources for the sustainability of WVOHSS
- Dissemination of WVOHSS information
- Confidentiality of data
- Evaluation plan

West Virginia Oral Health Surveillance System Logic Model

INPUTS	ACTIVITIES	INTERMEDIATE OUTCOMES
<p>Staff</p> <ul style="list-style-type: none"> ➤ State Dental Director ➤ Oral Health Program Manager ➤ Oral Health Program Epidemiologist ➤ Oral Health Program staff ➤ Information Technology support ➤ Data collection and data entry staff <p style="text-align: right;">➔</p> <p>Data Sources</p> <ul style="list-style-type: none"> ➤ National data sources ➤ State data sources ➤ Local-level data sources ➤ New data collection to fill data gaps <p style="text-align: right;">➔</p> <p>Equipment</p> <ul style="list-style-type: none"> ➤ Hardware (desktop computers, printers, IT server) ➤ Software (SAS, ACCESS, MS Office Suite, Internet access) <p style="text-align: right;">➔</p> <p>Other</p> <ul style="list-style-type: none"> ➤ Stakeholder & Community support ➤ Funding 	<p>Implementation of Surveillance Plan</p> <ul style="list-style-type: none"> ➤ Identify indicators ➤ Establish objectives for surveillance ➤ Link existing data sources ➤ Network with other agencies for collaborations ➤ Sustain & modify WVOHSS as needed <p>Data Management</p> <ul style="list-style-type: none"> ➤ Identify data gaps ➤ Acquire data from sources ➤ Ensure data security/confidentiality ➤ Analyze data and interpret findings ➤ Maintain/update data regularly <p style="text-align: right;">➔</p> <p>Evaluation</p> <ul style="list-style-type: none"> ➤ Engage stakeholders ➤ Describe WVOHSS ➤ Evaluate surveillance plan ➤ Evaluate performance and progress of WVOHSS by gathering credible evidence ➤ Justify and state conclusions, make recommendations as needed <p>Reporting</p> <ul style="list-style-type: none"> ➤ Routine dissemination of surveillance reports at local, state and national level ➤ Incorporate findings into burden document/update every 5 years 	<ul style="list-style-type: none"> ➤ Ongoing monitoring of oral health trends in West Virginia ➤ Increase evidence-based program planning and evaluation based on surveillance data ➤ Target program activities for populations most in need as identified by surveillance data <p style="text-align: center;">↓</p> <hr/> <p style="text-align: center;">DISTAL OUTCOMES</p> <ul style="list-style-type: none"> ➤ Document changes in oral health indicators ➤ Improved oral health in West Virginia

Selection of Indicators

A state based surveillance system contains core oral health indicators that are routinely monitored to measure the status and trends of oral health disease in that population. These measures serve as benchmarks for assessing progress in achieving optimal oral health.

The WVOHSS has been modeled after the National Oral Health Surveillance System (NOHSS) (a collaborative effort between the CDC's Division of Oral Health and the ASTDD) and includes the nine indicators being monitored nationally by the NOHSS. It has also been shaped by HP2020, which is a compilation of indicators selected by the federal government to track the nation's progress towards year 2020 public health objectives.

The surveillance indicators were established after consideration of data resources available within the state as well as indicators at the national level to support the NOHSS and monitor progress towards achieving the HP2020 Oral Health Objectives. These indicators serve as a foundation for development of the WVOHSS oral health indicators. The WVOHSS tracks additional indicators specific to WV (Table 1) in addition to the nine oral health indicators currently monitored by the NOHSS listed below:

Definition of Indicators

- **Dental Visit** - Percentage of adults aged 18+ who have visited a dentist or dental clinic in the past year.
- **Teeth Cleaning** - Percentage of adults aged 18+ who have had their teeth cleaned in the past year (among adults with natural teeth who have ever visited a dentist or dental clinic).
- **Complete Tooth Loss** - Percentage of adults aged 65+ who have lost all of their natural teeth due to tooth decay or gum disease.
- **Lost Six or More Teeth** - Percentage of adults aged 65+ who have lost six or more teeth due to tooth decay or gum disease.
- **Fluoridation Status** - Percentage of people served by public water systems who receive fluoridated water.
- **Caries Experience** - Percentage of 3rd grade students with caries experience, including treated and untreated tooth decay.
- **Untreated Tooth Decay** - Percentage of 3rd grade students with untreated tooth decay.
- **Dental Sealants** - Percentage of 3rd grade students with dental sealants on at least one permanent molar tooth.
- **Cancer of the Oral Cavity and Pharynx** – Incidence and mortality rate. Oral and pharyngeal cancer comprises a diverse group of malignant tumors that affect the oral cavity and pharynx (mouth and throat).

Table 1: Oral Health Indicators Monitored by WVOHSS		
List of Oral Health Indicators by Age Group and Data Source		
Indicators	Data Set	National Oral Health Surveillance Standard
Oral Health of Children and Adolescents (Dental Caries Experience)		
Percentage of third-grade students with dental caries experience (treated or untreated)	BSS	NOHSS HP2020 (OH-1.2)
Reduce the proportion of children who have dental caries experience in their primary or permanent teeth	BSS	HP2020 (OH-1.1-1.3)
Oral Health of Children and Adolescents (Untreated Dental Decay)		
Percentage of third-grade students with untreated tooth decay	BSS	NOHSS HP2020 (OH-2.2)
Reduce the proportion of children with untreated dental decay	BSS	HP2020 (OH-2.1-2.3)
Oral Health of Adults (Tooth Loss)		
Percentage of adults aged 65+ who have lost six or more teeth due to tooth decay or gum disease	BRFSS	NOHSS
Percentage of adults aged 65+ who have lost all of their natural teeth due to tooth decay or gum disease	BRFSS	NOHSS HP2020 (OH-4.2)
Percentage of adults aged 45-64 years who have ever had a permanent tooth extracted because of dental caries or periodontal disease	BRFSS	HP2020 (OH -4.1)
Reduce the proportion of adults aged 45-64 years who have ever had a permanent tooth extracted because of dental caries or periodontal disease	BRFSS	HP2020 (OH -4.1 -4.2)
Oral Health of Adults (Oral and Pharyngeal Cancers)		
Age adjusted <i>incidence</i> rate per 100,000 population of new cases of oral and pharyngeal cancer	WVCR	NOHSS HP2020 (OH-6)
Age adjusted <i>mortality</i> rate per 100,000 population of new cases of oral and pharyngeal cancer	Vital Records, WVCR	NOHSS HP2020 (OH-6)
Number of oral and pharyngeal cancer deaths	Vital Records, WVCR	NOHSS HP2020 (OH-6)
Percent of oral and pharyngeal cancers detected at earliest stage	WVCR	HP2020 (OH-6)
Increase the proportion of oral and pharyngeal cancers detected at the earliest stage	Vital Records, WVCR	HP2020 (OH-6)
Access to Preventive Services (Teeth Cleaning)		
Percentage of women who had their teeth cleaned <i>before</i> most recent pregnancy	PRAMS	HP2020 (OH-7)
Percentage of women who had their teeth cleaned <i>during</i> most recent pregnancy	PRAMS	HP2020 (OH-7)
Percentage of women who had their teeth cleaned <i>after</i> most recent pregnancy	PRAMS	HP2020 (OH-7)
Access to Preventive Services (School-based centers with oral health component)		
Percent of SBHCs with an oral health component	WVSBHA	HP2020 (OH-9)
Increase the proportion of SBHCs with an oral health component (dental sealants, dental care, topical fluoride)	WVSBHA	HP2020 (OH-9)

Oral Health Indicators Monitored by WVOHSS (continued)		
Indicators	Data Set	National Oral Health Surveillance Standard
Access to Preventive Services (Receipt of oral health services at health centers)		
Percent of patients who receive oral health services at health centers each year	UDS	HP2020 (OH-11)
Increase the proportion of patients who receive oral health services at a Federally Qualified Health Center (FQHC) each year	UDS	HP2020 (OH-11)
Access to Preventive Services (Dental Visit)		
Percentage of adults 18 and older who have visited a dentist or dental clinic in the past year	BRFSS	NOHSS HP 2020 (OH-7)
Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year	BRFSS, PRAMS	HP2020 (OH-7)
Percentage of third grade children with an urgent dental need	BSS	HP2020 (OH-8)
Reduce the proportion of children with an urgent dental need	BSS	HP2020 (OH-8)
Percentage of Medicaid-enrolled <i>children</i> who had a dental visit during the year	Medicaid Claims	HP2020 (OH-8)
Percentage of Medicaid-enrolled <i>adults</i> who had a dental visit during the year	Medicaid Claims	HP2020 (OH-8)
Percentage of third-grade students who have had a previous dental visit	BSS	HP2020 (OH-8)
Number of eligibles receiving any dental services	EPSDT/CHIP	HP2020 (OH-8)
Number of eligibles receiving preventive dental services	EPSDT/CHIP	HP2020 (OH-8)
Number of eligibles receiving any dental treatment	EPSDT/CHIP	HP2020 (OH-8)
Percentage of Head Start children who had a dental examination in the past year	PIR	
Percentage of Head Start children examined who need dental treatment	PIR	
Percentage of Head Start children examined and needing dental treatment who received treatment	PIR	
Percentage of Head Start children examined who received preventive care	PIR	
Oral Health Interventions (Dental Sealants)		
Percentage of third-grade students with dental sealants on at least one permanent molar	BSS	NOHSS HP2020 (OH-12)
Increase the proportion of children who have received dental sealants on their molar teeth	BSS	HP2020 (OH-12)
Oral Health Interventions (Fluoridation Status)		
Percentage of people served by public water systems who receive fluoridated water	WFRS	NOHSS HP2020 (OH-13)
Percentage of public water systems that maintain optimal fluoride levels	WFRS	NOHSS HP2020 (OH-13)

Oral Health Indicators Monitored by WVOHSS (continued)		
Indicators	Data Set	National Oral Health Surveillance Standard
Oral Health Interventions (Dental Sealants)		
Percentage of third-grade students with dental sealants on at least one permanent molar	BSS	NOHSS HP2020 (OH-12)
Increase the proportion of children who have received dental sealants on their molar teeth	BSS	HP2020 (OH-12)
Oral Health Interventions (Fluoridation Status)		
Percentage of people served by public water systems who receive fluoridated water	WFRS	NOHSS HP2020 (OH-13)
Percentage of public water systems that maintain optimal fluoride levels	WFRS	NOHSS HP2020 (OH-13)
Monitoring and Surveillance Systems (Craniofacial Services)		
Number of babies born with cleft lip/cleft palate	BD Registry	HP2020 (OH-15)
Rate of babies born with cleft lip/palate per 1,000 live births	BD Registry	HP2020 (OH-15)
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 palates to craniofacial anomaly rehabilitative teams	BD Registry	HP2020 (OH-15)
Dental Workforce		
Percentage of practicing dentists who work part-time	Dental Workforce survey	
Percentage of practicing dentists who plan to retire in one to five years	Dental Workforce survey	
Percentage of practicing dentists who accept any and all Medicaid patients	Medicaid Claims	
Number of full-time equivalent (FTE) licensed practicing dentists	WVBDE	
Rate of practicing dentists per 100,000 population	WVBDE	
Number of FTE licensed dental hygienists	WVBDE	
Number of FTE certified dental assistants	WVBDE	
Tobacco use (Youth)		
Grades 7-8 & 9-12		
Percentage of youth have ever used chewing tobacco, snuff or dip	YTS	
Percentage of youth have ever used chewing tobacco, snuff or dip in the past 30 days	YTS, YRBS	
Percentage of youth who have ever smoked cigarettes	YTS	
Percentage of youth who have smoked cigarettes in the past 30 days	YTS	

Data collection/Sources

The WVOHSS utilizes several data sources to report on the health indicators. Some of the data are found within the WV DHHR while others are maintained in outside agencies. The table below provides information about the data sources, the agency in which they are housed, and the timeframe for data collection. It is followed by a description of each of the data sources included in the table.

Table 2: Oral Health Data Collection Sources and Timeframes		
Data Source	Agency/Division	Timeframe
BSS	DHHR/OMCFH/ ICAH	Every 3-5 years
BRFSS	DHHR/Health Statistics Center	Annual, oral health rotating core every 2 years
PIR	DHHR/BCF	Annual
CHIP	DHHR/CHIP	Annual
BDR	DHHR/OMCFH/ REP/ Birth Defects	
PRAMS	DHHR/OMCFH/ REP	Annual
WVCR	DHHR/OEHP/ Cancer Registry	Annual
DWS	DHHR/OMCFH/ICAH	Every 2 years opposite CE
WFRS	DHHR/OEHS	Annual
WVVR	DHHR/Health Statistics Center	Annual
Medicaid Claims	DHHR/BMS	Annual
YTS	DHHR/Health Statistics Center	Every 2 years
YRBS	DHHR/Health Statistics Center	Every 2 years
UDS	HRSA/UDS	Annual
WVSBHA	WVSBHA	Annual
WVBDE	WVBDE	Every 2 years opposite CE

Basic Screening Survey (BSS) - A standardized set of surveys designed to collect information on the observed oral health of participants; self-reported or observed information on age, gender, race and Hispanic ethnicity; and self-reported information on access to care for preschool, school-age and adult populations. School age children are examined for presence of sealants on permanent molars. In addition, caries experience (treated and untreated) is recorded for preschool and school-age children. Adults in West Virginia are screened for the presence of untreated tooth decay and tooth loss. These observations and screenings are conducted by dentists, dental hygienists, or other appropriate healthcare workers in accordance with state law.

Behavioral Risk Factor Surveillance System (BRFSS) - A state based, ongoing data collection program designed to measure behavioral risk factors in the adult, non-institutionalized population 18 years of age or older. States select a random sample of adults for a telephone interview. Questions 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.

Head Start Program Information Report (PIR) - Provides comprehensive data on the services, staff, children, and families served by Head Start and Early Head Start programs nationwide.

Children with Special Health Care Needs (CSHCN) - A program designed to advance the health and well-being of children and youth with certain chronic, debilitating conditions by providing specialized medical care and care coordination services to children under 21 years of age who meet financial and medical eligibility criteria.

West Virginia Birth Defects Registry (BDR) - A registry that collects data from birthing facilities within West Virginia to study the rates and trends of birth defects. With regards to oral health, the birth defects registry collects the 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.

Pregnancy Risk Assessment Monitoring System (PRAMS) - A CDC-sponsored initiative to reduce infant mortality and low birth weight. PRAMS is a 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.

West Virginia Cancer Registry (WVCR) - A registry that collects information on all cancers diagnosed and/or treated in the state of West Virginia. The cancer data is analyzed to determine and monitor trends in cancer incidence and stage at diagnosis among West Virginia residents.

Dental Workforce Survey (DWS) - The OHP partners with the WV Board of Dental Examiners to mail out surveys to dentist and dental hygienists who are completing their license renewal. This survey gives the OHP insight into the issues that might surround the dental workforce and provide information on clinically active dentists and dental hygienists in WV. This survey will be conducted every other year, the year opposite when providers have to report continuing education credit.

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.

West Virginia Vital Records (WVVR) - A registry that provides registration and certification of the vital events that occur in West Virginia. These events include births, marriage, deaths, and fetal deaths.

Medicaid - A state-administered program intended to provide health care and health-related services to low-income or disabled individuals.

Youth Tobacco Survey (YTS) - The Youth Tobacco Survey is conducted in conjunction with the YRBS. Students in grades seven, eight and nine through twelve are surveyed in the spring of odd-numbered years. Questions on this survey are specific to the use of tobacco products, thoughts about tobacco, tobacco use portrayed through the media and exposure to tobacco smoke. The West Virginia Youth Tobacco Survey collects information on tobacco use, attitudes and knowledge regarding tobacco, exposure to tobacco-related media, exposure to environmental tobacco smoke, and asthma among adolescents.

Youth Risk Behavior Surveillance System (YRBS) – 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.

Uniform Data System (UDS) - The Uniform Data System operated by HRSA contains information that is used to review the operation and performance of health centers.

West Virginia School-Based Health Association (WVSBHA) – Formed in 1995, the WVSBHA serves as the lead membership organization and unified voice in the State for the advancement of school-based health care. The association advocates for the availability of comprehensive and coordinated school health services for children including oral health.

West Virginia Board of Dental Examiners (WVBDE) - Regulates the practice of dentistry in West Virginia. The WVBDE sets and defines standards for safe dental practices and also provides dentists and dental hygienists with license to practice in the state of West Virginia.

Resources / Sustainability of WVOHSS

Resources needed to operate and sustain the surveillance system include funding and personnel. Other resources such as travel, training, supplies, computers and related services, including mail, telephone, computer support, internet connections, and hardware and software maintenance are needed as well.

Partnerships are integral to sustaining the WVOHSS. The OHP collaborates with the West Virginia University School of Dentistry and the WVBDE to administer its Dental and Dental Hygiene Workforce Surveys. The WVBDE helps with mailing by including the surveys with license renewal applications. Additionally, the OHP partners with Marshall University to conduct its basic screening surveys. The table below shows the timeline for data collection through 2022.

Table 3: Timeline for Surveillance Data Collection											
Primary Data											
School Year	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Universal Pre K		x		x				x			
Third Graders	x		x				x				
Fiscal Year (State)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Adults		x					x				x
Older Adults		x				x				x	
Dental Workforce Survey		x			x		x		x		x
Secondary Data											
Fiscal Year (State)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Vital Records	x	x	x	x	x	x	x	x	x	x	x
Medicaid	x	x	x	x	x	x	x	x	x	x	x
YTS	x	x	x	x	x	x	x	x	x	x	x
YRSB	x	x	x	x	x	x	x	x	x	x	x
BRFSS		x		x		x		x		x	
PRAMS	x	x	x	x	x	x	x	x	x	x	x
CHIP	x	x	x	x	x	x	x	x	x	x	x
Headstart PIR	x	x	x	x	x	x	x	x	x	x	x
CSHCN	x	x	x	x	x	x	x	x	x	x	x
Cancer Registry	x	x	x	x	x	x	x	x	x	x	x
WVBDE		x			x		x		x		x
UDS	x	x	x	x	x	x	x	x	x	x	x
WVSBHA	x	x	x	x	x	x	x	x	x	x	x
Fluoridation data (WFRS)	x	x	x	x	x	x	x	x	x	x	x

Dissemination of WVOHSS Information

Surveillance reports will be disseminated to interested programs and policy-makers through presentations and reports published on the OHP's website. These reports will contain current oral health data and any notable trends. The surveillance results will aid in updating WV's oral health disease burden document as well as provide information at the national level to the NOHSS and the ASTDD State Synopses. Venues for oral dissemination of surveillance results will include State Oral Health Coalition meetings and the West Virginia Oral Health Data Dissemination Conference.

As the WVOHSS evolves, it will be enhanced by refining the indicators and improving the system's ability to communicate surveillance results. Future plans include compilation of currently available data into a report that will contain a summary of the results from the various indicators incorporated in the WVOHSS.

Confidentiality of WVOHSS Data

Management of WVOHSS data complies with the Health Insurance Portability and Accountability Act (HIPAA) privacy rules for protecting the privacy of health information. This standard also applies to data confidentiality and integration. No protected health information (PHI) will be released to partners or to the public. However, surveillance staff will be given access to PHI for analysis purposes alone and other program staff will view this information only when necessary. Surveillance results will be reported as aggregated data.

Evaluation Plan for WVOHSS

The purpose of evaluating the WVOHSS is to ensure that the oral health indicators are being monitored effectively and efficiently. It also serves as an effort to increase WVOHSS's utility and productivity. 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 OHP will evaluate WVOHSS based on the six tasks proposed in the "Updated Guidelines for Evaluating Surveillance Systems" (Guidelines) published in *Morbidity and Mortality Weekly Report*, July 27, 2001/ (50) RR13; 1-35:

- Engage WV stakeholders;
- Describe WVOHSS;
- Focus the evaluation design;
- Gather credible evidence regarding the performance of WVOHSS;
- Justify and state conclusions, make recommendations; and
- Ensure use of evaluation findings and share lessons learned

The evaluation of WVOHSS will focus on providing recommendations for improving the quality, efficiency, and usefulness of the system. WVOHSS will also be evaluated to determine the system's sustainability, the timeliness of analysis of surveillance data, dissemination of the reports and whether the reports have reached stakeholders as well as tracking the policy and legislative actions that have been taken due to surveillance results.

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Appendix A: National Oral Health Surveillance System Indicators

Dental Visit - Percentage of adults aged 18+ who have visited a dentist or dental clinic in the past year.

Teeth Cleaning - Percentage of adults aged 18+ who have had their teeth cleaned in the past year (among adults with natural teeth who have ever visited a dentist or dental clinic).

Complete Tooth Loss - Percentage of adults aged 65+ who have lost all of their natural teeth due to tooth decay or gum disease.

Lost Six or More Teeth - Percentage of adults aged 65+ who have lost six or more teeth due to tooth decay or gum disease.

Fluoridation Status - Percentage of people served by public water systems who receive fluoridated water.

Caries Experience - Percentage of 3rd grade students with caries experience, including treated and untreated tooth decay.

Untreated Tooth Decay - Percentage of 3rd grade students with untreated tooth decay.

Dental Sealants - Percentage of 3rd grade students with dental sealants on at least one permanent molar tooth.

Cancer of the Oral Cavity and Pharynx - Incidence and mortality rate.

Appendix B: Healthy People 2020 Oral Health Objectives

OH-1: Reduce the proportion of children and adolescents who have 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 to 74 years with moderate or severe periodontitis.

OH-6: Increase the proportion of oral and pharyngeal cancers 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 past 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 (FQHCs) that have an oral health program.

OH-11: Increase the proportion of patients who receive oral health services at Federally Qualified Health Centers (FQHCs) 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.
