Colorado Oral Health Surveillance System Plan

2016-2020

COLORADO
Center for Health
& Environmental Data
Department of Public Health & Environment

Table of Contents

List of Acronyms

ACF	Administration for Children and Families
ACS	American Community Survey (US Census Bureau)
AHRQ	Agency for Healthcare Research and Quality
ASTDD	Association of State and Territorial Dental Directors
AQCD	Air Quality Control Division (CDPHE)
BRFSS	Behavioral Risk Factor Surveillance System
BSS	Basic Screening Survey
CCCR	Colorado Central Cancer Registry
CDC	Centers for Disease Control and Prevention
CDE	Colorado Department of Education
CDHS	Colorado Department of Human Services
CDPHE	Colorado Department of Public Health and Environment
CF3	Cavity Free at Three (CDPHE)
CHED	Center for Health and Environmental Data (CDPHE)
CHLCDP	Center for Healthy Living and Chronic Disease Prevention (CDC)
COHSS	Colorado Oral Health Surveillance System
CRCSN	Colorado Responds to Children with Special Needs (Birth Defects Registry)
DORA	Colorado Department of Regulatory Agencies
FPL	Federal Poverty Line
FRL	Free and Reduced Lunch
HCPF	Colorado Department of Health Care Policy and Financing
HIPAA	Health Insurance Portability and Accountability Act
HKCS	Healthy Kids Colorado Survey
HSEB	Health Surveys and Evaluation Branch
HPSA	Health Professional Shortage Areas
IRB	Institutional Review Board
LPHA	Local Public Health Agency
MCH	Maternal and Child Health
MEPS	Medical Expenditure Panel Survey
NCCDPHP	National Center for Chronic Disease Prevention and Health Promotion (CDC)
NHANES	National Health and Nutrition Examination Survey
NOHSS	National Oral Health Surveillance System
NSCH	National Survey of Children's Health
OEPR	Office of Emergency Preparedness and Response (CDPHE)
OHC	Oral Health Colorado (Advocacy Group)
OHE	Office of Health Equity (CDPHE)

OHU	Oral Health Unit (CDPHE)
PCO	Primary Care Office (CDPHE)
PRAMS	Pregnancy Risk Assessment Monitoring System
PSD	Prevention Services Division (PSD)
SAC	Surveillance Advisory Committee
SEALS	Sealant Efficiency Assessment for Locals and States
TABS	Colorado's Tobacco Attitudes and Behaviors Survey
WFRS	Water Fluoridation Reporting System
WQCD	Water Quality Control Division (CDPHE)
YRBS	Youth Risk Behavior Survey (See HKCS)

Introduction

The U.S. Surgeon General's framework for action to promote oral health forms the basis of the Colorado Oral Health Surveillance System (COHSS). The Colorado Department of Public Health and Environment (CDPHE) has had this surveillance system since 2003. The surveillance system focuses on data collection, timely dissemination of findings, and putting data to action. Data are used for program planning and implementation, evaluating program effectiveness, and guiding policy planning and advocacy.

COHSS is currently funded by a cooperative agreement with the Centers for Disease Control and Prevention (CDC). In addition to this agreement, CDPHE previously held a separate cooperative agreement with CDC for a demonstration project to integrate chronic disease prevention and health promotion programs, which ended in 2013. As a result of this project, the state of Colorado has become a national leader in integrating chronic disease prevention and health promotion programs. Oral health is an increasingly integral part of this integration. The Oral Health Unit (OHU) is a uniquely collaborative program within CDPHE's Prevention Services Division (PSD), and strong relationships between the OHU staff, other PSD program personnel, and the epidemiologists and evaluators within CDPHE's newly created Center for Health and Environmental Data (CHED) have strengthened COHSS in recent years.

Over the past five-years, COHSS has moved forward from an implementation phase to a maintenance phase. COHSS has been expanded over the years to include a number of state indicators from the Colorado Child Health Survey (CHS) and Basic Screening Survey (BSS) in addition to nationally monitored NOHSS indicators. In the coming years, the online Oral Health Data Dashboard will be updated and moved onto a new platform to make oral health surveillance data more easily accessible to the public. The new platform will also allow oral health data to be even more integrated with other surveillance data, including chronic disease and mental health data. Data has been disseminated through a variety of mechanisms. In addition to the Oral Health Data Dashboard, oral health data are reported to local public health agencies (LPHAs) as part of Colorado's Public Health Improvement Planning (PHIP) process. Oral health data have been used in several fact sheets and continue to be included in the Child Health Survey annual snapshot report.

The purpose, goals, and objectives of COHSS provided the primary source of guidance for the 2016-2020 Oral Health Surveillance plan. Moving forward, COHSS has the stated goal of increasing focus on health equity and remaining committed to the integration of oral health with other chronic disease prevention programs. As CDPHE launches the new online Chronic Disease Surveillance System (forthcoming), this surveillance plan accounts for future efforts to streamline surveillance efforts within CHED and across CDPHE to continue improving surveillance in the state of Colorado.

COHSS and the Ten Essential Public Health Services of Oral Health Programs

This COHSS Plan was developed in the context of the ten essential public health services as applied to oral health programs. In particular, this list of ten essential roles provided the context within which to select data indicators, develop the logic model, and to create the data analysis, data dissemination, and surveillance activities plans for 2016-2020.

10 Essential Roles that State Oral Health Programs Play in Promoting Oral Health in the United States:

Assessment

1. Assess oral health status and implement an oral health surveillance system to track it
2. Analyze determinants of oral health and respond to health hazards in the community
3. Assess public perceptions about oral health issues and educate/empower them to achieve and maintain optimal oral health

Policy Development

4. Mobilize community partners to leverage resources and advocate for/act on oral health issues
5. Develop and implement policies and systematic plans that support state and community oral health efforts

Assurance

6. Review, educate about and enforce laws and regulations that promote oral health and ensure safe oral health practices
7. Reduce barriers to care and assure utilization of personal and population-based oral health services
8. Assure an adequate and competent public and private oral health workforce
9. Evaluate effectiveness, accessibility and quality of personal and population-based oral health promotion activities and oral health services
10. Conduct and review research for new insights and innovative solutions to oral health problems.

COHSS most clearly is used in the three assessment roles of the Colorado Oral Health Program. COHSS is used to monitor the oral health burden in Colorado, to determine factors associated with increased burden, and to assess public perceptions. COHSS also provides data for use in policy development roles and assurance roles (reduce barriers to care and assure utilization of personal and population-based oral health services; evaluate effectiveness, accessibility and quality of personal and population-based oral health promotion activities and oral health services).

CDPHE's Oral Health Unit Programs

State-level oral health programs are administered through CDPHE's Oral Health Unit (OHU). OHU has a number of priority areas, which are partially informed by Colorado's 10 Winnable Battles initiative, which has a stated goal of increasing access to evidence-based preventative oral health interventions (https://www.colorado.gov/pacific/sites/default/files/CDPHE_WB_OralHealth.pdf). Strategies indicated by this goal include:

1. Increasing access to optimally fluoridated water and dental sealants
2. Increasing access to dental homes for vulnerable populations
3. Decreasing untreated dental decay and decay experience in children.

The stated objectives aligned with this goal will largely be monitored by CDPHE's oral health surveillance system, especially through the Basic Screening Survey.

Oral health programming currently includes Cavity Free at Three, which is a statewide initiative to train medical and dental professionals to provide preventive oral health services for young children and pregnant women. Cavity Free at Three's goal is to decrease dental disease and reduce oral health disparities among high risk and disparate populations and communities.

OHU also oversees a state-wide dental sealant program that utilizes School-Based Health Centers to increase access to dental sealants for school-aged children especially among high risk and disparate populations and communities. The sealant program incorporates the Smart Mouths Smart Kids toolkit, which is helping to build a more sustainable school-based sealant program business model.

The OHU also manages a community water fluoridation program that monitors water fluoridation and provides guidance for communities across Colorado.

The Colorado Project to Develop the Oral Health Workforce addresses the existing workforce gaps in Dental Health Professional Shortage Areas (DHPSAs) and is part of the HRSA workforce grant. This program's goal is to integrate oral health care into primary care, provide access to community-based oral health interventions, increase the number of clinics providing dental care and further increase culturally competent providers serving high risk and disparate populations and communities.

In August, 2016, the OHU received CDC 1609 funding to support programming to create a model which integrates diabetes and oral health care at the clinic and institutional levels.

Purpose, Goals, and Objectives

Purpose

Maintain an integrated surveillance system to aid in the prevention and control of oral diseases and risk factors in Colorado by using state-specific data to plan, implement, and evaluate public health practice.

Goals

- Maintain and enhance an ongoing, efficient system that provides relevant and reliable data for Colorado.
- Collect, analyze, and disseminate data to stakeholders in a timely and useful manner.
- Use data on oral disease and risk factors to plan, implement, and evaluate the oral health program.
- Integrate with the chronic disease surveillance system.
- Improve efforts to effectively assess and monitor disparities in oral health access and outcomes.

Objectives

Use Colorado oral health surveillance system data to:

- Monitor oral diseases and risk factors;
- Monitor oral diseases and risk factors by demographic groups;
- Identify emerging oral health issues;
- Detect changes in oral health-related practices and access to services;
- Develop meaningful information (data interpretation) to inform and support stakeholders;
- Plan, implement, and evaluate oral health programs;
- Develop more effective oral health programs that target populations at high risk and with high need.

Health Equity

A stated goal of the 2016-2020 COHSS is an increased focus on health equity. Health equity, defined by Healthy People 2020 as "the attainment of the highest level of health for all people," involves focusing on the social determinants of health and developing data products and programming with the stated knowledge that disparities in health outcomes are the result of historical, social, and structural injustices based on race, ethnicity, gender identity, sexual orientation, and other factors. Improving health equity has been a broad goal at CDPHE for many years, and efforts to promote health equity have recently been expanded at the Department, as the Office of Health Equity (OHE) has opened and has been recently expanded.

Significant disparities exist in access to oral health services and in oral health outcomes nationwide. In addition to disparities caused by the above factors, oral health specifically has prioritized improving access to oral health care for pregnant women. Due largely to misinformation and changing recommendations from professional organizations, many dental providers will not provide dental services to pregnant women due to the perceived risks of treating these patients. One of the primary aims of the CDPHE's Cavity Free at Three program is to improve access for this population; the effects of this program will be monitored, in part, by COHSS.

COHSS Logic Model and Data Flow Chart Description

Figure 1 presents the logic model for COHSS. The logic model reflects the Plan, Do, Study, Act (PDSA) cycle for change. This logic model is informed by the previous surveillance plan (2011-2016), and by the purpose, goals, and objectives of COHSS. Progress towards the long-term goals of COHSS are continuous, and will be monitored and contributed to by other chronic disease programs and stakeholders both internal and external to CDPHE.

Figure 2 presents information on COHSS data sources. This table shows the agency or unit responsible for data collection, management, and analysis as well as the estimated availability for new data from each source. Data sources for other indicators that are not oral health specific and population description indicators are not included here as they are not the specific responsibility of the CDPHE Oral Health Unit to collect. These indicators are, however, part of the larger, integrated chronic disease surveillance system, into which oral health data will be integrated in the coming years.

Data collection for Colorado's Oral Health Unit is the collaborative effort of a number of internal and external partners. CDPHE has a centralized unit for data collection and analysis in the Center for Health and Environmental Data (CHED). Epidemiologists, evaluators, and analysts from CHED's Health Surveys and Evaluation Branch (HSEB) serve the OHU's data needs related to COHSS. HSEB is responsible for work on data sources such as the BSS as well as survey data including BRFSS, CHS, HKCS, and PRAMS.

Notes on Colorado's Oral Health Unit:

- Stakeholders are those persons, programs, or agencies who can contribute surveillance data, support the surveillance system, or benefit from surveillance data.

- The key function of the Surveillance Advisory Committee is to make recommendations for data dissemination in terms of content, methods (including responsible party), and timeline. The SAC for oral health is comprised of program personnel from the OHU and CHED, and includes external partners when applicable.

- Colorado continues to make a strong effort to better integrate chronic disease programs. Collaboration will continue with other personnel as the chronic disease surveillance system is developed and implemented.

Figure 1: Colorado Oral Health Surveillance System (COHSS) Logic Model, 2016-2020.

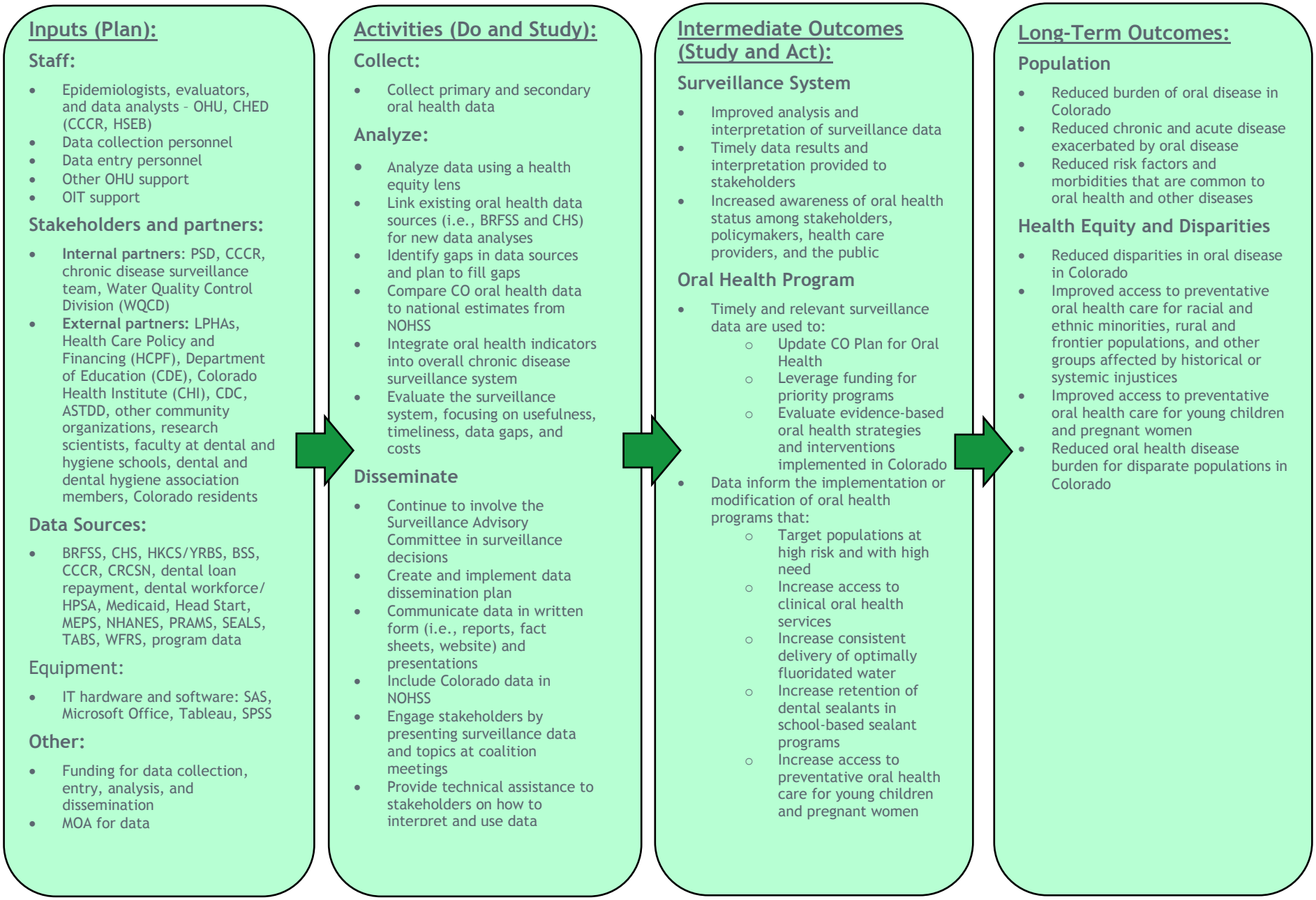

Figure 2: Colorado Oral Health Surveillance System (COHSS) Data Source Chart

	Data Source							
	BRFSS	**BSS**	**CCCR**	**CHS**	**HPSA**	**Medicaid**	**PRAMS**	**YRBS (HKCS)**
Responsible for data collection/ management	CDPHE – HSEB	CDPHE – OHU	CDPHE – CCCR	CDPHE – HSEB	CDPHE – Primary Care Office	HCPF	CDPHE – HSEB	CDC
Estimated availability	Annually in June	Every 4-5 years in June	Annually in November	Annually in June	On demand (data requested annually)	On demand (data requested annually)	Annually in January (i.e., 2014 data in January 2016)	Biennially in April of even years
Responsible for data analysis	CDPHE – HSEB	CDPHE – HSEB	CDPHE – CCCR	CDPHE – HSEB	CDPHE – PCO	HCPF	CDPHE – HSEB	CDPHE - HSEB

COHSS Indicators and Data Sources

COHSS is modeled after the NOHSS and includes nine indicators monitored annually. A tenth indicator currently in the NOHSS, percent of adults aged 18+ who have had their teeth cleaned in the past year, was deleted from COHSS because the corresponding question was removed from the rotating core BRFSS questionnaire starting in 2012. Many additional indicators have been added to COHSS.

The complete indicator list, which is not presented in this document, includes metadata (i.e., a data dictionary) with information on data source, numerator and denominator, years of data available, future years of data collection planned, desired cross-tabulations with other indicators, demographic groups represented, significance/reason for including in the surveillance system, limitations of the indicator, data resources and their limitations, related Healthy People 2020 objectives, and stakeholders. A subset of this large spreadsheet is included in Figure 3.

All indicators met the following selection criteria:

1. Periodicity: data are collected routinely
2. Comparability: data can be compared to national or sub-state estimates
3. Trusted source: data come from a trusted data source (any new data sources are appropriately evaluated before their inclusion in COHSS)
4. Related to a public health action or context: data are actionable and contextual
5. No redundancy: two indicators do not measure the same thing in different ways

Additionally, in choosing indicators, the following guiding principles were used, where possible:

1. Standardized metric or survey question
2. Valid
3. Reliable
4. Include risk and protective factors; morbidity, mortality, and quality of life measures; primary, secondary, and tertiary prevention measures; and indicators that cover the life course
5. Able to measure racial/ethnic, socioeconomic, and geographic disparities with the given data source
6. Simple to understand and interpret
7. Able to obtain the raw data or data results from the primary source

Data collection protocols:

COHSS collects primary and secondary data. Primary data collection requires a study-specific protocol and adherence to IRB/HIPAA rules. CDPHE staff enter data, keep hard copies of forms in locked cabinets, and monitor data quality with frequent checks at the time of data entry. Detailed data collection protocols can be found in the data source-specific manuals available on the Oral Health Unit computer network or on the CDC or ASTDD websites.

Figure 3: Colorado Oral Health Surveillance System Indicators

Data Source	Description
National Oral Health Surveillance System (NOHSS) Indicators:	
BRFSS	Percent of adults aged 18+ years who have visited a dentist or dental clinic in the past year
BRFSS	Percent of adults aged 65+ years who have lost all of their natural teeth due to tooth decay or gum disease
BRFSS	Percent of adults aged 65+ years who have lost six or more teeth due to tooth decay or gum disease
WFRS	Percent of people served by public water systems who receive fluoridated water
BSS	Percent of third grade students with caries experience, including treated and untreated tooth decay
BSS	Percent of third grade students with untreated tooth decay
BSS	Percent of third grade students with dental sealants on at least one permanent molar tooth
Colorado Oral Health Surveillance System/Chronic Disease Dashboard Indicators:	
CCCR	Incidence of oral and pharyngeal cancer
CCCR	Age-adjusted mortality rate for oral and pharyngeal cancer
BRFSS	Percent of adults aged 18+ who have lost all teeth due to decay or periodontal disease
BRFSS	Percent of adults aged 18+ years who have lost six or more teeth due to decay or periodontal disease
BRFSS	Percent of adults aged 18+ years who have lost any teeth due to decay or periodontal disease
BRFSS	Percent of adults aged 18+ years who have dental insurance
BRFSS	Percent of adults aged 18+ years who have had a dental visit in the past year
BSS	Percent of kindergarten and third grade students with caries experience, including treated and untreated tooth decay
BSS	Percent of kindergarten and third grade students with untreated tooth decay
BSS	Percent of kindergarten and third grade students with dental sealants on at least one permanent molar tooth
CHS	Percent of children aged 1-14 years with fair or poor condition of teeth
CHS	Percent of children aged 1-3 years who first visited the dentist before age 1
CHS	Percent of children aged 1-14 years who delayed needed dental care
CHS	Percent of children aged 1-14 years who received a preventative dental visit in the past year
CHS	Percent of adults aged 18+ years who have children aged 1-14 years and whose health care provider told them how to prevent cavities
CHS	Percent of adults aged 18+ years who have children aged 1-14 years and whose health care provider applied fluoride varnish to child's teeth
CHS	Percent of adults aged 18+ years who have children aged 1-14 years and whose health care provider helped identify strategies to improve child's teeth
CHS	Percent of adults 18+ who have children aged 1-14 and whose health care provider referred child to dentist

CHAS	Percent of children aged 0-20 years with dental care insurance
CHAS	Percent of adults aged 21+ years with dental care insurance
CHAS	Percent of children aged 20 years or younger who had any dental visit in the past year
CHAS	Percent of adults aged 21+ years who had any dental visit in the past year
CHAS	Percent of adults aged 65+ years who had any dental visit in the past year
HKCS	Percent of high school students who had any dental visit in the past year
PRAMS	Percent of women who gave birth who needed to see a dentist for a problem during pregnancy
PRAMS	Percent of women who gave birth who needed to see a dentist for a problem during pregnancy who went to see a dentist during pregnancy
PRAMS	Percent of women who gave birth who went to a dentist during pregnancy
PRAMS	Percent of women who gave birth who last had teeth cleaned during or after pregnancy
PRAMS	Percent of women who gave birth who had dental or other health care worker talk with them about how to care for teeth and gums during pregnancy
CMS-416	Percent of Medicaid recipient children aged 0-20 years who have received a sealant on a permanent first molar in the past year
CMS-416	Percent of Medicaid recipient children aged 0-20 years who have received any dental service in the past year
CMS-416	Percent of Medicaid recipient children aged 0-20 years who received a dental visit by age 1 year

COHSS Indicators: Other Indicators and Data Gaps

COHSS is part of a larger, integrated chronic disease surveillance system. As such, data on numerous other chronic diseases and risk factors are available. Some indicators that will be included in the chronic disease surveillance system of particular interest to oral health epidemiologists and staff include:

- Tobacco use
- Alcohol consumption
- Sugary drink consumption
- General health status among adults
- Adult prevalence of diabetes, heart attack, coronary heart disease, stroke, hypertension, and cancer survivorship

The data sources for the indicators listed above include BRFSS, HKCS, and CHS.

The COHSS team, in collaboration with the Surveillance Advisory Committee, works to continually identify and assess data gaps through the COHSS evaluation process. Moving forward, gaps will be further identified in conjunction with the chronic disease surveillance system. Currently identified gaps include:

1. Average total mean expense in past year for persons with visit for dental care
2. Average percent of dental expense paid out of pocket for persons with visit for dental care
3. Average out-of-pocket dental expense per person with visit for dental care
4. Percent of persons aged 1+ years with visit for dental care who paid $200 or more out of pocket expense for dental care
5. Percent of persons aged 1+ years with a procedure who had a preventative procedure
6. Percent of persons aged 1+ years with a procedure who had a periodontal procedure
7. Percent of persons aged 1+ years with a visit for dental care who visited a general dentist
8. Rate of population who had at least one dental emergency department visit
9. Prevalence of periodontal disease
10. Screenings for oral cancer, hypertension, and blood glucose level during dental visits
11. Absenteeism for dental issues, including pain and visits to dental care providers

Data Analysis Plan

The objectives of the analysis of the surveillance indicator data are to monitor oral diseases and risk factors in the total population and in demographic groups, as well as to identify emerging oral health issues and detect changes in oral health-related practices and access to services. The indicator data has been, and will continue to be, used to identify disparities in oral health outcomes and access for populations affected by health inequities and injustices. Estimates for many of the indicators will be compared with other states' estimates and with national estimates. Colorado estimates will also be used to track progress toward Healthy People 2020 goals.

The COHSS indicators represent oral diseases, conditions, and risk factors as well as dental care access and utilization across the lifespan. COHSS supports Colorado's reporting requirements for national surveillance and performance measures, including NOHSS, ASTDD state synopsis, WFRS, and MCH needs assessment.

This year, the current COHSS system will be replaced with an updated version using Tableau data visualization software. The new system will be compatible with the forthcoming chronic disease surveillance system and will take advantage of emerging technologies to make the surveillance data more widely available and user-friendly. This update will include updated data and confidence intervals, where available, and will allow COHSS staff to re-evaluate which indicators should be prioritized and included in the new system.

Results of the data collection and analyses will be used to develop meaningful data products that will inform and support stakeholders and to plan, implement, and evaluate oral health programs.

Surveillance Activities and Dissemination Plan: 2016-2020

COHSS Dashboard

1. Develop and update a new COHSS data dashboard using an updated platform
2. Work with the chronic disease surveillance team to integrate oral health into the forthcoming chronic disease surveillance system (online data dashboard)
3. Lead and participate in promotion activities for the new dashboard. These may include:
    - Webinars
    - Conference presentations
    - Outreach to Local Public Health Agencies and other stakeholders
    - Data use or FAQ factsheets
4. Engage the Health Equity and Environmental Justice collaborative at CDPHE as well as the Office of Health Equity to consciously present data on health inequities and disparities in oral health
5. Continuously evaluate the usefulness, timeliness, and quality of the COHSS system, with a focus on the following questions:
    - What are the successes and deficiencies of the surveillance system?
    - Is the surveillance system meeting its public health objectives?
    - How does the surveillance system both support and benefit stakeholders?
    - What measures could improve performance and productivity of the surveillance system and the programs that it supports?
6. Engage in continuous quality improvement activities to improve COHSS

Basic Screening Survey

1. In collaboration with OHU staff, conduct a 2016-17 Basic Screening Survey
2. Analyze BSS data at the state and Health Statistics Region (HSR) level
3. Disseminate results of the 2016-17 BSS using the COHSS dashboard, fact sheets, and other data products

Additional Data Products

1. Produce fact sheets on emerging issues in oral health. Currently planned fact sheets include:
    - Racial disparities in oral health outcomes and access (2016-17 work plan)
    - Oral health and diabetes (after 2016-17 work plan has ended)
    - Oral health issues for pregnant women (after 2016-17 work plan has ended)
2. In conjunction with program staff, develop manuscripts for publication. Current ideas for future manuscripts include:
    - County-level estimates for population-based oral health surveillance data
    - Long-term outcomes of oral health programming aimed at pregnant women and young children
3. Provide other ad hoc requests for data products, as needed, from the OHU and other stakeholders, which may include, but are not limited to:
    - Fact sheets
    - Press releases
    - Grant applications
    - Media or policy documents
    - Presentations at local or national conferences, or at meetings
    - Contributions to the OHU website or newsletters

Oral Health Surveillance Work Plan: Fiscal Year 2016-17

Activity	Description	Expected Date of Completion
Fact sheet	Racial disparities in oral health outcomes and access	Spring 2017
Dashboard	Oral Health Surveillance System – Data Dashboard	Spring 2017
Dashboard	Oral Health integration in the Chronic Disease Data Dashboard	Summer 2017
Fact sheet	COHSS user guide	Spring 2017
Misc.	COHSS dissemination	Ongoing
Analysis	Basic Screening Survey analysis	Spring 2017
Report	Basic Screening Survey reporting and dissemination	Summer 2017
Analysis	Basic Screening Survey county level estimates	Spring 2017

Appendix A: Descriptions of Data Sources

American Community Survey (ACS) - An ongoing survey by the U.S. Census Bureau that provides data every year -- giving communities the current information they need to plan investments and services. Information from the survey generates data that help determine how federal and state funds are distributed each year. The survey asks about age, sex, race, family and relationships, income and benefits, health insurance, education, veteran status, disabilities, where you work and how you get there, and where you live and how much you pay for some essentials. For more information, visit http://www.census.gov/acs.

Basic Screening Survey (BSS) - A standardized set of surveys designed to collect information about 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. In the observed oral health survey, gross dental or oral lesions are recorded by dentists, dental hygienists, or other appropriate health-care workers in accordance with state law. The examiner records presence of untreated cavities and urgency of need for treatment for all age groups. In addition, for preschool and school-age children, caries experience (treated and untreated decay) also is recorded. School-age children also are examined for presence of sealants on permanent molars.
http://www.astdd.org/basic-screening-survey-tool/

Behavioral Risk Factor Surveillance System (BRFSS) - The Behavioral Risk Factor Surveillance System (BRFSS) is sponsored by the Centers for Disease Control and Prevention and is the world's largest, ongoing telephone health survey system of adults 18 years of age and older. Beginning in 1984, the BRFSS purpose is to collect data on health risk behaviors, preventive health practices and health outcomes primarily related to chronic disease and injury. Using random-digit-dialing, BRFSS surveyors collect data from each state and the District of Columbia, Puerto Rico, the United States Virgin Islands and Guam. BRFSS data are used to track changes in trends, develop and evaluate prevention programs and prioritize resources. For more information on BRFSS, visit www.cdc.gov/brfss/.

Child Health Survey (CHS) - The Colorado Child Health Survey (CHS) was initiated in 2004 to fill the health data gap in Colorado that exists for children ages 1–14. The purpose of this study is to monitor health conditions and behaviors among children. Topics include, but are not limited to, access to health and dental care, behavioral health, and oral health. Parents are identified after completing the Behavioral Risk Factor Surveillance System and, if willing to participate, they are called approximately 10 days later to complete the CHS. Approximately 1,000 surveys are completed each year. For more information on CHS, visit www.cdphe.state.co.us/hs/yrbs/childhealth.html.

Colorado Central Cancer Registry (CCCR) - The Colorado Central Cancer Registry is the statewide cancer surveillance program of the Colorado Department of Public Health and Environment. The program's goal is to reduce death and illness due to cancer by informing citizens and health professionals through statistics and reports on incidence, treatment and survival, and deaths due to cancer. The Registry is mandated by Colorado law and a regulation passed by the Colorado Board of Health. Information is collected from all Colorado hospitals, pathology labs, outpatient clinics, physicians solely responsible for diagnosis and treatment, and state Vital Statistics. Pertinent data is registered on all malignant tumors, except basal and squamous cell carcinomas of the skin. All individual patient, physician, and hospital information is confidential as required by Colorado law.

Colorado Responds to Children with Special Needs (CRCSN) - CRCSN is a statewide public health program for monitoring and preventing birth defects and developmental disabilities. Information on birth defects in Colorado has been collected since 1989.

Head Start Program Information Report (PIR) - The PIR is an annual data report sent to the federal level (U.S. Department of Health and Human Services) from all local Head Start programs. This report contains a health component. Programs submit data in July and states receive data back in December.

Healthy Kids Colorado Survey (HKCS) – The Healthy Kids Colorado Survey (HKCS) is a statewide school-based survey administered to middle and high school students. The survey is administered by CDPHE and the University of Colorado Anschutz Medical Campus, and is supported by CDPHE, the Colorado Department of Education (CDE), and the Colorado Department of Human Services (CDHS). The survey incorporates the CDC's Youth Risk Behavior Surveillance System (YRBS). Started in 2013, the HKCS is conducted every two years in randomly selected schools across Colorado. For more information about the HKCS, visit https://www.colorado.gov/pacific/cdphe/hkcs.

Medicaid data – Medicaid is a state-administered program intended to provide health care and health-related services to low-income or disabled individuals. CDPHE has an annual memorandum of understanding with Colorado Department of Health Care Policy and Financing and receives data specified in the memorandum annually.

Pregnancy Risk Assessment Monitoring System (PRAMS) – The Pregnancy Risk Assessment Monitoring System (PRAMS) is a surveillance project of the Centers for Disease Control and Prevention. The goal of the PRAMS is to improve the health of mothers and infants by reducing adverse outcomes such as low birth weight, infant mortality and morbidity, and maternal morbidity. PRAMS provides state-specific data for planning and assessing health programs and for describing maternal experiences that might contribute to maternal and infant health. State-specific, population-based data are collected by mail regarding maternal attitudes and behaviors before, during and shortly after pregnancy. Women are sampled using data from each state's birth certificate file. For more information on PRAMS, visit www.cdc.gov/PRAMS/index.htm.

Sealant Efficiency Assessment for Locals and States (SEALS) – SEALS software helps states and communities evaluate the effectiveness and efficiency of their school dental sealant programs. The Excel-based software automates the capture, storage, and analysis of data on the oral health status of participating children; the types and numbers of services delivered at school events, and the costs and logistics of events, e.g., personnel, equipment, materials, and travel.

U. S. Census – The U.S. Census is the leading source of quality data about the nation's people and economy. A federal agency under the U.S. Department of Commerce, the U.S. Census Bureau conducts the decennial census of the United States.

Vital Records – A division within the Colorado Department of Public Health and Environment that provides registration and certification of the vital events that occur in Colorado. These events include births, deaths, and fetal deaths. The division also provides statistical information on a wide range of categories relating to these events.

Water Fluoridation Reporting System (WFRS) – WFRS provides state oral health program staff a tool for monitoring the quality of the water fluoridation program in their state. Data is used by state oral health program staff to recognize excellent work in water fluoridation and to identify opportunities for continuous improvement in the water fluoridation program.

Appendix B: Glossary of Terms

Association of State and Territorial Dental Directors (ASTDD) – The ASTDD membership consists of the chief dental public health officers (state dental directors) of the state health departments or equivalent agencies and the U. S. territories.

ASTDD Synopses – In 1994, the Association of State and Territorial Dental Directors (ASTDD) originated the annual *Synopses of Dental Programs* as a way to share information among dental directors and partners. The *Synopses* describe program activities and successes and the challenges that programs faced during the previous year. States and territories respond to an annual questionnaire to provide data for the *Synopses*.

Caries – Tooth decay or "cavities"

Fluoride – A mineral that helps strengthen tooth enamel making teeth less susceptible to decay. Fluoride is ingested through food or water, is available in most toothpaste, or can be applied as a gel or liquid to the surface of teeth by a health professional.

Health Insurance Portability and Accountability Act (HIPAA) – A federal law passed in 1996 to promote standardization and efficiency in the health-care industry and to enforce privacy and security of protected health information.

Healthy People 2020 – Healthy People 2020 provides a framework for prevention for the nation. It is a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats.

Hygienist – A licensed, auxiliary dental professional who is both an oral health educator and clinician who uses preventive, therapeutic and educational methods to control oral disease

Maternal and Child Health (MCH) – A term that encompasses the broad range of health issues affecting women during pregnancy and infants and children.

Metadata – Information about the data; metadata describes various attributes of the data and is used to facilitate the understanding, use, and management of data. Also referred to as a "data dictionary."

Protected Health Information (PHI) – Protected health information (PHI) under HIPAA includes any individually identifiable health information. Identifiable refers not only to data that is explicitly linked to a particular individual, but also to health information with data items that reasonably could be expected to allow individual identification.

Sealants – A thin resin that is applied to the biting surfaces of teeth to prevent decay

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