South Carolina Department of Health
and Environmental Control

SOUTH CAROLINA SURVEILLANCE PLAN

STATE-BASED
ORAL DISEASE PREVENTION PROGRAM

DIVISION OF ORAL HEALTH

APRIL 2014

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FREQUENTLY USED ACROYNMS

ADA	American Dental Association
ASTDD	Association of State and Territorial Dental Directors
BOW	Bureau of Water
BRFSS	Behavioral Risk Factor Surveillance System
BSS	Basic Screening Survey
CDC	Centers for Disease Control and Prevention
CWF	Community Water Fluoridation
DHEC	Department of Health & Environmental Control
DHHS	Department of Health and Human Services
DOH	Division of Oral Health
DOHD	Division of Oral Health Director
HP2020	Healthy People 2020
MCHB	Maternal Child Health Bureau
MUSC	Medical University of South Carolina
NOHSS	National Oral Health Surveillance System
OHNA	Oral Health Needs Assessment
PRAMS	Pregnancy Risk Assessment & Management System
QAS	Quarterly Advisory Summit
RA	Recipient Activity
SCDA	South Carolina Dental Association
SC DHEC	South Carolina Department of Health & Environmental Control
SC DOE	South Carolina Department of Education
SCOHACC	South Carolina Oral Health Advisory Council and Coalition
SDPP	School-based Dental Prevention Program
SOHP	State Oral Health Plan
WFRS	Water Fluoridation Reporting System
YRBSS	Youth Risk Behavior Surveillance System

PURPOSE

Purpose: The purpose of the South Carolina, Division of Oral Health Surveillance Plan is to provide an integrated state specific system to monitor oral diseases and risk factors, to describe the burden of oral disease in South Carolina and to support program planning and policy development. The surveillance system drives the objectives and activities of the SOHP. The South Carolina surveillance system is used to assist in the measurement of data-driven measures of the SOHP. In essence, it is the plan for monitoring the success of the SOHP.

The data is used to (1) measure the burden of oral disease, (2) to monitor progress towards the SOHP objectives, and (3) to provide information for action to national, state and local levels.

SURVEILLANCE IN SOUTH CAROLINA

Introduction: Oral health is a key part of a person's overall health and well-being throughout life. Good oral health includes our ability to chew, swallow, smile, speak, learn and work. However, tooth decay, a common problem for people of all ages, can result in pain and suffering and reduced quality of life. Today we know that the damage caused by tooth decay can be reduced or in many cases prevented as a result of evidence –based preventive measures such as water fluoridation and sealants.

According to the Centers for Disease Control and Prevention (CDC), Public Health surveillance is defined as:

> "The ongoing systematic collection, analysis, and interpretation of health data essential to the planning, implementation and evaluation of public health practice, closely integrated with the timely dissemination of these data to those who need to know".

In broad terms, the surveillance system is used to produce scientifically valid and reliable data that can be used by policy makers from the state to the county level in designing, implementing and evaluating public oral health interventions. Stakeholders can use surveillance data for their own purposes. They can in turn provide useful information on the evaluation process of the surveillance system.

One of the earliest statewide dental screening surveys in children was performed in 1982-1983. Its findings showed a high rate of untreated dental decay among children as well as great disparities in oral health among different demographics.
In the early 1990's, the South Carolina Department of Health and Environmental Control (SC DHEC) closed the office of Public Health Dentistry due to economic constraints. In 1998, the program was commenced again heralding the start of a statewide dental activity that has been dormant since early 1990's. Since then, a plethora of gaps have been identified in the Oral Health infrastructure. One of the major concerns was the absence of a statewide oral health needs assessment to update the 1982-1983 school survey. Another concern was the lack of a State-wide Oral Health Surveillance System. The presence of the Oral Health Surveillance System would not only capture the disease burden data in South Carolina, but also incorporate pertinent information from prevailing data sources such as: BRFSS; YRBSS; South Carolina Cancer Registry; PRAMS; Medicaid data etc.

The first surveillance plan in South Carolina was written in 2004. Since that time, it has undergone several revisions to incorporate enhanced data collection strategies. In 2008, the surveillance plan was reconciled with the State Oral Health Plan (SOHP) so that the South Carolina Oral Health Advisory Council and Coalition is aware of its utility in measuring their progress with SOHP objectives. The surveillance system now plays a key role for the Division of

Oral Health (DOH) in regards to supplying the qualitative and quantitative data for planning and evaluation of the SOHP. South Carolina's Maternal Child Health Bureau (MCHB) has recognized the value the oral health surveillance system plays in the function of the DOH and has used the Oral Health Surveillance Plan to build the foundation of the MCH Bureau's Surveillance System.

SECTION I: GOALS AND OBJECTIVES OF THE SURVEILLANCE PLAN

Goal: Improving the oral health and overall health of all South Carolinians by maintaining a comprehensive oral health surveillance system with a continuous systemic collection and interpretation of state oral health data that enhances the decision making process involved in the planning, implementation and evaluation of the public health practices as well as improves policy changing practices.

Objectives: The objectives are based on the most current version of the SC Oral Health Plan, the work done by Coalition workgroups in the areas of school-based dental sealant program and water fluoridation as well as the *Healthy People 2020* objectives.

2.1 The Division of Oral Health will maintain the Public Health Dissemination System that includes publication of the State Oral Health Surveillance Plan, oral health burden documents, needs assessments, and other related surveillance information via an Internet presence through the DHEC Oral Health Website.

South Carolina

Baseline (2013): Website presence
Target (2018): Website enhancement

Healthy People Reference:

OH-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (2009): 32
2020 Target: (total coverage)

Measurement Type: Process

Data Collection Method: Evidence of website.

2.2 By August 31, 2014, the Division of Oral Health will have a comprehensive surveillance plan and will update it annually.

South Carolina

Baseline (2009): Surveillance Plan
Target (2014): Surveillance Plan

Healthy People Reference:

OH-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (2009): 32
2020 Target: (total coverage)

Measurement Type: Process

Data Collection Method: Evidence of surveillance plan.

2.3 The Surveillance Coordinator will submit relevant information to ASTDD annually.

South Carolina

Baseline (2003-2012): 10 ASTDD Annual Synopsis Reports

Target (2013-2018): 5 ASTDD Annual Synopsis Reports

Healthy People Reference:

OH-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (2009): 32

2020 Target: (total coverage)

Measurement Type: Process

Data Collection Method: Evidence of ASTDD report.

2.4 By August 31, 2015, the Division of Oral Health will produce the second SC Fluoridation Plan and update it annually.

South Carolina

Baseline: Fluoridation Plan 2009

Target (2015): Fluoridation Plan

Healthy People Reference:

OH-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (2009): 32

2020 Target: (total coverage)

OH-13: Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water.

Baseline (2008): 72.4%

2020 Target: (79.6%)

Measurement Type: Outcome

Data Collection Method: DOH Database, publication on website

2.5 The Division of Oral Health will maintain and update a community fluoride monitoring system using the CDC WFRS system.

South Carolina

Baseline: Not applicable

Target: Community Water Fluoridation Database

Healthy People Reference:

OH-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (2009): 32

2020 Target: (total coverage)

OH-13: Increase the proportion of the U.S. population served by community water

systems with optimally fluoridated water.

Baseline (2008): 72.4%

2020 Target: (79.6%)

Measurement Type: Process

Data Collection Method: Evidence of CDC WFRS updated system

2.6 The Division of Oral Health will maintain a joint collaboration with the Bureau of Water.

South Carolina

Baseline (2008-2013): Quarterly Meetings

Target: Quarterly Meetings

Healthy People Reference:

OH-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (2009): 32

2020 Target: (total coverage)

OH-13: Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water.

Baseline (2008): 72.4%

2020 Target: (79.6%)

Measurement Type: Process

Data Collection Method: Evidence by meeting minutes

2.7 The Division of Oral Health will conduct a needs assessment on the oral health status of public school children in South Carolina every 5 years.

South Carolina

Baseline: OHNA 2013

Target: OHNA 2018

Healthy People Reference:

OH-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (2009): 32

2020 Target: (total coverage)

Measurement Type: Process

Data Collection Method: Evidence of contractual and permissive agreements between DHEC and key stakeholders for the sharing of information. Evidence of needs assessment completed.

2.8 The Division of Oral Health will maintain and update annually the database of SDPPs.

South Carolina:

Baseline: Not applicable

Healthy People Reference:

OH-9.1: Increase the proportion of school-based health centers with an oral health component that includes dental sealants.

Baseline (2007-2008): 24.1%

2020 Target: 26.5%

OH-9.2: Increase the proportion of school-based health centers with an oral health component that includes dental care.

Baseline (2007-2008): 10.1%

2020 Target: 11.1%

OH-9.3: Increase the proportion of school-based health centers with an oral health component that includes topical fluoride.

Baseline (2007-2008): 29.2%

2020 Target: 32.1%

Measurement Type: Process

Data Collection Method: DOH database.

2.9 The School Dental Prevention Programs will submit timely and relevant information to DHEC on a bi-annually basis and the Division of Oral Health surveillance system will monitor the data collected from the school dental prevention programs bi-annually.

South Carolina

Baseline: 2012- 2013 Annual Report

Target (2013-2018): 5 Annual Reports

Healthy People Reference:

OH-12.2: Increase the proportion of children aged 6 to 9 years who have received dental sealants on one or more of their permanent first molar teeth.

Baseline (1999-2004): 25.5%

2020 Target: 28.1%

OH-12.3: Increase the proportion of adolescents aged 13 to 15 years who have received dental sealants on one or more of their permanent molar teeth.

Baseline (1999-2004): 19.9%

2020 Target: 21.9%

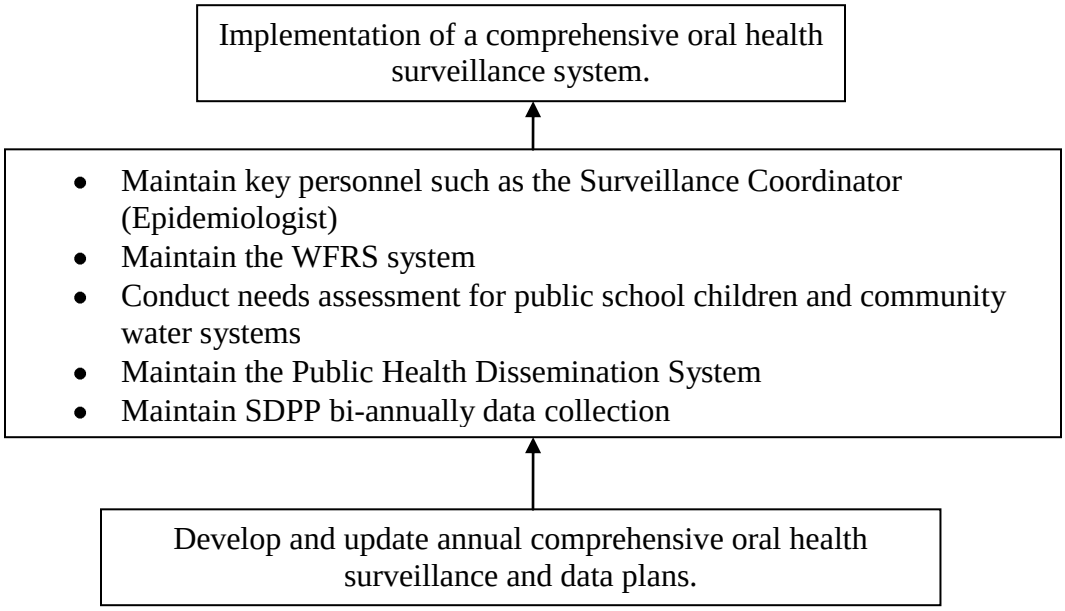
MCHB Performance Measure #09: Percent of third grade children who have received protective sealants on at least one permanent molar tooth.

Measurement Type: Process

Data Collection Method: DHEC Division of Oral Health staff and evaluator track this, among a cadre of other indicators collected through the unified data collection process established through the Memorandum of Agreement between DHEC Division of Oral Health and the School Dental Prevention Programs. Data is collected and analyzed on a quarterly basis.

SECTION II: LOGIC MODEL

Logic Model



The Surveillance Plan includes a full description of the data sources in the plan consistent with the *ASTDD Best Practices Plan Guidelines* including (a) National Oral Health Surveillance System (NOHSS) indicators for Kindergarten and third grade children from the Basic Screening Survey (2002,2008,2013); (b) WRFS monthly fluoridation status of adjusted water systems since 2005; (c) ASTDD State Synopsis since 2003; and (d) other data sources including BRFSS, YRBS, PRAMS, SC Cancer Registry, Medicaid dental claims data.

Outcomes

Short-term: (1) Increase communication formats for dissemination of the 2013 NOHSS Indicators from Basic Screening Survey for kindergarten and third grade children reports to the agency, SCOHACC and key decision makers; (2) Increase communication vehicles for the dissemination of the 2013 Oral Disease Burden Document.

Intermediate: (1) Improve the quality of the monthly WFRS reporting; (2) Maintain yearly submission of the ASTDD Synopsis Report; (3) Increase data components of surveillance plan to include oral facial clefts**.**

Long-term: (1) Increase the capacity of an established oral and craniofacial health surveillance system utilizing ASTDD Best Practices Plan Guidelines and stakeholder input; (2) Align the surveillance plan to reflect the Healthy People 2020 objectives and the revised objectives of the 2013 – 2018 SOHP.

SECTION III: STAKEHOLDERS

South Carolina Advisory Council: Data will be shared with the Advisory Council, which is going to guide the process of increasing the recognition of oral health issues among policy makers. The Advisory Council is also involved in the annual evaluation process, regarding the implementation of the State Oral Health Plan. Data generated from the surveillance system will be imperative for evidence-based evaluation, and then further planning process.

South Carolina Oral Health Coalition: Data generated from the Surveillance system will be shared with the SCOHC members, which then along with the recommendations from the Advisory Council will take back the information to each workgroup. With the information from the surveillance system such as reports of data analysis each workgroup will determine priorities and establish action plans with focus towards achieving the objectives set forth in the SOHP.

Division of Oral Health: will use the information generated from the surveillance system for further program planning and evaluation.

Surveillance Team: The Surveillance team will consist of individuals from USC SCRHRC, MCH, Bureau of Chronic Disease, SC Cancer Registry, and the Department of Education.

Other: Stakeholders that will utilize the information from the Surveillance system include

- South Carolina Department of Health and Environmental Control (SC DHEC)
- South Carolina Department of Education (SC DOE)
- South Carolina Head Start
- South Carolina Department of Health and Human Services (SC DHHS)
- South Carolina Dental Association (SCDA)
- Medical University of South Carolina- School of Dentistry (MUSC)
- National Oral Health Surveillance System (NOHSS)

SECTION IV: KEY ORAL HEALTH INDICATORS UNDER SURVEILLANCE

Primary Data

SCHOOL- BASED SEALANTS	
Oral Health Indicators	**Source: SDPP/DOH Database/ ORS/ DOE**
# of programs in urban schools	
# of programs in rural schools	
# of schools in urban area	
# of schools in rural area	
# of children receiving at least one sealant	
% of children with treated decay (fillings)	
% of children with untreated decay (cavities)	
% of children without sealant at the time of screening	
# of sealant placed	
% of children referred for dental treatment	
% of children with referrals for Code 2	
# of children served	
% of children with referral met for Tx Urgency Code 2	
# of sealants retained 9-15 months after placement by program	

OHNA	
Oral Health Indicators	**Source: DOH Database/ ORS**
% of 3rd graders with at least one sealant on permanent molars	
% of children screened with untreated decay	
% of children screened with caries experience	
% of children screened with Treatment urgency Code 1	
% of children screened with Treatment urgency Code 2	

WATER FLUORIDATION	
Oral Health Indicators	**Source: DHEC/BOW/EFIS/DOH Database/WFRS**
Estimated averted decay and /or treatment costs attributable to water fluoridation	
% of people served by CWS who receive optimally FL water	
# of requests for scientific evidence on the safety of CWS	
# and location of communities where outreach occurred	
# of media placements promoting water fluoridation	
# of water operators trained	
# of trainings provided	
# of inspections performed	
# of WS participating in split sampling	
# of WS needing replacement	
# of WS receiving funds for replacement.	
Amount of money given for new or replacement equipment	
% of adjusted WS that maintain optimal FL levels annually	

Secondary Data

PRAMS	
Oral Health Indicators	**Source: DHEC/ PHSIS**
Teeth cleaned before pregnancy	
Teeth cleaned after pregnancy	
Ever had teeth cleaned	
Dental problem during pregnancy	
Visited a dentist during pregnancy	
Advised by a doctor or dentist about oral health while pregnant	

MEDICAID & LICENSURE

Oral Health Indicators	Source: ORS
# and % of children who had a dental visit in the past year	
# and % of adults with a dental visit in the past year	
# and % of dental providers that provide pediatric preventive services to Medicaid and CHIP populations	
# and % of Medicaid and CHIP children that received a preventive dental service	
% of School-based Health Centers that provide sealants, restorative and Fl varnish	
% of dental providers with policies that integrate chronic disease prevention	
Policies that increase the % of non- dental providers that integrate OH screening and prevention	
# or % of Medicaid children that receive OH services by a non-dental provider	
# or % of patients that receive any oral health service at FQHC each year	
#Medicaid/SCHIP dental program members	
#Medicaid/SCHIP dental program members who received diagnostic services	
#Medicaid/SCHIP dental program members that received preventive services	
#Medicaid/SCHIP dental program members that received treatment services	
# Medicaid/SCHIP dental program members who are dental service recipients	
# of dental visits to a dentist by Medicaid/SCHIP dental program recipients	
Units of dental services	
Dentists licensed by state by county	
Dentists licensed by the state who have in-state addresses	
# dentists paid for providing at least 1 dental service to at least one dental recipient	
# dentists paid for providing dental services to at least 50 dental recipients	
# dentists paid for providing dental services to at least 100 dental recipients	
# of dentists paid in excess of $10,000 for dental services rendered to dental recipients	
Population less than 6 years of age by county	
Total number of members enrolled under 6 yrs	
Total number of Medicaid/SCHIP dental program less than 6 years that had at least one tooth extraction without additional payment for sedation	
Less than 6 years and had tooth extraction with nitrous oxide	
Less than 6 years and had tooth extraction with non-intravenous conscious sedation	
Less than 6 years and had tooth extraction with intravenous conscious sedation	
Less than 6 years and had tooth extraction with deep sedation-general anesthesia	

BRFSS	
Oral Health Indicators	**Source: DHEC/ PHSIS**
Percent of adults with a dental visit in the past year	
Percent of adults who had teeth removed because of tooth decay or gum disease, infection	
Length of time since last visit to a dentist or a dental clinic for any reason	
Percent of adults with diabetes	
Percent of adults who had their teeth cleaned in the past year	
Number of adults with diabetes who had a dental visit in the previous year	
Percentage of adults who smoke	
Percentage of low income adults who had their teeth cleaned by the dentist or dental hygienist within the past year	
Percentage of low income adults who lost 6 or more teeth because of dental caries or periodontal disease	
Percentage of adults 65+ who have had all their permanent teeth extracted	
Percentage of low income adults 65+ who have had all their permanent teeth extracted	
Complete tooth loss in adults	
Percentage of adults without medical healthcare coverage	
Percentage of adults with dental insurance	

SECTION V: DIVISION OF ORAL HEALTH DATABASE

DOH Database

Division of Oral Health has created a surveillance database that is housed on the agency's share drive where all DOH staff can have ready access to its multiple components. This database is subdivided into various sub-databases, including, but not limited to: the SDPP database, the Community Water Fluoridation database, as well as access to all DOH activities, resources and planning materials, and a system to monitor progress of CDC component strategies. Goals and performance measures are aligned with their respective activities to bring them to fruition. The surveillance team meets on a quarterly basis to review milestones and progress to date. The results of these meetings are presented to the appropriate leadership to expedite measures taken ensuring success of the strategies engaged. Data will be collected actively from the SDPP (Sealant) program, Community Water Fluoridation, and well water sampling initiative. Passive data will stem from other systems including, but not limited to: BRFSS, PRAMS, Medicaid (via DRS), YRBS, the Youth Tobacco System and the oral-facial cleft data from the MCH Birth Defects surveillance system.

1. SDPP Database

Overview: The ***Program Coordinator*** together with the Sealant Management Team implements surveillance and evaluation activities for the DHEC SDPP. The SDPPS submit their program data directly to the ***Data Manager at the Division of Research*** (the state's legislatively mandated data warehouse), which allows for the program data to be linked to Medicaid enrollment data and Department of Education Free and Reduced Lunch data; the ***Epidemiologist*** receives aggregate data from the Data Manager in order to prepare the annual School Dental Program report , improve quality of the data submissions, and in collaboration with the ***Evaluation Consultant*** conducts an in-depth analysis of the DHEC SDPP based on objectives from the state oral health plan in order to improve current program operations and develop strategies to increase access to children in low-income schools currently without access to preventive dental care. CDC Health Economist is currently providing technical assistance to the DOH for enhancement of the data collection to include measures of sealant effectiveness. Phase one of the data change was initiated in 2012-13. Phase two, sealant retention checks will be implemented in 2013-2014.

Target Populations: low income school-aged children. SC defines eligibility for both rural and urban schools participation in the SDPP based on school participation rates in the reduced/free lunch program and/or Medicaid eligible students as reported by the South Carolina Students on Free-Reduced Lunch and/or Medicaid Data Based on Precode and Medicaid Eligibility File.

Collaborations: The first and foremost collaboration is between the DHEC DOH and the SDPPs, which is established in the Memorandum of Agreement between the two parties.

Timeline: Data is reported bi-annually by the SDPPs directly to the Data Manager at the Division of Research and Statistics (the state's legislatively mandated data warehouse). The raw data is linked to the Medicaid and Department of Education data and is analyzed using a SAS program specifically designed for the State of South Carolina by the CDC Economist Susan Griffin. Aggregate de-identifiable data is then sent to DOH Epidemiologist who prepares an Aggregate Report and SDPP Individual Report for the reported school year.

Performance Measures: **Table 1**

Strategy 2 & 3	**COMPONENT 2**
Performance Measures	**Data elements in database**
# of programs in urban schools	Program list, Urban School list
# of programs in rural schools	Program list, Rural School list
# of schools in urban area	Urban School list
# of schools in rural area	Rural school list
# of children receiving at least one sealant • By age • By grade	Age of child Grade of child Sealant received
% of children with treated decay (fillings)	# of children screened # of children with untreated decay (cavities) # of children with caries experience (fillings + cavities)
% of children with untreated decay (cavities)	# of children with untreated decay (cavities) # of children screened
% of children without sealant at the time of screening	# of children screened # of children with at least one sealant at the time of screening
# of sealant placed	# of children receiving sealants # of sealant for each child
% of children referred for dental treatment	# of children with Caries experience # of children with code 2, Or directly code 1 # of children screened
% of children with referrals for Code 2	# tx code 2 # of children screened

2. Fluoridation Database

Overview: The epidemiologist is responsible for integration of water fluoridation into the Oral Health Surveillance System and generating evaluation of fluoridation based on the objectives of the State Oral Health Plan. The system contains data generated from Water Fluoridation Reporting Systems (WFRS) database, as well as information in regards to water operator training, water fluoridation education and training, success stories, community issues related to fluoridation. A Community Water Fluoridation sub-database has been created to house the aforementioned materials.
Training is a key component for the DOH CQI process. Any candidate who receives the CDC Training (*Water Fluoridation: Principles and Practices)* will be included in the inventory of fluoridation specialists in South Carolina. Through the Oral Health Training and Resource Center, the DOH will continue to facilitate access to Water Fluoridation Training and resources to operators and water system.

Target Population: All population of South Carolina that is served by public water systems.

Collaborations: DHEC Bureau of Water, SC Dental Association, American Dental Associations, Pew Charitable Trust, Rural Water Associations, USC SCRHRC, SCOHACC and the Water Fluoridation Workgroup.

Timeline: Fluoride levels for all adjusted community water systems are entered monthly to the WFRS. Data is extracted from the state's databases EFIS & SDWIS through the collaboration with the Bureau of Water (BOW).
Other information is continually updated and is readily accessible to all DOH staff for responding to outside requests and is utilized for implementing policy. This inventory was also updated with a survey of public water systems to determine equipment and training needs, which was conducted in 2014.

Performance Measures: **Table 2**

Strategy 4-6	**COMPONENT 2**
Performance Measures	**Data elements in the database**
Cost effectiveness and impact of community FL	Estimated averted decay and /or treatment costs attributable to water fluoridation
% of people served by CWS who receive optimally FL water	# of people served by CWS # of people served by CWS who receive optimally fl water
Increase knowledge of the benefits of FL.	# of requests for scientific evidence on the safety of CWS # and location of communities where outreach occurred # of media placements promoting water fluoridation

Implementing QI in fluoridation practices	# of water operators trained # of trainings provided # of inspections performed # of WS participating in split sampling # of WS needing replacement # of WS receiving funds for repl. Amount of money given
% of adjusted WS that maintain optimal fluoride levels annually	# of adjusted WS with OPTIMAL FL each month #of adjusted WS

3. **OHNA Database**

Overview: Every five years South Carolina Department of Health and Environmental Control (DHEC) conducts a statewide dental screening to obtain a picture of the dental health of Kindergarten and 3rd grade children in South Carolina. The Statewide Oral Health Screening and Assessment helps raise awareness about the connection between a healthy mouth and a healthy body, and also helps increase knowledge about preventive practices and access to dental care. The findings of the Oral Health Statewide Screening survey are utilized to evaluate the State's preventive oral health programs, determine the need for additional dental programs and describe the oral health status of South Carolina's children. Data collected in previous assessments has been utilized both at the state and community level to improve the oral health of children as well as a baseline to determine if the efforts to improve oral health are working and what more could be done.
DOH Epidemiologist developed a database (Access) not only for the purpose of data entry but also for monitoring, managing and evaluating the OHNA by creating the necessary reports. Each school has its own page that provides address and contact info of the principal and school nurse, also provides names of each teacher and number of students in each class. This way we were able to record the date of district and principal approvals, the number of incentives sent, to who, by whom and how, the date of screening etc. Database also provided a place for recording and monitoring the correspondence during the implementation phase, so that all DOH staff is aware and updated on regular basis. DOH staff would enter the data on ongoing basis. Data entry was estimated to be 50 entries per hour.

Goal: In addition to collecting data, the OHNA gives DHEC's DOH an opportunity to reach students, parents and educators with some valuable oral health information in effort to raise awareness and provide a prevention message.

Target Population: The statewide dental screening targeted children in public schools on K5 and 3rd grade. A random stratified sample is chosen with the help of CDC to better represent the population targeted for the screenings.

Collaborations: SC DHEC; DOH staff; SCDA; MUSC; School nurses; Local dentists; dental students; Dental hygienists(SDPP); School Principals and District Superintendents; USC RHRC.

Timeline: Planning process should start as early as possible in the year. All forms, letters and activity booklets developed need to be approved and then sent to art department for creating the final document with the tagline for the OHNA. Once each document produced is finalized it needs to be sent to printing department. Allow 3 months in the process for development, approval and production of the materials.
Implementation process should also start as early as possible in the mid of the calendar year prior to the start of the school year when the OHNA will be implemented. Training of the dental screeners should be completed before the start of the school year. The entire implementation and evaluation process of the OHNA should be within the school year, preferably screenings and data entry to be completed simultaneously by the end of the first semester while analysis and evaluation to be completed by the end of the second semester.

Performance Measures: **Table 3**

Performance Measures	**Data elements in the database**
% of 3rd graders with at least one sealant on permanent molars	# of 3rd graders with at least one sealant # of 3rd graders without sealants
% of children screened with untreated decay	# of children screened # of K5 with untreated decay # of 3rd graters with untreated decay
% of children screened with caries experience	# of children screened # of K5 with caries experience # of 3rd graters with caries experience
% of children screened with Treatment urgency Code 1	# of children screened # of K5 with Tx urgency Code 1 # of 3rd graters with Tx urgency Code 1
% of children screened with Treatment urgency Code 2	# of children screened # of K5 with Tx urgency Code 2 # of 3rd graters with Tx urgency Code 2

4. **Other databases**

Overview: The DOH database contains information from secondary data sources collected passively, such as PRAMS, BRFSS; Medicaid utilization and licensure data; HPSA.

Target Population: The target populations for the surveillance system are all inclusive. The surveillance team utilizes data from Population eligible for Medicaid and CHIP, Dental workforce and Safety Net providers.

Collaborations: DHEC Bureau of Chronic Disease, USC RHRC, SC Medicaid (DHHS), Office of Research and Statistics,

Timeline: Yearly update on these performance measures is included on the Annual ASTDD Synopsis Questionnaire.

Performance Measures: **Table 4**

Strategy 7	**COMPONENT 2**
Performance Measure	**Data elements in the database**
Extend of policy and practice changes that increase access to care and improve quality of care	# and % of children who had a dental visit in the past year # and % of adults with a dental visit in the past year # and % of dental providers that provide pediatric preventive services to Medicaid and CHIP populations # and % of Medicaid and CHIP children that received a preventive dental service % of School-based Health Centers that provide sealants, restorative and varnish % of dental providers with policies that integrate chronic disease prevention Policies that increase the % of non- dental providers that integrate OH screening and prevention # or % of Medicaid children that receive OH services by a non-dental provider # or % of patients that receive any oral health service at FQHC each year

SECTION VI: DATA COLLECTION

Data Collection

Data collection process: Data will be collected actively from the SDPP (Sealant) program, Community Water Fluoridation, and well water sampling initiative.
Passive data will stem from other systems including, but not limited to: BRFSS, PRAMS, Medicaid (via Division of Research and Statistics), and the oral-facial cleft data from the MCH Birth Defects surveillance system.

*Target Populations***:** The target populations for the surveillance system are all inclusive. The surveillance team utilizes data, including social determinants data, to identify communities within their jurisdictions or community served that are disproportionately affected by the public health problem, and plan activities to reduce or eliminate these disparities. Disparities by race, ethnicity, gender identity, sexual orientation, geography, socioeconomic status, disability status, primary language, health literacy, and other relevant dimensions are considered.

Timeline:

Data Source	Contact Person	Frequency of Release	Last update
School-based Sealant (SDPP)	Beth Hollingsworth, ORS	Bi-annually	June 2013
Water Fluoridation (WFRS)	Wes Gravelle, SC DHEC-DOH	Continuous	May 2014
Oral Health Needs Assessment Basic Screening Survey (OHNA)	Gerta Ayers, SC DHEC-DOH	Every 5 years	October 2013
Medicaid Dental Utilization	Heather Kirby, DRS	Yearly	February 2014
Behavioral Risk Factor Surveillance System (BRFSS)	Katie Callahan, DHEC	Yearly	2012
Pregnancy Risk Assessment and Monitoring System (PRAMS)	Mike Smith, SCDHEC-MCH	Every 2 years	2013
Health Professional Shortage Areas (HPSAs)	Mark Jordan, SC DHEC- Office of Primary Care	Yearly	2013

SECTION VII: DATA ANALYSIS

Data Analysis

Workforce:

- Epidemiologist –DOH
  Develops, maintains, monitor and updates the DOH database. Enters monthly fluoride levels into WFRS and DOH database. Produces the SDPP Annual Evaluation Report and enters the weekly school entry forms into the DOH database.

- Data Manager –DRS
  The state's legislatively mandated data warehouse, which allows for the program data to be linked to Medicaid enrollment data and Department of Education Free and Reduced Lunch data, received the raw data from all DHEC school-based dental programs and produces a report with aggregate data, which is then sent to DOH.

- Evaluator- USC RHRC- Data analysis and evaluation
  Conducts an in-depth analysis of the DHEC SDPP based on objectives from the state oral health plan in order to improve current program operations and develop strategies to increase access to children in low-income schools currently without access to preventive dental care. The evaluator also conducts analysis of the statewide oral health needs assessment data and produces the report.

SECTION VIII: DATA DISSEMINATION

Data Dissemination

Target Audience*:* Target audience is comprised of all the stakeholders and the general public

South Carolina Advisory Council: Data will be shared with the Advisory Council, which is going to guide the process of increasing the recognition of oral health issues among policy makers. The Advisory Council is also involved in the annual evaluation process, regarding the implementation of the State Oral Health Plan. Data generated from the surveillance system will be imperative for evidence-based evaluation, and then further planning process.

South Carolina Oral Health Coalition: Data generated from the Surveillance system will be shared with the SCOHC members, which then along with the recommendations from the Advisory Council will take back the information to each workgroup. With the information from the surveillance system such as reports of data analysis each workgroup will determine priorities and establish action plans with focus towards achieving the objectives set forth in the SOHP.

Division of Oral Health: will use the information generated from the surveillance system for further program planning and evaluation.

Surveillance Team: The Surveillance team will consist of individuals from USC SCRHRC, MCH, and Bureau of Chronic Diseases.

Other: Stakeholders that will utilize the information from the Surveillance system include

- South Carolina Department of Health and Environmental Control (SC DHEC)
- South Carolina Department of Education (SC DOE)
- South Carolina Head Start
- South Carolina Department of Health and Human Services (SC DHHS)
- South Carolina Dental Association (SCDA)
- Medical University of South Carolina- School of Dentistry (MUSC)
- National Oral Health Surveillance System (NOHSS)

General Public: Reports and fact sheets generated from the data is posted on the DOH website as well as disseminated through education, training and presentation activities to the general public.

Methods of Data Dissemination

All the information generated from the data will be shared with the stakeholders and the general public in forms of:

- Reports
- Fact sheets

- Publications
- Websites
- Media releases
- CD or DVD
- Trainings and Presentations

SECTION IX: CONCLUSION

The competent staff successfully implemented the SC Oral Health Surveillance Plan as evidenced by the completion of the first (2002), second (2008) and third (2013) Oral Health Needs Assessment of SC's kindergarten and third grade children, the second comprehensive Burden of Oral Diseases in SC (2013) including descriptive report of BRFSS, PRAMS, public water systems that adjust fluoride to optimal levels have received annual Water Quality Awards, and since 2003, annual submission of the ASTDD State Synopsis Report.