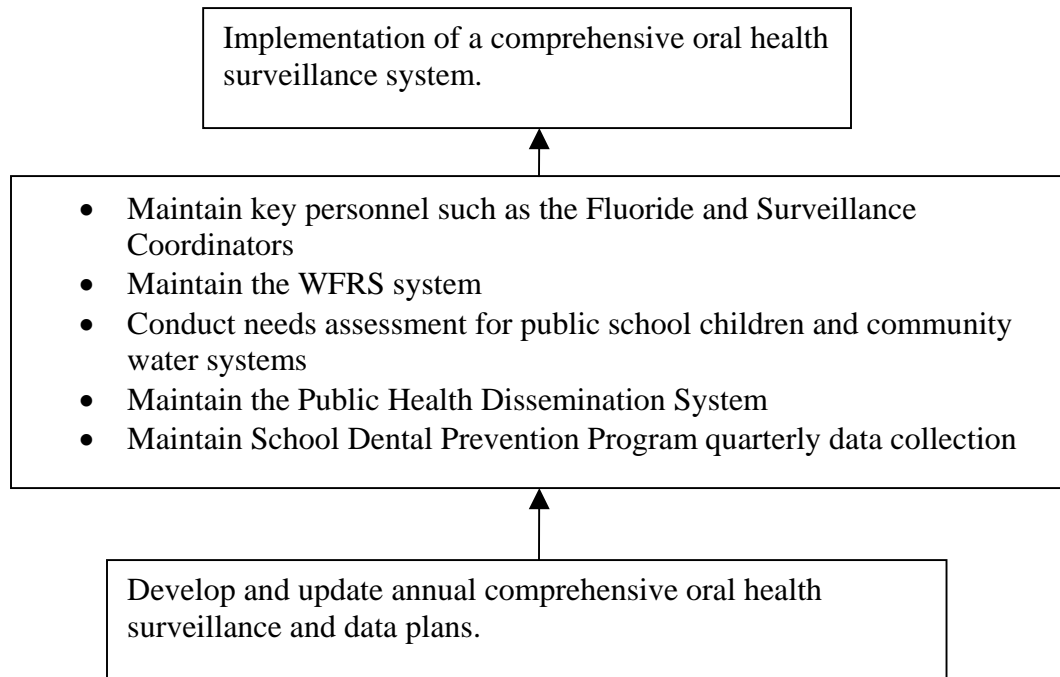


## Surveillance

**Background:** 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. An annual surveillance plan is published by DHEC.

### Logic Model:



### General Objectives:

**2.1.1 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.**

**Healthy People Reference:** 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

**Original State Oral Health Plan Reference:** Priority 2, Strategy 2.1 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E)

**Measurement Type:** Process

**Data Collection Method:** Evidence of website.

**Progress:** South Carolina's first *Oral Disease Burden Document* was completed by DOH staff in 2006 and made available to the public in print and at the Division of Oral Health (DOH) website (<http://www.dhec.sc.gov/health/mch/oral/index.htm>). The State Oral Health Surveillance Plan has been posted on the website since spring of 2008. The 2002 Oral Health Needs Assessment (OHNA) is posted on the website and the 2008 OHNA will be posted in the next few months. Special surveillance reports are posted at the DOH website and distributed to appropriate audiences. Examples of these reports include: (a) SC Special Delivery: Oral Health during Pregnancy and (b) Fact Sheets (on selected topics such as water fluoridation, dental sealants, early childhood, and children with special health care needs).

**2.1.2. Develop surveillance and data management plans that are compatible and National Oral Health Surveillance System and future GIS needs by March 2008, and update annually thereafter.**

**Healthy People Reference:** 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

**Original State Oral Health Plan Reference:** Priority 2, Strategy 2.1 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E)

**Measurement Type:** Process

**Data Collection Method:** Evidence of surveillance plan.

**Progress:** The first surveillance plan 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 SOHP so that the SCOHACC 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 (MCH) has recognized the value the oral health surveillance system plays in the function of the DOH and has recently asked permission to use the Oral Health Surveillance Plan to build the foundation of the MCH Bureau's Surveillance System.

**2.1.3. Submit timely and relevant information to ASTDD and the National Oral Health Surveillance System annually.**

**Healthy People Reference:** 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

**Original State Oral Health Plan Reference:** Priority 2, Strategy 2.1 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E).

**Measurement Type:** Process

**Data Collection Method:** Evidence of ASTDD report.

**Progress:** The DOH has been successfully submitting the ASTDD's State Synopsis since 2003. ASTDD has provided the leadership in identifying information on demographic, infrastructure, workforce, and administrative factors that impact the state's oral health program and has served as the foundation of the surveillance plan. The DOH reported the first Oral Health Needs Assessment (Basic Screening Survey) to the NOHSS in 2002 and the second Fall 2008.

**2.1.4. Implement a comprehensive oral health surveillance system that meets the needs of all key stakeholders, leverages timely and relevant data, and is compliant with national standards by June 2009.**

**Healthy People Reference:** 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

**Original State Oral Health Plan Reference:** Priority 2, Strategy 2.1 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E).

**Measurement Type:** Outcome

**Data Collection Method:** DHEC's surveillance coordinator will conduct interviews with key stakeholders to ascertain if their data needs are being met. Feedback will be used to enhance the surveillance plan and system.

**Progress:** See progress for Objective 2.1.2.

**2.1.5. The Surveillance Coordinator will collaborate with DHEC's PHSIS and the Office of Research and Statistics in the integration of all primary and secondary data sources germane to the Division of Oral Health's programs and services.**

**South Carolina Baseline:** Not applicable

**Healthy People Reference:** 7-11w: Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to surveillance and data systems.

Baseline (1996-97): 14%

2010 Target: (developmental)

**Original State Oral Health Plan Reference:** Not Applicable

**Measurement Type:** Process

**Data Collection Method:** Evidence of meeting minutes and resulting databases for surveillance.

**Progress:** Evidence by newly created Data Flow Chart displayed in the 2008 Oral Health Surveillance Plan.

**Fluoridated Water Objectives:**

**2.2.1 Maintain and update a community fluoride monitoring system using the CDC WFRS system .**

**Healthy People Reference** – 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

**21-9:** Increase persons on public water receiving optimally fluoridated water.

Baseline (1992): 62%

2010 Target: (75%)

**Original State Oral Health Plan Reference:** Priority 2, Strategy 2.3 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E).

**Measurement Type:** Process

**Data Collection Method:** Evidence of CDC WFRS system.

**Progress:** The WFRS program was initiated in South Carolina in 2005 and the fluoridation coordinator continues to record data from monitoring reports that are submitted on a monthly basis. The Bureau of Water (BOW) engineers conduct sanitary surveys on all water plants annually.

#### **2.2.2. Maintain a joint collaboration with Bureau of Water and Division of Oral Health.**

**Healthy People Reference:** 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

**Original State Oral Health Plan Reference:** Priority 2, Strategy 2.1 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E).

**Measurement Type:** Process

**Data Collection Method:** Evidence by BOW-DOH Meeting Minutes

**Progress:** First Meeting was held June 2006. Eleven meetings have occurred since that time. The DOH and BOW have formalized their relationship. Key staff members meet every other month to address their shared fluoridated water agenda. Further information describing the partnership between the DOH and BOW is provided in Chapter 1: Infrastructure Status.

#### **2.2.3. Complete annual assessment of community water systems using WFRS.**

**Healthy People Reference:** 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

**21-9:** Increase persons on public water receiving optimally fluoridated water.

Baseline (1992): 62%

2010 Target: (75%)

**Original State Oral Health Plan Reference:** Priority 2, Strategy 2.1 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E).

**Measurement Type:** Process

**Data Collection Method:** Evidence of assessment.

**Progress:** To evaluate the Fluoridation Program, a survey of water systems in South Carolina was completed in November of 2006. The survey has helped in identifying water systems that are in need of new/and or replacement equipment and also operators who are in need of fluoridation training. It was also extremely useful in the development of the water fluoridation objectives of the SOHP. In 2008, the WFRS data was incorporated into the DOH Surveillance plan to further enhance the monitoring of community water fluoridation.

#### **2.2.4. Maintain a Fluoride Coordinator position to manage the WFRS.**

**Healthy People Reference:** 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

**21-9:** Increase persons on public water receiving optimally fluoridated water.

Baseline (1992): 62%

2010 Target: (75%)

**Original State Oral Health Plan Reference:** Priority 2, Strategy 2.1 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E)

**Measurement Type:** Process

**Data Collection Method:** Position Description

**Progress:** Position maintained. Further information on the role of the Fluoridation Coordinator is provided in Chapter 1: Infrastructure Status.

#### **2.2.5. Surveillance Coordinator to provide technical assistance to the Water Fluoridation Coordinator on surveillance activities.**

**Healthy People Reference:** 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

**Original State Oral Health Plan Reference:** Priority 2, Strategy 2.1 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E)

**Measurement Type:** Process

**Data Collection Method:** Evidence by BOW\DOH Meeting Minutes.

**Progress:** In 2008, the WFRS data was incorporated into the DOH Surveillance plan to further enhance the monitoring of community water fluoridation. Both the Fluoridation Coordinator and Surveillance Coordinator participate in bi-monthly meetings between the DOH and BOW.

**2.2.6. By June 2009, DHEC Division of Oral Health staff will build into the surveillance plan, the ability to identify: (a) The number of homes served by public water system; (b) The number of homes served by fluoridated public water systems; and, (c) Areas where homes are not served by fluoridated water systems.**

**South Carolina Baseline:** Not applicable

**Healthy People Reference:** 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

21-9: Increase persons on public water receiving optimally fluoridated water.

Baseline (1992): 62%

2010 Target: (75%)

**Original State Oral Health Plan Reference** – Priority 2, Strategy 2.3 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E)

**Measurement Type** - Process

**Data Collection Method** – Database

**2.2.7. By March 2008, DHEC Division of Oral Health staff will build into the surveillance plan, the ability to determine if water systems provide monthly fluoridation level reports to the Bureau of Water.**

**South Carolina Baseline** - Not applicable

**Healthy People Reference** – 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

21-9: Increase persons on public water receiving optimally fluoridated water.

Baseline (1992): 62%

2010 Target: (75%)

**Original State Oral Health Plan Reference** – Priority 2, Strategy 2.3 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E)

**Measurement Type** - Process

**Data Collection Method** – Surveillance Plan

**Progress:** – See progress reported under objective 2.2.5.

**2.2.8. By March 2008, DHEC Division of Oral Health staff will build into the surveillance plan, the ability to determine if the fluoridated water systems are maintaining optimal levels of fluoride.**

**South Carolina Baseline** - Not applicable

**Healthy People Reference** – 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

21-9: Increase persons on public water receiving optimally fluoridated water.

Baseline (1992): 62%

2010 Target: (75%)

**Original State Oral Health Plan Reference** – Priority 2, Strategy 2.3 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E)

**Measurement Type** - Impact

**Data Collection Method** – Surveillance Plan

**Progress:** – See progress reported under objective 2.2.5.

**2.2.9. The Bureau of Water will manage the data flow protocol for the water fluoridation reports, which are received by DHEC from the water systems then sent to WFRS at CDC.**

**South Carolina Baseline** - Not applicable

**Healthy People Reference** – 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (1999): None

2010 Target: (total coverage)

21-9: Increase persons on public water receiving optimally fluoridated water.

Baseline (1992): 62%

2010 Target: (75%)

**Original State Oral Health Plan Reference** – Priority 2, Strategy 2.3 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E)

**Measurement Type** - Process

**Data Collection Method** – Evidence of the website

**Progress:** – Evidence of the presence of SC data at WFRS website

**Public School Objectives** –



**2.3.1. Conduct needs assessment on the oral health status of public school children in South Carolina by June 2008. Status: MET**

**Healthy People Reference** – 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.

Baseline (2002): None

2010 Target: (total coverage)

**Original State Oral Health Plan Reference** – Priority 2, Strategy 2.1 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E)

**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.

**Progress:** The DOH conducted the first Oral Health Needs Assessment (OHNA) in 2002 and the second during the 2007/08 school year. Beginning in 2006, the DOH planned the administration of the 2007/08 OHNA for kindergarten and third grade children utilizing the Basic Screening Survey. The OHNA has provided the DOH a current assessment of the untreated dental caries, dental caries experience, dental treatment urgency and the presence of dental sealants. A total of 5,734 children were screened in 73 schools during the fall and spring semesters of the 2007-2008 school year. The data collected has been matched with Free and Reduced Lunch Data and Medicaid data. Further analysis is planned for this year and a manuscript will be submitted to the Journal of Public Health Dentistry. In addition, a Town Hall Meeting will be conducted at our 2008 Forum to discuss what this data implies about our Medicaid Policies, School Based Dental Sealant Programs, and Head Start program.

**2.3.2. Conduct needs assessment on the oral health status of public school children in South Carolina by June 2013.**

**Healthy People Reference** – 21-16: Increase the number of states and District of Columbia that have an oral and craniofacial health surveillance system.


Baseline (2007-08): OHNA plan

2010 Target: (total coverage)

**Original State Oral Health Plan Reference** – Priority 2, Strategy 2.1 (See Appendix D; Priority 3, Strategy 3.3, See Appendix E)

**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.

 **2.3.3. The Division of Oral Health will conduct a feasibility study, by June 2008, to determine if a unified data collection system can be developed in order to monitor state public health guideline compliance and integrate all the school-base programs' data. Status: MET**

**South Carolina Baseline** - Not applicable

**Healthy People Reference** 7-11u: Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health.

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Priority 5; Strategy 5.2 (See Appendix F)

**Measurement Type** - Process

**Data Collection Method** – Evidence of study, which will be monitored through the Coalition.

**Progress:** The Public School Coalition Workgroup was formed in Fall 2006 to develop their component of the State Oral Health Plan (SOHP). As a part of that effort, the members, formed exclusively of school oral health programs, identified the need to have a single data management system for the purposes of monitoring their SOHP progress and program evaluation. As a result, DOH contracted with the Office of Research and Statistics (ORS) to design a single web-based data entry system to serve their purposes resulting in the unified data collection system (UIC).

ORS developed the web-based data entry tool, supported by an SQL database to capture the data. For school programs that did not have electronic patient records or other data management tools, they could enter the data required for the program evaluation into the UIC.

Separately, DOH and ORS worked with school programs that had existing electronic databases to extract variables on a quarterly basis, so as to avoid duplicate data entry. ORS provided significant technical assistance to the school programs through this process, which proved to be successful.

Ultimately, ORS has integrated data captured through the UIC, which was only used by the handful of school programs that did not have electronic database capacities, and data extracted from school programs with existing electronic data systems. The data from these two sources continues to be integrated into a single evaluation and surveillance database, used to monitor the progress of the school programs.

While the feasibility study did not yield a product that all the school programs used for data collection, it successfully catalyzed an understanding and appreciation for quality evaluation and surveillance data among the programs. This effort facilitated a cooperative data sharing environment that had originally not been experienced. DOH continues a contract with ORS for data extraction from program partners, management of UIC for partners without data collection capacity, and the integration of these data into a single source for analytical purposes.

**2.3.4. The DOH will maintain and update annually the database of school dental prevention programs.**

**South Carolina Baseline** - Not applicable

**Healthy People Reference 7-11u:** Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health.

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Priority 5; Strategy 5.2 (See Appendix F)

**Measurement Type** - Process

**Data Collection Method** – database.

**Progress:** The school sealant program database is updated annually.

**2.3.5. The School Dental Prevention Programs submit timely and relevant information to DHEC on a quarterly basis.**

**South Carolina Baseline** - Not applicable

**Healthy People Reference 7-11u:** Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health.

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Priority 5; Strategy 5.2 (See Appendix F)

**Measurement Type** - Process

**Data Collection Method** – Evidence of tabulated data from ORS.

**Progress:** The DHEC School Dental Programs submitted data for the 2007-2008 school year and is included in the annual evaluation report for the program.

**2.3.6. The Dental Association will conduct a survey of school nurses to document the need of oral health resources in SC public schools by June 2009.**

**South Carolina Baseline** - Not applicable

**Healthy People Reference 7-11u:** Increase the proportion of local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs, with regards to oral health.

Baseline (1996-97): 25%

2010 Target: 50%

**Original State Oral Health Plan Reference** – Priority 5; Strategy 5.2 (See Appendix F)

**Measurement Type** - Process

**Data Collection Method** – survey results.

**Progress:** The report will be completed in 2009.

**Comments** – The objectives are based on the most current version of the SC Oral Health Surveillance Plan (See Appendix C), as well as work done by Coalition workgroups in the areas of school-based programs and fluoridated water. A major review and revision of the plan will occur in 2011 with new information based on *Healthy People 2010* at that time.