

South Carolina Oral Health 2020

State Plan 2015 - 2020

Table of Contents

Executive Summary	p. 2
Guiding Principles	p. 4
Publication Process	p. 4
Priority 1. Strengthening Public Health Infrastructure.	p. 5
Priority 2. Improving access to oral health services for vulnerable populations.	p. 10
Priority 3. Education and Prevention.	p. 14
Priority 4. Support the integration of public health (population health) priorities, as it relates to oral health, into higher education programs dental education.	p. 17
Priority 5. Policy and Outreach.	p. 19
Appendix A: SC Coalition and Advisory Council Member Organizations	p. 22

Executive Summary

<p>Priority 1. Strengthening Dental Public Health Infrastructure. South Carolina will establish and maintain the infrastructure within the public health system to encourage the use of evidence-based public health strategies to address the oral health needs of vulnerable populations of all ages throughout the state.</p>	
1.1	By 2020, the Division of Oral Health will have a reliable funding stream to support sufficient staffing levels and contractual partners for full implementation of their legislatively authorized and extramurally funded initiatives to meet the goals and objectives of the SOHP.
1.2	By 2020, the Division of Oral Health and the SC Oral Health Coalition will establish the SC Oral Health Institute in partnership with the SC Dental Association, SC Dental Hygienist Association and the SC Public Health Association.
1.3	By 2020, a proactive SC Oral Health Coalition will expand with broader membership and empower its members to facilitate improvements in effective oral public health infrastructure.
1.4	By 2020, the Division of Oral Health will be actively involved in the creation of regulatory language that directly affects the promotion and protection of the oral health for all the state's citizenry through community based health services.
<p>Priority 2. Improving access to oral health services for vulnerable populations. We will collaborate to assure that all citizens of the state have access to affordable, timely and culturally and linguistically competent care that is appropriate.</p>	
2.1	By 2020, South Carolina will produce an Oral Health Action Plan for the Centers for Medicare and Medicaid Services (CMS) that delineates how we will achieve the CMS Oral Health Initiative performance goals.
2.2	By 2020, South Carolina will develop and disseminate a quality improvement tool kit that facilitates the integration of sustainable culturally and linguistically competent oral health services into other health care services as appropriate to scopes of practice.
2.3	By 2020, South Carolina will provide evidence-based oral health benefits to children and adults enrolled in Medicaid that facilitate the achievement of the Institute of Healthcare Improvement's (IHI) Triple Aim (improved health outcomes, improved patient experience, reduced cost of care) for South Carolina.
2.4	By 2020, South Carolina will incorporate the national quality performance measures identified by the Dental Quality Alliance into the evaluation process for the oral health status of the population.
<p>Priority 3. Education and Prevention. We will provide the citizens of South Carolina with the most up-to-date information about oral diseases and conditions across the continuum of life and the evidence-based strategies for prevention and treatment of those conditions. Improve oral health status for populations living with chronic conditions.</p>	
3.1	By 2020, South Carolina will revise and implement a comprehensive social marketing campaign for priority populations that emphasizes oral health as an essential component of integrated healthcare and predictor of overall health status.
3.2	By 2020, South Carolina will organize a library of public health endorsed oral health education and training products and care guidelines for priority populations (e.g. pregnant women, long term care residents) to improve access to reliable and scientifically valid materials.

3.3	By 2020, the SC Oral Health Coalition will ensure dental public health priorities include chronic disease; specifically ensuring policies and programs in the state integrate evidence-based oral health in the state’s most prevalent conditions in child, adult, and senior health.
3.4	By 2020, South Carolina will have a statewide network of community water fluoridation advocates representing community water systems, primary care, dentistry, early childhood and school health systems integrated into an overall system for the prevention of oral diseases and assuring optimal oral health for all.
3.5	By 2020, South Carolina will have a network of advocates with the necessary knowledge, skills and ability to lead oral health efforts to identify and prevent domestic violence, child and elder abuse through awareness and recognition of the physical and emotional signs of abuse and the appropriate reporting processes.
Priority 4. Improve population health competencies in oral health provider pipeline. We will support the integration of public health (population health) priorities, as it relates to oral health, into all health profession education programs.	
4.1	By 2020, DHEC and the James B. Edwards College of Dental Medicine at MUSC will support the expansion of population health knowledge to all health profession students, residents and faculty.
4.2	By 2020, DHEC and the James B. Edwards College of Dental Medicine at MUSC will collaborate with the Coalition to establish “a network of partners to enhance community access to oral health care and the students’ competence to serve vulnerable communities.”
4.3	By 2020, DHEC and the James B. Edwards College of Dental Medicine will partner with dental hygiene programs to review and recommend joint public health curriculum enhancements to ensure future graduates and oral health team members share core public health principles and as such are equipped to make public health contributions in the future.
Priority 5. Policy and Outreach. We will collaborate to identify and advocate for appropriate policies that improve the health of the population.	
5.1	By 2020, the SC Oral Health Advisory Council and Coalition will develop an advocacy agenda that supports public and private insurance for oral health services in alignment with the goals of the Triple Aim (ref Recommendation 2.3) so that the health care system provides optimal oral health for all its citizens especially children, low income adults, persons with special health care needs and chronic or acute diseases, and pregnant women.
5.2	By 2020, the availability of dental providers in rural SC communities will improve due to enhanced incentive programs.
5.3	By 2020 integrated practice and inter-professional behaviors will be evident throughout the healthcare system to include, but not limited to, integration of oral health concepts into primary health care, chronic disease management, public health, early childhood and school health systems, pharmacy services, long-term care and perinatal health care.
5.4	By 2020, South Carolina will engage an outside facilitator to update the policy agenda to create a model for sustainable dental public health infrastructure that institutionalizes leadership for community based oral health in our state and assures optimal oral health for all.

Guiding Principles

The following guiding principles were used in the creation of the State Oral Health Plan.

1. The State Oral Health Plan should serve as a rallying point for oral health professionals, advocates, and community members, providing a place where priorities can be operationalized and coordinated.
2. The State Oral Health Plan will follow the action plan template used by the National Governors Association at their Oral Health Academy in 2000 where:
 - a. We update the *vision* (what we want for SC in the future)
 - b. Identify *priorities/goals*
 - c. Then individual organizations develop *tactical plans* (feasible strategies that are actionable)
 - d. The individual organizations develop *work assignments* (specific action steps to attain the vision)
3. The State Oral Health Plan should be a 5 year plan (2015-20209)
4. Goals and objectives do not necessarily have to be supported by funding, grants, or legislative mandates.

Publication Process

A draft of the State Oral Health Plan was developed by the Division of Oral Health and its consultants, led by the State Dental Director, Raymond Lala, DDS. The draft was submitted on July 31, 2015 to the South Carolina Oral Health Advisory Council for their review and approval. Once approved, it is shared with the Coalition. Progress reports will be produced on an annual basis and published separately from the original plan. Progress reports will be developed using the same process as was used for publication of the State Oral Health Plan.

Priority 1. Strengthening Public Health Infrastructure.

South Carolina will establish and maintain the infrastructure within the public health system to encourage the use of evidence-based public health strategies to address the oral health needs of vulnerable populations of all ages throughout the state.

Where We Are in 2014. Between July 1, 2014 and the last update to the State Oral Health Plan in 2006, South Carolina has secured \$5,220,000 in extramural funding for activities related to public oral health with some support lasting into 2018.

Grant	Funding Amount	Time Period	Awardee
Centers for Disease Control & Prevention (CDC) State Infrastructure	\$1.5 million	2013-18	DHEC
Health Resources & Services Administration Oral Health Workforce	\$1.5 million	2012-15	USC
DentaQuest Foundation Implementation for Oral Health 2014	\$300,000	2012-14	USC
DentaQuest Foundation Planning for Oral Health 2014	\$100,000	2011-12	USC
CDC State Infrastructure	\$1.75 million	2008-2013	DHEC
Head Start Dental Home	\$10,000	2009-10	DHEC
American Dental Association School Nurse Study	\$50,000	2009	USC
Association of State & Territorial Dental Directors (ASTDD) – Head Start Study	\$2,500	2007	DHEC
ASTDD – CSHCN Study	\$7,500	2006 & 2008	DHEC

Full-Time Equivalents. While the Division of Oral Health (DOH) at DHEC has successfully re-competed for CDC infrastructure funding, this remains its sole source of support for public health infrastructure. Should CDC funding be further reduced, the future of the DOH in its current form would be uncertain. The DOH employees the following (on the next page) 4.0 full-time equivalent (FTE) positions, three of which are funded by the CDC Infrastructure Grant entirely:

- Ray Lala, DDS, Dental Director, is supported entirely by the Maternal and Child Health Block Grant
- Gerta Ayers, MPH, fulfills three programmatic roles as Coordinator for the CDC Grant, School-based Oral Health Prevention Programs, and the Water Fluoridation Program
- Wes Gravelle, MPH is an epidemiologist responsible for the DOH's management of surveillance and water fluoridation data
- An Administrative Specialist position remains vacant, however the Maternal and Child Health Bureau is contributing 0.3 FTE of an existing person as a search for the full-time person is planned.

External Contractors. The DOH enjoys contractual relationships for the implementation of its CDC Infrastructure Grant, as well as in carrying out many of its legislatively authorized activities. A summary of the partners and scopes of the contracts are summarized in the table below:

Contracting Partner	Scope of Service	Contact Person
SC Dental Association	Educational Consultation Services	Mary Kenyon Jones
College of Dental Medicine, Medical University of South Carolina, Division of Population Health	Evaluation, Research, & Grants Development	Amy Brock Martin
Revenue & Finance Affairs Office (formerly Office of Research & Statistics)	Data Services	Varies, depending on dataset

Coalition & Advisory Council. The Division of Oral Health enjoys the engaged support of a statewide coalition that provides considerable input and feedback on the public oral health needs of South Carolina. The Coalition represents many organizations from a variety of organizations. The list of participating coalition member organizations is including in Appendix A. The Advisory Council provides dedicated leadership to the DOH by providing it with advice on how to navigate policies to further public oral health in the state. The Advisory Council members are also identified in Appendix A.

Where We Want to be in 2020. Public oral health infrastructure is defined by People, Programs, Policies, Partnerships, or *P⁴*. The following *P⁴* recommendations provide guidance through 2020.

<i>P⁴ for Priority 1. Strengthening Public Health Infrastructure.</i>			
<i>People</i>	<i>Programs</i>	<i>Policies</i>	<i>Partnerships</i>
Division of Oral Health staff and other public health officials	Extramurally funded initiatives	Legislatively authorized activities	Coalition & Advisory Council

Recommendation 1.1 By 2020, the Division of Oral Health will have a reliable funding stream to support sufficient staffing levels and contractual partners for full implementation of their legislatively authorized and extramurally funded initiatives to meet the goals and objectives of the SOHP.

The Division of Oral Health (DOH) is administratively organized in the Maternal Child Health Bureau of the SC Department of Health and Environmental Control (DHEC). Historically, the agency’s leadership has given demonstrable support to the DOH evidenced by active participation on the Advisory Council. We anticipate the agency leadership continuing to work closely with the Coalition and Advisory Council to assess the staffing needs of DOH as its scope of programs and services grow.

Included in this assessment should be the implementation of Act 235, passed by the SC General Assembly in 2010. Section 1 of the legislation calls on DHEC to establish Community Oral Health Coordinator positions for patient and parent education, oral health surveillance, community oral health education and system development, patient navigation through the oral health system of care. Beyond public health infrastructure, the purpose of Act 235 is to ensure underserved children at-risk for poor oral health are identified early and their care coordinated in ways that guarantees ongoing, routine preventive care. Act 235 was a significant policy achievement, but no state funding was appropriated for its implementation.

Recommendation 1.2 By 2020, the Division of Oral Health and the SC Oral Health Coalition will establish the SC Oral Health Institute in partnership with the SC Dental Association, SC Dental Hygienist Association and the SC Public Health Association.

As public health agencies and their governmental support retract in size, establishing an independent, non-profit organization in South Carolina that can provide sustainable momentum for public oral health programs, policies, and services is essential. Incubated through the new Oral Health Section of the SCPHA

using non-profit business development principles, the Oral Health Institute's (OHI) mission would likely be carried out through four divisions, each with a specific set of services and products:

1. Center for Quality Improvement
2. Center for Community Oral Health Outreach and OH Status Surveillance
3. Innovation Center for Systems Development
4. Education and Training Center

Recommendation 1.3 By 2020, a proactive SC Oral Health Coalition will expand with broader membership and empower its members to facilitate improvements in effective dental public health infrastructure.

South Carolina has made tremendous gains in access to dental treatment for its underserved children through a strong statewide coalition. The juxtaposition of these improvements has been a retraction by attrition of essential public health infrastructure necessary to systematically prevent the full spectrum of oral diseases throughout the lifespan. While the Coalition and Advisory Council, in their current forms, have achieved many of the goals and objectives, it has become clear that transitioning from the current 'multi-hub' configuration of interconnectedness to a 'core periphery'¹ is essential for re-establishing an effective public oral health infrastructure for the future.

As such, the statewide oral health coalition, with leadership from the DOH will establish an oral health section of the South Carolina Public Health Association (SCPHA), which is a chapter of the American Public Health Association (APHA). The Advisory Council will continue to function in its current form. The coalition, however, may re-organize itself as members of a new oral health section within the SCPHA where oral health systems improvement and advocacy initiatives can be developed. This new structure would formalize the coalition in a way that would be more sustainable than its current configuration. As part of a functioning unit of SCPHA, it would finally be able to compete as a non-profit organization, separate from government and academia. It would also benefit from growing its membership to include other existing SCPHA members currently not involved in oral health but whose work is germane to effective policy that leads to improvements in public health systems. Practically speaking, the coalition would be in a position to collaborate on activities with other sections of the SCPHA, such as (a) alcohol, tobacco, and other drugs; (b) environmental health, and (c) nutrition. We believe this new dynamic will strengthen 'systems thinking' among the coalition who currently operates in isolation from other organized forms of public health advocacy.

The Division of Oral Health, led by Dr. Ray Lala will serve as the inaugural Section Chair, thus providing leadership to the coalition's transition. The State Oral

¹ Krebs V and Holley J. (2002). *Building Smart Communities through Network Weaving*. Retrieved from <http://www.orgnet.com/BuildingNetworks.pdf> on September 1, 2014.

Health Plan will be used to frame the new oral health section. Its first set of objectives is to leverage the lessons learned and products developed since 2000 to address Community Oral Health Coordination and how it should be institutionalized to facilitate early childhood systems transformation.

Recommendation 1.4

By 2020, the Division of Oral Health will be actively involved in the creation of regulatory language that directly affects the promotion and protection of the oral health for all the state's citizenry through community based health services.

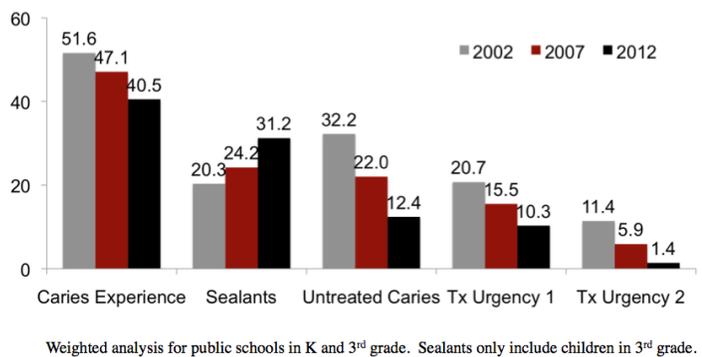
As the Coalition and other oral health key stakeholders work to improve oral health for South Carolina, the Division of Oral Health will engage with them to provide clarity on legislation, provisos, and other regulatory mechanisms. One area where the Division of Oral Health has begun developing regulatory language is in Community Oral Health Coordination. In 2010, the South Carolina General Assembly passed Act 235, legislation that called on the South Carolina Department of Health and Environmental Control's Division of Oral Health (DHEC), to make enhancements to the state's oral health infrastructure, relying in part, on a new network of local oral health coordinators. Beyond public health infrastructure, the purpose of Act 235 was to ensure underserved children at-risk for poor oral health are identified early and their care coordinated in ways that guarantees ongoing, routine preventive care. It was the result of a concerted effort by our state's oral health coalition, referenced in the 2006 State Oral Health Plan.

Priority 2. Improving access to oral health services for vulnerable populations.

We will collaborate to assure that all citizens of the state have access to affordable, timely and culturally and linguistically competent care that is appropriate.

Where We Are in 2014. South Carolina has seen improvements in oral health services since our last update to the State Oral Health Plan. Data demonstrate the power of the collective impact generated by the state’s key stakeholders. The most recent South Carolina Oral Health Needs Assessment for children not only demonstrated improvements in key utilization indicators, it also revealed the elimination of race, ethnicity, and certain income disparities for untreated caries and treatment urgencies. Unfortunately, disparities continue for caries experiences with exacerbated inequities for rural children.

**OHNA Summary Results for 2012/2013
Percent of Children by Indicator***



In addition to children, work remains in improving access to care for adults, especially among our vulnerable citizens including persons who have chronic disease, are pregnant, low income, uninsured, minority, rural, and seniors.

Where We Want to be in 2020. Improving access is a complicated process of addressing individual, systems, and environmental factors including but not limited to cultural norms and beliefs, geography, and finance. As such, we make the following recommendations for addressing inequities in oral health for South Carolina.

P⁴ for Priority 2. Improving access to oral health services for vulnerable populations.

<i>People</i>	<i>Programs</i>	<i>Policies</i>	<i>Partnerships</i>
<ul style="list-style-type: none"> • Safety net providers • Systems facilitators 	<ul style="list-style-type: none"> • Patient navigation • Safety Net programs • Integration models 	<ul style="list-style-type: none"> • Reimbursement • Loan Repayment • Shortage designations 	<ul style="list-style-type: none"> • Medicaid • Safety net associations

Recommendation 2.1 By 2020, South Carolina will produce an Oral Health Action Plan for the Centers for Medicare and Medicaid Services (CMS) that delineates how we will achieve the CMS Oral Health Initiative performance goals.

The CMS Oral Health Initiative established two performance goals, to be accomplished over five years by FFY 2015:

Goal #1 – Increase by **10 percentage points** the proportion of Medicaid and CHIP children ages 1 to 20 (enrolled for at least 90 days) who receive a **preventive dental service**.

Goal #2 – Increase by **10 percentage points** the proportion of Medicaid and CHIP children ages 6 to 9 (enrolled for at least 90 days) who receive a **sealant on a permanent molar** tooth.

In a recent CMS communication, they encouraged every state to develop an Oral Health Action Plan to articulate specific steps they plan to take to achieve improvement. As of September 1, 2014, CMS had received Action Plans from the 22 states, however South Carolina was not one of these states. Southern states to submit an Oral Health Action Plan include Alabama, Tennessee, and Virginia.

Recommendation 2.2 By 2020, South Carolina will develop and disseminate a quality improvement tool kit that facilitates the integration of sustainable oral health services into other health and social services as appropriate to scopes of practice.

Approximately 10 years ago, South Carolina benefited from a successful pilot patient navigation program focused on community oral health with funding from the Robert Wood Johnson Foundation. Those lessons learned informed future extramurally funded activities such as the oral health component of the Maternal, Infant and Early Childhood Home Visitation Program and the Quality and Technology Improvement Program (QTIP). Through these experiences, barriers to providing fluoride varnish, including reimbursement and patient flow, have been delineated. As such, publishing quality improvement strategies, as well as policies that support provider behavior change, is essential.

In addition to pediatric settings, supporting medical providers who provide ongoing care to people with chronic disease is a priority. This priority aligns with the draft strategic plan of DHEC's Bureau of Chronic Disease and Prevention, which states (Goal 4) "South Carolinians at risk or living with chronic diseases receive the right care in the right place at the right time. In addition to making referrals to dentists for ongoing care, medical providers can conduct oral screenings and recommend daily hygiene behaviors that will control the oral infections for their patients, which will result in better control of certain chronic diseases such as diabetes.

Recommendation 2.3 By 2020, South Carolina will provide evidence-based oral health benefits to children and adults enrolled in Medicaid that facilitate the achievement of the Institute of Healthcare Improvement’s (IHI) Triple Aim (improved health outcomes, improved patient experience, reduced cost of care) for South Carolina.

While improving access to care is an important public health priority, improved utilization should also reflect improved quality of care and population oral health status enhancements in cost effective ways. The Triple Aim² is the pervading framework for population health improvement that balances the individual patient care experiences with sustainable health system performance.

Reimbursement strategies for both medical and dental providers should facilitate moving patient care for treatment to maintenance and prevention. One example is the integration of oral care into the chronic disease management model for people with diabetes. Current research from MUSC has demonstrated annual basic periodontal therapies result in improved in diabetes management indicators such as hemoglobin-a-1-c levels.³

As previously discussed in patient navigation is an essential component of successfully facilitating access and should therefore be reflected in evidence-based dental benefits. An attribute of the Triple Aim infrequently described is Berwick’s call for an integrator; an organization that assumes the responsibility for assuring the three outcomes of population health, quality, and cost improvements are achieved. At the local systems level, one could argue the Community Oral Health Coordinator is best positioned for this role for dental health. On a broader statewide systems-level, perhaps the proposed Oral Health Institute could fulfill this role.

Recommendation 2.4 By 2020, South Carolina will incorporate the national quality performance measures identified by the Dental Quality Alliance into the evaluation process for the oral health status of the population.

The Dental Quality Alliance’s mission “is to advance performance measurement as a means to improve oral health, patient care, and safety through a consensus-building process.”⁴ The objectives of DQA are:

² Berwick DM, Nolan TW, & Whittington J. Triple Aim: Care, Health, and Cost. *Health Affairs*, 27(3), 759-769.

³ Sora ND, Marlow NM, Bandyopadhyay D, Leite R, Slate E, Fernandes J. Metabolic syndrome and periodontitis in Gullah African Americans with type 2 diabetes mellitus. *J Clin Periodontol*. 2013 Jun;40(6):599-606.

⁴ The Dental Quality Alliance. Quality Measurement in Dentistry: A Guidebook. Retrieved from

1. “To identify and develop evidence-based oral health care performance measures and measurement resources.”
2. To advance the effectiveness and scientific basis of clinical performance measurement and improvement.”
3. “To foster and support professional accountability, transparency, and value in oral health care through the development, implementation, and evaluation of performance measurement.”

DQA’s work is carried out through its Executive Committee and four advisory groups with the Implementation, Maintenance, and Outcomes Assessment Committee leading the identification of performance measures for dentistry. As there is work is completed, South Carolina will examine their relevance for our populace.

Priority 3. Education and Prevention.

We will provide the citizens of South Carolina with the most up-to-date information about oral diseases and conditions across the continuum of life and the evidence-based strategies for prevention and treatment of those conditions. Improve oral health status for populations living with chronic health challenges.

Where We Are in 2014. Many successful educational products have been developed by the Division of Oral Health facilitated by the Educational Specialist, Mary Kenyon Jones, through a partnership with the South Carolina Dental Association. Some notable resources include: the Head Start Toolkit, certified oral health trainings for childcare providers, a Community Water Fluoridation Advocacy curriculum, Oral Health During Pregnancy Standards of Care and Community Oral Health Coordination Competencies for Maternal, Infant, and Early Childhood Home Visitors. What is needed now is a systematic mechanism for efficient dissemination, as well as curricula that addresses a broader range of oral diseases that affect age groups beyond childhood and includes special populations and chronic conditions.

Where We Want to be in 2020. Improving the knowledge and practice of oral health prevention across the life continuum is not a novel priority. One of the most successful educational campaigns is Smiles for Life;⁵ a multi-module curriculum that addresses oral health needs for every age. South Carolina will be more deliberate in coordinating and meeting the oral health educational needs of all South Carolinians.

Recommendation 3.1 By 2020, South Carolina will revise and implement a comprehensive social marketing campaign (for priority populations) that emphasizes oral health as an essential component of integrated healthcare and a predictor of overall health status.

In 2004, the Division of Oral Health contracted with Hyde Park to develop a sustainable five-year social marketing plan that was partially implemented. The power of public health service announcements and social marketing campaigns has been well documented. It is increasingly important for oral health key stakeholders to engage in these activities so that oral health garners the same level of importance as other public health priorities such as smoking prevention and breastfeeding.

⁵ Society of Teachers of Family Medicine. Smiles for Life: A National Oral Health Curriculum. Retrieved from <http://www.smilesforlifeoralhealth.org/buildcontent.aspx?tut=555&pagekey=62948&cbreceipt=0> on September 9, 2014.

Recommendation 3.2 By 2020, South Carolina will organize a library of public health endorsed oral health education and training products and care guidelines for priority populations (e.g. pregnant women, long term care residents) to improve access to reliable and scientifically valid materials.

As previously stated, centralized availability of public oral health materials has been lacking in our state. As the new oral health section of the SCPHA and the Oral Health Institute concepts evolve, it will be essential to design a central place where providers and consumers can access materials and products.

Recommendation 3.3 By 2020, the SC Oral Health Coalition will ensure dental public health priorities include chronic disease; specifically ensuring policies and programs in the state integrate evidence-based oral health in the state's most prevalent conditions in child, adult, and senior health.

Three of the four goals in the Bureau of Chronic Disease and Prevention's draft strategic plan are germane to the State Oral Health Plan:

- South Carolinians have timely access to accurate, straightforward data about chronic diseases and related (oral health) risk factors to inform policies, intervention planning and evaluation efforts.
- South Carolinians have the knowledge and skills they need to live the healthiest lives possible.
- South Carolinians at risk or living with chronic diseases receive the right (oral health) care in right place at the right time.

Within these goals are objectives related to tobacco use reduction (Objective 2), chronic disease self-management and care coordination models (Objectives 4, 11 and 12), diet (Objective 6), evidence-based screenings and interventions (Objective 10). As two entities within DHEC, the Division of Oral Health and Bureau of Chronic Disease and Prevention should collaborate on addressing two of the state's most significant public health crises: oral health and chronic disease. Readers of the State Oral Health Plan understand how the two processes are interrelated. As the state's public health agency develops health improvement strategies, coordinating expertise and knowledge of partners will have an exponential impact on the success of both chronic disease and oral health interventions.

Recommendation 3.4 By 2020, South Carolina will have a statewide network of community water fluoridation advocates representing community water systems, primary care, dentistry, early childhood and school health systems integrated into an overall system for the prevention of oral diseases and assuring optimal oral health for all.

The South Carolina Dental Association and DOH have provided considerable leadership on community water fluoridation advocacy. These efforts have been funded by the CDC state infrastructure and HRSA Oral Health Workforce grants, both of which provided financial support to community water systems to replace or repair water fluoridation equipment. Through the HRSA grant, seven communities in the Pee Dee region of the state had community water system advocacy teams trained using CDC guidelines. These teams, at a minimum, had representatives from primary care, dentistry, early childhood systems, and the local water system operator. Water fluoridation is the single most significant public health achievement in preventing caries. In spite of this fact, anti-fluoridation proponents continue to advocate their positions on elected officials and vulnerable water systems. The state should continue the community water fluoridation advocacy training using the community team approach supported through the HRSA grant. The state should continue supporting this statewide network of water fluoridation advocates by training more teams, as well as providing continuing education to established teams. We have learned that complacency on this issue results in certain termination of community fluoridation programs.

Recommendation 3.5 By 2020, South Carolina will have a network of advocates with the necessary knowledge, skills and ability to lead oral health efforts to identify and prevent domestic violence, child and elder abuse through awareness and recognition of the physical and emotional signs of abuse and the appropriate reporting processes.

South Carolina has among the worst statistics for child abuse and neglect.⁶ The oral health community has a unique skill set, and obligation; to partner with child welfare champions to ensure victims of abuse receive necessary services. There are well-vetted resources available South Carolina can use to enhance competencies in this important area. An example is the Prevent Abuse and Neglect through Dental Awareness (P.A.N.D.A.)⁷ lead by the Arkansas Department of Health. The PANDA Coalition has trained thousands of health care providers, including dentists and auxiliaries on identify abuse and neglect; proper reporting and referral.

⁶ US Department of Health and Human Services, Administration for Children and Families. Child Maltreatment 2012. Retrieved from <http://www.acf.hhs.gov/sites/default/files/cb/cm2012.pdf> on October 20, 2014.

⁷ Arkansas Department of Health. Retrieved from <http://www.healthy.arkansas.gov/programsServices/oralhealth/Pages/PANDA.aspx> on October 20, 2014.

Priority 4. Support the integration of public health (population health) priorities, as it relates to oral health, into all health education programs.

We will work together to develop the oral health workforce of the future that will feature highly skilled, culturally and linguistically competent, caring providers working in an integrated multi-discipline health care delivery system that addresses the needs of all people of South Carolina, including the most vulnerable.

Where We Are in 2014. The James B. Edwards College of Dental Medicine at the Medical University of South Carolina is the state's only dental school. Through a HRSA Oral Health Workforce grant, Drs. Amy Martin and Renata Leite have revised the required dental public health required course to include learning objectives that position MUSC's graduates for the practice of dentistry in the post-Affordable Care Act environment where quality, population health, and cost benefit standards will be assessed by insurance companies. Additionally, they have developed the curriculum for a graduate-level Safety Net Oral Health Practice Certificate Program to improve the population health competencies of dentists and bachelors prepared dental hygienists. Enrollment is not yet available as it is in review at MUSC.

Where We Want to be in 2019. The James B. Edwards College of Dental Medicine updated its strategic plan in 2014. Their priorities around the integration of population health competencies from their draft plan are referenced in Recommendations 4.1 and 4.2.

Recommendation 4.1 By 2020, DHEC and the James B. Edwards College of Dental Medicine at MUSC will expand the population health knowledge to all health profession students, residents and faculty.

The draft strategic plan specifically calls for the following academic activities:

- "Promote research on health inequalities, disparities and social determinants of health."
- "Address the oral health needs of South Carolina by contributing evidence-based research, education and service."
- "Promote the integration of oral health into the existing College of Medicine's Department of Population Health."
- "Foster competencies in population health and public health sciences in the context of oral health promotion and care delivery"
- "Apply population health and public health principles in the improvement of oral health status and integrated care systems in South Carolina"

Recommendation 4.2 By 2020, DHEC and the James B. Edwards College of Dental Medicine at MUSC will collaborate with the Coalition to establish “a network of partners to enhance community access to oral health care and the students’ competence to serve vulnerable communities.”

Under the category of “Service” for faculty and students, the College of Dental Medicine has drafted the following activities:

- “Work with SCDA and MUSC development and marketing services to assist in marketing analysis and feasibility of MUSC dental satellite facilities.”
- “Establish a clinic and service line for treatment of adults with Special Health Care Needs.”
- “Develop and foster partnerships with schools, community and safety net practices to increase oral health literacy awareness.”
- “Provide technical assistance to community health systems in South Carolina as they negotiate healthcare reform implementation.”
- “Increase care to underserved populations through expanded outreach rotations/clinics”

Recommendation 4.3 By 2020, DHEC and the James B. Edwards College of Dental Medicine will partner with dental hygiene programs to review and recommend joint public health curriculum enhancements to ensure future graduates and oral health team members share core public health principles and as such are equipped to make public health contributions in the future.

The American Dental Education Association’s Competency Development Committee for the Section on Dental Hygiene Education⁸ delineated what it asserts as essential competencies for the dental hygiene workforce. The report published in 2003, identified (a) health promotion and disease prevention, (b) community involvement, (c) patient care, and (d) professional growth and development. Ensuring our state dental hygiene programs share basic public oral health competencies with dental students and other health professions may result in a cohesive approach to improving oral health for all citizens in our state.

⁸ American Dental Education Association, Section on Dental Hygiene Education, Competency Development Committee. (2004). Exhibit 7. Competencies for Entry into the Profession of Dental Hygiene. *Journal of Dental Education*. Pp. 745-49.

Priority 5. Policy and Outreach.

South Carolina will assemble a team of policy makers to identify and reach a consensus on oral health policy priorities and implement the strategies necessary to accomplish the priorities.

Where We Are in 2014. South Carolina has had numerous policy and outreach achievements since the State Oral Health Plan was updated in 2006. A summary of these successes include, albeit not an exhaustive list:

- The passage of Act 235 previously described
- Consistently high rankings for oral health policy by the Pew Charitable Trust
- Invitation to provide Congressional testimony on school-based oral health prevention programs
- School nurse dental screening initiative
- Community water fluoridation advocacy training
- Oral health integrated into the Department of Education's Health and Safety Standards
- Early childhood oral health guidelines
- Medicaid reimbursement to primary care providers for fluoride varnish
- Dental Home Leadership State designated by American Academy of Pediatric Dentistry and Head Start

Where We Want to be in 2019. We wish to continue progress in furthering oral health policy improvements that lead to improved oral health. As the state looks to future policy and outreach, there is a continuum of issues across age groups and unique populations. They all share a common policy agenda, which is the *need for access to a reliable, affordable system of care where oral health is integrated across the continuum of care.* As such the recommendations for achieving this priority should be considered in aggregate, rather than as sentinel activities.

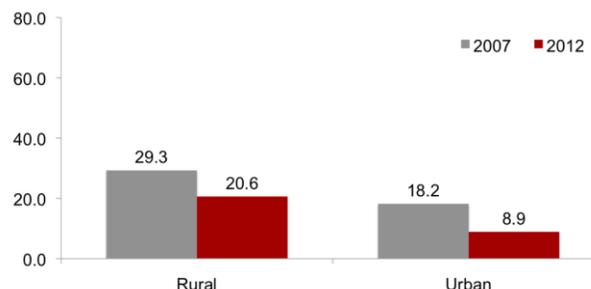
Recommendation 5.1 By 2020, the SC Oral Health Advisory Council and Coalition will develop an advocacy agenda that supports public and private insurance for oral health services in alignment with the goals of the Triple Aim (ref Recommendation 2.3) so that the health care system provides optimal oral health for all its citizens especially children, low income adults, persons with special health care needs and chronic

As we design a system that allows all persons to have financial access to the system, we must approach our activities with 'a rising tide lifts all boats' mentality. Paying for quality and performance is essential. Negotiating social contracts with patients becomes equally important as we all have a role in ensuring future financial viability of our healthcare system, including oral health. Medicaid certainly is an important partner in redesigning how we pay for dental care, however the growth in private dental programs through insurance exchanges and government run programs such as the State Health Plan deserve equal engagement. More than 10% of the state's population subscribes to the state plan. With wages remaining stagnate among public employees many report unused dental benefits because of affordability. Insurance parity for dental benefits is a broader conversation that just Medicaid.

Recommendation 5.2 By 2020, the availability of dental providers in rural SC communities will improve due to enhanced incentive programs.

In all the surveillance tools available to South Carolina, including the recent statewide Oral Health Needs assessment, rural communities continue to demonstrate overwhelming disparities for oral health, especially among minority children. There are very few resources available to the dentist or dental hygienist wishing to practice in rural South Carolina. Beyond the National Health Service Corp, there is a State Loan Repayment program but it is grossly inadequate, relative to the size of educational debt. Better incentive plans for rural practice that emphasizes safety net practice, whether in loan repayment or enhanced reimbursement rates (which are available to primary care practitioners) should be explored.

Percent of Untreated Caries by Rural vs. Urban School



Recommendation 5.3 By 2020, integrated practice and inter-professional behaviors will be evident throughout the healthcare system to include, but not limited to, integration of oral health concepts into primary health care, chronic disease management, public health, early childhood and school health systems, pharmacy services, long-term care and perinatal health care.

February 2014, the Health Resources and Services Administration published *Integration of Oral Health into Primary Care Practice*.⁹ The policy paper advises how, within their scopes of practice, how primary care clinicians can integrate essential oral health interprofessional competencies into the care they offer. The ‘domains’ of these competencies include: risk assessment, oral health, evaluation, preventive interventions, communication and education, and interprofessional collaborative practice. The publication of the report is evidence of how policy is finally catching up with science in its awareness of how oral health influences systemic health. Ultimately, policy will influence practice, which is the intent of the HRSA report.

Oral health interprofessionalism is good for the patient, the providers (medical and dental) and the system when implemented with strategic coordination and payment alignment. As South Carolina examines how oral health interprofessionalism will penetrate primary care systems, it is incumbent that oral health advocates nurture this paradigm shift and encourage evidence-based practice and the policies that should support it.

⁹ Health Resources and Services Administration (2014). *Integration of Oral Health into Primary Care Practice*. Retrieved from <http://www.hrsa.gov/publichealth/clinical/oralhealth/primarycare/integrationoforalhealth.pdf> on September 10, 2014.

Recommendation 5.4 By 2020, South Carolina will engage an outside facilitator to update the policy agenda to create a model for sustainable dental public health infrastructure that institutionalizes leadership for community based oral health in our state and assures optimal oral health for all.

According to its website, the Children’s Dental Health Project (CDHP) “will improve oral health for children and families by identifying and advancing solutions that are innovative and cost-effective.”¹⁰ One of their organizational goals is to build state capacity that leads to improved oral health. As such, CDC contracted with CDHP in 2014 to provide targeted technical assistance with some of its grantees on policy development, specifically for the codification of state oral health infrastructure. South Carolina began a new partnership with CDHP in 2015 when they facilitated an oral health policy workshop. Using their policy improvement tools, five priority areas were identified (see following).

1. Modify Medicaid dental fees for patients whose medical conditions are influenced by oral conditions.
2. Connect care coordination and outreach programs and oral health systems of care.
3. Statewide oral health literacy program.
4. Coordinated/mandated surveillance and data reporting for all dental services provided in public health settings including medical conditions
5. Fund community oral health coordinators.

Fortuitously, these priorities are reflected in the current State Oral Health Plan. As such, the Division of Oral Health, the Advisory Council, and Coalition will develop a coordinated, strategic response for addressing these policy priorities through 2020.

¹⁰ Children’s Dental Health Project. Retrieved from <https://www.cdhp.org/about/mission-and-goals> on October 19, 2014.

Appendix A: SC Coalition and Advisory Council Member Organizations

1. State Agencies:

- South Carolina Department of Health & Environmental Control (DHEC)
 - Division of Oral Health
 - Children with Special Health Care Needs/CRS
 - Bureau of Water
 - Bureau of Laboratories
 - Division of Certification
 - Maternal Child Health Bureau
 - Bureau of Community Health
 - Division of Women & Children Services
 - Nurse-Family Partnership
 - Region 7
- South Carolina Department of Health & Human Services (DHHS), which is the state Medicaid agency
- South Carolina Department of Education
- South Carolina Department of Alcohol and Other Drug Abuse Services (DAODAS)
- South Carolina Department of Disabilities & Special Needs (SC DDSN)
- Lt. Governor's Office on Aging
- South Carolina Head Start Collaboration Office

2. Dental Community:

- Dr. Rocky Napier (private practice)
- Dr. Douglas Rawls (private practice)
- Dr. Dondre Simpson (private practice)
- Kool Smiles of Sumter
- Carolina Urgent Dental
- Health Promotion Specialists (school-based dental hygiene organization)
- Welvista/Smiles for a Lifetime
- ResiDental, LLC

3. Professional Associations

- South Carolina Dental Association (SCDA)
- South Carolina Hospital Association
- South Carolina Primary Health Care Association (SCPHCA)

4. Academia

- South Carolina Rural Health Research Center, University of South Carolina
- Medical University of South Carolina, Departments of Family and Dental Medicine
- Coastal Carolina University

5. Hospitals

- Bon Secours St. Francis Health Systems
- Palmetto Health/Office of Community Service

6. Federally Qualified Health Centers

- Eau Claire Community Health Centers, Inc.
- CareSouth Carolina

7. Early Childhood Programs

- South Carolina First Steps
- EdVenture Children's Museum
- Richland County First Steps
- SHARE Head Start
- Healthy Learners
- Healthy Smiles of Spartanburg
- Chesterfield/Marlboro EOC

8. Medicaid Contractors

- Unisun
- DentaQuest

9. Community Foundations

- United Way of the Midlands
- CareFIRST Carolina Foundation

10. Community Service Organizations

- The Colgate Van
- Family Connection of South Carolina
- South Carolina Christian Action Council