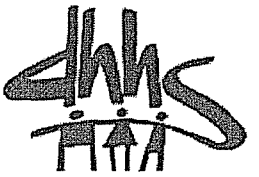
Revised Statewide Oral Health Strategic Plan:

Collaboration for Integrated and Comprehensive Oral Health

February 1, 2014



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Executive Summary

N.C.'s Integrated and Coordinated Oral Health Plan fulfills the statutory requirement of Session Law 2013-360, Section 12E.2 directing the N.C. Department of Health and Human Services (DHHS) to reduce the Oral Health Section (OHS) budget by $850,000 (including eliminating at least 15 FTEs) effective 10/1/13. It further directs DHHS to provide to the General Assembly, no later than 02/01/14, a revised statewide oral health strategic plan which includes at least all of the following:

- recommendations for reorganizing the Department's OHS;
- strategies for reducing oral diseases through prevention, education, and health promotion services;
- strategies for monitoring the public's oral health; and
- strategies for increasing access to dental care.

This plan was developed in collaboration with a diverse workgroup of key stakeholders. It utilizes evidence-based preventive practices and is comprehensive, collaborative and coordinated. It supports previous recommendations not yet implemented from Session Laws 2009-100 and 2010-88, joint Division of Medical Assistance (DMA) and Division of Public Health (DPH) studies which addressed dental care and improved outcomes for high-risk populations, and successful oral health initiatives such as the North Carolina Institute of Medicine Taskforce on Children's Preventive Oral Health Services 2013 publication, "The North Carolina Oral Health Action Plan for Children Enrolled in Medicaid and N.C. Health Choice" (June 2013) and the ongoing North Carolina Oral Health Collaborative funded by the DentaQuest Foundation. Furthermore, while maintaining a focus on the oral health of children, the plan extends the OHS's reach to vulnerable adult populations.

This planning document has been developed in a series of six (6) major areas:

1) North Carolina Division of Public Health-Oral Health Section Reorganization
2) Surveillance
3) Community Water Fluoridation
4) Dental Sealant Promotion and Utilization
5) *Into the Mouths of Babes* and establishing a Dental Home
6) Oral Care for the Frail Elderly.

All major areas include background information and areas #2 through #6 each include a recommended plan, risks and a timeline for action steps.

The OHS, with DMA, will be largely responsible for coordinating and implementing many of the recommendations and action steps in the plan.

1) North Carolina Division of Public Health – Oral Health Section Reorganization

The OHS reduction plan eliminated five (5) vacant dental hygiene positions, nine (9) filled dental hygiene positions, one (1) filled administrative position and operating funds to meet the legislative budgetary requirement. Effective October 1, 2013, the OHS's 25 remaining

public health dental hygienists were reassigned to focus efforts on providing services to 65 counties. All of the state's 40 Tier 1 (most economically distressed as defined by the North Carolina Department of Commerce) and 25 Tier 2 Counties are being served. OHS staff provide services which are based on sound science and best practices to reduce tooth decay and increase access to dental care.

2) Surveillance

North Carolina has a comprehensive dental surveillance system for children that includes two components. The first is periodic, comprehensive statewide surveys conducted every 10 to 15 years with external grant funding; the last survey was in 2003-2004. The second is annual oral health screening of children in kindergarten and 5th grades by trained and calibrated public health dental hygienists. These assessments provide decision makers at the local level with data to track dental disease over time and to compare with other counties. This data is frequently used to support the need for oral health funding. Effective October 1, 2013, the OHS will no longer be able to continue with 5th grade surveillance but will capture 3rd grade data from select schools.

The National Oral Health Surveillance System, a collaborative effort of the Association of State and Territorial Dental Directors and the Centers for Disease Control and Prevention (CDC), does not accept kindergarten data, only that from 3rd grade using the Basic Screening Survey tool. The OHS will continue with assessments for kindergarten children in North Carolina's public schools and will work with the UNC Gillings School of Global Public Health to identify a select number of schools to implement a Basic Screening Survey for 3rd graders. The 3rd grade data will be submitted to the National Oral Health Surveillance System.

North Carolina does not have current data on the oral health status of its residents in assisted living facilities and nursing homes (i.e., long-term care facilities). The OHS will assess the oral health status of elderly residents in a representative sample of long-term care facilities which will provide a basis for future policy decisions to improve oral health.

3) Community Water Fluoridation

Community water fluoridation is the controlled adjustment and monitoring of fluoride in community drinking water to reach optimal fluoride concentrations for preventing tooth decay. Community water fluoridation saves money, as $1 invested in this preventive measure yields approximately $38 savings in dental treatment costs[1]. Fluoridation is an effective, safe and equitable way to prevent dental decay in a community. Leading health and medical organizations such as the Centers for Disease Control and Prevention, the American Dental Association and the American Medical Association endorse fluoridation. However, significant opposition to fluoridation in many North Carolina communities threatens to derail many of the improvements in oral health that have occurred since the practice was initiated in North Carolina in 1949. The OHS will enlist stakeholders to support all aspects of community water fluoridation including policy development, advocacy promotion, monitoring, surveillance and reporting. In addition, OHS will reclassify and reassign an existing 0.25 equivalent position to establish a state fluoridation administrator. Success will be measured annually by maintaining the current percentage (87 percent) of

North Carolinians on public water systems receiving the benefits of community water fluoridation.

4) Dental Sealant Promotion and Utilization

Sealants are clear or opaque materials applied to the rough surfaces, called pits and fissures, of premolars and molars to prevent tooth decay. Sealants are effective in preventing dental caries by 81 percent at 2 year follow up among children and adolescents,[2] but despite their successful track record, they remain underutilized. In North Carolina, only 17 percent of children ages 6-9 enrolled in Medicaid and 19 percent of similar age children enrolled in N.C. Health Choice received a sealant in FFY 2012[3], and those percentages have remained fairly constant for several years. To increase access to dental sealants for children, the OHS will:

- expand their school-based dental sealant programs,
- partner with community college dental programs and both UNC School of Dentistry and ECU School of Dental Medicine,
- apply for a grant to educate North Carolina dentists on the benefits of sealants, and
- work with key stakeholders to expand the scope of North Carolina Administrative Code 16W .0101-.0103, that currently allows public health dental hygienists who have satisfied certain requirements to place sealants without a dentist being present.

Furthermore, the Division of Medical Assistance will explore increasing the rate for sealant reimbursement from the current rate of $28.01 to $46.00. Success will be measured by a documented 10% increase in the number of Medicaid and Health Choice eligible children ages 6-9 receiving sealants within 2 years (FY 2015).

5) *Into the Mouths of Babes* and establishing a Dental Home

Into the Mouths of Babes (IMB) is a nationally acclaimed North Carolina statewide Medicaid program to increase access to preventive oral health care for young children. IMB serves children from tooth eruption until 3 ½ years of age enrolled in Medicaid. IMB aims to reduce the prevalence of early childhood tooth decay among low-income young children. What makes this program unique is that preventive oral health care is provided in a medical setting by primary care medical providers.

The program has been very successful, resulting in a 49 percent reduction in dental treatment before 18 months[4] and a 21 percent reduction in hospital episodes.[5] Despite the success of IMB in reducing early childhood tooth decay, the missing link continues to be the adoption of a dental home for children who are receiving preventive dentistry services from their medical providers. However, a successful pilot linking medical providers and dental providers exists. Carolina Dental Home was an effective federally funded (Health Resources and Services Administration) three year pilot program in Craven, Jones, and Pamlico counties where pediatricians and dentists partnered to provide a dental home for Medicaid-enrolled children from birth to three years old.

The OHS will reclassify and reassign one FTE position for a staff member who will promote medical-dental integration for children from low-income families (birth to 10 years) in order to implement a whole person approach to health by establishing relationships between

primary care providers and dentists. A primary responsibility for the position will be to expand Carolina Dental Home statewide. Success will be measured by the adoption of a dental home by greater than 50% of referred children in target communities by primary care providers as indicated by the N.C. Priority Oral Risk Assessment and Referral Tool (PORRT) developed during the Carolina Dental Home Pilot (will be verified through care coordination efforts by the FTE).

6) Oral Care for the Frail Elderly

Older adults residing in long-term care facilities are at increased risk for dental disease. General reports in the literature and numerous anecdotal accounts in North Carolina suggest their oral health is frequently very poor; however, there is no recent North Carolina specific data to verify this. Residents often lack the ability to provide their own oral care, the care provided by facility staff is rarely ideal, and there are very few providers with the willingness and expertise required to provide comprehensive dental care to medically compromised patients in long-term care facility settings.

The OHS will designate a staff member to partner with the N.C. Dental Society Special Care Dentistry Task Force to learn about the oral health issues affecting all special care populations and will become the DHHS special care oral health expert. This person will explore opportunities for the OHS to collaborate with the N.C. Division of Health Service Regulation on their statewide implementation for facility in-service training to improve the oral health of residents through the innovative University of North Carolina developed *Mouth Care without a Battle* module. The OHS will obtain data on the oral health status of residents in a representative sample of North Carolina long-term care facilities. These data will be used to drive future policy decisions. DMA will explore the possibility of providing more equitable compensation for providers who are equipped and committed to delivering comprehensive dental services. The OHS will reclassify and reassign an existing 0.75 equivalent position to establish an individual to coordinate activities regarding special care populations. Success will be determined by 1) collecting baseline data on the oral health status of residents in long-term care facilities (data will be used to identify targets for improvements in oral health and developing interventions that will produce measurable improvements in oral health outcomes); and 2) by developing a budget neutral proposal to amend Medicaid's facility code to more equitably reimburse providers.

Executive Summary References

1. Centers for Disease Control and Prevention. (2013). Community Water Fluoridation: Cost Savings of Community Water Fluoridation. Retrieved November 17, 2013 from http://www.cdc.gov/fluoridation/factsheets/cost.htm
2. Ahovuo-Saloranta A, Forss H, Walsh T, Hiiri A, Nordblad A, Mäkelä M, Worthington HV. (2013) Sealants for preventing dental decay in the permanent teeth. 'Cochrane Database of Systematic Reviews 2013', Issue 3. Art. No. CD001830. DOI: 10.1002/14651858.CD001830.pub4.
3. Division of Medical Assistance. North Carolina Department of Health and Human Services. Form CMS 416: Annual EPSDT Participation Report FFY 2012.
4. Pahel BT, Rozier RG, Stearns SC, Quinonez RB. Effectiveness of Preventive Dental Treatments by Physicians for Young Medicaid Enrollees. Pediatrics. 2011 Mar:127(3):e682-9.
5. Stearns SC, Rozier RG, Kranz AM, Pahel BT, Quinonez RB. Cost-Effectiveness of Preventive Oral Health Care in Medical Offices for Young Medicaid Enrollees. Archives of Pediatrics & Adolescent Medicine. (Now JAMA Pediatrics) 2012:27:1-7.

Introduction

NC's Integrated and Coordinated Oral Health Plan fulfills the statutory requirement of Session Law 2013-360, Section 12E.2 directing the N.C. Department of Health and Human Services (DHHS) to reduce the Oral Health Section (OHS) budget by $850,000 (including eliminating at least 15 FTEs) effective 10/1/13. It further directs DHHS to provide to the General Assembly, no later than 02/01/14, a revised statewide oral health strategic plan which includes at least all of the following:

- recommendations for reorganizing the Department's OHS;
- strategies for reducing oral diseases through prevention, education, and health promotion services;
- strategies for monitoring the public's oral health; and
- strategies for increasing access to dental care.

This plan was developed in collaboration with a diverse workgroup of key stakeholders, and workgroup participants and contributors are recognized on page 3.

DHHS' approach to this revised statewide oral health strategic plan will:

- **Utilize evidence-based practices;**
- **Be comprehensive, collaborative and coordinated;**
- **Support and build upon recommendations from the North Carolina Institute of Medicine Taskforce on Children's Preventive Oral Health Services 2013 publication, "The North Carolina Oral Health Action Plan for Children Enrolled in Medicaid and N.C. Health Choice" (June 2013), and the ongoing North Carolina Oral Health Collaborative funded by the DentaQuest Foundation; and**
- **Extend the OHS's reach to populations with special health care needs by supporting previous recommendations not yet implemented from Session Laws 2009-100 and 2010-88, joint Division of Medical Assistance (DMA) and Division of Public Health (DPH) studies which addressed dental care and improved outcomes for high-risk populations, and successful oral health initiatives such as the North Carolina Institute of Medicine Taskforce on Children's Preventive Oral Health Services 2013 publication, "The North Carolina Oral Health Action Plan for Children Enrolled in Medicaid and N.C. Health Choice" (June 2013) and the ongoing North Carolina Oral Health Collaborative funded by the DentaQuest Foundation.**

This plan describes an approach to improving oral health for North Carolinians of all ages – from birth to the elderly. It identifies strategies for collecting information and establishing baseline data on the oral health of children and the elderly living in long term care facilities, identifying targets for improvements in oral health and developing interventions that will produce measurable improvements in health outcomes.

The Plan will focus on six (6) major areas:

1) North Carolina Division of Public Health-Oral Health Section Reorganization
2) Surveillance
3) Community Water Fluoridation

4) Dental Sealant Promotion and Utilization
5) Into the Mouths of Babes and establishing a Dental Home
6) Oral Care for the Frail Elderly

All major areas include background information and areas #2 through #6 each include a recommended plan, risks and a timeline for action steps.

Key Facts

- Dental caries, also called "tooth decay," is the most common chronic infectious disease among children in the United States, and is five (5) times more common than asthma. Dental caries can lead to pain and swelling, adversely affecting children's quality of life and impacting their ability to learn. This is true despite the fact that dental caries are almost entirely preventable.[1]
- Fifteen percent of North Carolina kindergarten students have untreated decay in at least one primary (baby) tooth.[2]
- Surveillance, monitoring the health of populations to identify unmet population need, is a core function of public health. North Carolina has a comprehensive, calibrated dental surveillance system for elementary school children but lacks current data on the oral health status of residents in our state's long term care facilities.
- Evidence-based strategies such as dental sealants and fluorides can significantly reduce the prevalence and severity of tooth decay for children and adults.
- *Into the Mouths of Babes* (IMB) is a nationally acclaimed North Carolina statewide Medicaid program that reduces the prevalence of early childhood tooth decay among low-income young children.

North Carolina Oral Health Section (OHS) Reorganization

Background information

- In response to Session Law 2013-360, the OHS reduction plan eliminated five (5) vacant dental hygiene positions, nine (9) filled dental hygiene positions, one (1) filled administrative position and operating funds to meet the budgetary requirement.
- Effective October 1, 2013, the OHS's 25 remaining public health dental hygienists were reassigned (Figure 1) to focus efforts on providing services to 65 counties. All of the state's 40 Tier 1 (most economically distressed as defined by the North Carolina Department of Commerce) and 25 Tier 2 Counties (Figure 2) are being served. OHS staff provide services which are based on sound science and best practices to reduce tooth decay and increase access to dental care, and include:
  - Sealant projects, to place preventive dental sealants for kindergarten through 4th grade children. These projects target high-risk schools, as determined by high percentages of children enrolled in free and reduced lunch programs.
  - Oral health and disease status monitoring/surveillance for kindergarten and 3rd grade students.
  - Screening for dental conditions and needs, referral to dental homes such as local health department and other safety net dental facilities, follow-up to assist parents in getting needed care for their children, and verifying children were able to access care and received treatment. Staffs also provide logistical planning, screening, referral and

support for events such as the North Carolina Dental Society's annual "Give Kids A Smile!" event, which provides free dental care to needy children.

- Dental decay-preventive fluoride mouth rinse offered to all 1st grade through 5th grade students in targeted high-risk schools. N.C. data show that high risk children who participate in the program weekly throughout the school year demonstrate reductions in tooth decay.
- All 100 counties will continue to receive decay-preventive services for infants and toddlers through *Into the Mouths of Babes* training by OHS staff for primary medical care providers.
- Community water fluoridation - continue to strongly support local partners through consultation and providing evidence-based information as local stakeholders advocate for this safe and effective decay-preventive measure in their communities.
- Limited classroom education, primarily to support direct services such as dental sealants and fluoride mouth rinse.

Figure 1. Reassignment of Remaining 25 OHS Public Health Dental Hygienists

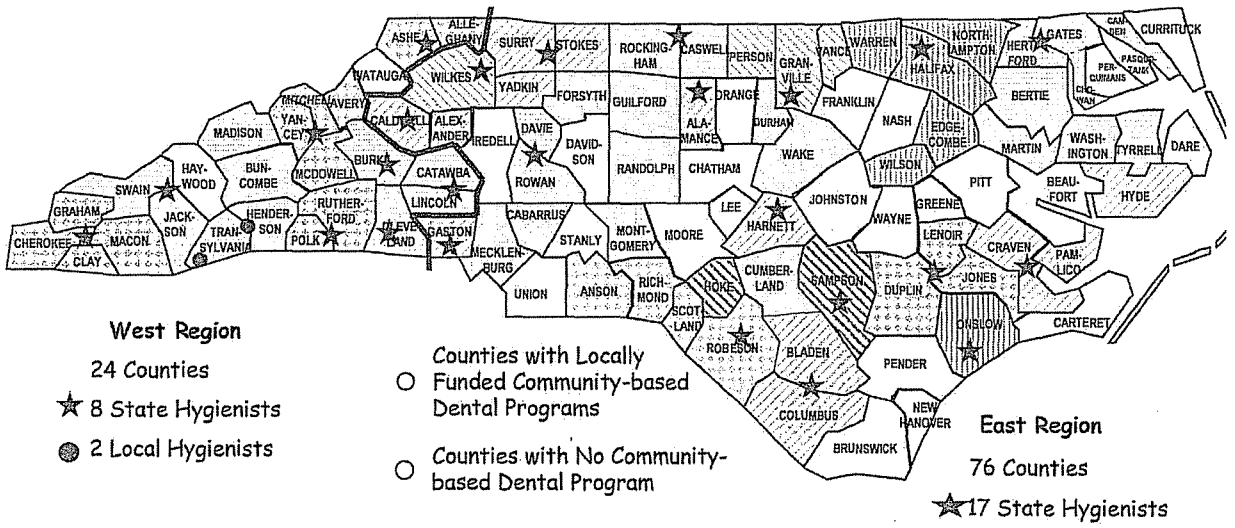
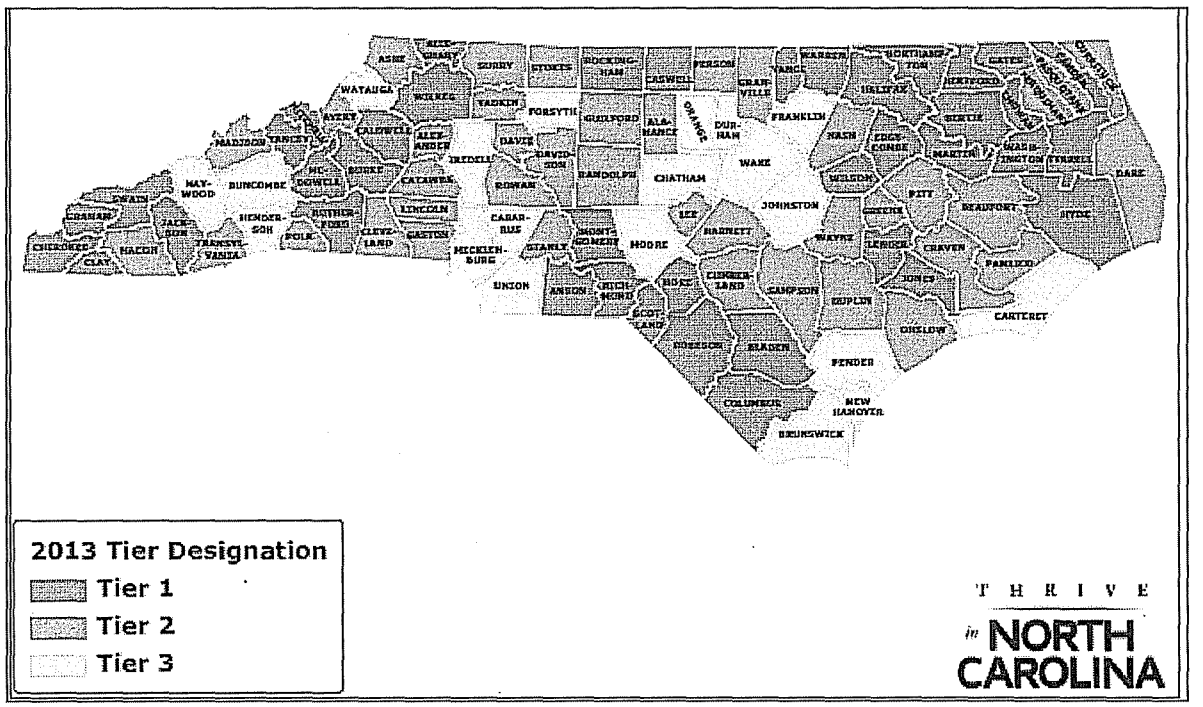


Figure 2. North Carolina Department of Commerce 2013 Article 3J County Tier Designations



Surveillance

Background information

- Assessment is one of the core functions of public health. It involves diagnosing and investigating health problems in the community and monitoring health status to identify and solve community health problems.
- The Association of State and Territorial Dental Directors recommends that every state "establish and maintain a state-based oral health system for ongoing monitoring, timely communication of findings, and the use of data to initiate and evaluate interventions."
- North Carolina has a comprehensive dental surveillance system for children that includes two components. The first is periodic, comprehensive statewide surveys conducted every 10 to 15 years with external grant funding; the last survey occurred in 2003-2004. The second is annual oral health screening of children in kindergarten and 5th grades by trained and calibrated public health dental hygienists. These assessments provide decision makers at the local level with data to track dental disease over time, to compare with other counties, and to support the community's need for oral health funding. The OHS uses data to wisely disperse limited funds, by identifying schools with the greatest oral health needs so that staff can target their school-based sealant projects and fluoride mouth rinse programs. The OHS is responsible for coordinating North Carolina's surveillance system for children.
- Effective October 1, 2013, the OHS will no longer be able to continue with 5th grade surveillance but will capture 3rd grade data from select schools.
- The National Oral Health Surveillance System, a collaborative effort of the Association of State and Territorial Dental Directors and the Centers for Disease Control and

Prevention (CDC), does not accept kindergarten data. It accepts only data from 3rd grade using the Basic Screening Survey tool. Abandoning statewide kindergarten assessments in favor of 3rd grade assessments using the Basic Screening Survey is not advisable for three reasons:

- UNC Gillings School of Global Public Health endorses our kindergarten methodology and our kindergarten surveillance system is a statewide effort.
- Large counties where the OHS does not employ staff (Mecklenburg, Cabarrus, Forsyth, Guilford, Durham and Wake) all participate in kindergarten surveillance.
- The data collected provide better assessment of oral health conditions and on trends in early childhood oral health.

- While national data is available, North Carolina lacks current state-specific data on the oral health status of residents of long-term care facilities. Key stakeholders indicate a need for current state-specific data on the needs of this vulnerable population in order to pursue funding opportunities to address these needs.

Recommended Plan

- The OHS will work with UNC Gillings School of Global Public Health on a plan to identify select schools to implement the Basic Screening Survey tool for 3rd graders and will then submit that data to the National Oral Health Surveillance System.
- To facilitate our 6th area of focus, the OHS will identify a survey tool to assess and report the oral health status of elderly residents in a sample of long-term care facilities, which will provide a basis for future policy decisions targeting preventive oral health strategies.

Target Success

- Submission of 3rd grade oral health data to the National Oral Health Surveillance System.
- Collection of baseline data on the oral health status of residents in NC's long-term care facilities. These data will be used to identify targets for improvements in oral health and developing interventions that will produce measurable improvements in oral health outcomes.

Risks

- There are no identifiable risks to the recommended plan.

Action Steps

Action	Responsible Party	Target Date
Identify schools to implement Basic Screening Survey for 3rd graders	OHS	July 2014
Identify a survey tool and a sample of nursing homes to assess residents' oral health status	OHS	July 2014

Community Water Fluoridation

Background information

- Nearly all naturally occurring water sources contain fluoride. Community water fluoridation is the controlled adjustment and monitoring of fluoride in community

drinking water to reach optimal fluoride concentrations for preventing tooth decay in children and adults.

- Water fluoridation prevents tooth decay mainly by providing teeth with frequent contact with low levels of fluoride throughout each day and throughout life. Even today, with other available sources of fluoride, studies show that water fluoridation reduces tooth decay by about 25 percent over a person's lifetime.[3]
- The CDC has praised water fluoridation as one of "ten great public health achievements of the 20th century."
- The leading health and medical organizations support water fluoridation. This list includes the American Academy of Pediatrics, the American Dental Association, the American Medical Association, and the American Academy of Family Physicians.
- Community water fluoridation saves money and is the least expensive way to deliver the benefits of fluoride to all residents of a community. For larger communities of more than 20,000 people, it costs about 50 cents per person per year to fluoridate the water. It is also cost-effective because every $1 invested in this preventive measure yields approximately $38 savings in dental treatment costs.[4]
- This method of fluoride delivery benefits all people—regardless of age, income, education, or socioeconomic status. A person's income and ability to get routine dental care are not barriers since all residents of a community can enjoy fluoride's protective benefits just by drinking tap water and consuming foods and beverages prepared with it.
- North Carolina has supported community water fluoridation as an effective method to prevent dental decay for over 60 years. Charlotte was the first city in the state to fluoridate its water supply in 1949, and at that time was the largest water system in the world to adjust its fluoride level to the recommended optimal amount. As our state's population has grown, so has the number of North Carolinians who benefit from this essential preventive measure. In the 1950's, only 15 percent of the state's population was drinking optimally fluoridated water. The latest figures now show that, of those who receive their water from a public water system, approximately 87 percent receive the benefits of fluoridated water.[5] As the size of the North Carolina population receiving optimally fluoridated water has grown, OHS's epidemiologic surveys have documented dramatic improvements in the oral health of our citizens.
- Healthy People 2020 Oral Health Objective 13 calls for 79.6 percent of the U.S. population served by community water systems to have optimally fluoridated water, placing this dental public health approach on a national agenda to improve health. North Carolina has exceeded the Oral Health Objective by 7 percentage points.
- Significant opposition to community water fluoridation in many communities threatens to derail these positive gains. Communities in recent years that have been threatened include Raleigh, Rutherfordton, Mebane and Graham. Currently Asheville, Durham, Raleigh and Chapel Hill/Orange County have a small but vocal group of citizens requesting that fluoride be removed from the water system.
- North Carolina needs a coordinated, multi-faceted approach to counter anti-fluoridation activities to ensure that citizens continue to have access to and receive the health benefits from fluoridated water.

Recommended Plan

- Enlist stakeholders to support all aspects of community water fluoridation (e.g., policy development, advocacy promotion, monitoring, surveillance and reporting). Examples of such agencies and organizations include: local health departments, child advocacy groups, legislators, community leaders, health providers, N.C. Oral Health Section, N.C. Division of Medical Assistance, N.C. Office of Rural Health and Community Care, N.C. Department of Environment and Natural Resources – Public Water Supply Section, N.C. Women's and Children's Health Section, N.C. Dental Society, N.C. Academy of Pediatric Dentistry, N.C. Department of Public Instruction, N.C. Medical Society, N.C. Pediatric Society, N.C. Academy of Family Physicians, N.C. Hospital Association, University of North Carolina – Chapel Hill Schools of Dentistry and Public Health, and East Carolina School of Dental Medicine.
- Reclassify and reassign one existing OHS .25 equivalent position to establish a state fluoridation administrator who will work with the public health dental hygienists and be responsible for:
  a) developing a forum (e.g., coalition, task force or workgroup) and coordinating the activities for the above partners to communicate, plan and pool resources for efforts related to community water fluoridation;
  b) supporting and managing fluoridation programs (e.g., community water fluoridation, fluoride mouth rinse); and
  c) providing liaison with federal, state and local agencies.

Target Success

- The percentage of North Carolinians on public water systems receiving the benefits of community water fluoridation will remain steady at 87%.

Risks

- Reassigning an existing OHS 0.25 equivalent position may mean reduced direct services elsewhere in the program. County assignments will be adjusted to continue services in currently covered counties.
- This reclassified and reassigned position (0.25 Fluoridation Coordinator and 0.75 Special Care Dentistry/Frail Elderly) will require 100% state appropriations. Reclassifying and reassigning an existing Dental Supervisor position should provide sufficient state funds.

Action Steps

Action	Responsible Party	Target Date
Reclassify and reassign an existing 0.25 equivalent position to coordinate community water fluoridation activities	OHS	July 2014
Enlist stakeholders to support community water fluoridation	OHS	October 2014

Dental Sealant Promotion and Utilization

Background information

As noted in *Oral Health in America: a Report of the Surgeon General*, dental sealants are a safe and effective measure to prevent tooth decay, particularly when targeted to children at high risk for decay. [6]

According to the N.C. Institute of Medicine 2013 Oral Health Action Plan:[7]

- "Sealants are clear or opaque materials applied to the rough surfaces, called pits and fissures, of premolars and molars to prevent tooth decay. If necessary, sealants must be reapplied to ensure long-term effectiveness. Sealants may be placed as primary prevention to avert onset of caries or as secondary prevention to arrest progression of caries to cavitation."
- "Sealants are effective in reducing dental caries by approximately 60 percent among children ages 6-17. In North Carolina, only 17 percent of children ages 6-9 enrolled in Medicaid and 19 percent of similar age children enrolled in N.C. Health Choice received a sealant in FFY 2012,"
- "Despite the well-supported case for their use, sealants are not highly utilized in oral health prevention for many reasons, including underutilization by dentists, poor reimbursement by Medicaid and N.C. Health Choice, inability to receive reimbursement to reapply sealants if they fail, and lack of knowledge about the benefits of sealants among parents."
- "Changes to Medicaid and N.C. Health Choice payment and policies could increase utilization of sealants by dentists. Education of dental professionals is also needed because many dentists lack understanding of the American Dental Association guidelines for pit and fissure sealants, including the benefits of sealants when placed over incipient caries."

A successful collaboration currently exists between the OHS and the North Carolina Dental Society through the Dental Society's annual "Give Kids A Smile!" event, which provides free dental care, including sealants, to needy children.

Recommended Plan

- To increase access to dental sealants, the OHS will expand their school-based dental sealant programs to include charter schools and elementary and middle schools that operate on a year-round calendar. The public health dental hygienists are key to the success of the school-based sealant programs.
- By leveraging their existing resources, the OHS will build on successful collaborations that currently exist with North Carolina community college dental hygiene and assisting programs to include additional faculty-run, student-based dental sealant programs. In addition, the OHS will investigate opportunities to collaborate with the University of North Carolina School of Dentistry and the East Carolina School of Dental Medicine to increase the proportion of high-risk children with dental sealants.
- The OHS will pursue a grant funding opportunity for a pilot project that will educate dentists in the private sector, through local dental societies, on the importance of utilizing dental sealants.
- The OHS will explore the ability to coordinate pilot projects that do not require outside funding that will involve local health departments, Federally Qualified Health Center

(Community Health Center) dental programs, not-for-profit dental care centers which have been approved by the N.C. State Board of Dental Examiners both under G.S. 90-29 (c) to serve as non-profit health care facilities serving low income populations and under G.S. 90-29(c)4 to function as dental student rotation sites, and certain identified private practice dental hygienists (the parameters of which will be developed) in school-based, preventive dental initiatives. Using OHS equipment, preventive services will be provided by local health departments, community health centers, not-for-profit organizations, and private practice dental hygienists who will then refer children back to their fixed sites for restorative/surgical care. The OHS will partner with DMA, the N.C. Dental Society, the North Carolina Academy of Pediatric Dentistry, N.C. Institute of Medicine and other stakeholders to initiate a "rules" change from the N.C. State Board of Dental Examiners that would expand the scope of North Carolina Administrative Code 16W .0101-.0103 to allow dental hygienists other than those employed by state or county government to practice 'under direction.' This proposed rules change will not eliminate the need for a prior dentist exam.

- DMA, with OHS assistance, will work with the Children's Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration Grant project teams for Community Care of NC (CCNC) to develop a metric aimed at evaluating the utilization of dental sealants for N.C. Medicaid and Health Choice children at risk for decay on permanent molars.
- DMA will explore increasing the rate for sealant reimbursement from the current rate of $28.01 to $46. A rate of $46 would be 75% of the 2007 National Dental Advisory Service benchmark that DMA currently uses for rate setting. An increase in reimbursement would encourage enrolled dental providers that treat children ages 6 to 15 to utilize sealants to a greater extent. Increased cost of reimbursement as well as savings through cost avoidance will be detailed in a future comprehensive cost analysis.

Target Success

- Ten percent increase in the number of children ages 6-9 enrolled in Medicaid and Health Choice receiving a sealant on a permanent first molar over 2 years (FY 2015).

Risks

- Two of the proposed ten (10) East Carolina University School of Dental Medicine Community Service Learning Centers are operational and serving patients. They are located in Ahoskie and Elizabeth City. Construction is underway on four (4) Centers in Sylva, Lillington, Spruce Pine and Davidson County. Four additional sites are being identified. The overwhelming demand for dental care services at the Community Service Learning Centers, which is evident at the Ahoskie site, along with a lack of resources resulting in the small number of OHS public health dental hygienists in some areas to carry out collaboration efforts, may hinder the ability to engage in school-based or school-linked dental sealant projects.
- The North Carolina Dental Practice Act allows public health dental hygienists, defined as those who are employed by or under contract with a local public health department or state government dental program, who have met specified requirements, to practice 'under direction.' This allows hygienists to provide certain preventive and clinical dental services without direct on-site dentist supervision, though a prior exam by a dentist is

required. A rules change by the North Carolina State Board of Dental Examiners expanding the scope of NCAC 16W .0101-.0103 would need to be requested. The Board may deny the request for a rules change. If the rules change request is not successful, a contingency plan will be to proceed with a local health department pilot utilizing their public health dental hygienists who have already satisfied N.C. State Board of Dental Examiner requirements for working 'under direction.'

Action Steps

Action	Responsible Party	Target date
Meet with University of North Carolina School of Dentistry and East Carolina School of Dental Medicine on potential of collaborating with OHS on increasing the proportion of high-risk children with preventive dental sealants	OHS	February 2014
Submit grant to provide education to dentists in private practice	OHS	July 2014
Offer OHS school-based sealant programs to charter and year-round schools	OHS	July 2014
Collaborate with community college dental assisting and dental hygiene programs on sealant programs	OHS	July 2014
Identify local health department, community health center, and not-for-profit partners interested in pursuing a school-based sealant pilot project	OHS	July 2014
Request a rules change from the N.C. State Board of Dental Examiners expanding the scope of 16W .0101-.0103	DPH, DMA, NC Institute of Medicine, UNC School of Dentistry, ECU School of Dental Medicine, N.C. Dental Society, N.C. Academy of Pediatric Dentistry	July 2014
DMA policy/procedural change to increase dental sealant reimbursement	DMA	July 2014

Into the Mouths of Babes and Establishing a Dental Home

Background Information

- *Into the Mouths of Babes* (IMB) is a North Carolina statewide Medicaid program to increase access to preventive dental care for young children. IMB serves Medicaid-enrolled children from tooth eruption until 3 ½ years of age.
- IMB aims to reduce the prevalence of early childhood tooth decay among low-income young children by providing preventive oral health care in a medical setting as well as referral to a dental home. Recognizing that accessing dental care can be a challenge for

families, the IMB program capitalizes on the fact that almost 90 percent of infants and one-year-olds visit a physician at least once a year compared to less than 2 percent of infants and one-year-olds who visit a dentist at least once a year.[8]

- The IMB procedure includes oral evaluation and risk assessment, parent/caregiver education, and fluoride varnish application.
- Evaluation of the IMB program conducted by the UNC Gillings School of Global Public Health demonstrates:
  - high adoption rates by medical providers
  - 49 percent reduction in dental treatment before 18 months[9]
  - 21 percent reduction in hospital episodes[10]
  - at least four IMB visits before the 3rd birthday have the most benefit.[9]
- CHIPRA through CCNC has been working on expansion of IMB to more practices that serve children. In areas where capacity is an issue, the Priority Oral Risk Assessment and Referral Tool (PORRT) developed during the Carolina Dental Home pilot, has been used as a risk screening tool and a referral and feedback record. CHIPRA monitors the success of IMB by the rates of 3 or more + claims for dental varnishing by the age of 42 months.
- Despite the success of IMB in reducing early childhood tooth decay, the missing link continues to be the adoption of a dental home, a place where oral health care is delivered in a comprehensive, continuously accessible, coordinated and family-centered way by a licensed dentist. This partnership of medical and dental providers is particularly important for getting the highest risk children into a dental home as early as possible so as not to delay needed dental treatment. Waiting until age three or later to establish a dental home is too late for some children.
- Leading organizations such as the American Dental Association, the American Academy of Pediatric Dentistry and the American Academy of Pediatrics recommend that a child visit the dentist within six months of the eruption of the first tooth or by age one, but adoption of the recommendation by both parents and dental providers remains a challenge. Parents do not typically bring their young children to the dentist and the message conveyed by dentists to parents on the importance of early dental visits is not consistent.
- Carolina Dental Home was a successful federally funded (Health Resources and Services Administration) three year pilot program in Craven, Jones, and Pamlico Counties where pediatricians and dentists partnered to provide a dental home for Medicaid-insured children from birth to three years old. The goals of the program were:
  - Develop a priority oral risk assessment and referral tool and guidelines for use
  - Stop tooth decay before it starts
  - Treat tooth decay early, before it affects the child's health.

  In the Carolina Dental Home pilot, a team that included representative pediatricians and dentists developed the NC Priority Oral Risk Assessment and Referral Tool (PORRT; see Figure 3) which helped pediatricians determine when a child needed to be referred to a dentist based on risk for developing tooth decay. Carolina Dental Home was the pilot site for the PORRT, which is now being tested statewide.

  Using the PORRT, local pediatricians identified children aged infant to three years old at high risk for tooth decay during well-child visits. Once identified, the child was referred to a dentist for an exam. If treatment was needed, the dentist provided the care or

referred the child to a pediatric dentist for specialized care. The Carolina Dental Home pilot was a success in that a risk assessment and referral tool was developed (PORRT) and 50% of the children identified as needing a referral by their pediatrician (as determined by the PORRT) were linked with a dental home for treatment.

- Since 2011, work with primary care clinicians serving children has been ongoing through the CHIPRA grant and CCNC pediatrics. Building on lessons learned through Carolina Dental Home, practices and networks have been establishing relationships with local dentists who serve children. CCNC practices and networks have been working on systems for referrals and feedback between providers. The CHIPRA quality improvement team is working with practices to increase the routine documentation that children have a dental home at age one.

Recommended Plan

- The OHS, DMA, N.C. Dental Society and N.C. Academy of Pediatric Dentistry will work to increase the adoption of the age one dental visit recommendation.
- The OHS, DMA, CCNC, the NC Academy of Family Physicians and the NC Pediatric Society will continue outreach to primary care practices that serve children regarding promoting and referring children for dental visits by age one.
- OHS and DMA will develop a one page document highlighting the importance of the age one dental visit and partner with multiple organizations and agencies to disseminate the information to parents and dentists.
- In geographic areas where an inadequate dental workforce prohibits referral of every child to a dentist by age one, the PORRT is recommended as part of the IMB visit to identify the children at highest risk for tooth decay and early dental referral. DPH will continue to encourage medical providers to adopt and implement the Priority Oral Health Risk Assessment and Referral Tool.
- To assist dentists in conveying a consistent message, the OHS will partner with DMA, the N.C. Dental Society, the Old North State Dental Society and the N.C. Academy of Pediatric Dentistry and CCNC to distribute a letter to all North Carolina practicing dentists. The letter will document the national organizations which support the age one dental visit and encourage dentists to refer to a provider who treats young children if they do not treat young children themselves.
- The OHS will continue its partnership with Children's Health Insurance Program Reauthorization Act Quality Improvement Specialists in the CCNC networks by having OHS public health hygienists in assigned counties share dental referral provider lists and other oral health resources. Furthermore, OHS staff will offer their assistance to Quality Improvement Specialists with *Into the Mouths of Babes* trainings.
- The OHS will reclassify and reassign one FTE position who will promote medical-dental integration for children from low-income families (birth to 10 years) in order to implement a whole person approach to health by establishing relationships between primary care providers and dentists. The role of this position would be to link primary care and dentists to ensure that care is coordinated and integrated and that oral health becomes a routine part of total person care. A primary responsibility for the position will be to expand the successful Carolina Dental Home pilot statewide.

Target Success

- As determined by the Carolina Dental Home pilot as a successful baseline measure, adoption of a dental home by greater than 50% of referred children in target communities by primary care providers as indicated by the N.C. Priority Oral Health Risk Assessment and Referral Tool (verified through care coordination efforts by the FTE).

Risks

- There are geographic areas in North Carolina that do not have the dental workforce to support an age one dental visit. In those areas, the Priority Oral Health Risk Assessment and Referral Tool (PORRT) will assist medical providers in identifying the highest risk infants and toddlers for referral to a dental home, while managing the lower risk infants and toddlers in their medical home.
- The NC CHIPRA Quality Demonstration Grant will end February 21, 2015. If additional federal funds are not found, the Quality Improvement specialists in the CCNC network will be unable to continue to work with primary care clinicians to promote these oral health priorities.
- Reassigning an existing OHS FTE position may mean reduced services elsewhere. County assignments will be adjusted to continue services in currently covered counties.
- Funding is contingent upon Medicaid agency approval of a revised Interagency Memorandum of Agreement to cover this activity.

Action Steps

Action	Responsible Party	Target Date
Develop age 1 dental visit document and partner with organizations/agencies, including CCNC Pediatrics, North Carolina Pediatric Society and North Carolina Academy of Family Physicians to disseminate information to parents, dentists and primary care clinicians	OHS and DMA	February 2014
OHS and Children's Health Insurance Program Reauthorization Act Quality Improvement Specialists meeting to share best practices and coordinate activities	OHS	July 2014
Develop a letter to be sent to all members of the N.C. Dental Society, Old North State Dental Society, N.C. Academy of Pediatric Dentistry and primary care clinicians who serve children. Meet with N.C. Dental Society leadership	OHS and DMA	May 2014
Reclassify and reassign one existing OHS FTE position to promote relationships and networking between primary care providers and dentists and to expand Carolina Dental Home statewide	OHS	July 2014

Figure 3. N.C. Priority Oral Health Risk Assessment and Referral Tool developed during the Carolina Dental Home Pilot.

NC Priority Oral Risk Assessment and Referral Tool - PORRT

Today's date: __ __ / __ __ / __ __ | Child's MID# __ __ __ – __ __ – __ __

Child's last name:

Child's first name: | Child's middle name:

Birth date: __ __ / __ __ / __ __ (month / day / year)

Parent/Guardian's relationship to child: ☐1 Mom ☐2 Dad ☐3 Grandparent ☐4 Other (specify)_____

PRACTICE NAME: | PROVIDER NAME:

A. Questions for Parent/Guardian

	Yes1	No2	Referral Recommendation
1. Do you brush your child's teeth at least once a day using toothpaste with fluoride?			If 3 or more risk factors (shaded boxes) are marked, refer to a Dentist.
2. Does your child drink fluoridated water?			
3. Does your child drink juice or sweetened drinks between meals or eat sugary snacks?			
4. Have you or anyone in your immediate family had dental problems?			
5. Does your child sleep with a bottle filled with drinks other than water?			

6. Is the child currently being seen by a dentist? ☐1 Yes ☐2 No

If yes, name of dentist: | Date of last appointment: __ __ / __ __ / __ __ (month / day / year)

B. Questions for Provider Based on Clinical Assessment

	Yes1	No2	If Yes, Refer to a
7. Does the child have any special health care needs?			Dentist
8. Does the child have cavities? (cavitated lesions)			Dentist
9. Does the child have visible plaque on the teeth?			Consider other risks
10. Does the child have enamel defects?			Dentist
11. Does the child have white spot lesions? (non-cavitated lesions)			Dentist
12. Does the child have any other oral conditions of concern?			Dentist

13. Please check procedures performed today: ☐1 Oral evaluation ☐1 Fluoride Varnish ☐1 Parent Education

14. Was the child referred to a dentist? ☐1 Yes ☐2 No

a. If YES, name of dentist:

Provider Signature:

C. This section is to be completed by the Dental Office and faxed back to the referring physician

1. Date of dental appointment __ __ / __ __ / __ __ (month / day / year)
2. Did the patient show up for dental appointment? ☐1 Yes ☐2 No
3. Did patient call to cancel the appointment? ☐1 Yes ☐2 No
   a. If yes, what reason was given?
4. Brief summary of dental findings:
5. Next dental appointment: Date: __ __ / __ __ / __ __ Time:

Oral Care for the Frail Elderly

Background information

- *Oral Health in America: a Report of the Surgeon General* highlighted the relationship between oral health and overall health and the importance of optimal oral health for all ages.[6] The report acknowledged that while significant gains in oral health have been made, they have not been shared equally. Oral health disparities exist and elderly populations have been adversely affected. Demand for dental care for older adults is increasing as people are living longer, and access to dental care has been identified as the single most widespread service issue affecting the older adults in North Carolina.[11] Of particular concern is those who reside in long-term care facilities. It is well established in the scientific literature that residents of nursing homes exhibit poor oral health which can have serious systemic consequences, increasing the risk of stroke, cardiovascular disease and pulmonary infection.[12] Residents often lack the ability to provide their own oral care, and the care provided by facility staff is seldom ideal.
- There are very few North Carolina dental practices that provide comprehensive care (i.e., preventive, restorative, surgical and partial and full dentures) to residents in long-term care facilities. They are typically able to serve up to 18 patients a day but incur a financial loss for certain procedures such as partial- and full-denture appliances and appliance repairs (oral communication with Betsy White, Registered Dental Hygienist, Access Dental Care, February, 2012). DMA currently reimburses for a covered dental service ("D9410-use/extended care facility call") commonly referred to as the facility code.[13] The current limitation for this service is such that providers can be paid for one house/extended care facility call per date of service per facility, regardless of the number of recipients treated on that day. In other words, a dentist's reimbursement for provided dental services in a long-term care facility is the same, regardless of whether one patient or 20 patients are treated. The service is currently reimbursed at $72.86.[14] DMA believes that a facility code reimbursement at a per-patient fee of $32.52 is feasible and will be more financially equitable to the providers.
- While national data is available, there is a lack of current data on the oral health status of residents in North Carolina's long-term care facilities.

Recommended Plan

- The OHS will work with UNC Gillings School of Global Public Health to identify a representative sample of long-term care facilities from which to obtain data on the oral health status of residents.
- The OHS will reclassify and reassign an existing 0.75 equivalent position to establish an individual to coordinate activities regarding special care populations. This person will partner with the N.C. Dental Society Special Care Dentistry Task Force to learn about the oral health issues affecting special care populations and will become the DHHS special care oral health expert. Responsibilities will include working to implement recommendations from Session Law 2009-100, a joint DMA and DPH study which addressed dental care and improved outcomes for high-risk patients. This position will also explore opportunities for the OHS to collaborate with the N.C. Division of Health Service Regulation on their state-wide implementation for facility in-service training to

improve the oral health of nursing home residents through the innovative University of North Carolina developed *Mouth Care without a Battle* training module.

- DMA will explore changing the dental service code "D9410-House/extended care facility call" to reimburse providers based on the number of patients treated per date of service, rather than on a one-time "facility" charge basis. To ensure a budget neutral proposal, limiting the policy changes to providers who are equipped and committed to provide care beyond diagnostic and preventive services will be considered.

Target Success

- Successful baseline data collection on the oral health status of residents in long-term care facilities. These data will be used to identify targets for improvements in oral health and to develop interventions that will produce measurable improvements in oral health outcomes.
- Developing a budget neutral proposal to amend the "D9410-House/extended care facility call" code to more equitably reimburse providers.

Risks

- Reassigning an existing OHS 0.75 equivalent position may mean reduced direct services elsewhere in the program. County assignments will be adjusted to continue services in currently covered counties.
- This reclassified and reassigned position (0.75 Special Care Dentistry/Frail Elderly and 0.25 Fluoridation Coordinator) will require 100% state appropriations. Reclassifying and reassigning an existing Dental Supervisor position should provide sufficient state funds.

Action Steps

Action	Responsible Party	Target date
Obtain data on the oral health status of nursing home residents	OHS	July 2014
Partner with N.C. Dental Society Special Care Dentistry Task Force	OHS	July 2014
Explore opportunities to assist with the state-wide implementation of *Mouth Care without a Battle*	OHS	July 2014
Explore changing the "facility code"	DMA	July 2014
Reclassify and reassign an existing OHS 0.75 position to establish an individual to coordinate activities regarding special care populations.	OHS	July 2014

References

1. Centers for Disease Control and Prevention.(2013. Division of Oral Health. Children's Oral Health. Retrieved November 17, 2013 from http://www.cdc.gov/OralHealth/children_adults/child.htm
2. N.C. Oral Health Section. 2010-2011 Annual Kindergarten/5th Grade Assessment of Oral Health. N.C. Department of Health and Human Services. Retrieved November 17, 2013 from www.oralhealth.ncdhhs.gov.
3. Centers for Disease Control and Prevention.(2013). Community Water Fluoridation: Fluoridation Basics. Retrieved November 17, 2013 from http://www.cdc.gov/fluoridation/basics/index.htm
4. Centers for Disease Control and Prevention.(2013). Community Water Fluoridation: Cost Savings of Community Water Fluoridation. Retrieved November 17, 2013 from http://www.cdc.gov/fluoridation/factsheets/cost.htm
5. Centers for Disease Control and Prevention.(2012). Water Fluoridation: 2010 Water Fluoridation Statistics. Retrieved November 17, 2013 http://www.cdc.gov/fluoridation/statistics/2010stats.htm
6. U.S. Department of Health and Human Services. Oral health in America: a report of the surgeon general. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health; 2000.
7. North Carolina Institute of Medicine. *The North Carolina Oral Health Action Plan for Children Enrolled in Medicaid and N.C. Health Choice.* Morrisville, NC: North Carolina Institute of Medicine; 2013.
8. American Academy of Pediatrics. Preventive Oral Health Intervention for Pediatricians. Pediatrics. 2008 Dec; 122 (6): 1387-1394.
9. Pahel BT, Rozier RG, Stearns SC, Quiñonez RB. Effectiveness of Preventive Dental Treatments by Physicians for Young Medicaid Enrollees. *Pediatrics*. 2011 Mar; 127(3):e682-9.
10. Stearns SC, Rozier RG, Kranz AM, Pahel BT, Quinonez RB. Cost-Effectiveness of Preventive Oral Health Care in Medical Offices for Young Medicaid Enrollees. *Archives of Pediatrics & Adolescent Medicine*. (Now *JAMA Pediatrics*) 2012:27:1-7.
11. NC Division of Aging and Adult Services. "Accessing Services: A Report from the Survey of Service Access Issues for Older Adults." March, 2010.
12. Stein PS, Henry RG. Poor Oral Hygiene in Long-Term Care. Am J Nurs; 2009; 109(6), 44-50.
13. North Carolina Division of Medical Assistance (DMA). Dental Services Clinical Coverage Policy 4A. November 1, 2011: 30. http://www.ncdhhs.gov/dma/mp/1dental.pdf.
14. North Carolina Division of Medical Assistance (DMA). N.C. Medicaid Dental Reimbursement Rates. November 1, 2011: 5. http://www.ncdhhs.gov/dma/fee/dental/dentalfee_general_1111.pdf