

**A**s discussed throughout this report, increasing children’s access to preventive dental services in North Carolina is a challenge due to a low dentist-to-population ratio and limited public resources, as well as family, dentist, and policy barriers. In discussions, the Task Force repeatedly came back to the need for more mechanisms to deliver efficient and affordable services at times and in places convenient for children and families. The Task Force also struggled with how to ensure that North Carolina has a sufficient oral health workforce to deliver quality care. These two issues came up in discussions of Goals 1 and 2. To answer these challenges, the Task Force developed four crosscutting recommendations.

Schools were identified as an excellent place to reach children in a manner that is often more convenient for families. Providing services to children while in school reduces some of the problems that low-income families have with obtaining dental services. For example, providing services directly in the school setting reduces transportation barriers, as the child does not need to travel to get services. It also eliminates problems that working parents may have in taking time off work to take their children to the dentist. Currently public health hygienists, employed by the Oral Health Section (OHS) of the North Carolina Division of Public Health, provide dental health prevention and education through North Carolina schools. Although they do not have the necessary personnel to reach all children enrolled in public schools, public health hygienists provide direct prevention services, such as dental screenings in elementary schools, in addition to activities on placement of dental sealants and fluoride mouth rinse in classrooms.<sup>1</sup> Mobile dental providers also provide services at school sites in some locations. Rather than requiring the parent and child to travel to a dentist’s office, mobile dental providers go to the children. The Task Force discussed different strategies that could increase access to preventive dental services and sealants for children in school and other community-based settings.

**Recommendation 6.1: Maintain the structure of the Oral Health Section and increase funding for public health dental hygienists**

**Recommendation 6.2: Require limited service dental providers to provide comprehensive dental services**

**Recommendation 6.3: Pilot private dental practice school-based programs**

**Recommendation 6.4: Reduce barriers for qualified out-of-state dentists**

The Task Force developed recommendations to increase the number of dentists in North Carolina serving children enrolled in Medicaid and NC Health Choice. (See Chapter 3.) However, data show that even if these efforts are successful,



**The Task Force developed recommendations that could increase access to preventive dental services and sealants for children in school and other community-based settings.**

North Carolina still will not have enough dentists to meet the needs of the population. Having an adequate number of dentists is critical to meeting Goals 1 and 2, therefore the Task Force also developed a recommendation to decrease barriers faced by dentists moving into North Carolina:

**Recommendation 6.4: Remove barriers for qualified out-of-state dentists**

### Importance of Public Health Dental Hygienists

OHS provides dental health prevention and education for children across the state with a focus on elementary school children. Public health dental hygienists provide most of the services. These staff often live in the communities they serve, work with local public health departments, and provide community-based services. Public health dental hygienists provide sealants to high-risk populations through school-based programs. As discussed in Chapter 4, sealants prevent caries and programs that provide them can be cost-saving.<sup>2</sup> The hygienists conduct weekly fluoride mouth-rinse (FMR) programs for children in targeted high-risk elementary schools, which can help reduce caries in children in high-risk schools.<sup>1</sup> They also promote preventive services for younger children. For example, the hygienists provide training and support for primary care practices and local health departments participating in the Into the Mouths of Babies (IMB) program. The IMB program has been shown to reduce caries-related treatment by 17% at 6 years of age in children who had the recommended 4-6 visits.<sup>1</sup> In addition, the hygienists work with Early Head Start staff participating in the Zero Out Early Childhood Tooth Decay Project (discussed more fully in Chapter 5). They also improve access to dental care for underserved populations through screening and referrals to a dental home.<sup>1</sup> These programs reached approximately 180,500 children in SFY 2011-2012.<sup>a</sup>

The OHS standardized screenings in kindergarten and fifth grade serve as a way of monitoring the public's oral health. These annual screenings provide information at both the county and state level.<sup>1</sup> These screening tools would help measure the state's progress in reaching CMS goal 1 as a proxy for preventive services. The fifth grade assessment can be used for surveillance of dental sealant for CMS goal 2.

As of March 2013, OHS employed 37 state hygienists, 1 local hygienist under state supervision, and 3 state supervisors. The staff are divided into three regions across the state. In the western region, 16 state hygiene positions and 1 local hygienist are tasked with providing services to 39 counties. In the central region, 7 dental hygiene positions cover 15 counties. Finally, in the eastern region, 16 dental hygiene positions cover 46 counties. Due to budget cuts, 5 of the dental

<sup>a</sup> King R. Section Chief, Oral Health Section, Division of Public Health, North Carolina Department of Health and Human Services. Written communication. May 23, 2013.

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hygiene positions across the state are vacant. The increased demand on fewer employees has caused a decline in the number of children receiving services and the counties served. There are 8 counties with local preventive dental programs, but 10 counties in the state have no preventive dental program.<sup>b</sup> From 2006-2007 to 2011-2012, the ratio of public health dental hygienists to the elementary school population decreased from 1:13,500 to 1:18,000. In SFY 2010-2011, before budget cuts and staff reduction, OHS provided dental services to approximately 240,000 children (39,500 more children than in SFY 2012).<sup>1</sup> At the time this report was being written, there was discussion in the North Carolina General Assembly about eliminating funding for state public health hygienists (SB 402). Funding would be transferred from the OHS to local health departments with dental clinics for the provision of clinical services. The net cut in funding for public health hygienists would be counterproductive and significantly impact the state's ability to provide preventive dental services to children.

A number of Oral Health Section activities address all three of the task force's goals. OHS staff screen elementary school children (with an emphasis on those in kindergarten and fifth grade) identify those in need of dental care, educate parents about why oral health is important, and help them find a local dental home (goals 1 and 3). They conduct sealant projects and work with local resources to provide sealants to children at high risk for tooth decay (goal 2). They train and provide support for medical providers in the Into the Mouths of Babes program, who provide dental evaluations and refer children to a dental home, provide targeted oral health education, and apply fluoride varnish (goals 1 and 3).

The many contributions of the OHS are critical to the state's ability to meet the CMS goals for children's preventive oral health. The Guide to Community Preventive Services recommends both school based sealants and water fluoridation conducted by OHS. Sealants are directly related to CMS goal 2 and water fluoridation helps protect the sealants by preventing dental caries. The proposed reduction in funding for OHS would decrease the training for primary care providers in the Into the Mouths of Babes (IMB) program. (See Chapter 5.) The funding reduction would also decrease access to oral health services for children enrolled in Medicaid and NC Health Choice. (See Chapter 3.) Without adequate funding, the surveillance tools to monitor the state's progress toward reaching the CMS goals are also in jeopardy.

Public health dental hygienists in OHS provide dental education and outreach and improved access to dental care to many children at high risk of dental disease. The programs and interventions they use are evidence-based or promising practices. Rather than cut funding to public health hygienists, the Task Force recommended expansion of these state-funded hygienists. Currently,

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<sup>b</sup> King R. Section Chief, Oral Health Section, Division of Public Health, North Carolina Department of Health and Human Services. Written communication. May 21, 2013.

there are not enough public health dental hygienists to reach the most vulnerable children in the state, and cuts to the OHS would significantly impair the state's ability to provide needed preventive oral health services. Therefore, the Task Force recommends:

### **Recommendation 6.1: Maintain the Structure of the Oral Health Section and Increase Funding for Public Health Dental Hygienists**

- a) The North Carolina General Assembly should maintain the structure of the Oral Health Section of the Division of Public Health (OHS), including dental hygienists, in order to meet the Centers for Medicaid and Medicare Services goals of increasing preventive dental services and increasing utilization of sealants among children ages 6 to 9.**
- b) The North Carolina General Assembly should increase funding to OHS, in order to hire additional dental hygienists who can provide preventive oral health services in schools, help link children with oral health problems to a dental home, participate in oral health surveillance activities, and otherwise promote oral health among children.**

#### **Ensure Limited Service Dental Providers Provide Comprehensive Services**

Mobile dental providers focus on underserved populations and those at higher risk for dental disease. They may provide dental services at schools, housing communities, worksites, and various other locations. Mobile dental providers typically have either a mobile dental van or bus that can be parked on school property or in other community settings, or have mobile dental equipment that can be set up in a classroom or other facility. The mobile dental units may be owned and operated by hospitals, dental offices, charities, and others. They may provide preventive and restorative services along with education and outreach.

Some mobile dental providers provide the full range of dental care in their mobile operations. Others offer more limited care. As discussed in Chapters 3 and 5, it is important to provide children with a dental home that can provide comprehensive care including preventive and treatment services. The American Academy of Pediatric Dentistry notes that children who have a dental home are more likely to receive appropriate preventive and routine oral health care.<sup>3</sup> Limited service dental providers should ensure that their patients are linked to a dental home to ensure continuity of quality care.

Currently Medicaid policy allows any willing provider to enroll in the program. This means that a mobile dental provider may provide very limited services to this at risk population without the guarantee of transferring records to a dental

home, ensuring comprehensive care, or a referral for specialized care if it is needed. Mobile dental providers may increase access to oral health care, but it is important to ensure that they fit within a comprehensive system of care. The Task Force discussed the need to ensure that children receive high quality care. To ensure children enrolled in Medicaid and NC Health Choice receive high quality care, children who receive screening or treatment from a mobile dental provider should be linked with a dental home or provided comprehensive care from the mobile provider. Therefore the Task Force recommends:

## **Recommendation 6.2: Require Limited Service Dental Providers to Provide Comprehensive Dental Services**

**The Division of Medical Assistance and the Physician Advisory Group should examine current dental payment policies to support dental homes that provide continuity of care and comprehensive oral health services. Payment policies should ensure that dental providers who offer diagnostic and preventive services, but not comprehensive restorative care:**

- a) Have referral systems to refer patients to dental homes that can offer comprehensive oral health services.**
- b) Transfer the appropriate diagnostic records, including oral health images, to the dental home in a timely manner.**

## **Piloting a New Model for Increasing Children's Access to Dental Services**

Both North Carolina's public health dental hygienists and mobile dental providers make dental services more accessible to children and their families by providing services at schools. However, they are typically not strongly linked to dental homes in the community they serve. The model of providing services for children in school settings was one the Task Force felt should be expanded, but Task Force members were interested in new models that provide a stronger link to dental homes in the local community.

The Task Force focused on what private dentists could do to expand the reach of their practices to the schools. This would serve the goal of promoting preventive dental services while at the same time providing a stronger link to a dental home. The Task Force recommended pilot testing a model in which private dental practices would employ dental hygienists and dental assistants who would provide reversible preventive services to children in a school-based setting. This would include limited oral exams, prophylaxis, fluoride varnish, oral hygiene instruction, and sealants. School-based sealant programs have been shown to be cost-effective in other states.<sup>4,5</sup> Children who need more extensive dental work would be referred back to the private dental practice. The practice would

provide the dental home and more involved treatment for all the children served in the school-based program.

While there is a shortage of dentists in North Carolina compared to the nation, North Carolina has a large number of skilled licensed dental hygienists (RDH) who are under-employed or unemployed.<sup>6</sup> These RDHs are well-trained in the concepts of oral health, but traditionally have provided services for an adult population. With some retraining, they could be prepared to serve North Carolina's population of school-aged children. To make this model work, North Carolina would need to ensure that RDHs have the requisite training about pediatric oral growth and development, cariology, pediatric behavior management, and other necessary skills to provide limited oral exams, prophylaxis, fluoride varnish, oral hygiene instruction, and sealants to a child patient population. RDHs would also need public health skills to successfully implement this model. This training, and a competency exam, could be developed by either of the state's dental schools. RDHs that successfully complete the program would be provided with a pediatric dental certification or other similar qualification. In addition to ensuring the RDHs have the right training, a dentist interested in providing mobile services would need to invest in mobile dental equipment including a chair, light, and dental unit for each RDH.

Using data from DMA as well as subsidized school-lunch rates and data on historically underserved areas, the pilot program could target schools with high numbers of at-risk children. This model could increase the availability and utilization of preventive dental services with only limited retraining of RDHs. This model might prove particularly attractive to dentists who recently graduated from dental school seeking to establish a client base and dental practice in underserved areas. To be successful, this model would need cooperation from schools, providers willing to test the model, and approval by North Carolina Board of Dental Examiners.

The Task Force believes a new model is needed to aggressively pursue the CMS goals to increase utilization of preventive dental services and sealants among children enrolled in Medicaid and NC Health Choice. A model that uses existing oral health professionals to deliver care to children where they are holds the promise of reaching large numbers of eligible children who may not otherwise seek out dental care. Therefore the Task Force recommends:

### **Recommendation 6.3: Pilot Private Dental Practice School-Based Programs**

- a) The North Carolina Dental Society, Oral Health Section of the Division of Public Health, and Division of Medical Assistance should seek funding to create school-based pilot programs to provide screenings, preventive services, and sealants. For this pilot:**

- 1) Dental practice would serve as the dental home.**

- 2) **Dental hygienists would need additional training and to be certified to provide reversible preventive procedures under general supervision (without having a dentist physically present at the schools or requiring prior exam from a dentist).**
  - 3) **Dental hygienists and dental assistants employed by the dental office would provide the dental services in schools, and would be supervised, remotely by participating dentist.**
  - 4) **Participating practices should work with appropriate partners, such as the oral health section, school nurses, and school-based and school-linked health centers, to help identify appropriate schools with high numbers of at-risk children, obtain parental consent, and create a system of care.**
  - 5) **Participating practices and local health departments should work with local school nurses, and, if available, school-based and school-linked health centers, to promote services.**
  - 6) **The model should be evaluated after three years. Evaluation should include an assessment of unmet treatment needs. If successful, and financially viable, the model should be expanded across the state, and should be tested for viability in other settings, such as head start, child care centers, primary care offices, etc.**
- b) **The North Carolina Board of Dental Examiners should allow dental hygienists and dental assistants to provide reversible preventive procedures under general supervision (without having a dentist physically present at the schools or requiring prior exam from a dentist) for this pilot.**

## Enable More Dentists to Move to North Carolina

North Carolina has an overall shortage of dentists, which exacerbates problems finding dentists who are willing to treat children eligible for Medicaid or NC Health Choice. In 2011, North Carolina had 4.4 dentists per 10,000 population compared to a national average of 6.0 dentists per population.<sup>7</sup> This disparity is expected to increase due to a rapidly increasing population and declining retention rates for North Carolina educated dentists.<sup>7</sup> North Carolina is ranked 47<sup>th</sup> in the nation in the proportion of dentists to population.<sup>7</sup> Further, there is a maldistribution of dentists. In seven counties in North Carolina there is one or no dentist in the county.<sup>8</sup>

North Carolina has two dental schools. The University of Chapel Hill (UNC) School of Dentistry graduates 80 students each year. The UNC School of Dentistry has approval to increase its class size from 80 to 100 students, but

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these plans have been delayed until funding is available. East Carolina University (ECU) opened a School of Dental Medicine in 2011 with a class size of 50. ECU recruits students from North Carolina with an emphasis on students from disadvantaged backgrounds and underserved areas. Students will do their clinical training in community service learning centers in underserved areas around the state. Starting in 2015, North Carolina's dental schools will graduate 130 dentists each year. Unfortunately, over the past 5 years approximately 165 dentists have retired each year, so even if all the graduates of UNC and ECU's dental schools stayed in state, there would not be enough to replace the number of dentists retiring.<sup>7</sup> Even with the boost from ECU's new dental school, North Carolina is expected to have 4.1 dentists per 10,000 residents in 2018.<sup>7</sup>

In 2010, North Carolina gained 93 dentists from out of state.<sup>c</sup> Dentists coming into North Carolina from out-of-state come from two sources. The first is new graduates from other states. The second are dentists who have practiced in another state who gain licensure by credential. New graduates from other states can qualify for licensure by passing the written exam and the clinical dental exam that North Carolina participates in and fulfilling the obligations outlined by the North Carolina State Board of Dental Examiners.<sup>9</sup> The National Board Dental Examinations, the written exam, is required by all dental licensing agencies in the United States.<sup>10</sup> In addition to the national written exam, graduates must take a clinical exam accepted by the state in which they plan to practice. North Carolina is a part the Council of Interstate Testing Agencies, Inc. (CITA), which is an independent regional testing agency that administers the CITA dental and dental hygiene clinical licensure examinations in the states of Alabama, Louisiana, North Carolina, and the territory of Puerto Rico. There are 5 regional dental exams in the United States, including CITA, and three states that administer a state dental exam.<sup>10</sup> Each state Board of Dental Examiners determines which exams are accepted for licensure in their state. Some states accept just their state or regional exam while others accept all dental exams for licensure. North Carolina accepts only the CITA examination.<sup>9</sup>

Licensed dentists coming into North Carolina from another state may qualify for licensure by credentials. In order to qualify for licensure by credentials, an applicant must meet the following criteria:

- Graduated from and have a DDS or DMD degree from a program of dentistry in a school or college accredited by the Commission on Dental Accreditation of the American Dental Association and approved by the North Carolina State Board of Dental Examiners.
- Have been actively practicing dentistry for at least five years.

<sup>c</sup> In addition to these 93 dentists, there were 44 dentists who were previously licensed in North Carolina who graduated from a non-UNC institution who were inactive in 2009 who became active again in 2010. These dentists may have been inactive and living in North Carolina or they may have left the state and returned to practice in North Carolina in 2010. (Gaul, Katie. Cecil G. Sheps Center for Health Services Research. Written (email) communication. June 6, 2013)

- Have not been subject of final or pending disciplinary action in any state, territory, or the military.
- Produce evidence that the applicant has no felony convictions and that the applicant has no other criminal convictions that would affect the applicant's ability to render competent dental care.
- Have not failed an exam administered by the North Carolina State Board of Dental Examiners.

In addition to meeting these requirements, applicants for licensure by credential must pay a \$395 dental license fee.<sup>d</sup>

This is the only way an actively practicing dentist can qualify for licensure in North Carolina. North Carolina does not have license reciprocity with any other states.<sup>9</sup>

As discussed in Chapter 3, less than half of the dentists in the state provide services for people enrolled in Medicaid. This leaves a very limited number of dentists providing services for children enrolled in Medicaid and NC Health Choice. While the state is making efforts to increase the number of dentists participating in Medicaid and NC Health Choice (see Chapter 3, Recommendation 3.3), increasing the overall number of dentists in the state is another strategy that must be pursued. Therefore the Task Force recommends:

## Recommendation 6.4: Reduce Barriers for Qualified Out-of-State Dentists

**The North Carolina State Board of Dental Examiners (NCSBDE) is charged with regulating dentists in the public interest. Given the relative lack of dental professionals in North Carolina as compared to other states and the ongoing dental shortages in some areas of the state, the NCSBDE should consider opportunities to increase the supply of high quality providers practicing in North Carolina, with special attention to underserved areas and populations. Such opportunities could include, but are not limited, to the following:**

- a) **Reducing or eliminating the current five year's required practice in another state in order to qualify for a provisional license if the provider is willing to serve underserved populations for that portion of the five years that is waived.**
- b) **Creating reciprocity arrangements with other states.**
- c) **Accepting more regional dental examinations.**

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<sup>d</sup> NCGS §90-36

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