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National Advisory Committee on Rural Health and Human Services

Improving Oral Health Care Services in Rural America

Policy Brief and Recommendations

December 2018

EDITORIAL NOTE

In September 2018, the National Advisory Committee on Rural Health and Human Services (hereinafter referred to as "the Committee") met in Charlotte, North Carolina. During this meeting, the Committee focused on ways to improve the quality of and access to rural oral health care services. While in Charlotte, the Committee heard from federal and state health and human service officials and visited local stakeholders in Winnsboro, South Carolina, to discuss the challenges of providing oral health services to rural communities. Information on the Winnsboro site visit is provided in Appendix A.

ACKNOWLEDGEMENTS

The Committee expresses their gratitude to those who attended the stakeholder meeting in Winnsboro—especially our hosts, Winnsboro Smiles Dentistry—for sharing their experiences as oral health practitioners in rural communities. The Committee appreciates the research and policy background provided by Marcia Brand (DentaQuest Foundation), Normandy Brangan (Health Resources and Services Administration—Federal Office of Rural Health Policy), Jennifer Holtzman (Health Resources and Services Administration—Bureau of Health Workforce), Amy Martin (Medical University of South Carolina), and Jocelyn Richgels (Rural Policy Research Institute). We would also like to acknowledge Taylor Zabel for drafting this brief and for his work on behalf of the committee.

TERMINOLOGY

Craniofacial Complex: the oral, dental, and other tissues that house the organs of taste, vision, hearing, and smell

Dental Caries: Commonly called "cavities" or "tooth decay"; a progressive destruction of the tooth caused by infection

Edentulous: Lacking teeth; toothless

Oral Cavity: Composed of the teeth and gums, their supporting connective tissues, ligaments, and bone, the hard and soft palate, the mucosal tissue lining the mouth and throat, the tongue, lips, salivary glands, chewing muscles, and the upper and lower jaws connected to the skull by the temporomandibular joint

Periodontal: Relating to or affecting the structures surrounding and supporting the teeth (e.g. gums)

RECOMMENDATIONS

1. The Committee recommends the Secretary consider the development of a rural dental practice capital grant program that would be contingent upon the provision of services to Medicaid recipients in rural and underserved areas.
2. The Committee recommends HHS support a research study to assess rural Head Start grantees' ability to ensure that qualified oral health professionals screen enrolled children, develop a treatment plan, and follow the treatment plan to completion.
3. The Committee recommends HHS support a research study to examine opioid prescribing patterns for dental pain in rural and urban areas.
4. The Committee recommends HHS support research studies to examine differences in the utilization and scope of insurance coverage for dental services among Medicare Advantage enrollees in rural versus urban areas.
5. The Committee recommends the Secretary charge the Oral Health Coordinating Committee to focus on rural oral health issues and to develop an action plan on improving rural oral health.

INTRODUCTION

Since the Committee last researched the status of rural oral health care in the United States in 2004, oral health has persisted as one of the greatest unmet needs of rural Americans.[1,2] While some progress has been made in this area, challenges remain, so the Committee is revisiting this issue. Approximately 34 million Americans reside in rural or partially rural areas that have been designated by the US Health Resources and Services Administration (HRSA) as dental Health Professional Shortage Areas (HPSAs).[3] Although a significant body of research links oral health to general health and well-being, it has arguably been given a lower priority in policy and in health literacy initiatives compared to other health issues. Oral health has also historically been separated both from the medical healthcare system, and oral health professionals have usually been trained in separate locations and reimbursed by insurance independent from standard health plans. The separation of care—coupled with poor oral health literacy and a shortage of dental care professionals in rural areas—makes improving access to rural oral health care an important issue for the Department of Health and Human Services.

BACKGROUND

Biological Components of Oral Health

The two most commonly recognized conditions related to oral health are dental caries and periodontal diseases. They remain as two of the most common chronic diseases in the world; consequently, the Surgeon General's report on oral health in 2000 listed them as a "silent epidemic" affecting our nation.[4] The high prevalence of dental caries and periodontal disease—which has affected 91 percent of American adults at some point in their lives—indicates that these largely preventable conditions are not being adequately prioritized in health policy and health systems.[5,6] This lack of priority is concerning when one considers that oral health affects much more than the oral cavity.

The Link between Oral Health and Overall Health and Well-being

The oral cavity acts as more than just a window to conditions that would not otherwise be visible to the naked eye; it is an integral part of a quality life. If left untreated, poor oral health can create or exacerbate overall health complications. One well-known example to gain national attention was the death of Deamonte Driver, a child whose tooth infection turned fatal after the bacteria causing the infection travelled to his brain. More common forms of mortality related to oral health include the nearly 30,000 annual cases of oral and pharyngeal cancers, where approximately 7,500 of those cases result in death.[5] Untreated oral health conditions are also associated with increased incidence of stroke, coronary heart disease, asthma, diabetes, and Alzheimer's Disease.[7,8,9,10] Beyond clinical diseases and disorders, poor oral health may inhibit the ability to speak, smile, smell, taste, touch, and effectively convey emotions. Studies have shown that poor oral health can reduce overall quality of life, self-worth, and the ability to receive and retain a job.[11,12]

Current Approaches to Mitigate Poor Oral Health Outcomes

While a number of the challenges the Committee identified in its 2004 report remain, there have been some areas of progress. For example, expanded use of silver diamine fluoride has helped address dental caries issues in a less invasive manner. Expanded use of telehealth and the movement of some states toward the use of dental therapists have also been positive developments. Preventive interventions have also been stressed as an avenue to combat poor oral health outcomes, notably through the Institute of Medicine's 2011 report, *Advancing Oral Health in America.* These interventions include the use of fluoride in community water, dental sealants, and the utilization of community-based programs, usually through educational systems.[5]

Drinking fluoridated water has been shown to reduce dental caries by 25 percent in both children and adults. The CDC Division of Oral Health notes that community water fluoridation is one of the most cost-effective methods to disperse fluoride to a population independent of age, race/ethnicity, or socioeconomic status. The estimated individual return on investment for community water fluoridation (including productivity losses) has been found to range from $28.70 in small communities of 5,000 people or less, to $35.90 in large communities of 200,000 people or more.[13] While the value of fluoridation is well-established, initiatives in more-sparsely populated regions of the country possess greater challenges, especially when there is no access to community water systems (e.g. individuals connected to individual well-water systems).

Dental sealants prevent caries from developing in the pits and fissures of teeth, where caries are most likely to form. A dental sealant is a thin layer of plastic resin or glass that inhibits stray food particles and bacteria from creating the ideal environment for the formation of dental caries. A literature review of sealant studies found that resin-based sealants were effective 24 months after application at reducing the prevalence of caries by 85 percent; similar results were found four years after the application of sealants.[14] Sealants can be applied in a dental office or in a community-based program, such as programs provided at a school or church. Many sealant programs target high-risk populations because they can be applied in a single setting and demonstrate both reduction of dental caries and overall cost savings for dental care.[2]

Barriers to Oral Health Care in Rural America

Challenges in providing oral health care in rural America are associated with several well-documented factors. The following themes were highlighted during the Committee's discussions in Charlotte and Winnsboro. Many of these issues were noted in the Committee's 2004 report and deserve repeating in 2018;[1] they have been included in this list with issues not previously considered by the Committee:

- Geographic isolation
- Lack of adequate transportation
- Higher rate of poverty compared to metro areas
- Large elderly population (with limited insurance coverage of oral health services)
- Acute provider shortages
- State-by-state variability in scope of practice
- Difficulty finding providers willing to treat Medicaid patients
- Lack of fluoridated community water
- Poor oral health education

Access to dental providers is one of the most common factors cited as a cause of rural oral health disparities. The shortage of practicing dental professionals in rural communities is influenced by a variety of factors such as an unwillingness of dental care providers to work in rural regions, specialization in dental care, the capital needed to start a rural practice, and a large number of dentists predicted to retire in the near future—issues that mirror the shortage of medical practitioners in rural communities.[15,16,17] In 2018, only eleven percent of practicing dentists serve rural or partially-rural communities, and over 5700 new dentists would need to serve these communities to remove their Dental Health Professional Shortage Area designation, as shown in Table 1.[3,18] Even when a dentist practices in a dental HPSA, they are not obligated to serve Medicaid or CHIP-eligible patients, which further discourages those rural residents who disproportionally rely on these insurance programs.[19] This creates challenges for serving vulnerable populations. For example, children enrolled in Head Start programs are required to receive oral health screenings and treatment from an oral health professional. A shortage of dentists in rural and tribal regions of the country places greater challenges on rural Head Start programs to meet this requirement.

Table 1: HRSA's FY18 Third Quarter report on Dental Health Professional Shortage Areas[3]

Rural/Non-rural Designation	Number of Designations	Percentage of all Designations	Population of Designated HPSAs	Dental Practitioners Needed to Remove Designations
Rural	**3,494**	**59.03%**	**20,582,142**	**3,533**
Non-Rural	**2,047**	**34.58%**	**29,333,095**	**5,101**
Partially Rural	**374**	**6.32%**	**13,385,082**	**2,225**
Unknown	**4**	**0.07%**	**38,763**	**7**

Dental therapists, defined as "expanded-function dental hygienists or other mid-level providers," have been approved to practice in some states to address this dental professional shortage; however, the scope of practice for these practitioners varies widely from state to state, as shown in Figure 1, which was published by the Oral Health Workforce Research Center.[20] The variation from state to state can be traced to the effectiveness of legal, legislative, and media-based advocacy for dental therapists, as traditional dentists and their associations have expressed concern and opposition to these new providers on issues related to patient safety and quality.[21,22,23] Outside of the traditional dental community, there are also efforts to improve oral health training in primary care medicine through institutions such as Harvard University's Center for Integration of Primary Care and Oral Health (CIPCOH). CIPCOH plans to "identify successful integration efforts of oral health in primary care training and practice, develop evaluation methods for a range of programs across the learning and practice spectrum, and disseminate these tools for the use of those involved in primary care delivery including trainees, practitioners, health system administrators and policymakers."[24]

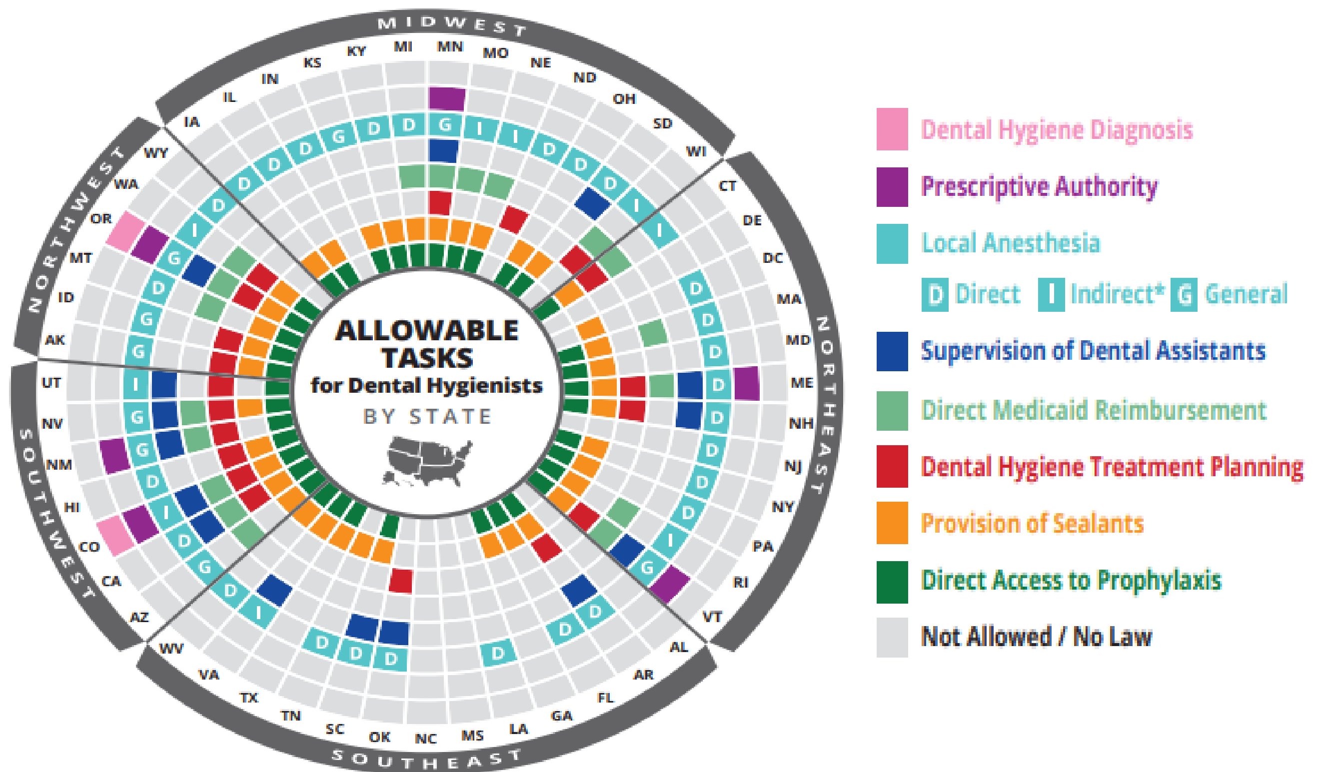

Figure 1: Modified Oral Health Workforce Research Center infographic on dental hygienist scope of practice by state.[20]

The uninsured population of the United States has notably declined in the last decade. States that opted to expand Medicaid experienced the sharpest declines in uninsured rural populations, dropping from 35 percent to 16 percent from FY09 to FY16; non-expansion states displayed a decrease from 38 percent to 32 percent over the same time period.[25] However, differences remain in the scope of dental care reimbursed through Medicaid from state-to-state and in locating dental providers who accept Medicaid patients. Across the United States, 38% of practicing dentists in the United States provide dental care to children through Medicaid or CHIP; from state-to-state, participation ranges from 14.8% (New Hampshire) to 83.7% (Iowa).[26] Furthermore, there is no federal requirement for Medicaid to cover adult dental services, and those States that offer extensive adult dental benefits through Medicaid typically reimburse

at rates well below private insurance plans.[26,27] The ratio of adult Medicaid fee-for-service reimbursement to private dental insurance in 2016 ranged from 31.4% (WI) to 66.5% (ND), while managed-care state programs ranged from 21.6% (NJ) to 66.2% (NY) compared to private plans.[28]

Even if a rural provider is willing to accept Medicaid or CHIP patients, there is much variation from state-to-state with regards to the coverage provided to enrollees in CMS programs. All children enrolled in Medicaid and CHIP have coverage for dental and oral health services. Sixteen states provide adult Medicaid enrollees extensive coverage that includes diagnostic, preventive, and restorative care; these states have a cap of more than $1000 in expenditures per person and cover at least 100 out of the 600 ADA recognized procedures.[29] Nineteen states offer limited dental coverage for adult Medicaid enrollees; they have an annual expenditure cap of less than $1000 per person and cover fewer than 100 ADA recognized procedures.[29] Finally, twelve states only offer adult dental coverage through Medicaid for the relief of pain and infection in specific emergency situations, and three states offer no dental coverage through Medicaid at all—Delaware, Tennessee, and Alabama.[29]

No routine dental coverage[*] is provided to Medicare fee-for-service enrollees, but some Medicare Advantage (MA) plans do offer some form of dental benefit. Little is known about the extent to which rural MA enrollees are able to find affordable and comprehensive plans that offer oral health coverage relative to urban beneficiaries. The Committee is concerned that urban MA enrollees may be more likely to have access to those benefits.

Oral Health and the Opioid Crisis: The Midcoast Maine Prescription Opioid Reduction Program

The state of Maine is a largely rural state in the Northeast region of the United States—approximately 41% of its residents live in a rural area.[30] It is also one of the epicenters of the opioid epidemic in the United States; in 2012, Maine led the nation in the number of opioid prescriptions.[31] To combat this issue, Miles Memorial Hospital and St. Andrews Hospital in rural midcoast Maine implemented new guidelines on prescribing opioids in the emergency department. The new program placed a particular emphasis on prescriptions for dental pain, which is a common route for individuals who misuse opioids to obtain a prescription. The overall objective of the program was to limit prescriptions to patients who have a higher likelihood of misusing opioids.[32]

After the new guidelines were implemented, the two hospitals saw an aggregate 17% reduction in the rate of opioid prescriptions and a 19% reduction in emergency department visits related to dental pain that showed no diagnostic symptoms.[32]

[*] Medicare does provide dental coverage for some specific dental services (e.g. an oral examination before a kidney transplant, dental splints and wiring needed after jaw surgery). A more-detailed explanation can be found here: https://www.medicareinteractive.org/get-answers/medicare-covered-services/limited-medicare-coverage-vision-and-dental/medicare-and-dental-care

FEDERAL EFFORTS

HHS funds a range of grant programs, workforce programs, research and data efforts, technical assistance and direct provision of services related to oral health. Current programs and funding areas are primarily housed within these HHS agencies:

- Administration for Children and Families
- Administration for Community Living
- Agency for Healthcare Research and Quality
- Centers for Disease Control and Prevention
- Center for Medicare and Medicaid Services
- Health Resources and Services Administration
- Indian Health Service
- National Institutes of Health
- The Office of the Assistant Secretary for Health

Within the broad range of HHS programs, the Committee highlights a number of the programs with the most direct relevance to rural communities.

Administration for Children and Families

The two programs with a notable emphasis on oral health within the Administration for Children and Families are the dental health requirements within the Head Start program and Health Professions Opportunity Grants within the Temporary Assistance for Needy Families (TANF) program. Head Start grantees are required to meet the following performance standards[†] related to oral health: determine a child's oral health status within 90 days of enrollment; get early and periodic screenings and treatment from a dentist; establish a partnership with the child's dentist for care coordination; and ensure the development of a treatment plan for dental care.[33] The TANF Health Professions Opportunity Grants provides funding to train TANF recipients in health professions—including oral health fields such as dental hygiene.

Administration for Community Living

The Aging and Disability Networks within the Administration for Community Living (ACL) are composed of organizations at the local, state, and national level who work to support older adults and persons with disabilities. These organizations provide a searchable database of nearly 200 community-based oral health programs throughout the country that serve the elderly and disabled, and they can be filtered by specific categories (e.g. program funding sources, services provided). The ACL has also recently published a "Community Guide to Adult Dental Program Implementation."[34] This step-by-step guide contains templates and worksheets that can assist in the development of oral health-based initiatives by determining community needs, options for financing, and program evaluation.

Agency for Healthcare Research and Quality

The Agency for Healthcare Research and Quality (ARHQ) collects critical data on the patient experience of oral health services through the Consumer Assessment of Healthcare Providers and Systems (CAHPS)

[†] The full text for the Head Start Performance Standards related to oral health can be found here: https://eclkc.ohs.acf.hhs.gov/oral-health/article/head-start-program-performance-standards-related-oral-health

Dental Plan Survey. This standardized questionnaire asks adult enrollees in dental plans to report on their experiences with care and services from a dental plan, the dentists, and their staff. The survey was initially developed for the Department of Defense's TRICARE health program, but its use has been expanded in recent years. It is available to states, purchasers, and other organizations to assess, improve, and report on the quality and value offered by specific dental plans.

Centers for Disease Control and Prevention

The Centers for Disease Control and Prevention (CDC) promotes proven interventions to reduce disparities in the rate of cavities, including providing support for states to maintain basic infrastructure, coordinating a dental sealant program targeted toward youth at highest risk for cavities, promoting water fluoridation, and collecting surveillance data on oral disease burden. CDC also works to integrate dental public health into a national dialogue focused on broad health system transformation, which includes pursuing better integration with other chronic disease programs and with medical care. Additional core CDC functions include tracking the rate of cavities and other oral diseases, developing and promoting adherence to infection prevention and control guidelines, and supporting a dental public health residency program.

Center for Medicare and Medicaid Services

The Center for Medicare and Medicaid Services (CMS) plays an important role in serving rural Americans. High rates of poverty and an aging population are persistent concerns for most rural communities, and many rely on CMS programs that provide healthcare coverage (e.g. Medicare, CHIP, and Medicaid). They are constantly refining the collection and analysis of data and quality measures related to the delivery of oral health services provided through these plans; the most notable quality measures are PDENT—which measures each State's progress on the rate of enrollees 1-20 years old who have received a preventive dental service—and SEAL—which tracks the rate of enrollees aged 6-9 years old who got a sealant on a permanent molar. CMS supports the inclusion of sealants and continuity of care in electronic health records, provides technical support for states that are testing value-based payment approaches for oral health services through Medicaid, and sponsors the Oral Health Initiative, which seeks a ten-percent increase in the proportion of Medicaid children receiving preventive dental services by 2018.[35]

Health Resources and Services Administration (HRSA)

Millions of individuals residing in rural communities are served by HRSA programs tasked with improving access to oral health care. The Health Center Program is one of the largest federally-funded programs providing oral health services to residents of rural communities. Health Centers are required to provide preventive dental services per Section 330 of the Public Health Services Act. Services may be provided within a clinic or through mobile services which can operate at school-based or community-based settings. HRSA has prioritized the expansion of oral health care at FQHCs in recent years, with over $156 million awarded from the agency to FQHCs at the end of FY16.[36] In addition, HRSA's Federal Office of Rural Health Policy dedicated nearly $2.2 million to oral health outreach-related programs and $3 million to eleven telehealth networks that are focusing on oral health in FY17.[36]

HRSA's Bureau of Health Workforce (BHW) focuses on increasing the number of quality primary care providers, improving the distribution of the health care workforce, and advancing health care to better care for all Americans. Initiatives within BHW include their oral health workforce and training grant programs, pre- and postdoctoral oral health programs, the National Health Service Corps (NHSC), and Area Health Education Centers (AHEC):

- BHW's oral health workforce and training grant programs distributed $36.7 million to states and accredited dental training programs across the country for FY17. Title III, Section 340G funding

allows states to develop and implement innovative programs to address the dental workforce needs for designated dental health professional shortage areas (dHPSA), increase the accessibility and quality of oral health services, develop oral health facilities, replace fluoridation systems, and supporting oral health providers from rural backgrounds.

- In Academic Year 2016-17, Title VII training grants to pre- and postdoctoral oral health programs supported the training of 5,291 dental and dental hygiene students and 460 primary care dental residents to better provide primary care oral health services for all individuals, particularly underserved, vulnerable, and rural populations.
- NHSC provides loan repayment and scholarships for healthcare professionals—including dentists and dental hygienists—who intend to serve in a dHPSA. Approximately two-thirds of dHPSAs are in rural areas.[3]
- AHEC provides necessary health literacy initiatives to rural communities—which includes literacy initiatives on oral health—through its community-based activities to increase the primary care workforce in rural and underserved sites.

The Ryan White HIV/AIDS Program provides grant funding to deliver primary medical care and essential support services for people living with HIV who are uninsured or underinsured. Grant funds may be used for dental care to persons living with HIV, but there are two programs that specifically focus on oral health for persons living with HIV: the Dental Reimbursement Program and the Community-Based Dental Partnership Program. The Dental Reimbursement Program, which distributed over $8.7 million in FY17, assists institutions with accredited dental or dental hygiene education programs by defraying their unreimbursed costs associated with providing oral health care to people living with HIV.[36] The Community-Based Dental Partnership Program, which provided $3.1 million in FY17, trains future oral health professionals on the unique oral health challenges for persons living with HIV.[36]

The Title V Maternal and Child Health Services Block Grant to States is another HRSA initiative that specifically aims to improve the health and well-being of the nation's mothers and children—especially those with special health care needs. Oral health is included within the 15 Title V performance priority areas that can be tracked by states; these metrics primarily track the percent of women who have received dental care during their pregnancy and the rate of preventive dental visits for children over the past fiscal year.

Per the recommendations in the 2011 Institute of Medicine reports on *Advancing Oral Health in America* and *Improving Access for Oral Health for the Vulnerable and Underserved*, HRSA developed the "Integrating Oral Health and Primary Care Practice" initiative (IOHPCP) to address the need for improved access to oral health care by developing oral health core competencies for health care professionals. This initiative includes three inter-related components: the creation of a HRSA-prepared draft set of oral health core clinical competencies appropriate for primary care clinicians; the presentation of a systems-approach to influence the implementation and adoption of the core competencies into primary care practice; and an outline for implementation strategies and translation into primary care practice for safety net settings.

Indian Health Service

The Indian Health Service (IHS) is tasked with providing culturally appropriate health care services to federally recognized Tribal Nations in the United States. Loan repayments and scholarships are provided for dentists and other oral health practitioners who agree to serve in an IHS facility for a predetermined period of time. Most notably, a substantial portion of IHS facilities are located in rural or partially-rural regions. The IHS Division of Oral Health offered more than $7.2 million worth of training for dentists

through its 245 continuing dental education programs.[37] According to the *2016-17 IHS Oral Health Survey*, there has been significant improvement in the oral health status of patients aged 6-9 years in IHS clinics.[37] IHS, Tribal, and Urban programs have also surpassed the *Healthy People 2020* objective for dental sealants, but many disparities remain. The programs still have not met the *Healthy People 2020* objectives for reduction in dental caries, and the Native youth have greater prevalence of dental disease compared to the general US population and other racial/ethnic groups.[37]

National Institutes of Health

Most research related to the clinical and translational aspects of oral health occurs within the National Institutes of Health (NIH). The National Institute of Dental and Craniofacial Research, National Institute of Child Health and Human Development, National Institute on Minority Health and Health Disparities, and the National Cancer Institute all provide funding to research oral health. In July 2018, the United States Department of Health and Human Services announced the commission of a Surgeon General's Report presenting prominent issues affecting oral health.[38] Subsequent to the announcement, a Surgeon General's Listening Session on Oral Health was held with diverse stakeholders to identify and discuss oral health-related topics to help inform the upcoming Surgeon General's Report. The charge for the new report is to "describe and evaluate oral health and the interaction between oral health and general health throughout the life span, considering advances in science, healthcare integration, and social influences to articulate promising new directions for improving oral health and oral health equity across communities."[‡]

The Office of the Assistant Secretary for Health

The United States Public Health Service (USPHS) Oral Health Coordinating Committee is tasked with coordinating and directing "a broad range of oral health policy, research, and programs within the USPHS, across federal agencies, and between the public and private sectors." One of the most recent actions from this committee was their 2014-2017 Oral Health Strategic Framework for the Department of Health and Human Services.[39]

POLICY RECOMMENDATIONS

Note: the Committee chose to limit the scope of its recommendations to the Secretary based on issues that were specifically actionable within HHS and unique to rural communities. Issues that the Committee felt were too general or were not rural-specific have been included within the "Considerations" portion of the brief.

During the 84th meeting of the Committee, members met with local and state policy leaders in oral health care from North and South Carolina and discussed the unique challenges in rural oral health care during a site visit in Winnsboro, South Carolina. The following recommendations resulted from the input the stakeholders provided during those discussions:

[‡] More information related to the Listening Session on Oral Health can be found here: https://www.cdc.gov/oralhealth/about/SGoralhealth2018.htm?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Foralhealth%2Fabout%2Fsgworkingmeeting.htm

1. **The Committee recommends the Secretary consider the development of a rural dental practice capital grant program that would be contingent upon the provision of services to Medicaid recipients in rural and underserved areas.**

One of the most notable challenges mentioned during the meetings in Charlotte and Winnsboro was the difficulty in starting a dental practice in rural regions—primarily due to educational debt, high startup costs, and small economies of scale. Even if dentists practiced in a rural community, they were hesitant to accept patients insured through Medicaid or CHIP due to their low reimbursement rates compared to private insurance plans. Unfortunately, the possibility of financial insolvency is creating a barrier to care for the most underserved rural populations. As a result, only 30.7% of dentists in North Carolina and 47.5% of dentists in South Carolina participate in Medicaid or CHIP for child dental services.[26] Therefore, in addition to the educational loan support provided from programs such as the National Health Service Corps, the Committee believes a dedicated capital grant program for dental practitioners starting or expanding practices is needed to ensure accessible care for these populations. An example of past funding through HRSA which could be used as a model to expand this goal was the HRSA Oral Health Workforce Grant received by Winnsboro Smiles Dentistry from 2015-2018 through South Carolina's Rural Oral Health Advancements in Delivery Systems program. Winnsboro Smiles previously did not accept Medicaid patients until receiving this grant, but was able to obtain crucial funding to accommodate them into their practice.

2. **The Committee recommends HHS support a research study to assess rural Head Start grantees' ability to ensure that qualified oral health professionals screen enrolled children, develop a treatment plan, and follow the treatment plan to completion.**

A 2012 study of approximately 1000 Medicaid-eligible rural children who participated in Head Start found a higher percentage meeting their oral health care needs compared to non-Head Start children.[33] In addition, in FY17, after enrollment in Head Start programs, 89 percent of children had access to a dental home and 90% were enrolled in Medicaid, the Children's Health Insurance Program (CHIP), or a state-funded child health insurance program.[40] The Committee recognizes that rural Head Start programs are achieving success in their students getting access to assessment and treatment; however, the proceedings of the site visit in Winnsboro indicate that there are still barriers to care, particularly in the most remote communities. We recommend the best practices to accessing quality and reliable oral health care in this study be disseminated to rural Head Start grantees and also implemented in their peer-to-peer technical assistance training programs.

3. **The Committee recommends HHS support a research study to examine opioid prescribing patterns for dental pain in rural and urban areas.**

Research has shown there is less access to dental coverage, treatment, and insurance in rural communities compared to urban and suburban communities.1[41,42,43] As a result, patients may delay dental care and have a higher likelihood of going to the emergency department for treatment of acute dental pain depending on their geographic location.[44] During the stakeholder meeting in Winnsboro, South Carolina, local dental and medical practitioners also mentioned dental pain as a common avenue for misusing prescription opioids—a 2015 study found that 50.3% of patients who present with non-traumatic dental pain in an emergency department received an opioid prescription compared to only 14.8% of other emergency department patients.[45] The Committee suggests further investigation into differences in the use, misuse, and prescribing of opioids for dental purposes in rural regions, as this may be an important contributor to the ongoing opioid epidemic.

4. **The Committee recommends HHS support research studies to examine differences in the utilization and scope of insurance coverage for dental services among Medicare Advantage enrollees in rural versus urban areas.**

As traditional Medicare does not cover dental benefits and only a fraction of Medicare Advantage plans have dental coverage as a supplemental benefit, Medicare beneficiaries are financially responsible for most, if not all, of their dental care. In 2012, the most recent published data, Medicare beneficiaries paid, on average, nearly three-fourths of the costs of dental services out-of-pocket.[46] Health Maintenance Organization enrollees paid 81% of dental costs out-of-pocket, and beneficiaries with no supplemental insurance paid virtually all dental costs out of pocket (96.3%).[46] Limited research exists on the availability and scope of dental benefits offered through Medicare Advantage plans, the use of private supplemental dental coverage, utilization of services, access to providers, and the cost of care in rural versus urban areas. HRSA should pursue research studies using available federal data sources (e.g. Medicare Current Beneficiary Survey, Medicare Advantage Enrollment and Benefit files) to better understand the provision of dental care among rural Medicare beneficiaries.

5. **The Committee recommends the Secretary charge the HHS Oral Health Coordinating Committee (OHCC) to focus on rural oral health issues and to develop an action plan on improving rural oral health.**

The most recent publication from the OHCC was their 2014-2017 Oral Health Strategic Framework for HHS.[39] Although the third goal within this framework was to improve quality and access to oral health care, few specific references were made to rural communities except their difficulties accessing transportation to care and the AHEC efforts to facilitate oral health initiatives.[39] The Committee believes an interagency effort initiated by the OHCC is necessary to address the unique challenges in improving oral health in rural and tribal areas of the country (e.g. fluoridation initiatives for individuals who use well water or non-communal water systems). This action plan will coincide with the Surgeon General's upcoming report on oral health and the Indian Health Service's soon-to-be-released Oral Health Strategic Framework for 2018-2027.[38,47]

POLICY CONSIDERATIONS

The Committee gathered the input of stakeholders in North and South Carolina on local and state matters regarding rural oral health. In addition, discussions with representatives from the DentaQuest Foundation provided input on the national perspective. The following themes resulted from these discussions as policy considerations for the Secretary:

The Surgeon General's Upcoming Report on Oral Health

As mentioned earlier in this brief, the Surgeon General has tasked NIH to prepare a new report on the subject of oral health. The Committee urges the Secretary to ensure this effort includes a significant focus on rural oral health issues, given the great need and challenges laid out in this policy brief. The first Surgeon General's report on oral health was authored 18 years ago, and at that time recognized the lack of existing data on the oral health status of a number of populations, including rural.[4] Many policymakers continue to use the prior report as a primary reference point and the same will be true with this new report. HHS will miss an important opportunity if rural issues are not a significant focus of this report.

Mentoring and Training Oral Health Professionals in Rural Communities

One of the most common themes mentioned at the Winnsboro site visit was the need for recent dental school graduates to have mentors who are experienced in rural dentistry. Several stakeholders noted the role of the Medical University of South Carolina's Dental Residency in supporting training that exposes residents to rural and underserved training issues. While there is a cap on the number of Medicare-supported medical residencies, there is no cap on the creation of new dental residencies. The Committee believes expansion of Medicare-supported dental residencies could be an important tool in supporting the training of dentists that practice in rural and tribal designated areas.

Financial, Geographical, and Educational Challenges in Oral Health Care

- As rural residents must travel farther distances than their urban counterparts to receive care, having reliable transportation is a chronic issue. The Committee believes this issue cannot be addressed solely within HHS, and that multiple agencies, departments, and philanthropies at the local, state, and federal level would be required to start a sustainable initiative on rural access to transportation.
- Only a small percentage (12%) of the population is sufficiently knowledgeable about health issues and practices.[5] Community Health Workers (CHWs) have been deployed in rural and urban locations to address this deficit, but the Committee believes that further emphasis is required in oral health and nutrition.[48]
- Stakeholders in Winnsboro mentioned that educational materials spanning multiple educational levels and mediums (e.g. pamphlets, videos) are needed to address issues in oral health literacy.
- Research has indicated that edentulism (i.e. missing/lacking teeth) has been associated with difficulty finding a job, and rural counties—especially those with higher rates of poverty—have a higher prevalence of edentulism compared to urban regions.[49,50] The Committee believes that dental care is a crucial element to consider for job candidacy; therefore, poor oral health has negative implications for rural Medicaid enrollees given that CMS administration is encouraging states to adopt work requirements into their Medicaid programs.[51]

Integrated Care between Medical and Dental Providers

Although the link between oral health and general health is well-established, the divide between the two fields is great. Many health care professionals have not received formal training in oral health, and most states can only rely on Medicaid claims data to coordinate care across multiple providers. This is having noticeable effects on healthcare costs. Preventable dental issues are increasing as a percentage of overall emergency room visits and cost approximately $2.1 billion annually.[52,53,54] One study has estimated integrated care approaches that divert dental visits in emergency rooms could save the healthcare system $1.7 billion annually.[53] In Maryland alone, integrated care programs to divert dental emergency room visits could save the state up to $4 million in Medicaid claims, according to a study conducted in 2014 by the American Dental Association.[55]

At the meeting in Charlotte, local leaders in oral health highlighted the McLeod Oral Health Leadership and Referral (MOLAR) program in South Carolina as an initiative to integrate oral health and primary care. This philanthropy-funded program was established to demonstrate an evidence-based model that meets the population health, experience of care, and per capita cost needs for oral health in priority populations. Priority populations are defined as those for whom improved oral health translates into improved medically-related outcomes such as diabetes, pregnancy, HIV, and child wellness. By combining integrated care delivery, residency training, sustainable evidence-based policy, and technical assistance, the MOLAR program utilized multiple partnering organizations at the local, state, and regional levels to improve efficiencies in general and oral health care. The Committee believes the model of care adopted by the MOLAR program should be further studied for its applicability within HHS programs.

CONCLUSION

The Committee's conversations with local, state, and national stakeholders highlighted the inherent challenges in providing oral health care services for rural Americans—lack of access to transportation, unwillingness of dental care providers to work in rural regions, specialization in dental care, the capital needed to start a rural practice, and a large number of dentists predicted to retire in the near future. Despite these challenges in rural oral health care, the Committee believes HHS can use its available resources to improve the financing, research, and strategic planning in this important sector. This brief provides the Committee's recommendations and policy considerations for the Secretary to improve the oral health status of rural Americans.

APPENDIX A: SITE VISIT PROFILE

Background: Winnsboro is a rural community nestled in the Midlands region of Fairfield County, South Carolina between Charlotte, North Carolina, and Columbia, South Carolina. Winnsboro has a population of approximately 3500 residents. Although the town boasts a lower cost of living than the national average, 24.4 percent of the population is below the federal poverty line—nearly double the national average of 12.3 percent.[56] Fairfield County is classified as a Primary Care, Dental, and Mental Health Professional Shortage Area (HPSA).[§]

The Committee's site visit on oral health was hosted by Winnsboro Smiles Family Dentistry, which has operated in downtown Winnsboro for nearly 35 years. Oral health services within Winnsboro Smiles include general dentistry, crowns, root canals, and tooth extraction. Other stakeholders at the site visit included Fairfield Family Dentistry, Eau Claire Family Dentistry, the Fairfield Memorial Hospital, the John A. Martin Primary Health Care Center, the South Carolina State Office of Rural Health, Palmetto Healthcare, and the Palmetto Health Foundation.

Local Perspectives

- Stakeholders at the Charlotte meeting attributed the expanded scope of practice in South Carolina to improved access and affordability for preventive dental procedures, although the dentists who reside in Fairfield County cautioned Committee members on dental hygienist's ability to provide quality care with their expanded roles. Both parties agreed that the sharing of patient information between oral health practitioners needs improvement.
- Oral health practitioners appeared to show a consensus on the importance of Medicaid programs providing coverage for endodontic treatments such as root canals; lack of coverage for these services leads dentists to recommend tooth extraction, a cheaper but potentially unnecessary alternative.
- Dentists from Winnsboro Smiles, Eau Claire Family Dentistry, and Fairfield Family Dentistry noted their initial lack of experience providing dental care to rural pediatric patients. These practitioners felt a dental school curriculum which emphasized community-based training would have been beneficial. They attributed their current confidence working with this patient population to their more-experienced mentors who have established practices in rural communities.
- A stakeholder from Palmetto Health summarized the biggest challenge in bringing dentists to rural communities by stating, "[The] cost of education is getting out of hand, opening a dental office is an expensive endeavor, and Medicaid reimbursement is not enough to justify the cost of running the practice." Input from the South Carolina State Office of Rural Health also attributed the separation of medical care, mental health care, and oral health care as an important consideration in attracting dentists to rural areas.

[§] Information on HPSA status was obtained from the Health Resources and Services Administration's "HPSA Find" tool. Available from: https://data.hrsa.gov/tools/shortage-area/hpsa-find

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