



Rural America's Oral Health Care Needs

Introduction:

1. In June 2012, Vermont Senator Bernie Sanders introduced “The Comprehensive Dental Reform Act” seeking to address five main components to end the US oral health crisis. These components included: expanding coverage; creating new oral health access points; enhancing the workforce; improving education; and funding new oral health research.¹ Senator Sanders’ bill has garnered support across the health care spectrum as the realistic dangers of dental disease, as well as the detrimental effects it has on both individuals personally as well as the health care system in general, continue to grow in concern for health care professionals, policymakers and citizens alike.

2. Senator Sander’s 2012 bill merely echoes concerns about the lack of oral health access that have been prominent in health care discussions for over a decade. In 2000, the US Surgeon General’s Report, *Oral Health in America*, identified the nation’s high prevalence of dental disease as America’s “silent epidemic.”² This seminal report highlighted the distinct connection between oral health and overall physical health bringing attention to the lack of oral health access for a number of underserved populations, including rural America. A decade later, the Department of Health and Human Services (HHS) asked the Institute of Medicine (IOM) to convene a panel of experts to examine the current state of oral health care. Significantly, dental caries, also known as tooth decay or cavities, remained identified as the nation’s most common chronic disease – a disease which is predominantly preventable.

3. The IOM panel came to several conclusions to address oral health needs, including: 1) the system of oral health must focus on prevention rather than just identification and treatment of existing disease; 2) traditional oral health system model of an isolated, private-practice setting does not serve a large number of the population; rather, an interdisciplinary, team-based approach benefits patients which includes training other health professionals in oral health care as well as expanding the duties of non-dentist oral health providers; 3) increased diversity among oral health professionals is important to expanding care to underserved communities; 4) important for CMS to reexamine alternative payment methods to improve access and coverage; 5) primary and secondary research in oral health is essential to determine evidenced based best practices; and 6) significant benefits can be found in HHS developing oral health quality measures.³

4. Knowledge concerning the importance of maintaining good oral health has grown among health care professionals and the public alike. However, disparities in oral health – as well as

¹ Senator Bernie Sanders. “The Comprehensive Dental Reform Act of 2012.” http://www.ada.org/epubs/assets/120530_SandersDentalBill_OnePager.pdf

² US. Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General*. 2000.

³ Institute of Medicine. *Advancing Oral Health in America*. 2011.

access to oral health care services – continue to exist among rural populations and the low-income, elderly, and additional underserved communities that inhabit rural America. Combined efforts among oral health providers, oral health advocates and other health care professionals must continue to take place to determine alternatives for the provision of oral health care for the nation’s 62 million rural residents.⁴ This policy brief seeks to highlight the current oral health status of rural America through a review of the literature as well as provide recommendations for meeting rural America’s oral health care needs.

State of Oral Health in Rural America:

5. Access to oral health services has become an increasingly important health issue among rural health advocates. Studies over the past decade and a half have shown that there are significant disparities in levels of oral health care as well as access to oral health services for rural populations in comparison to their urban counterparts as “Rural populations have fewer dentists, lower dental care utilization, and higher rates of dental caries and permanent tooth loss than urban populations”.⁵ The disparities in rural oral health can be attributed to several factors including: inadequate supply of dentists, lack of dentists accepting Medicaid and other subsidized insurances, poverty, geographic isolation, and absence of a coordinated screening and referral network.⁶

6. A number of oral health professional organizations and foundations such as the Pew Children’s Dental Campaign, W.K. Kellogg Foundation, and the Children’s Dental Health Project, have begun to focus on the specific oral health needs of underserved populations. Their findings have pointed out specific areas that contribute to the lack of access to oral health services in rural America including: geographic isolation; larger percentage of elderly, low-income and uninsured populations; dental provider shortages; and a lack of providers accepting Medicaid and self-pay patients.

7. In 2009, the Access Project published a study examining oral health access among farming and ranching families in the Great Plains states of Iowa, Minnesota, Missouri, Montana, Nebraska, North Dakota and South Dakota.⁷ The study surveyed over 2,000 non-corporate farm and ranch operators to determine the impact of dental care costs and insurance coverage on rural families. In short, the findings showed that dental costs were a burden for many of the families. Seventy five percent of households reported having dental out-of-pocket costs, spending on average \$873 annually on dental care and the amount constituted 27% of their overall out-of-pocket health care costs. Forty two percent of those surveyed had dental insurance verses. 60% of the population nationally having dental insurance. When factoring in the costs of dental premiums, having dental insurance did not result in a major reduction in the average dental costs for families. However, it did benefit families by making dental expenses more predictable,

⁴ HRSA – Office of Rural Health Policy. <http://www.hrsa.gov/about/organization/bureaus/orhp/> , accessed 9/10/12.

⁵ Mark P. Doescher, et. al. “The Crisis in Rural Dentistry.” WWAMI Rural Health Research Center Policy Brief, April 2009.

⁶ Pete Fos & Linnae Hutchison. “The State of Oral Health” in *Rural Healthy People 2010* Vol. 1. 2003.

⁷ Carol Pryor, et. al. “Issue Brief No. 4: The Costs of Dental Care and the Impact of Dental Insurance Coverage (2007 Health Insurance Survey of Farm and Ranch Operators).” April 2009. http://www.accessproject.org/adobe/issue_brief_no_4.pdf

making it less likely that people delayed care, and making it less likely that health care costs contributed to people’s financial problems.

8. More recent studies highlight the impact of a lack of dental providers in rural areas as well as a lack of dental providers accepting Medicaid patients in decreasing oral health access for rural residents. The Center for Rural Affairs recent brief on “Medicaid and Rural America” showed the stark reliance on Medicaid for health care access.⁸ Sixteen percent of rural residents have Medicaid coverage verses 13% of urban residents and 35% of rural children are enrolled in Medicaid verses 28% of urban children. In 2010, 42% or rural children had health insurance coverage through Medicaid and State Child Health Insurance Programs (SCHIP) verses 36% of children nationally. Eight percent of rural residents receive Social Security benefits due to disability verses 4% of urban residents and the rural elderly (65+ years) make up 15% of the rural population verses 4% of the urban population. Strikingly, rural physicians receive 56% of their revenue from Medicare and Medicaid verses 45% of urban physicians and Medicaid and Medicare account for 60% of rural hospital revenues. Thus, Medicaid is relied upon in rural America not only as a major source of health care access but also a major source of revenue for economic stability.

9. However, even with the higher rates of reliance upon Medicaid for health care in rural America, studies continue to find the resistance of dental providers accepting Medicaid patients in their practice. In California, a lack of dentists and specialists in rural counties are leading to higher rates of tooth decay among rural residents as well as preventable dental emergencies in rural hospitals. A 2006 survey of four northern California counties found that 28% of residents who lived at or below the poverty level hadn’t been to a dentist in five or more years and rural counties in northern California have the highest rate of emergency room and urgent care visits for preventable dental issues in the state. Currently in California, there is only one dentist accepting Medi-Cal (the state’s Medicaid program) for every 71,830 county residents.⁹ This is astonishing when compared to the federal Health Professional Shortage Area standard of one dentist for every 5,000 residents and the nationally recommended standard of one dentist for every 3,000 residents.

10. California’s rural residents are not alone in experiencing disparities in access to oral health services. A 2006 independent survey of over 2,500 adults sought to discover the differences in dental access between rural and urban residents.¹⁰ Important findings are highlighted in the table below:

11.

	Rural	Urban
Dental visit within last year	41.5%	47.6%

⁸ Jon Bailey. “Medicaid and Rural America – No. 15.” Center for Rural Affairs, February 2012. <http://files.cfra.org/pdf/Medicaid.pdf>

⁹ HealthyCal.org. “Dentist shortage leading to more emergencies.” May 30, 2012. <http://www.healthycal.org/archives/8813>

¹⁰ SangNam Ahn, et. al. “Residential Rurality and Oral Health Disparities.” *Journal of Primary Prevention* (2011) 32:29-41.

Delayed obtaining dental care	70.5%	65.6%
Transportation an issue in obtaining dental care	61.9%	46.1%
Difficulty accessing dental care	48.8%	40.1%
Had dental insurance	45.3%	53.2%

12. As the survey findings show, rural residents experienced disparities in accessing dental care as well as had lower rates of dental insurance coverage than their urban counterparts. The study’s findings echo analysis of 2006 Behavioral Risk Factor Surveillance System data which found that 51.5% of rural adults had tooth loss vs. 43.5% of urban adults and 64.4% of rural adults had received dental care in the last two years vs. 70.5% of urban adults.¹¹

13. A 2012 study advocated for the use of rural “dental safety nets” in increasing access to oral health care, particularly for preventive services aimed at children.¹² The study, released by the South Carolina Rural Health Research Center, found that 23.4% of rural children received no dental care in the last year vs. 22.3% of urban children. Study authors supported Dr. Burton Edelstein’s (Director of the Children’s Dental Health Project) definition of the dental safety net as including three components: patient care settings, individual clinicians, and sources of payment. Report authors identified rural dental safety net settings as: FQHCs, community health centers, dental schools, Medicaid dental practices, corporate Medicaid practices, volunteer free care programs, hospital emergency rooms, rural health clinics and school-based sealant programs. Rural dental safety net providers were described as: dentists, dental hygienists, expanded duty dental assistants, physicians, PAs, NPs, school nurses and other practice-based nursing staff. And the primary payer in the rural dental safety net was defined as Medicaid.

14. Dental students and practicing dentists utilize “dental demographics” to help determine the geographic and economic pool of potential patients who might be served by, as well as financially support, a dental practice within a community. However, dental demographics also provide the demographic make-up of the dental providers in a particular area or region. Dental demographics take into account: state population (and its growth or population loss); urban vs. rural counties; urban vs. rural population; number of dentists per 10,000 population compared to the US average of 6.0 per 10,000; number of dentists in metropolitan areas vs. non-metropolitan areas of the state; number of dentists per capita compared to the national average; average age of practicing dentists in urban vs. rural areas of the state.

15. Examining these dental demographics highlights stark disparities in dental access for rural areas. For example, North Carolina is the fifth largest state with an increasing population and is projected to become the seventh largest state in the nation by 2030. 50% of the population resides in 15 urban counties while the remaining 50% live in 85 rural counties. The number of dentists did not keep pace with population growth in 44 NC counties between 1997 and 2007. Statewide, NC averages 4.4 dentists per 10,000 population, below the US average of 6.0. In NC, there are 5.7 dentists per 10,000 population in urban counties vs. a mere 3.0 dentists per 10,000

¹¹ Michael Hendryx, et. al. “Water Fluoridation and Dental Health Indicators in Rural and Urban Areas of the United States.” West Virginia Rural Health Research Center. November 2011. http://wvrhrc.hsc.wvu.edu/docs/2011_fluoridation_final_report.pdf

¹² Amy Brock Martin, et. al. “State Policy Levers for Addressing Preventive Dental Care Disparities for Rural Children.” South Carolina Rural Health Research Center. March 2012.

population in rural counties. NC ranks 47th in the nation in dentists per capita and this disparity is even starker in rural areas with only 3 practicing dentists for every 10,000 people – a ratio that has remained essentially the same since 1979. In 28 rural counties, there are 2 or fewer dentists serving as many as 10,000 people, and four of these counties have no dentist. One-third of NC dentists are 55 years or older, while in rural areas, practicing dentists' average age is 58 years or older.¹³

16. As these studies have shown, the need to address disparities in rural oral health access is apparent. As of September 10, 2012, the “Designated Health Professional Shortage Area (HPSA) Statistics” report, produced on a quarterly basis by HRSA, shows that there were a total of 4,438 Dental HPSAs nationally, 60% of which are located in non-metropolitan areas, for an estimated amount of 26.8 million people.¹⁴ This means that of the nation's 62 million rural residents, 43% of rural Americans lack access to dental care. It is clear that in order for access to oral health services to increase for rural residents, not only are more dentists needed in rural communities, but more dentists who are willing to accept one of rural America's major sources of health care payment, Medicaid.

Financial Impact on Rural Health Systems and Critical Access Hospitals (CAHs):

17. Due to the shortage of rural oral health care providers as well as the limited acceptance of Medicaid and CHIP, evidence has shown that patients rely on hospital emergency departments for dental related issues. A 2010 study found that emergency department (ED) utilization for oral health complaints was “small” (1-3% of all ED visits) but “significant and remediable” as most oral health complaints could be prevented by preventive oral health measures. The study also noted this issue was of concern as ED providers are not necessarily qualified to address oral health complaints and inadequate care at the ED may result in additional patient visits and corrective procedures.¹⁵

18. Due to the limited capacity of the dental safety net (public and voluntary dental providers who provide services to low income patients), research has supported the idea of the “dental home”, similar to the concept of the “medical home”, where there is an “ongoing relationship between a dentist and a patient that provides comprehensive, individualized oral health care, including screening and treatment, health education, counseling on issues like dietary needs, and referrals for specialty care”.¹⁶ Without access to preventive oral health services, rural health systems will face higher costs and poorer patient outcomes as patients present in the ED with dental-related concerns.

¹³ D. Gregory Chadwick. “The East Carolina University School of Dental Medicine's Approach to Dental Workforce Education and Reaching Underserved Areas.” *North Carolina Medical Journal* Vol 73 No 2 (March/April 2012): 108-110.

¹⁴ HRSA – Office of Shortage Designation. “Designated Health Professional Shortage Area (HPSA) Statistics.” September 10, 2012. http://ersrs.hrsa.gov/ReportServer?/HGDW_Reports/BCD_HPSA/BCD_HPSA_SCR50_Smry&rs:Format=HTML3.2, accessed on 9/10/12.

¹⁵ Emily Shortridge & Jonathan Moore. “Use of Emergency Department for Conditions Related to Poor Oral Health Care.” August 2010. <http://www.norc.org/PDFs/publications/OralHealthFinal2.pdf>

¹⁶ *Ibid.*

19. Additionally, Medicaid recipients are overrepresented among those who present in the ED for dental-related concerns. Dental coverage as a part of Medicaid programs is not required by federal law, thus states decide whether to provide dental coverage, to whom and at what level.¹⁷ As there is a shortage of dental providers in rural areas and a limited number of providers accepting Medicaid patients, access to oral health services becomes even more difficult for poor, rural residents. Thus the possibility of patients presenting at rural EDs, particularly CAHs (and the costs associated with these visits), is of great concern to both government-funded insurance plans as well as the rural health systems that serve these patients.

20. Government health insurance programs (Medicare, Medicaid and CHIP) play a significant role in rural America due to the large percentages of low-income, uninsured and elderly populations living in rural areas. On a national scale, Medicaid holds a larger share of the payer mix in rural areas – thus, Medicaid and similar government programs are “critical sources of income for rural health care providers, and they contribute to economic development in rural communities.”¹⁸

21. The Pew Children’s Dental Campaign published a February 2012 report, “A Costly Dental Destination: Hospital Care Means States Pay Dearly,” which highlights the significant impact a lack of oral health access has on hospital systems, and ultimately, taxpayers.¹⁹ The examples provided show that states are experiencing costly dental-related ED visits throughout the nation. In 2010, Florida Medicaid participants seeking ED care for dental-related conditions rose 40% from 2008 and in Oregon, this number rose by 31% from 2008. In 2009, South Carolina ED dental-related visits increased by 59% from 2005. Also in 2009, Wisconsin hospital dental-related ED visits exceeded 32,000 visits at a cost of almost \$7 million dollars. In 2009, Tennessee hospitals had more than 55,000 ED visits related to teeth or jaw complaints and there were five times the number of oral health-related ED visits as there were burn-related ED visits. The report explicitly details how no part of the county is immune to fact that a lack of oral health access creates an unnecessary and costly burden within US hospital Emergency Departments.

22. With the nation’s continued slow economic recovery and the anticipated expansion of Medicaid eligibility under the Patient Protection and Affordable Care Act, the number of Medicaid patients will continue to grow in rural America. Rural hospital systems will continue to rely on Medicaid as an important source of income to maintain their viability. Determining ways in which essential dollars will not be lost due to preventable dental-related ED visits remains a factor in ensuring financial stability for rural hospitals.

23. Improving Oral Health in Rural America: Recommendations for Consideration

24. INCREASING RURAL ORAL HEALTH ACCESS

¹⁷ *Ibid.*

¹⁸ North Carolina Rural Health Research and Policy Analysis Center. *State Profiles of Medicaid and CHIP User’s Guide – Full Report*. 2007 & 2009. <http://www.shepscenter.unc.edu/medicaidprofiles/AllStateProfiles.pdf> ; individual state profiles may be found at <http://www.shepscenter.unc.edu/medicaidprofiles/>

¹⁹ Pew Children’s Dental Campaign. “A Costly Dental Destination: Hospital Care Means States Pay Dearly.” February 2012. [http://www.pewstates.org/uploadedFiles/PCS_Assets/2012/A%20Costly%20Dental%20Destination\(1\).pdf](http://www.pewstates.org/uploadedFiles/PCS_Assets/2012/A%20Costly%20Dental%20Destination(1).pdf)

- Increase the number of mobile dental units and increase the number of visits a unit makes to a specific community in order to provide more consistency in residents' dental treatment.
- Train general/family practice physicians and midlevel providers to conduct oral health exams and place fluoride varnish/sealants on children.
- Establish medical/dental mobile units as one-stop shops for outreach services.
- Coordinate local efforts to recruit rural dentists.
- Target dental school recruitment efforts for rural and in-state students.
- Increase rural school-based dental sealant and preventive dental programs as well as community water fluoridation.
- Expand the rural dental workforce by the use of dental therapists and/or providing additional training and the expansion of the scope of practice for dental hygienists and assistants.
- Increase dental provider champions who will advocate for increasing services to rural populations, particularly vulnerable populations in rural areas.
- Establish licensure requirements for serving a percentage of Medicaid recipients and uninsured patients. The National Health Service Corps and a number of state programs offer dentists loan repayment assistance in exchange for working in approved facilities that are located in health professional shortage areas and underserved communities and whose focus is providing care for Medicaid recipients, the uninsured and vulnerable populations.
- Consider establishing a certificate of need process for licensure of new dental practices and specialized dental equipment to redistribute providers into underserved rural communities.
- Establish dental services in school-based health centers.
- Consider establishing an annual "dental health certificate" requirement for admission to public school in rural counties, providing referrals to free and low-cost dental care.
- Support initiatives that are prevention-focused, such as access to preventive oral health services sponsored by Maternal/Child Health programs.
- Support recommendations by organizations such as the American Dental Association on the importance of preventive oral health factors like fluoridation.

25. REIMBURSEMENT FOR RURAL ORAL HEALTH SERVICES

- Increase Medicaid dental reimbursement and reduce the administration burden of participating in the program.
- Increase access to oral health care for patients in rural long term care (LTC) facilities by establishing reimbursement for procedures rather than reimbursement per visit.

26. RURAL ORAL HEALTH TRAINING PROGRAMS AND RECRUITMENT

- Strengthen rural dental recruitment incentives and educational loan repayment offers.
- Establish dental clinics within hospitals with capacity to oversee dental students.
- Establish rural dental residency programs for post-graduate training opportunities.
- Expand dental school rural externship programs.
- Create Community Service Learning Centers (community-based, economically sustainable dental practices operated by the Dental Schools in rural, underserved areas where students live and advance their skills and knowledge under supervision of dental faculty).

27. RURAL ORAL HEALTH RESEARCH

- Develop statewide CMS demonstration projects to attract both private and federal funding for evidence-based best practices in the delivery of rural oral health services.



- Dental schools incorporate a focus on accepting students from underserved populations as well as educating students to serve underserved population, including experiential and research opportunities in rural settings.

- Conduct additional research on promising oral health practices for rural and frontier areas such as the Dental Therapist model, which is currently operating in Alaska and Minnesota.

28. Increasing access to oral health services in rural America includes a multifaceted approach by rural providers, advocates and residents who desire to end the oral health disparities that continue to plague the nation's rural population. Additionally, legislators at the local, state and federal levels must also recognize the cost-savings that occurs when the population has access to preventive dental services and support legislation that is a means to this end. Together, we can improve rural America's oral health care needs.

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