Introduction/Background:

The NRHA supports the attainment of the Healthy People 2010 Oral Health objectives to improve oral health status and access to oral health care for all. In a Rural Healthy People 2010 survey conducted by the Southwest Rural Health Research Center rural leaders ranked oral health as the fifth most important area of health concern from among the 28 focus areas identified by Healthy People 2010 for the nation. However, ensuring a quality dental workforce for rural America in order to meet these objectives is a particularly challenging problem. First, the pool of dentists to serve a growing population of Americans overall is shrinking. The American Dental Association found that 6,000 dentists retire each year in the U.S. while there are only 4,000 dental school graduates each year to replace them. The projected shortage of dentists is even greater in rural America since so few dentists currently practice there. Of the approximately 150,000 general dentists in practice in the United States only 14 percent practice in rural areas—7.7 percent in large rural areas, 3.7 percent in small rural areas, and 2.2 percent in isolated rural areas. Similarly, there were 2,235 federally designated dental supply shortage areas, 74 percent of which were located in non-metropolitan areas in 2003. In contrast, “Dental hygiene is predicted to be one of the top ten fastest growing health care professions over the next decade,” growing by a projected 43 percent between now and 2020.

The substantial proportion of dentists whose practices are closed to the uninsured and to Medicaid/SCHIP recipients that form a larger proportion of rural than urban populations further diminishes access to oral health care. In addition, it is difficult throughout the United States to obtain oral health services for the following special populations: young children (<age 3), people with disabilities, shut-ins, and nursing home residents. Finally, the under representation of minority providers in the dental workforce further reduces access in minority communities.

Oral Health Workforce Recruitment, Retention, and Utilization: Issues And Strategies

• Dental Shortage: The first oral health workforce issue is the projected reduction in the number of dentists in coming decades, and the disproportionate concentration of dentists in urban areas that leaves rural areas severely underserved. HRSA’s Bureau of Health Professions’ (BHP) Title VII program can help address dental provider shortage issues if they receive sufficient appropriations from Congress. These programs include general and pediatric dentistry residencies, fellowships for geriatric oral health training, loan repayment programs for oral health professionals willing to practice in HPSAs, AHECS, Rural Outreach Program, and the Quentin Burdick Rural Program for Interdisciplinary Training that addresses the need for health providers to work together to meet the complex demands of rural practice Title VII Program, the Health Careers Opportunity Program (HCOP) also provides training opportunities aimed at recruiting disadvantaged
students into the health professions and community-based clinical experiences for dental students. Dental care should be included in any interdisciplinary approach to rural health care, and attempts to involve dental professionals in such programs should be strengthened.\textsuperscript{6} NOTE: All these Title VII programs received zero funding in the President’s budget for fiscal year 2006.

\textbf{2 Medicaid Reimbursement:} Dental coverage for children is a required Medicaid service within the Early Periodic Screening Diagnosis and Treatment Program. Nevertheless, “Medicaid underfunds dental care for children. Dental care is 25 to 27 percent of total health care spending for children, but it is only 2.3 percent of Medicaid spending for children.”\textsuperscript{7} Adult dental is an optional service under Medicaid. In 2003, 41 states offered some coverage of dental services to adults, while nine provided no adult dental benefits at all. Only seven states offered comprehensive adult dental benefits. “Medicaid services are already woefully under-financed and reimbursements do not reflect the price of comparable services and care provided among the general population. Except in a few states, Medicaid reimbursements levels are inadequate, estimated at the tenth percentile of market-based fees. Any cuts in provider dental reimbursement rates will further reduce the ability of Medicaid dental providers to accept Medicaid patients and could place existing Medicaid patients at the risk of losing their dental care.”\textsuperscript{8} Medicaid funding and reimbursement rates are a barrier to rural recruitment and retention of oral health providers. However, “a positive Medicaid development is the 12 states that directly reimburse dental hygienists for services provided, a dramatic increase over the last decade considering only one state reimbursed RDH’s in 1995.\textsuperscript{9}

\textbf{3 Expanding the Dental Team:}

“The nation’s oral health workforce is unable to meet the basic public need for care—particularly for children and the poor. There is no reasonable likelihood that this need can be met within the foreseeable future by training more dentists. Over the past 30 years, nurse practitioners and physician assistants have proven their ability to expand access to quality health care to a broad range of patients with conditions traditionally regarded as “medical.” It is time to pursue a similar approach to meeting the nation’s oral health needs.”\textsuperscript{10}

This quote from the 2003 NRHA Policy Brief, Health Care Workforce Distribution & Shortage Issues in Rural America, suggests an important and viable strategy for addressing the workforce issue in the near-term.

Registered dental hygienists (RDH) and some types of dental assistants have been trained and have demonstrated their capacity to deliver select oral health care services within their scope of practice, however, only 20 states provide direct access, which allows an RDH to administer care without a dentist having previously examined a patient and determining which procedures need to be administered. At the opposite extreme, in a small number of rural states, hygienists cannot provide services unless there is a dentist physically on-site to supervise. Since 35 percent of U.S. residents (and 44 percent of rural residents) 18-64 years of age in 1999 did not receive professional oral health care\textsuperscript{11}, the underutilization of dental hygienists and dental assistants is particularly unfortunate.

- The large and growing number of dental hygienists and dental assistants is an important oral health asset. In 2004, dental hygienists held 160,000 jobs\textsuperscript{12}, and dental assistants held 260,000 jobs\textsuperscript{13}, though many of the jobs were part-time, and many workers held more than one job. There are probably slightly fewer dental hygienists than dentists, and approximately the same number of dental assistants as dentists. Another important oral health asset, especially in rural areas, is that the rural dental hygienist and dental assistant workforces can be increased quickly and inexpensively. These rural oral health professionals are trained in community or technical colleges that are readily accessible to most rural residents. In addition, the retention of dental hygienists and dental assistants in rural communities may be higher because most have grown up in rural
areas, and their salaries compare favorably with those of many other rural employment opportunities. Finally, the population of many rural communities is adequate to support a dental hygienist, but too small to support a dentist. Similarly, dental hygiene practice with remote supervision would enable care of the underserved in more non-traditional settings that include schools and pre-schools, nursing homes, home health agencies, prisons, and traditional medical settings (e.g., pediatrician offices). 14

Oregon is one of 20 states that have some model that facilitates a patient’s direct access to a Registered Dental Hygienist. Dental hygienists who meet specific educational, training, and work experience requirements set forth by individual states can initiate patient treatment without the presence or prior authorization of a dentist and can refer patients in need of follow-up care directly to a dentist. The following link provides a complete listing of the 20 state models: http://www.adha.org/governmental_affairs/downloads/direct_access.pdf

The American Dental Hygienists’ Association is currently developing the Advanced Dental Hygiene Practitioner (ADHP), a mid-level provider designed to serve as the oral health care equivalent of the nurse practitioner. When fully actualized, the ADHP will hold a Master’s degree with a curriculum that builds on the skills dental hygienists learn in undergraduate education programs. ADHPs will be educated and trained to provide services that include, but are not limited to, advanced preventive therapies, diagnosis, treatment such as restorative procedures and appropriate referrals. 15

Alaska expanded on the success of its Community Health Aide/Practitioner Program to address the oral health needs of its population. They created the Dental Health Aide and the Dental Health Aide Therapist. The aide is trained to provide exclusively preventive services. The Therapist is trained to do cleanings, fillings, and uncomplicated extractions, in addition to a wide range of preventive services. Dentists in regional hospitals provide general supervision for all their work. 16 Resolutions in support of the DHAT have been passed by the Alaska Federation of Natives, the Alaska Public Health Association, the American Association of Public Health Dentistry, the NRHA 17, the American Association of Community Dental Programs, and most recently by the American Public Health Association. 18

In Nebraska, the College of Dentistry (COD) has a video conferencing training program for dental hygienists whereby students spend almost their entire training experience in a rural setting and thereby stay in that part of the state upon graduation. Hygiene classes in Lincoln are conducted simultaneously in Gering, 400 miles west of Lincoln via videoconferencing. Student clinical experiences are in the local CHC, hence almost all their training occurs exclusively in a rural setting, with the exception of three weeks in Lincoln and Omaha at the college and the Nebraska Medical Center. Dental students are also doing three-week rotations out to Gering and rural sites to gain a better understanding of the special circumstances surrounding the rural practice of dentistry. The distance learning technology allows students on rotation from Lincoln to get their classes either in real time or by blackboard. Over the next three to five years the COD anticipates making similar arrangements for student rotation with up to five CHC locations around the state. 19

The Nebraska COD is the first Medicaid teledentistry provider in the state, an innovation that has important implications for rural oral health. 20

Building on the Rural Health Clinic model, dentists and hygienists could have a collaborative practice, whereby the hygienist under contract and with a dentist could staff a satellite dental clinic either stand alone or part of a Community Health Center, providing primary oral health care to rural residents or patients of the CHC
and making referrals to the dentist at his/her main office. Teledentistry could be employed for some dental treatment when the dentist’s office is too far for patients to travel.

- The role of the lay health worker could be expanded to assist with the problem of “no shows,” identifying patients who have transportation difficulties and providing assistance, and filling time slots left open due to a “no show.” Lay health workers might include the home visitors associated with many programs, including Head Start and early Head Start.

- **4: Primary Care-Oral Health Connection:** A fourth oral health workforce issue is the lack of attention to oral health care and oral health patient education by primary health care providers. For children less than three years of age, oral health practice guidelines call for oral health screening exams when the first tooth erupts, and at least yearly thereafter. Primary care providers are best positioned to perform oral health exams for these young children given that 1) there are fewer than 4,000 pediatric dentists in the entire U.S., and 2) the majority of general dentists treat children, but not in large numbers and not all types. Specifically, children younger than four years of age, children with high levels of caries, and children funded by Medicaid are represented in very low numbers and have difficulty finding dental care in the general practice community. Although dentists practicing in “rural” communities, those with populations less than 20,000, were “significantly more likely to treat Medicaid-covered children ages six months to three years and four to more than 15 years, as well as Medicaid-covered children with all levels of caries,” preschool children (two to five) from rural areas were more likely to report never having been to a dentist. Primary care providers are also in the best position to conduct ongoing oral health education of the parents and young children as part of routine well-child visits. Diet and tooth brushing practices in a child’s early years affect oral and systemic health throughout the lifespan.

Similarly, primary care providers are also in the best position to detect most oral-pharyngeal cancer, since they are able to obtain Medicare reimbursement for oral exams as part of overall preventive care, whereas Medicare does not reimburse dentists for care of people age 65 and over. Since oral-pharyngeal cancer causes almost 8,000 deaths per year, it is especially important for primary care providers (MDs, NPs, PAs, DHs) to conduct an oral, head, and neck assessment of older adults as part of the physical examination.

**Recommendations:**

The NRHA endorses the following recommendations:

1. State and federal Medicaid must provide adequate funding for oral health care.

2. HRSA should fund demonstrations of dental hygienists and dental assistants expanded scopes of practice sites, and evaluations of innovative state efforts including use of alternative practice models (e.g., Limited Access Permits), and quality of care provided by new categories of professionals in rural areas. These should include comparative cost/benefit analyses with similar units headed by dentists.

3. HRSA Bureau of Health Professions should establish a new grant program to expand the curriculum of schools of dental hygiene to include advanced practice materials in support of state alternative practice models.

4. Train medical providers in rural areas (primary care physicians, pediatricians, nurse practitioners, physician assistants, school nurses) to do oral health screening of young children during well-child visits, and provide anticipatory guidance to parents.

5. Train dental and medical providers in rural areas to provide oral health screening and referral of older patients.

6. Expand Medicaid and Medicare coverage to include oral health as a mandatory service for eligible adults, including the elderly in long-term care settings and the disabled.
7. Collaborate with the American Dental Education Association, AHECs, and dental and dental hygiene educational institutions to: a) expand the number of oral health care provider students and practitioners at all levels, b) encourage applications from students with rural backgrounds including minorities and low-income candidates, c) increase dental student rotations through rural settings, d) create rural residency and/or externship programs, e) form interdisciplin ary student teams to promote a greater recognition of each profession’s oral health skills, and to promote professional support networks in rural practice, and f) encourage providing oral health care to the underserved.

8. Reinstate those Title VII programs that have been eliminated and sufficiently fund these programs to improve the recruitment and retention of rural oral health professionals including but not limited to scholarships for rural fellowships to do geriatric oral health and student loan repayment.

9. Provide sufficient funding to cover the significant costs associated with setting up oral health care offices within primary care or outpatient departments (e.g., in CHCs, RHCs, CAHs).

10. Add preventive dental services to the list of core services that rural health clinics are required to provide on site or under arrangement.

11. Create incentives to encourage DHs to practice with rural underserved populations. Options include: a) direct payment by state Medicaid programs, b) loan forgiveness/repayment programs, (Title VII), c) permit practice with remote supervision in more non-traditional settings, and d) Medicaid reimbursement for teledentistry.

12. Convene a task force to formulate policies to increase Medicaid participation by oral health care providers.

13. ORHP should fund the creation of a compendium of Best Practices for Oral Health Care Delivery to promote their replication in other rural communities.

Summary

“The current practice model of dentistry, which serves insured patients and those who can pay out of pocket, must be changed to include the rest of the population.”

“Radical steps will be needed to correct a growing disconnect between the dominant pattern of practice and the oral health needs of the nation... including new practice settings for dental care, integration of oral and primary health care and expanded scope of practice for dental hygienists and other allied health professions....”

To improve the oral health status of rural America, we must begin with primary prevention. Prevention activities like adding fluoride to water, education, and regular professional prophylaxis do not require the skills of a dentist. Indeed the first two do not necessarily require a dental professional.

To build a quality oral health workforce requires us to look beyond dental professionals. To build a quality oral health workforce we must also:

1. Encourage integration of oral health into primary health care, community service, and social service systems.

2. Employ community-level assessments and program planning, and encourage integration of local public and private dental care delivery systems.

3. Ensure long-term sustainability.

4. Involve representatives of targeted populations in designing and implementing programs.
Resources:


3. Peterson B, ADA, personal communication 5/5/06


10. 2003 NRHA Policy Brief, Health Care Workforce Distribution & Shortage Issues in Rural America


19. Personal communication, Dr. Kim McFarland, NE State Dental Director, July 17, 2006.

20. Ibid


Contributing Authors:
Authors: Gail Bellamy (Lead), Lyle Snider, Esther Forti, Marlene Janssen, Lynn Ironside, Devert Owens, Tim Lynch, Karen Sealander, Megan Fitzpatrick, Julie W. McKee, Tim Fry