Case Studies of Oral Health Service Delivery Models Used in Long-term Care Settings

The *Oral Health Workforce Research Center* (OHWRC) is developing a series of case studies of long-term care providers to describe the oral health workforce in long-term care (LTC) settings, the types of oral health services provided, and the strategies used to improve oral health for the homebound or people living in skilled nursing facilities. The case studies will determine best practices in delivering oral health services to the elderly as well as describe barriers to optimal service delivery. In addition, the study will identify the major sources of, quality of, and availability of data on the professional oral health workforce providing this care.

Background

Addressing the oral health care needs of the elderly in long-term care facilities or homebound is challenging. Individuals in these settings are known to have poorer oral health status overall than people living independently in community settings.[1] Yet, despite increased risk for poor oral health outcomes, there are limited oral health services for this population.[2,3]
There are numerous structural barriers to care including lack of dental operatories in skilled nursing facilities, low rates of dental insurance among older people, and difficulties with transportation to the offices of dental providers, where care is usually provided. Another significant barrier is lack of training among oral health providers about the special needs of the geriatric population. Survey research indicates that most dentists (93%) provide dental services to older adults in their private dental practices. However, older people receiving dental services in private practices are generally the healthy elderly. Few dentists appear to have an interest in specializing in geriatrics and dentists are generally not well prepared to provide care to older adults with functional disabilities.[4]

Little is known about the current oral health workforce providing services to the elderly and disabled in LTC settings. Nationally, only 63% of nursing homes have a formal contract with a dental or oral health care provider. Additionally, having a contract with a provider does not assure delivery of services at the appropriate level or sufficient to meet the need.[5]

The OHWRC is conducting a series of case studies of long-term care providers to describe the oral health workforce in LTC settings, the types of oral health services provided, and the strategies used to improve oral health for the homebound or people living in skilled nursing facilities. Providers using innovative oral health service delivery models or oral health workforce models that might be replicated by others will be a focus of the research. The case studies will identify both best practices in delivering oral health services to the elderly as well as describe barriers to optimal service delivery. In addition, the study will identify the major sources, quality and availability of data on the professional oral health workforce providing this care.

Hypothesis, Design and Analysis

The first hypothesis is that the configuration of the oral health workforce in LTC settings will vary according to the policy environment in each state, specifically for: the scope of practice laws for dental hygiene, the availability of geriatric training, the presence of mobile dental service providers, and presence or absence of a Medicaid adult dental benefit in the state in which the LTC setting is located.

The second hypothesis is that traditional sources of workforce data will not adequately capture the size, scope, training or capacity of the professional oral health workforce engaged in LTC settings. It will likely be necessary to supplement traditional workforce source estimates with additional data (when available) to understand the long-term care oral health workforce supply, demand and future needs.

The specific aims of this study are:

- Examine the current and changing practice models utilized in providing dental services in long-term care, residential care and for homebound individuals
- Determine policy variables which may impact the availability of these services within a state or community
- Examine data sources on the professional oral health workforce in long-term care, through four domains

    - **Dental professions data sources**: including variables available within ADA, ADEA, ADHA, state workforce data, specialty association data and federal workforce data sources
    - **Economic sources**: primarily Medicaid claims data, but also private claims and census reporting on business locations, expenses and industries
    - **Long-term care institutional data**: including MDS and OASES
    - **Regulatory reporting:** including contractual reporting and accountability within the required partnership between LTC and dentistry
- Make policy recommendations about data elements that should be included in current dental workforce data collection that are currently missing in order to track and quantify the provision of oral health services in LTC settings

The analysis in Aims 1 and 2 will consist of qualitative interviews to identify: the types of oral health practitioners; the models they use to provide care (ranging from individual practitioner to a large group or integrated practice); the business relationship between the provider, institution and patient; and policy variables that impact the structure and function of those models.

The analysis in Aim 3 will follow from identification of the models of care, and focus on identification of sources, specific variables and potential for development of metrics that directly quantify the numbers of individuals, as well as data that can be used to impute or otherwise estimate the workforce through indirect means.

Data Sources

Data for the Aims 1 and 2 of the study will come from qualitative interviews with nursing homes and dental care providers in 4 states chosen for the varying policy environment. These states will likely include Minnesota, California, Iowa and Florida. The interviews will focus on identifying models of care and data sources. Aim 3 is focused on identification of data sources. Therefore, actual data will not be obtained, only information on each data source, its availability, costs and relevant variables. Sources for identification of data sources will include a variety of dental professional associations as well as expert interviews, among others.

Deliverables

This research project will result in a research brief, final research report and a manuscript submitted to a peer-reviewed journal.

1. Berg R, et al. Oral health status of older adults in Arizona: results from the Arizona Elder Study. Special care in dentistry : official publication of the American Association of Hospital Dentists, the Academy of Dentistry for the Handicapped, and the American Society for Geriatric Dentistry, 2000. 20(6): p. 226-33.
2. Glassman P. and P Subar. Creating and maintaining oral health for dependent people in institutional settings. *Journal of Public Health Dentistry*. 2010. 70 Suppl 1: p. S40-8.
3. Helgeson MJ, et al., Dental considerations for the frail elderly. Special care in dentistry: official publication of the American Association of Hospital Dentists, the Academy of Dentistry for the Handicapped, and the American Society for Geriatric Dentistry, 2002. 22(3 Suppl): p. 40S-55S.
4. American Dental Association. 2007 Oral Health Care of Vulnerable Elderly Patients Survey, American Dental Association: Chicago; 2009.
5. Jones A, Dwyer LL, Bercovitz AR, Strahan, GW. The National Nursing Home Survey: 2004 Overview. 2009. Vital Health Stat 13(167).