Distribution of the Dental Workforce in Washington State: Patterns and Consequences

Study Questions:
- How is the general dentistry workforce, including both dentists and hygienists, distributed in relation to Washington State’s population?
- How does the supply compare with requirements for visits adjusted for residents’ ability to afford dental care?
- Is the current workforce sufficient to meet the U.S. Healthy People 2010 goals?
- Are gaps between requirements and supply related to clinical outcomes such as children’s oral health and untreated decay?

Study Design: The size and location of the generalist workforce (both dentists and hygienists in general and pediatric practice) were measured using 1999 state licensure data linked to a survey of all licensure applicants. The supply of dental visits was compared to population-based requirements for care as reported in national household surveys and from the “Healthy People 2010" target visit rates. In addition, clinical data on the oral health of third grade students in the state were compared with the data on workforce distribution.

Findings:
- Estimated workforce deficits occur for substantial portions of both urban and rural areas of the state.
- In locations with few dentists, gaps are partially filled by dental hygienists and/or high-volume dentists.
- Small rural towns have the largest relative workforce deficits.
- Dental hygienists are major contributors to the generalist dental workforce but are underrepresented in small towns.
- The number of FTE dentists and hygienists needed to fill workforce gaps amounts to five or ten percent of the state’s generalist dental workforce, depending on the demand requirements.
- Gaps in the state dental workforce correlate with untreated decay in children.
- Washington State does not have a dental workforce sufficient to meet Healthy People 2010 goals.

Policy Implications: Gaps in the state dental workforce will be difficult to fill with dentists because the nationwide per-capita supply of dentists is decreasing, specialization is increasing, and programs to encourage dentists to practice in underserved areas are limited. Policy makers should consider expanding the role of hygienists and use of medical personnel to deliver some oral health services in shortage areas.

Findings from this study are more fully described in WWAMI Center for Health Workforce Studies Working Paper #60: Wright GE, Paschane DM, Baldwin LM, Domoto P, Cantrell D, Hart LG; Distribution of the Dental Workforce in Washington State: Patterns and Consequences; November 2000.