



A Dental Hygiene Professional Practice Index by State, 2016

Margaret Langelier, MSHSA, Bridget Baker, MA, Tracey Continelli, PhD,
Jean Moore, DrPH, Hannah Maxey, PhD

Objective: The objectives of this study were to:

- Create a new dental hygiene professional practice index (DHPPI)
- Validate the factors in the index to confirm a one factor model, in this case, the unified construct of scope of practice.

Design/Methods: Because the variables in the original DHPPI, which was constructed in 2001 and rescored in 2014, no longer reflected the full scope of dental hygiene practice in states, a new DHPPI was developed to better reflect current practice for the profession. To begin the process of constructing a “new” index, researchers conducted focus groups and key informant interviews with 37 dental hygienists from 29 states to better understand emerging dental hygiene practice, including permitted tasks and required levels of supervision relative to each. A primary focus of the group discussions was identification of observed facilitators and perceived barriers to the safe and effective practice of dental hygiene in public health settings. Researchers used the findings from the focus groups and those from a literature review to revise the variables within the index. The variables in the 2016 DHPPI were organized under the same four categories as the original DHPPI, which were regulation, supervision, tasks, and reimbursement, but the individual variables and scoring allocations within each category were either changed entirely or updated. Once researchers had built the new instrument and weighted the variables, the DHPPI for each state was scored based on statute and regulation that described the legal parameters for the practice of dental hygiene effective by July 2016. Statutes and regulations addressing dental hygienists’ eligibility for Medicaid reimbursement, those describing the parameters for use of teledentistry, regulations governing mobile and portable dental units, or board opinions and regulation about new technology (eg, lasers) were also consulted during the scoring process.

Results: The factor analysis validated that, in sum, the components of the 2016 DHPPI represented a one factor model of the construct of scope of practice. All 4 categorical variables were significant at or below the .01 probability level. States’ scores on the 2016 DHPPI ranged from a high of 86 in Maine to a low of 7 in Mississippi. These compared to a high of 98 in Maine and a low of 18 in Alabama and Mississippi in 2014. It was expected that overall scores on the

new DHPPI would be lower than in the past because the variables in the DHPPI included aspects of emerging practice that were not yet widely adopted by states. However,

- Higher scoring states in 2014 and 2001 were generally also higher scoring on the 2016 instrument, suggesting that certain states were consistent innovators in workforce strategies to address oral health care needs.
- States with DHPPI scores in the middle range (ranked as satisfactory) often allowed for expanded roles for dental hygienists over the years, but continued to limit the tasks that might be performed in public health settings under lower levels of supervision in 2016.
- Several low scoring states in 2001 and 2014 remained low scoring on the 2016 DHPPI, suggesting little change in scope of practice over the 15-year period.

Differences in permissions for dental hygienists to practice were very broad:

- Supervision requirements fell in a wide range, including direct supervision, allowances for general supervision in both private and public settings, public health practice managed through protocols or written collaborative agreements, and independent practice.
- Allowable services ranged from screening and assessment to restorative functions for dental hygiene therapists.

Conclusions: Dental hygiene professionals are trained to provide oral health education and preventive and prophylactic services, and are thus well positioned to impact oral health literacy, prevent disease, and intervene early in disease processes. Increased utilization of preventive services is expected to improve oral health in all population groups, but especially among underserved populations. These populations include children, especially those from low income families, people with special needs, racially and ethnically diverse populations, the elderly, and rural populations. Scopes of practice which allow dental hygienists to provide services to patients in public health settings without burdensome requirements appear to increase access to educational and preventive care. The DHPPI scores for 2016 have not yet been used in statistical analyses to understand the impact of changing scope of practice on oral health outcomes in the population. However, analyses conducted using both the 2001 DHPPI scores and the 2014 scores separately showed that dental hygiene scope of practice was significantly and positively associated with the percentage of the population in a state who utilized dental services and was also positively and significantly correlated with the percentage of the population with no teeth removed due to decay or disease in a state.

Key Words: Oral Health, Dental Hygiene, Dental Hygienists

HWRC Website Link: http://www.oralhealthworkforce.org/wp-content/uploads/2016/12/OHWRC_Dental_Hygiene_Scope_of_Practice_2016.pdf