Health Workforce Policy Brief

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Development of a Dental Hygiene Professional Practice Index by State, 2016

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Introduction/Background

In 2001, the Center for Health Workforce Studies (CHWS) received funding from the Health Resources and Services Administration (HRSA) to study the state-to-state variation in scopes of practice for dental hygienists. One research objective for the 2001 project was to describe the impact of legal scopes of practice for dental hygienists on oral health services utilization and oral health outcomes in the population. The statistical analysis for that study found that more expansive scope of practice for dental hygienists as measured by the DHPPI was positively correlated in states' population to higher utilization of oral health services and negatively correlated with tooth removal due to decay or disease.

In 2014, CHWS was awarded a Cooperative Agreement from HRSA to establish an Oral Health Workforce Research Center (OHWRC). One of the first projects conducted under the agreement was to update the 2001 DHPPI to reflect legal conditions for dental hygiene practice in states in 2014. Comparison of scores by state between 2001 and 2014 revealed that scope of practice for the dental hygiene profession had evolved in the decade since the DHPPI was originally constructed, and the variables selected no longer reflected the full scope of dental hygiene practice. To ensure the currency of the DHPPI, the OHWRC sought and received approval from HRSA to construct a "new" DHPPI scale in 2016.

Methods

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 tasks permitted and required levels of supervision relative to each task. Once researchers had built the new instrument and weighted the variables, the DHPPI was scored based on statute and regulation that described the legal parameters for the practice of dental hygiene in states effective by July 2016.

Findings

The 2016 DHPPI was statistically validated using both exploratory and confirmatory factor analyses. Higher scoring states in 2014 and 2001 were generally also higher scoring on the 2016 instrument. The consistency in ranking suggests that certain states are persistent innovators in workforce strategies to address oral health care needs. Examples of consistently high scoring states include Maine, Oregon, Minnesota, California, Colorado, Washington, and New Mexico.

Conclusions and Policy Implications

1) Dental hygiene professionals are well positioned to impact oral health literacy and to prevent disease or intervene early in disease processes.

2) Scopes of practice which allow dental hygienists to provide services to patients in public health settings without burdensome supervision or prescriptive requirements appear to increase access to educational and preventive care.

3) Understanding the actual impact of the changing roles and functions of dental hygienists is important for patients, clinicians, advocates and policymakers as they attempt to identify effective strategies to improve access to services that support improvements in population oral health.

4) Inclusion of new variables in the DHPPI, such as emerging workforce models and newly permitted remediable and irremediable functions for dental hygienists, should enable more accurate future assessment in a variety of analytic studies of the impact of scope of practice on population oral health outcomes.

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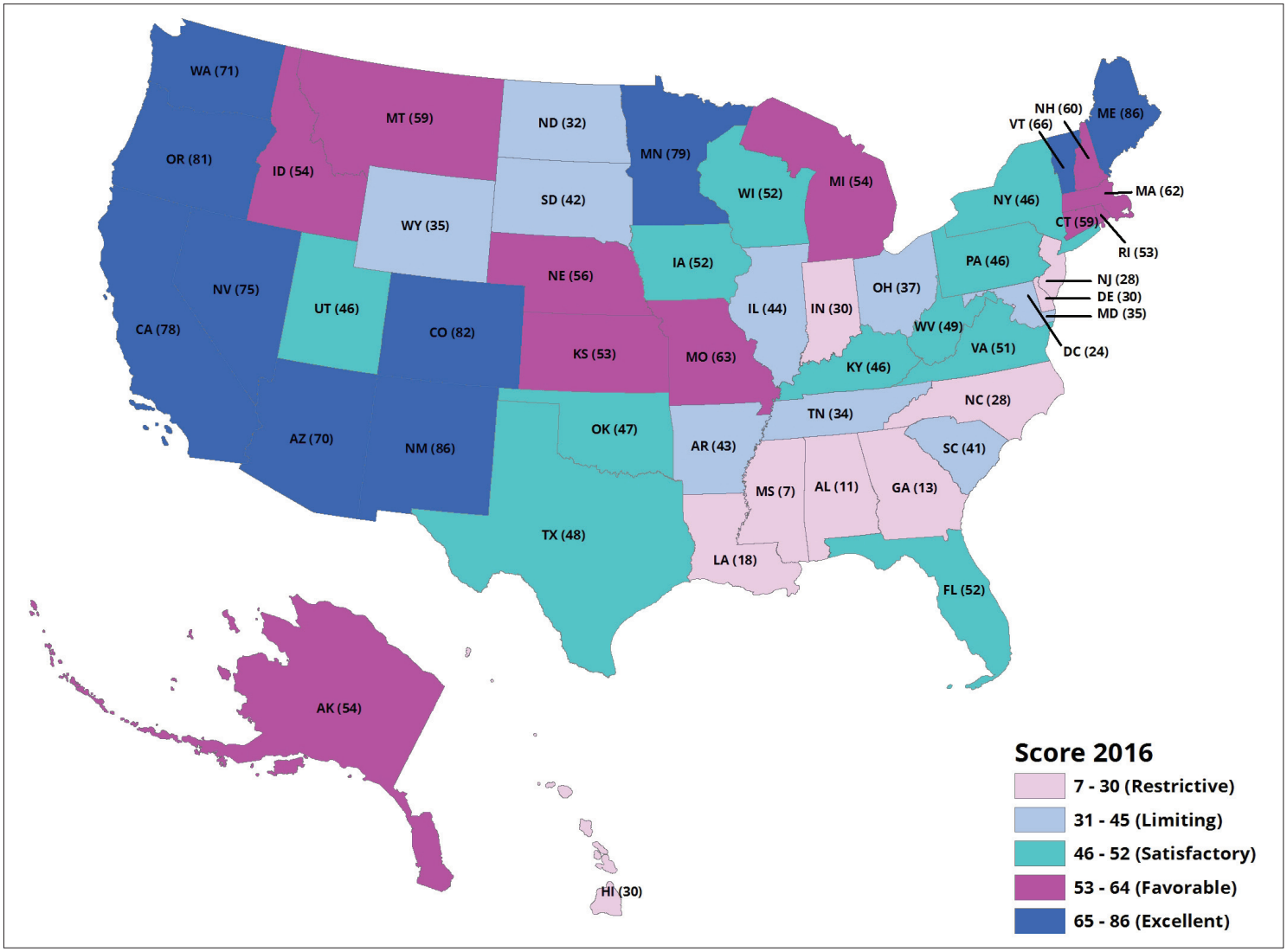
Figure 1. Map of the 2016 DHPPI Scores and Ranking of States by Quintiles Based on Scores



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. Examples of low scoring states include North Carolina, Georgia, Mississippi, and Alabama. These states were appraised as restrictive in their regulations, often requiring direct supervision of preventive services, even in public health settings. States with DHPPI scores in the middle range (ranked as satisfactory) often allowed for expanded roles for dental hygienists but continued to limit the tasks that might be performed in public health settings under lower levels of supervision or maintained requirements that a dentist first see the patient to determine the need for preventive services.

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 and to prevent disease or 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. 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.

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