Update From the Oral Health Workforce Research Center (OHWRC)

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American Network of Oral Health Coalitions (ANOHC)
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Oral Health Workforce Research Center (OHWRC)

- OHWRC, established in 2014, is 1 of 9 health workforce research centers in the country funded by the Health Resources and Services Administration (HRSA) and the only one uniquely focused on the oral health workforce
- OHWRC is based at the Center for Health Workforce Studies (CHWS), School of Public Health, University at Albany, State University of New York (SUNY)
- OHWRC was formed as a partnership between CHWS and the Healthforce Center at the University of California, San Francisco

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OHWRC Research Areas

- Oral health integration with primary care and behavioral health
- Innovative service delivery strategies
  - Teledentistry
  - Mobile and portable dentistry
- Maternal and child oral health
- Oral health literacy
- Workforce innovations
- Improving workforce diversity
- Dental training and education
- Regulatory practice barriers

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Recently Completed OHWRC Projects

Oral Health Needs Assessment for New York State, 2024

Identifying Strategies to Improve Oral Health Workforce Resilience **(2023)**

Teledentistry Adoption and Use During the COVID-19 Pandemic **(2023)**

O'Malley E, Surdu S, Langelier M. The Impact of Pandemic Concerns on Consumers' Teledentistry Use During the First Months of the COVID-19 Pandemic. *Public Health Reports*. 2023;138(1_suppl):63S-71S. doi:10.1177/00333549221133801

COVID-19 Impact on Dental Service Delivery, Financing, Regulation, and Education Systems: An Environmental Scan **(2023)**

Implications of COVID-19 on Safety-net Oral Health Services **(2023)**

Teledentistry Trends in the United States During the COVID-19 Pandemic **(2022)**

Provider and Patient Satisfaction With the Dental Therapy Workforce at Apple Tree Dental **(2022)**

Zhao Y, Surdu S, Langelier M. Safety Net Patients' Satisfaction with Oral Health Services by Provider Type and Intent to Return for More Care. *J Public Health Dent*. 2024. Published online May 25, 2024. doi: 10.1111/jphd.12629

The Changing Role of Post-baccalaureate Programs in Dental Education **(2022)**

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OHWRC Project Highlights: Teledentistry

Teledentistry Adoption and Use During the COVID-19 Pandemic (2023)

Objectives:

- Assess the use of teledentistry before, during, and after the peak of the COVID-19 pandemic
- Evaluate the variation in teledentistry regulation across states as of November 2022

Methods:

- Conducted key-informant interviews with dental providers and staff in the dental safety net
- Reviewed enabling statutes and regulations for the provision of teledentistry services

Key Findings:

- Even though teledentistry services were widely accepted by providers and patients alike, there were several barriers preventing the adoption and expansion of teledentistry, including:
  - Lack of Medicaid reimbursement
  - Restrictions on who is authorized to deliver teledentistry services (ie, dentists vs dentists and dental hygienists)
- Considerable variation in teledentistry regulation across states and created an infographic

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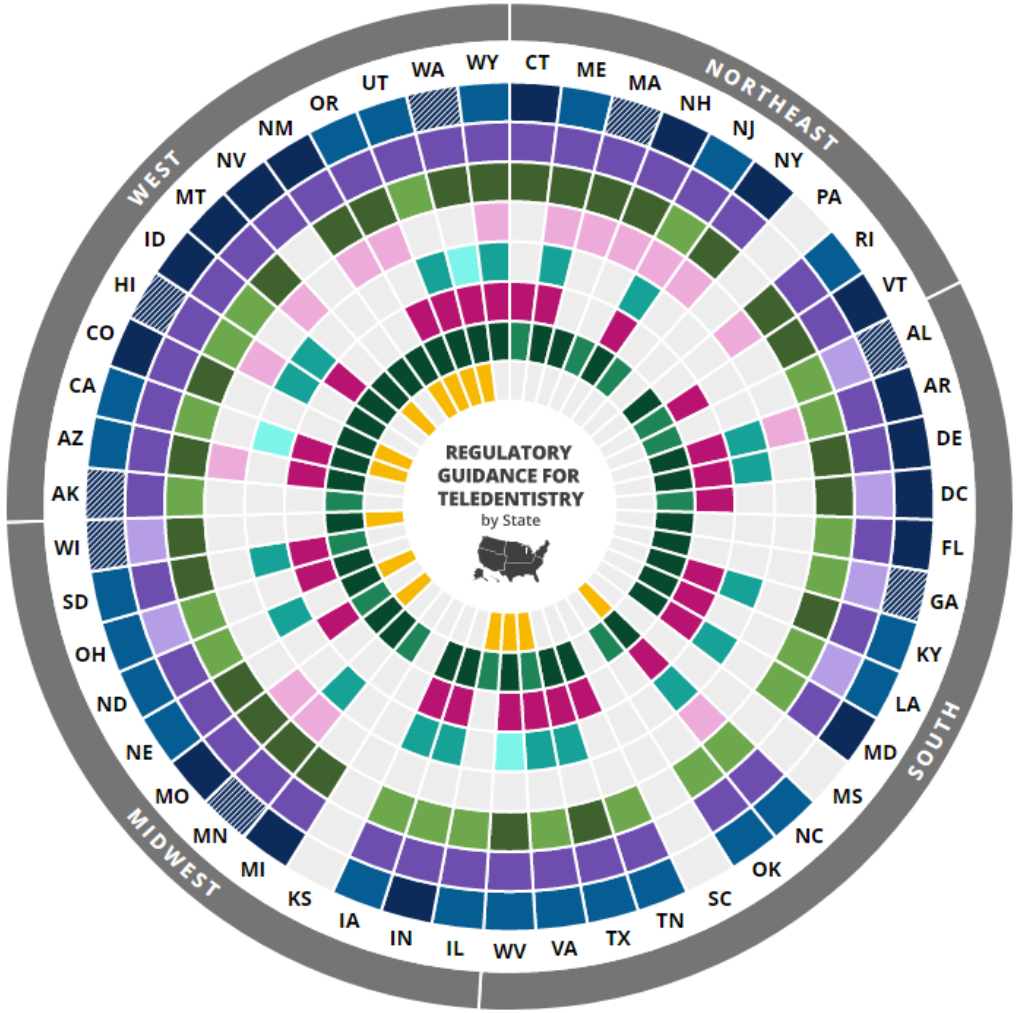
Variation in Teledentistry Regulation by State

Variation in Teledentistry Regulation by State

Teledentistry is the use of information and communication technology to deliver virtual oral health services in real time (synchronous) or through store-and-forward (asynchronous) methods. Regulatory guidance during the COVID-19 pandemic facilitated the swift adoption and expansion of teledentistry.

Considerable variability in regulation of teledentistry by states limits the ability of clinicians to provide virtual oral health care. This infograph is designed to help oral health stakeholders understand those differences.



Source of Authority to Provide Teledentistry Services
- Dental Practice Act or Dental Board Regulation
- Telehealth/Telemedicine Statute or Regulation
- Dental Board Directive/Opinion or Medicaid Regulation/Directive

Types of Allowable Services
- Synchronous Only
- Synchronous and Asynchronous

Required Modality for Synchronous Teledentistry
- Video Only
- Video or Audio only

Other Modalities Allowed (eg. Mobile apps, email)

Patient of Record Required
- Must Be Established Prior to Teledentistry Visit
- Can Be Established at Time of Teledentistry Visit

Patient Informed Consent Required

Allowed Providers
- Dentist Only
- Dentists and Dental Hygienists

Medicaid Reimbursement for CDT Codes D9995 and/or D9996

Last Updated November 2022.

https://oralhealthworkforce.org/regulatory-guidance-for-teledentistry-by-state/

Key Findings

Source of Authority to Provide Teledentistry Services

- Dental Practice Act or Dental Board Regulation: 22 states
- Telehealth/Telemedicine Statute or Regulation: 16 states and DC
- Dental Board Directive/Opinion or Medicaid Regulation/Directive: 8 states

Types of Allowable Services

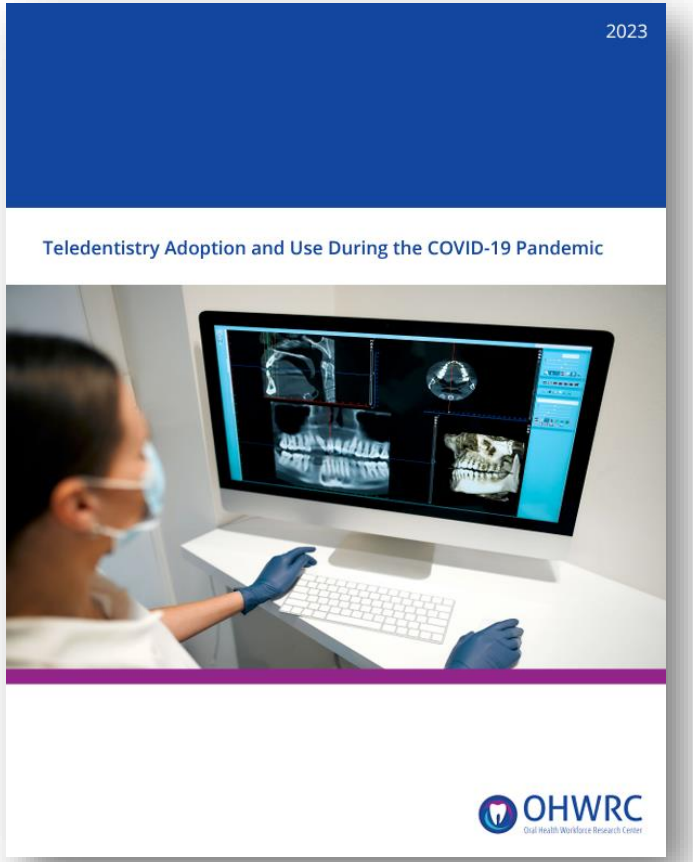
- Synchronous and Asynchronous: 41 states
- Synchronous Only: 5 states and DC

Allowed Providers

- Dentists and Dental Hygienists: 34 states
- Dentists Only: 12 states and DC

Medicaid Reimbursement

- CDT Codes D9995 and/or D9996: 14 states



https://oralhealthworkforce.org/wp-content/uploads/2023/08/OHWRC-Teledentistry-During-COVID-19_2023_Final.pdf

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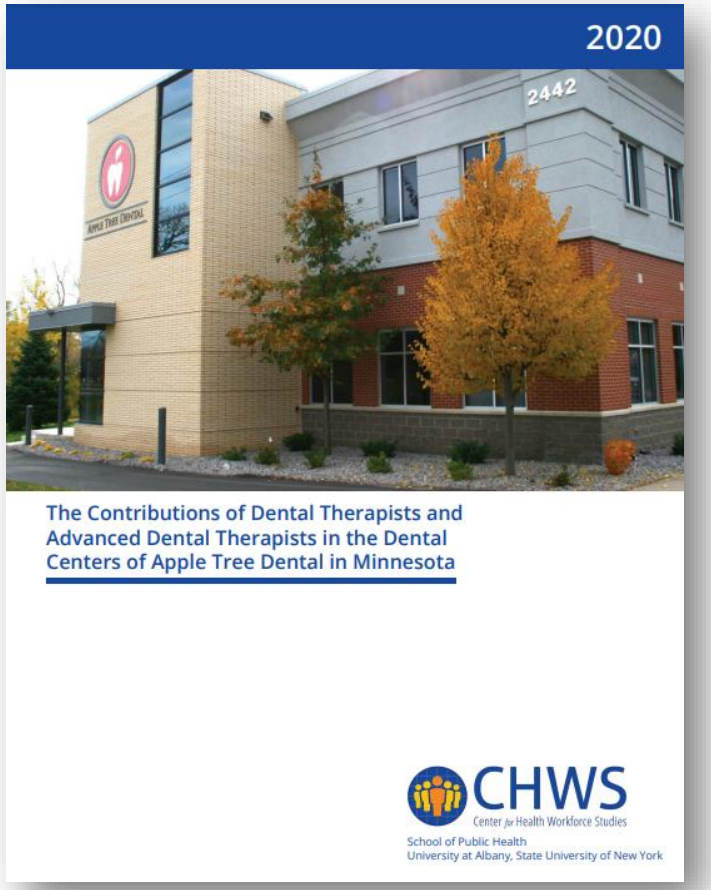
OHWRC Project Highlights: Dental Therapy

[Provider and Patient Satisfaction With the Dental Therapy Workforce at Apple Tree Dental]

[The Contributions of Dental Therapists and Advanced Dental Therapists in the Dental Centers of Apple Tree Dental in Minnesota]



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Key Findings

Dental Teams Are Very Satisfied With the Addition of Dental Therapists (DTs)

DTs fit very well on dental teams while performing high quality work

Dentists can work more effectively and efficiently when teamed with a DT

Benefits of an Expanded Dental Team

Timelier service delivery with reduced wait times

Patients get more dental care needs met in one visit

Patient Satisfaction Is High

Patients were very satisfied with all dimensions of their dental care

Information and communication

Understanding and acceptance

Technical competence and treatment satisfaction

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Authorization Status of Dental Therapists by State

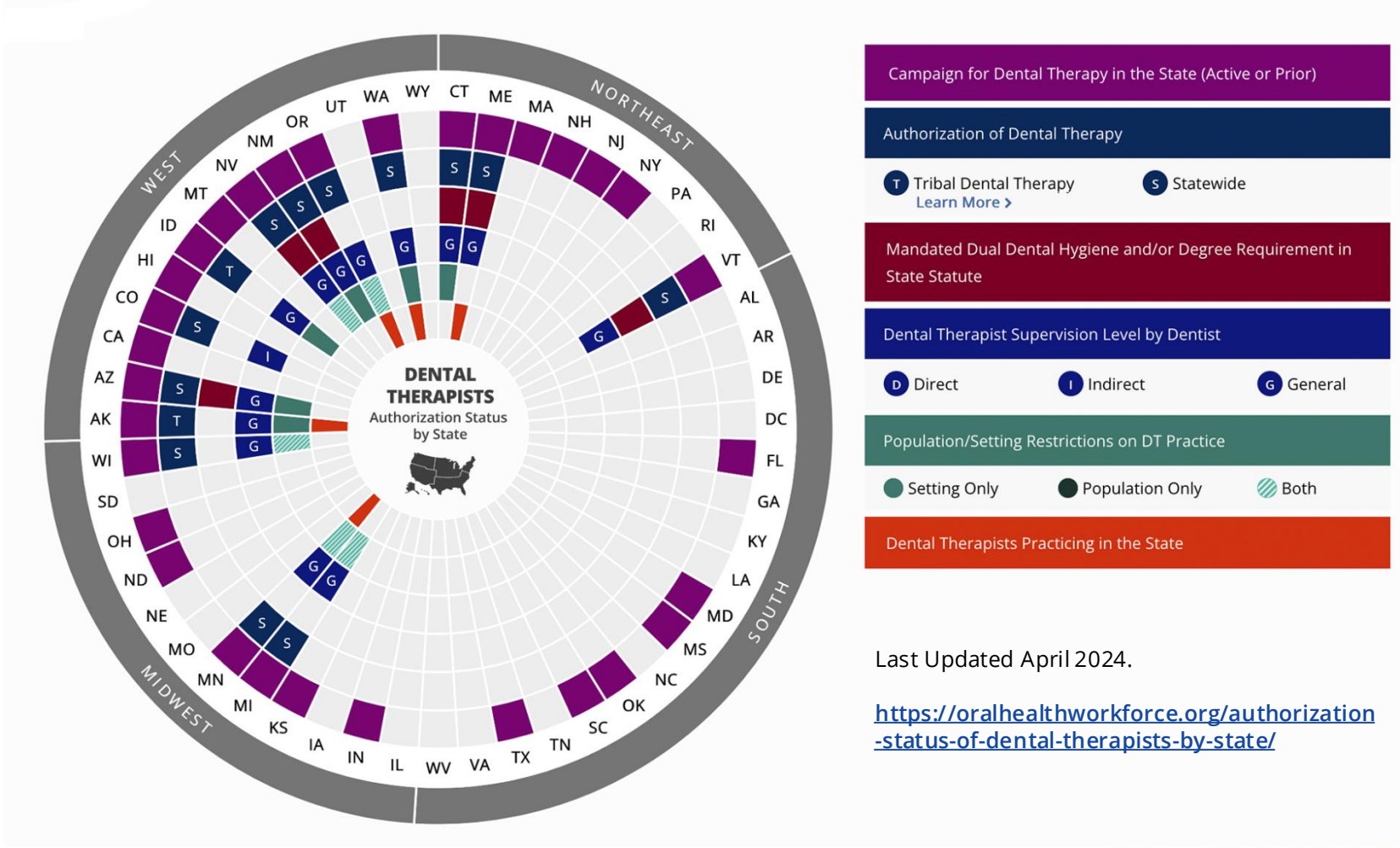
Authorization Status of Dental Therapists By State

This infographic describes the status of dental therapy in the United States (US) and details the specific requirements in state laws and regulations that define dental therapy practice.

Dental therapists (DTs) are primary dental care practitioners that have been deployed in many countries around the world. Dental therapy was first implemented by the Alaska Native Tribal Health Consortium in 2005.[1]

There is increasingly strong evidence supporting the safety and effectiveness of DTs, including their ability to promote community-based services and enhance oral health equity.[2-4]

Following the approval of education standards by the Commission on Dental Accreditation (CODA) in 2015, dental therapy gained increasing acceptance in the US with states and tribal nations authorizing dental therapy. Dental therapy is rapidly becoming an established, growing profession in the US, although there is variation in legal authority across states and jurisdictions.



Last Updated April 2024.

https://oralhealthworkforce.org/authorization-status-of-dental-therapists-by-state/

Key Findings

Campaign for Dental Therapy in the State: 31 states

Authorization of Dental Therapy:

- Statewide: 12 states
- Tribal: 2 states

Mandated Dual Dental Hygiene and/or Degree Requirement in the State Statue: 6 states

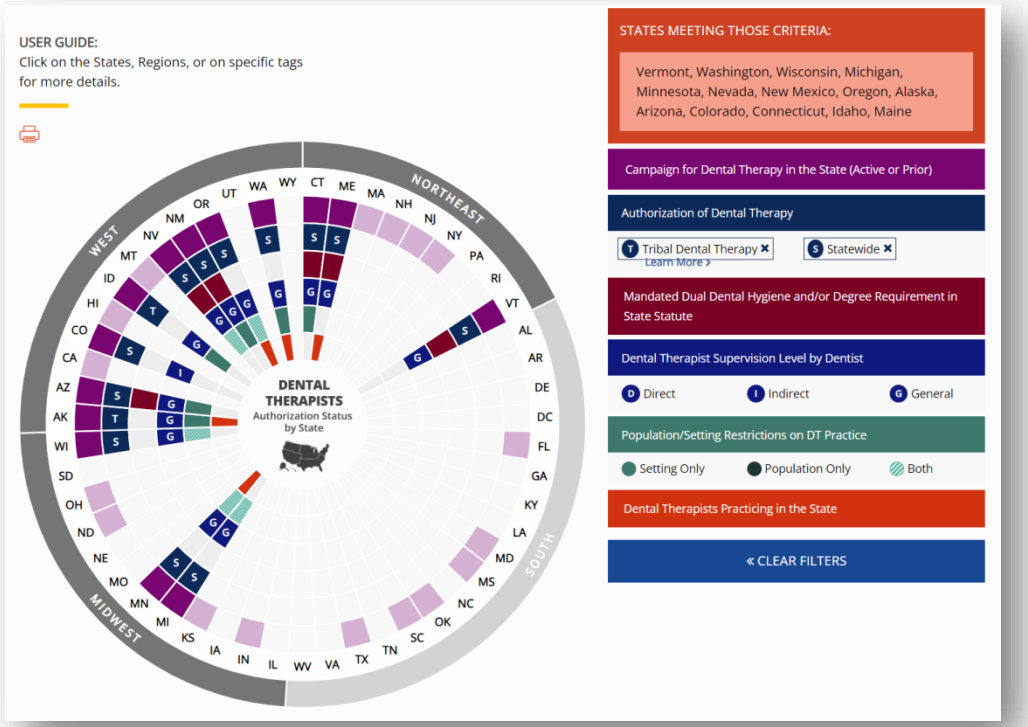
Dental Therapist Supervision Level by Dentist:

- General: 13 states
- Indirect: 1 state

Population/Setting Restrictions:

- Both: 5 states
- Setting Only: 6 states

Dental Therapist Practicing in the State: 5 states



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Variability in Dental Hygiene Scope of Practice

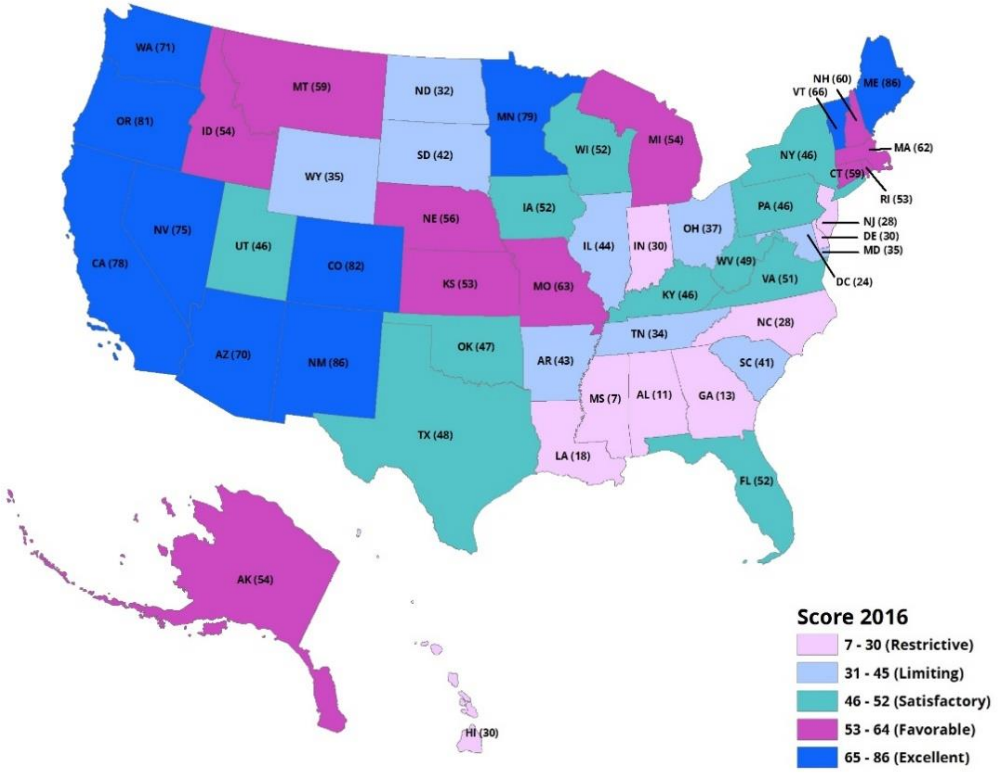
- What is scope of practice?
  - Professional scope of practice, ie, professional competence, describes the services that a health professional is trained and competent to perform
  - Legal scope of practice, based on state-specific practice acts, defines what services a health professional is allowed to provide and under what conditions in a given state
  - Legal scope of practice and professional competence overlap, but amount of overlap varies by state and by profession

Dental Hygiene Professional Practice Index

- **Dental hygiene scope of practice (SOP) varies considerably**
  - Permitted tasks and required supervision differ by state and these differences impact service delivery
- **In 2001, the Dental Hygiene Professional Practice Index (DHPPI) was developed**
  - Assembled an advisory board of national experts
  - Conducted focus groups and interviews with over 100 dental hygienists
  - Completed an exhaustive examination of statutes and regulations in each state
- **The scoring instrument contained 69 variables grouped into 4 categories**
  - Regulation, supervision, tasks, and reimbursement
- **Each variable was scored based on its impact on community-based practice**
  - Maximum possible score of 100, minimum score of 0
- **This instrument was used to score state-level DH SOP in 2001 and 2014**

2016 Update of the DHPPI

- **Dental hygiene roles and responsibilities are changing**
  - More autonomy
  - New technologies
  - New settings for care delivery
  - Point of entry - case finding
  - Serve as case managers/patient navigators
- **Design process for the revised DHPPI included focus groups with dental hygienists**
  - Some variables were retained or modified
  - Fewer variables overall
  - New variables, eg, dental hygiene therapy, use of lasers, and basic restorative tasks
- **Scores ranged from 7 in Mississippi to 86 in Maine**



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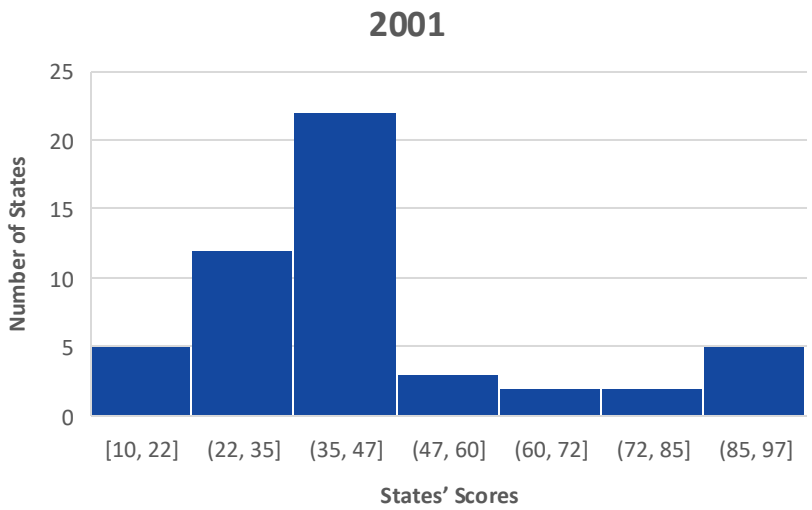
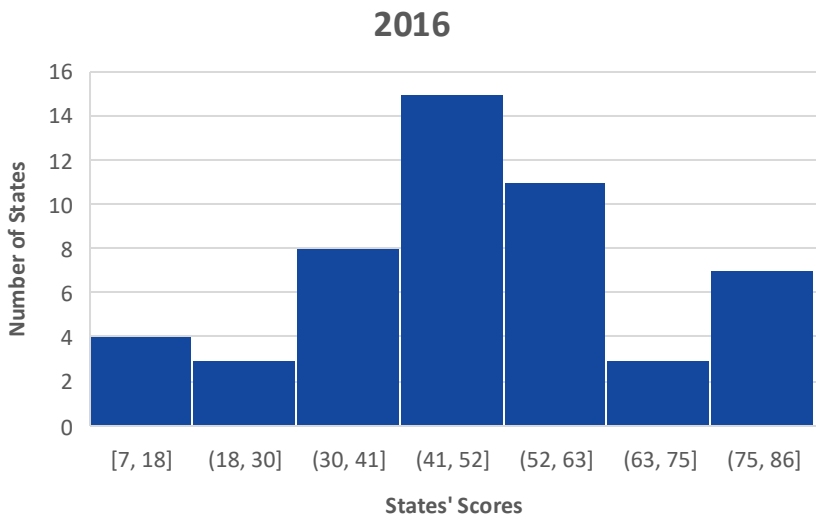
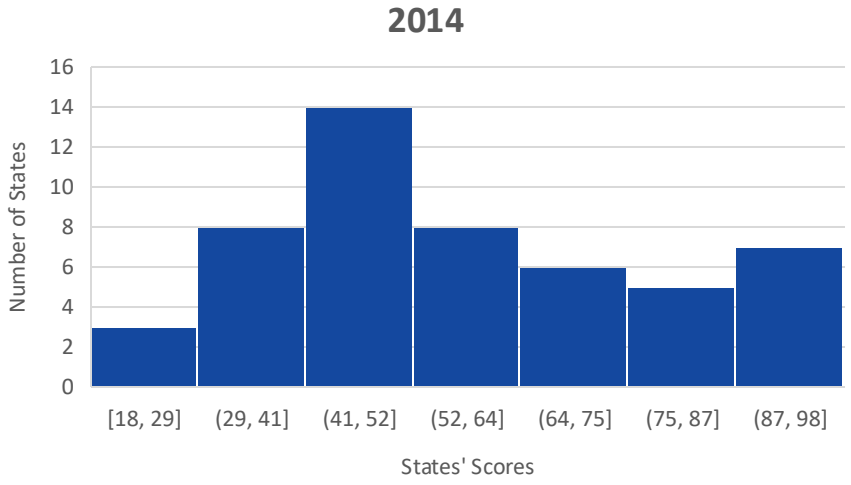
Changing Scope of Practice for Dental Hygienists in 2001, 2014, and 2016







- High-scoring states in 2014 were also high-scoring on the new index (eg, ME, CO, CA, WA, NM were each classified as excellent environments at each scoring)
- Some states were innovators in expanding practice opportunities for dental hygienists (eg, MN with advanced dental therapy, VT recently enabled dental therapy; the model requires professionals to also be dental hygienists)
- Other states used a slower, more incremental approach to increasing scope of practice (eg, IA classified as satisfactory at each scoring)
- Some low-scoring states were consistently low-scoring (eg, GA, MS, NC classified as restrictive at each scoring)

Does Variation in DH SOP Matter?

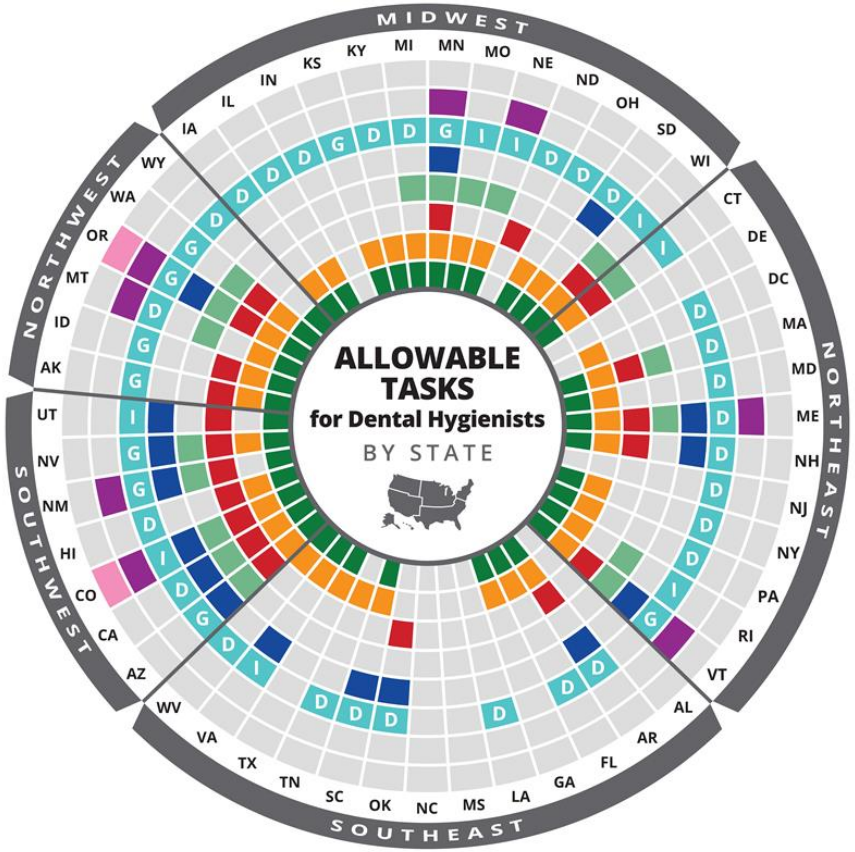
- *Research question*:
  - Do more expansive DH SOPs, which allow more autonomy in providing preventive services, especially in community based settings, impact oral health outcomes?
- *Results*:
  - 2014 DHPPI scores exerted a positive and significant impact on adult oral health
  - More expansive SOP for DHs in states was positively and significantly associated ($P<0.05$) with having no teeth removed due to decay or disease among individuals in those states
  - A 10-point increase in the 2014 DHPPI score results in a 3.5% relative increase in the percentage of adults with no teeth removed due to decay or disease

Langelier M, Continelli T, Moore J, Baker B, Surdu S. Expanded scopes of practice for dental hygienists associated with improved oral health outcomes for adults. *Health Affairs*. 2016; 35(12); doi: 10.1377/hlthaff.2016.0807.

Developing a Dental Hygiene SOP Infographic: Why and How

- **Broader SOPs for DHs** associated with better state-level oral health outcomes
- **Substantial variation in DH SOP across states**, but no tools to help policy makers understand those differences
- **Collaborated with ADHA** for a series of focus groups with dental hygiene leaders to identify the key DH functions and tasks to include in the infographic
- **Determined a limited number of key variables** to be displayed on the graphic
- **Reviewed statutes and regulations in each state** to accurately capture current legal conditions for practice
    - Updated infographic in 2018 and 2019

Variation in Dental Hygiene Scope of Practice by State



The purpose of this graphic is to help planners, policymakers, and others understand differences in legal scope of practice across states, particularly in public health settings.

Research has shown that a broader scope of practice for dental hygienists is positively and significantly associated with improved oral health outcomes in a state's population.[1,2]

- Dental Hygiene Diagnosis
- Prescriptive Authority
- Local Anesthesia
  - D Direct I Indirect G General
- Supervision of Dental Assistants
- Direct Medicaid Reimbursement
- Dental Hygiene Treatment Planning
- Provision of Sealants
- Direct Access to Prophylaxis
- Not Allowed / No Law

Sources: 1. Langelier M, Baker B, Continelli T. *Development of a New Dental Hygiene Professional Practice Index by State, 2016.* Rensselaer, NY: Oral Health Workforce Research Center, Center for Health Workforce Studies, School of Public Health, SUNY Albany; November 2016. 2. Langelier M, Continelli T, Moore J, Baker B, Surdu S. Expanded Scopes of Practice for Dental Hygienists Associated With Improved Oral Health Outcomes for Adults. *Health Affairs.* 2016;35(12):2207-2215.

http://www.oralhealthworkforce.org/wp-content/uploads/2017/03/OHWRC_Dental_Hygiene_Scope_of_Practice_2016.pdf

This work was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS), under the Health Workforce Research Center Cooperative Agreement Program (U81HP27843). The content and conclusions presented herein are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

This graphic describes the highest level of practice available to a dental hygienist in a state, including dental hygiene therapy. The graphic is for informational purposes only and scope of practice is subject to change. Contact the applicable dental board or your attorney for specific legal advice.

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Last Updated January 2019.

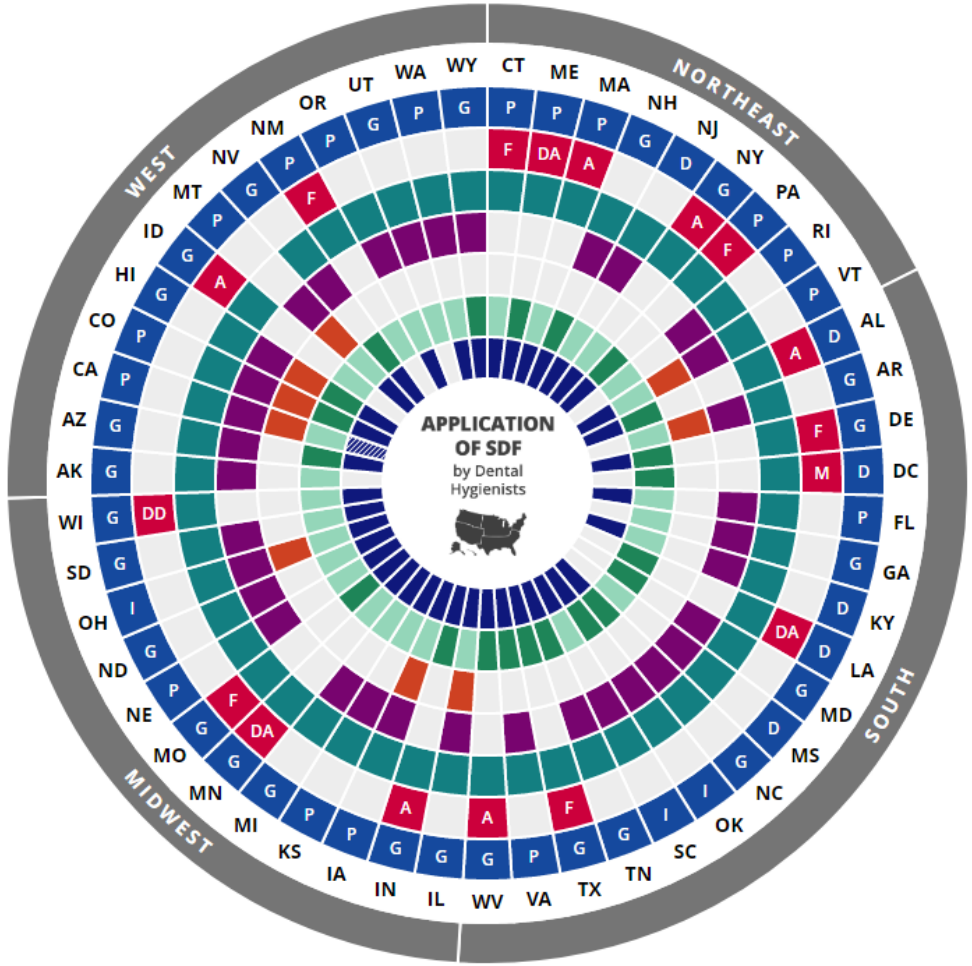
https://oralhealthworkforce.org/resources/variation-in-dental-hygiene-scope-of-practice-by-state/

Application of Silver Diamine Fluoride (SDF) by Dental Hygienists

Application of Silver Diamine Fluoride (SDF) by Dental Hygienists

This infographic describes specific requirements in state laws and regulation that impact the ability of dental hygienists to apply silver diamine fluoride (SDF). SDF is a topical medicament that can be used to treat dental caries across the age spectrum.[1] Research supports the use of SDF in pediatric dentistry and in the elderly population as a simple, inexpensive and effective way of preventing dental caries initiation and progression.[2,3]

State dental boards and regulators have recognized SDF in various ways, impacting the ability of dental hygienists (DHs) to apply it. Many have directly addressed the topic in regulations or board opinions. Some indicate that SDF is a fluoride, a desensitizing agent, etc. falling under those DH scope of practice permissions and limitations, while others have remained silent on SDF. A recent US study of SDF safety was completed by Expanded Practice Dental Hygienists providing services in Head Start programs in Oregon.[4]



Lowest Level of Supervision Under Which a DH can Apply SDF

- D Direct
- G General
- I Indirect
- P Public Health/Collaborative

Scope of Practice for DHs May Allow SDF Under Permission for Application of:

- A Antimicrobial/Anticariogenic Agents
- M Medicament
- F Topical Fluoride/Preventative Agents
- DA Desensitizing Agent
- DD Delegable Duty

State Medicaid Has Frequency Limitations on Payment for Fluoride or SDF

SDF Clearly Within Scope of Practice (Statute, Regulation, or Board Opinion)

Dental Board Recommendations or Requirements for Specific Education for a DH to Apply SDF Under All or Specific Conditions

Age Limitation in Medicaid Guidance for Payment of Fluoride or SDF Applications

- Children Only
- Children & Some or All Adults

State Medicaid Program Covers CDT 1354 (Interim Caries arresting Medicament Application)

- Yes
- No
- Pilot Program Only

Last Updated September 2020.

Upcoming Research

State-Specific Dental Hygiene Scope of Practice: A New Measurement Tool

This project aims to update and develop a new tool to quantify dental hygienists' scopes of practice across states. *Using focus groups and key informant interviews*, researchers will define key practice variables focusing on the emerging practice of dental hygiene in public health settings.

Barriers to Dental Care During Pregnancy: Implications for Oral Health Disparities

This project aims to evaluate the barriers to dental care during pregnancy and their impact on access to services and health outcomes. *Using 2017-2022 PRAMS data,* the study will assess racial and ethnic disparities, focusing on factors like insurance, health literacy, and workforce availability.

Factors Affecting Well-Being of Oral Health Providers in Community Health Centers

This study analyzes workplace satisfaction, burnout, and engagement among oral health providers in community health centers, *using data from HRSA's 2022-2023 survey*. It will explore workplace environment to identify strategies for improving well-being, recruitment, and retention of oral health providers.

Dental Public Health: Innovative Solutions From the Field

This project explores innovative solutions to challenges in dental public health (DPH) training and practice. Building on prior research, it will engage *stakeholders through interviews* to address issues like exam completion and practice opportunities. The study aims to identify strategies for future investments in DPH.

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Questions?

- For more information, please email us at: jmoore@albany.edu, ssurdu@albany.edu
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