Update From the Oral Health Workforce Research Center (OHWRC)

Presented by:

Simona Surdu, MD, PhD, Deputy Director

Theekshana Fernando, MBBS, MPH, CHES®, Research Associate

Oral Health Workforce Research Center
Center for Health Workforce Studies
School of Public Health, University at Albany, SUNY

NYS Oral Health Coalition Annual Meeting
Early Childhood Oral Health Summit
Hilton Garden Inn, Troy, NY
October 27, 2023

OHWRC
Oral Health Workforce Research Center

Oral Health Workforce Research Center (OHWRC)

- 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
- 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
- Disclaimer: *The content and conclusions of this presentation are those of OHWRC and do not necessarily represent positions or policies of SUNY or HRSA*

OHWRC
Oral Health Workforce Research Center

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

OHWRC
Oral Health Workforce Research Center

2023-2024 OHWRC Projects

- Colocation of Primary Care, Dental, and Pharmacy Residencies: An Analysis of Interprofessional Post-Graduate Training
- Post COVID-19 Workforce Impacts: Oral Health Workforce Burnout and Contributing Factors
- Creating Inclusion and Belonging for LGBTQIA+ People in Dental Education
- Oral Health Status and Access Barriers for Underserved Populations Seeking Care in the Safety-Net
- The Impact of Loan Repayment Grant Expansion Using Proposition 56 Tobacco Tax Revenue on Dentist's Employment in FQHCs, Tribal Health Centers, and Rural Health Centers

OHWRC
Oral Health Workforce Research Center

2022-2023 OHWRC Projects

- Facilitators and Barriers of Dental Education for Tribal Oral Health Services
- COVID-19 Pandemic Fallout: A Profile of Burnout, Engagement, and Resilience in Dental Care Providers
- Changes in the Oral Health Workforce and Delivery of Oral Health Care in the Safety-Net
- Assessing the Oral Health Workforce Providing Adult Medicaid Dental Services in California and New York
- Understanding Discrimination Experiences of Minority Students in Dental Education
- Perspectives of Women of Childbearing Age About Their Oral Health Status and Access Barriers

OHWRC
Oral Health Workforce Research Center

2022-2023 OHWRC Project Highlights (sneak preview)

Study Title: **Perspectives of Women of Childbearing Age About Their Oral Health Status and Access Barriers**

Objectives: To evaluate the impact of oral health service utilization during pregnancy on *maternal health* and *pregnancy outcomes* using the Pregnancy Risk Assessment Monitoring System (PRAMS) data, 2016-2020

Key Findings:

- 44.6 % of pregnant women had their teeth cleaned by a hygienist; 12.1% visited a dentist for oral health problem/s (6.2% did not seek needed care; 81.7% reported no dental issues)
- The study findings showed significant associations between lack of dental service utilization during pregnancy and gestational diabetes as well as hypertensive disorders
- Similarly, there was a positive and significant association between lack of dental cleaning visits during pregnancy and low birth weight newborns and preterm births

OHWRC
Oral Health Workforce Research Center

2022-2023 OHWRC Project Highlights (sneak preview)

Study Title: **Changes in the Oral Health Workforce and Delivery of Oral Health Care in the Safety-Net**

Objectives: To examine factors influencing delivery of oral health services by Federally Qualified Health Centers (FQHCs) using the Uniform Data System (UDS), 2012-2021

Key Findings:

- As of 2021, the number of patient-visits for oral health services at FQHCs were below pre-pandemic levels (with the exception of emergency services)
- Adjusted association estimates indicated that patient-visits for preventive oral health services increased by 13.7% for every additional dental hygienist FTE increase at FQHCs
- Similarly, patient-visits for preventive oral health services increased by 0.4% for every additional $100,000 increase in capital development grants received by FQHCs

OHWRC
Oral Health Workforce Research Center

Previous OHWRC Research Highlights

Study Title: A National Study of the Practice Characteristics of Women in Dentistry and Potential Impacts on Access to Care for Underserved Communities

- Surdu S, Mertz E, Langelier M, Moore J. Dental Workforce Trends: A National Study of Gender Diversity and Practice Patterns. *Med Care Res Rev*; *Health Workforce Supplement*. Published online August 28, 2020. doi: 10.1177/1077558720952667.

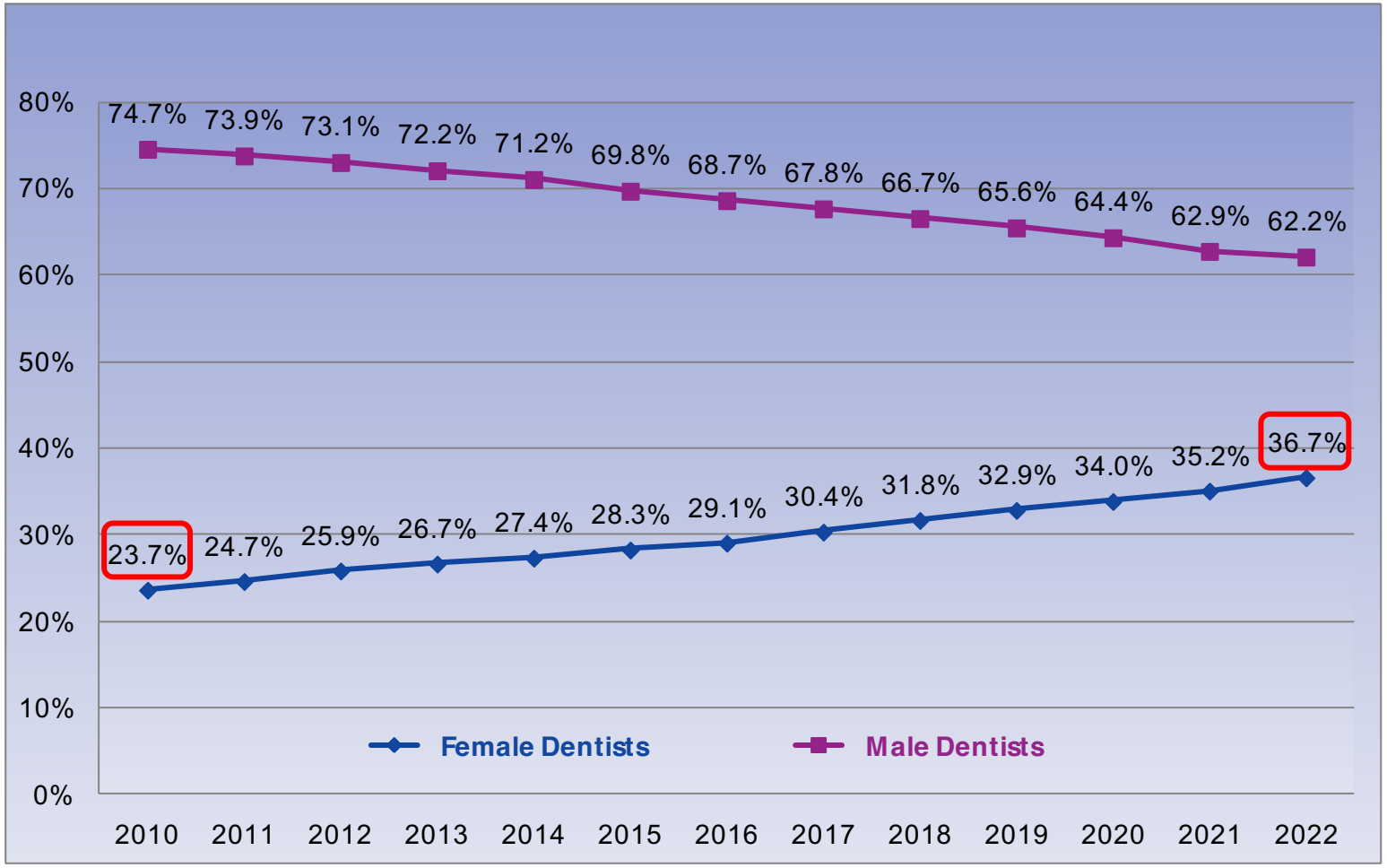
Objectives: To evaluate differences by gender in dental education and practice patterns, and to discuss potential implications for the dental services delivery system

Data Sources:

- American Dental Association (ADA) Masterfile, 2010-2016
- ADA Annual Survey of Dental Practice, 2017 *(dentists' responses pertaining to 2016)*

OHWRC Oral Health Workforce Research Center

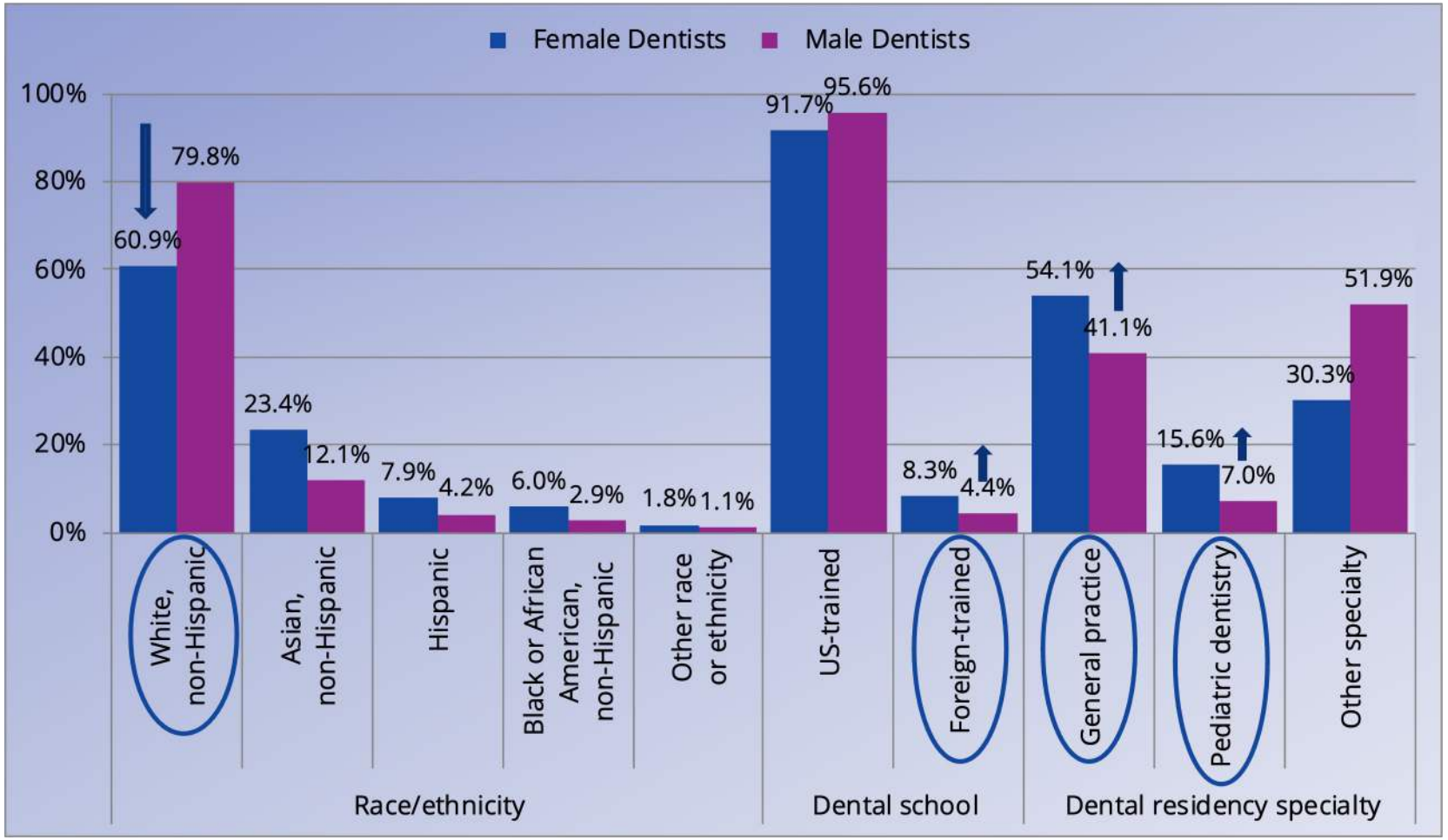
Changes in Gender Diversity in Dental Workforce



The proportion of female dentists increased from 24% (n=43,421) in 2010 to 37% (n=74,331) in 2022

Source: ADA Health Policy Institute, Masterfile, 2010-2022. Total n=202,536 (2022); gender unknown: <2.0%.

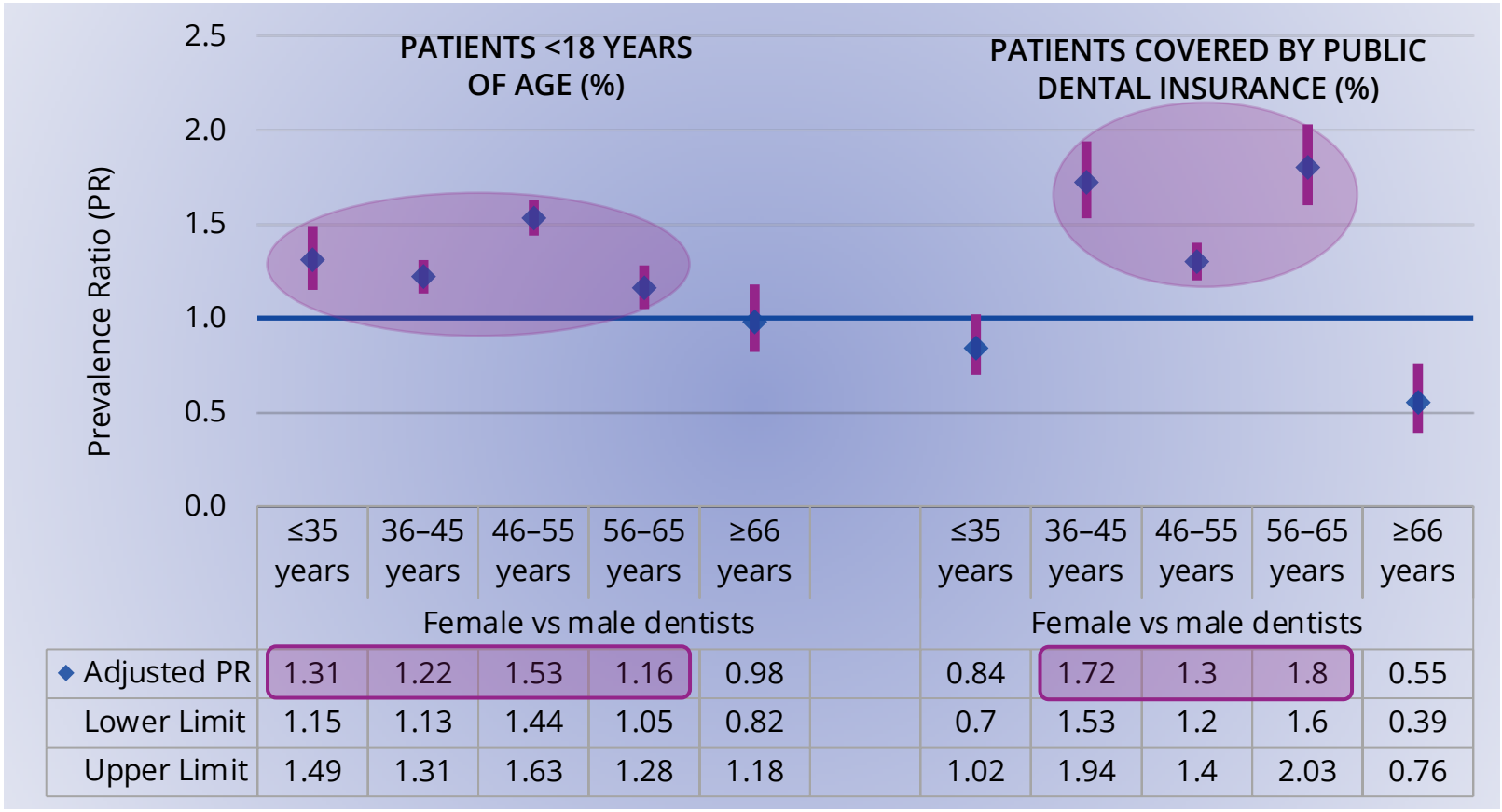
Race/Ethnicity and Dental Education by Gender



Proportionally more female dentists **were racially and ethnically diverse, foreign-trained**, and completed a dental **residency in general practice dentistry** or **pediatric dentistry** than male dentists

Source: ADA Health Policy Institute, Masterfile, 2016.

Provision of Dental Care by Dentists' Gender and Age



	PATIENTS <18 YEARS OF AGE (%)					PATIENTS COVERED BY PUBLIC DENTAL INSURANCE (%)				
	≤35 years	36–45 years	46–55 years	56–65 years	≥66 years	≤35 years	36–45 years	46–55 years	56–65 years	≥66 years
	Female vs male dentists					Female vs male dentists				
◆ Adjusted PR	1.31	1.22	1.53	1.16	0.98	0.84	1.72	1.3	1.8	0.55
Lower Limit	1.15	1.13	1.44	1.05	0.82	0.7	1.53	1.2	1.6	0.39
Upper Limit	1.49	1.31	1.63	1.28	1.18	1.02	1.94	1.4	2.03	0.76

Female dentists were significantly more likely to provide dental services to children and **patients covered by public dental insurance** than male dentists

The multilevel Poisson regression model estimated the effect of gender by age, adjusting for dentists' race/ethnicity, location of training, residency, and specialty (individual level) and rurality of state in which the primary practice was located (state level). The effect of gender by age was statistically significant at *P*<.0001.
Source: ADA Health Policy Institute, Survey of Dental Practice, 2017 (*containing dentists' responses pertaining to 2016).*

OHWRC
Oral Health Workforce Research Center

Workforce Diversity Promotes Health Equity

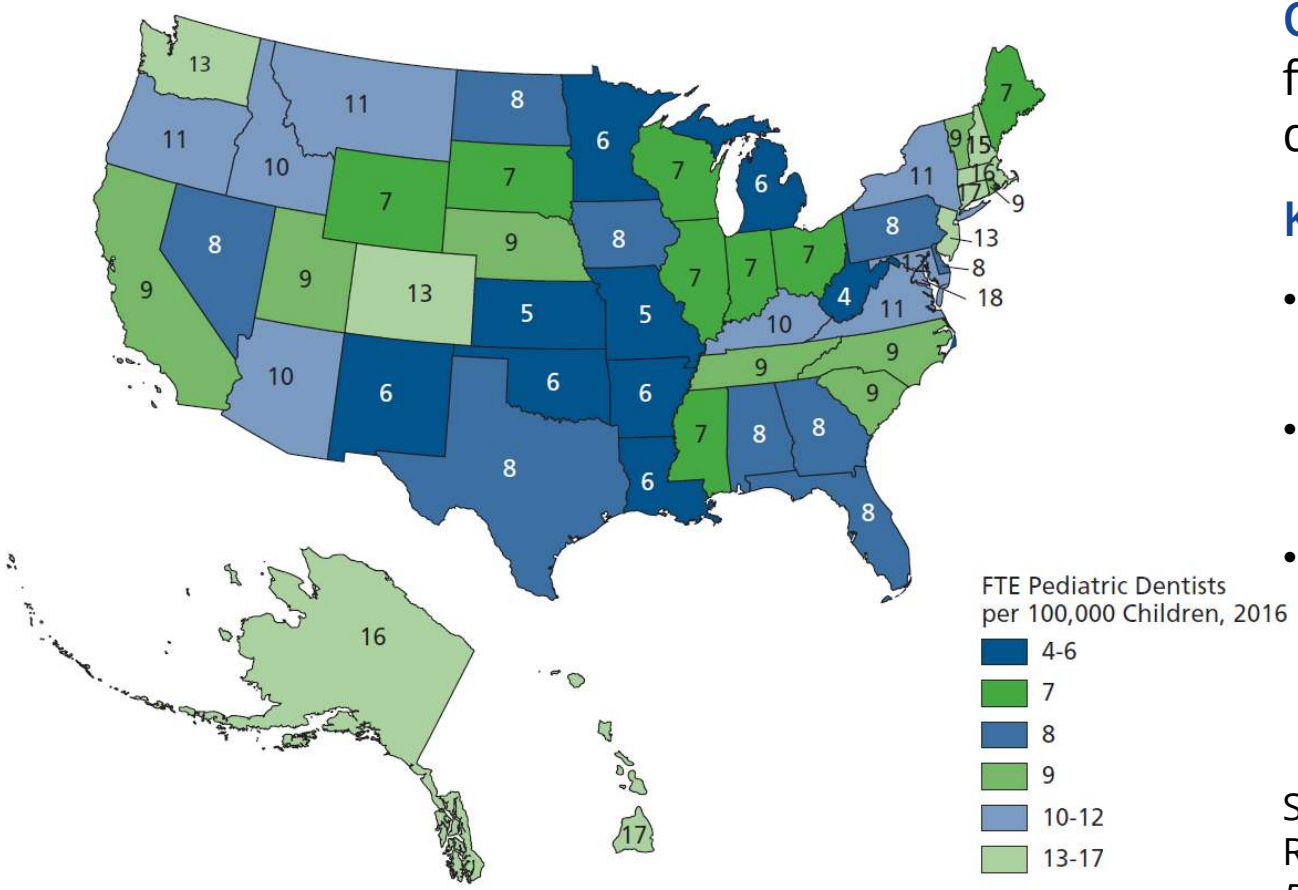
Study Title: **Assessing the Characteristics of New York State Dentists Serving Medicaid Beneficiaries**

Objectives: To assess the factors affecting dentists' participation in the NY Medicaid program using the ADA Dentist Masterfile and NY Medicaid claims data, 2018

Key Findings:

- One-third of dentists in NY served Medicaid beneficiaries vs 43% nationwide
- Adjusted regression estimates indicated that dentists who identified as **Black** or **Hispanic** and those who **graduated from foreign dental schools** were >2 times more likely to serve **Medicaid patients** than others
- In addition, **pediatric dentists** were 2.4 times more likely to serve **Medicaid patients** than general dentists

The Pediatric Dental Workforce in 2016 and Beyond



Objectives: To evaluate the adequacy of the anticipated future supply of pediatric dentists using survey data of pediatric dentistry workforce, 2016

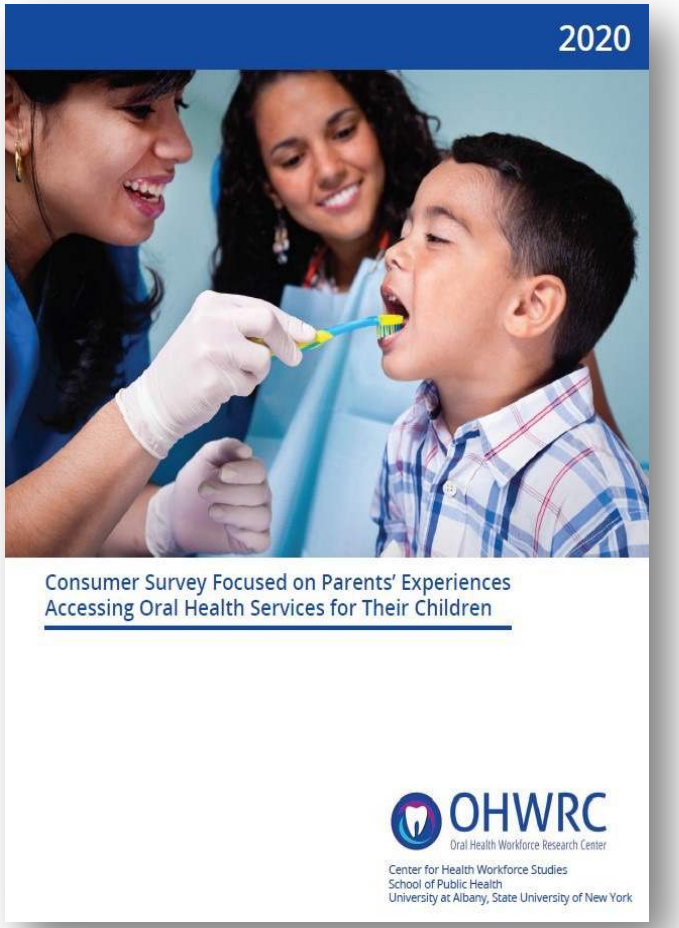
Key findings:

- Nationwide, there were 9 FTE pediatric dentists per 100,000 children, while NY averaged 11 FTEs
- Results suggest that the supply of pediatric dentists is growing more rapidly than the demand
- Demand could increase if (1) pediatric dentists captured a larger share of pediatric dental services or (2) children who are underserved had dental services utilization similar to those with fewer access barriers

Surdu S, Dall TM, Langelier M, Forte GJ, Chakrabarti R, Reynolds RL. The pediatric dental workforce in 2016 and beyond. *J Am Dent Assoc*. 2019;150(7):609-617.e5. PMID: 31153549.

Map showing number of full-time equivalent pediatric dentists per 100,000 children, 2016.
Source: American Academy of Pediatric Dentistry, US Census Bureau. FTE: Full-time equivalent.

Parents' Experiences Accessing Oral Health Services for Their Children



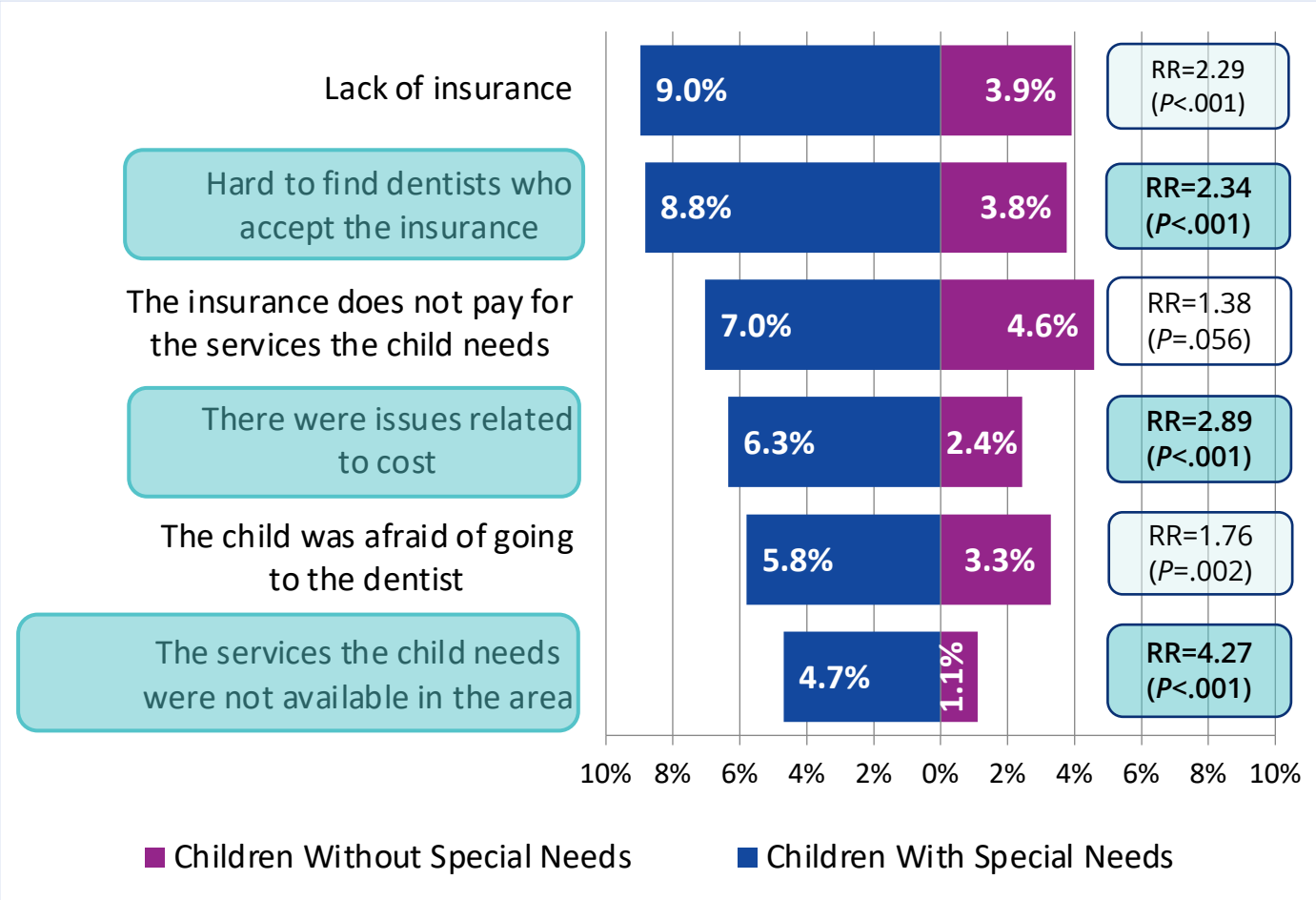
Objectives: To evaluate barriers to oral health care services for children using the Consumer Survey of Health Care Access, 2019

Key findings:

- Nationwide, 35% of children had cavities and 5% experienced fair/poor oral health
- 9% of children only *sometimes* got care or *did not receive any* dental care
- Nearly 1 in 4 children experienced one or more barriers to dental care
- Structural barriers to services utilization included dentists' limited participation in public insurance programs, dental practice hours, and distance to providers
- It is essential to consider policies/program initiatives to mediate structural barriers, increase oral health literacy, and establish school-based dental programs

Zhao Y, Surdu S, Langelier M. Parental Perspectives on Barriers to Pediatric Oral Health Care: Associations with Children's and Families' Characteristics. *Pediatric Dentistry*. 2023;45(1):24-35. PMID: 36879369

A Comparison of Parental Perceived Barriers for Children With and Without Special Needs



- The most commonly reported barriers to care were (1) lack of dental insurance, (2) finding dentists who accepted the insurance, and (3) insurance not paying for needed services among both *children with* and *without special needs*
- *Children with special needs* were **disproportionally more likely** to experience (1) unavailability of services in their area, (2) cost issues, and (3) difficulty finding dentists who accepted the insurance

About 1 in 4 children (26.4%) in the survey sample had a **special need** as reported by their parents. **Definition** of a special need included a diagnosed *emotional*, *developmental*, or *behavioral health* condition requiring treatment or counseling.

Parental Oral Health Literacy

Oral Health Knowledge Statements	Correct Answer	Incorrect Answer	Don't Know
There is a strong relationship between what children eat and their dental health *[true]*	69.6%	13.1%	17.3%
Thumb sucking can cause problems with the development of a child's teeth and jaws *[true]*	69.0%	14.9%	16.1%
Oral health does not affect overall health *[false]*	68.5%	18.7%	12.8%
If a child has been sick, you should replace the child's toothbrush once the child is well *[true]*	63.7%	12.6%	23.7%
Giving a young child fruit juice in a bottle at bedtime or naptime cannot cause tooth decay *[false]*	59.6%	25.7%	14.7%
Cavities are nearly 100% preventable *[true]*	57.6%	17.6%	24.9%
A child should go to the dentist by age 1 or within 6 months after the first tooth erupts *[true]*	53.7%	16.1%	30.2%
It is not important to clean a baby's gums with a soft cloth even before the baby's teeth surface *[false]*	47.8%	30.9%	21.3%
Giving a young child milk in a bottle at bedtime or naptime cannot cause tooth decay *[false]*	46.8%	30.5%	22.8%
Dental disease cannot be passed from a caregiver to a baby by sharing utensils *[false]*	30.7%	35.3%	34.0%

26.6% of parents correctly identified as *true* or *false*
fewer than 5 of 10 statements about children's oral health

- No single statement was correctly identified by >70% of parents
- Only 53.7% of parents understood that children should visit a dentist within 6 months of the 1st tooth eruption
- Parents expressed the most uncertainty (69.3%) about the transmissibility of dental disease from caregivers to babies

OHWRC
Oral Health Workforce Research Center

Previous OHWRC Project Highlights: Workforce Burnout

Study Title: **Identifying Strategies to Improve Oral Health Workforce Resilience**

Objectives: To describe burnout among oral health providers and strategies used to increase workforce resilience in the safety-net during the pandemic

Data Source: Key-informant interviews at safety-net dental organizations including *Whitney Young Health* and *Community Health Center of the North Country* in NY, 2022

Key Findings:

- Main stressors included obtaining sufficient personal protective equipment (PPE), changing clinical protocols, reassigning clinicians to nontraditional roles, and workforce shortages
- Lack of childcare was the most common individual-level stressor and among the main reasons dental assistants (and hygienists) chose to leave their jobs
- Organizations implemented various strategies to support work-life-balance among their staff, including more time off, extra pay, and more work-schedule flexibility for parents

Previous OHWRC Project Highlights: Teledentistry

Study Title: **Teledentistry Adoption and Use During the COVID-19 Pandemic**

Objectives: To explore the use of teledentistry by safety-net organizations to bridge access to care during the COVID-19 pandemic

Data Source: Key-informant interviews at safety-net dental organizations including *Whitney Young Health* and *Community Health Center of the North Country* in NY, 2022

Key Findings:

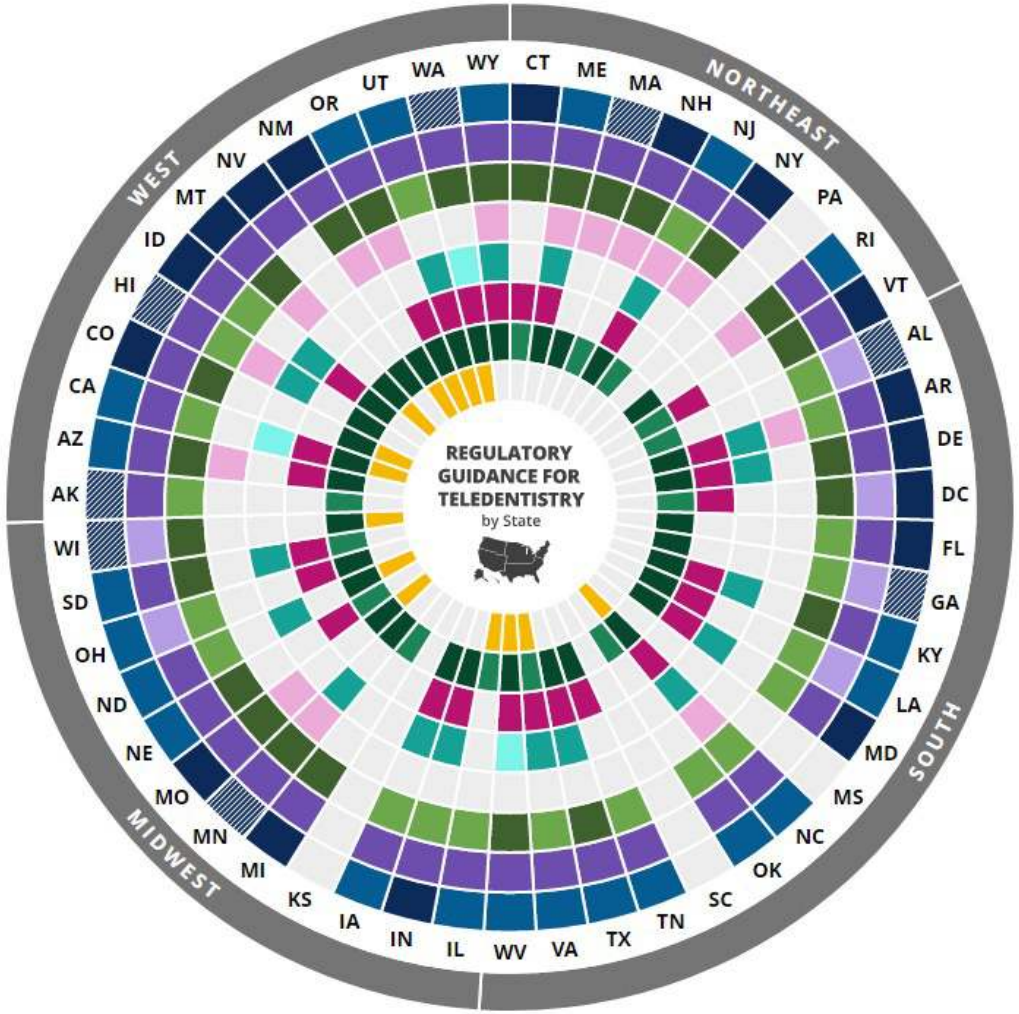
- Even though teledentistry services are widely accepted by providers and patients alike, there are several barriers preventing the adoption and expansion of teledentistry
- The majority of key informants expressed interest in continuing to provide services via teledentistry; however, lack of Medicaid reimbursement is a major barrier
- State-level restrictions on who is authorized to deliver teledentistry services pose additional barriers to service access (dentists vs dentists and dental hygienists)

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

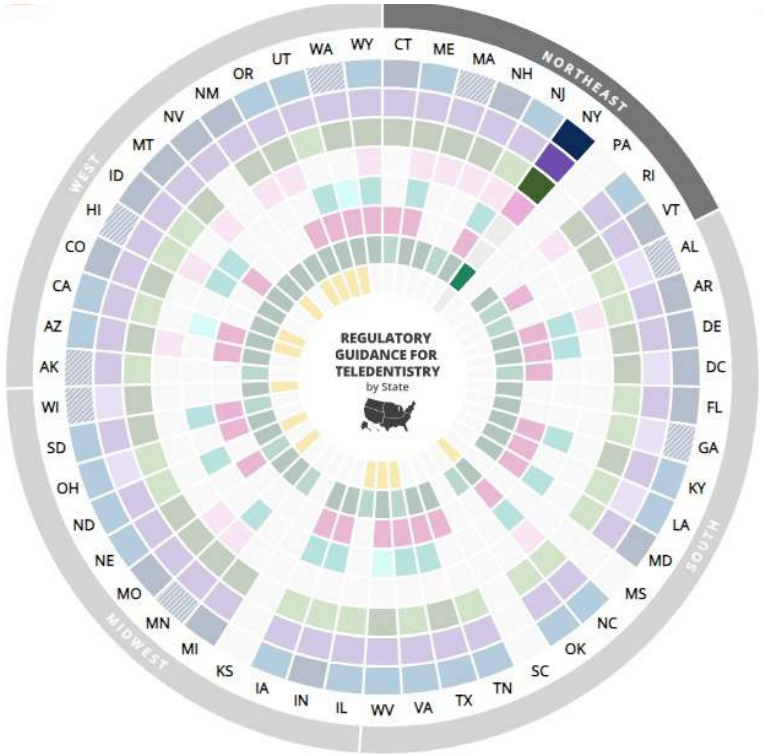
Allowed Providers
- Dentist Only
- Dentists and Dental Hygienists

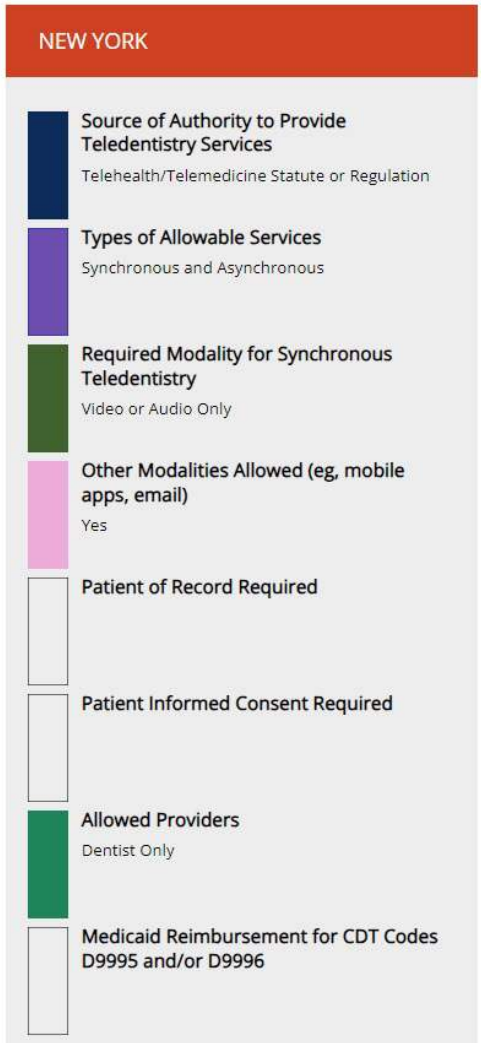
Medicaid Reimbursement for CDT Codes D9995 and/or D9996

Last Updated November 2022

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

Teledentistry Regulation in NY

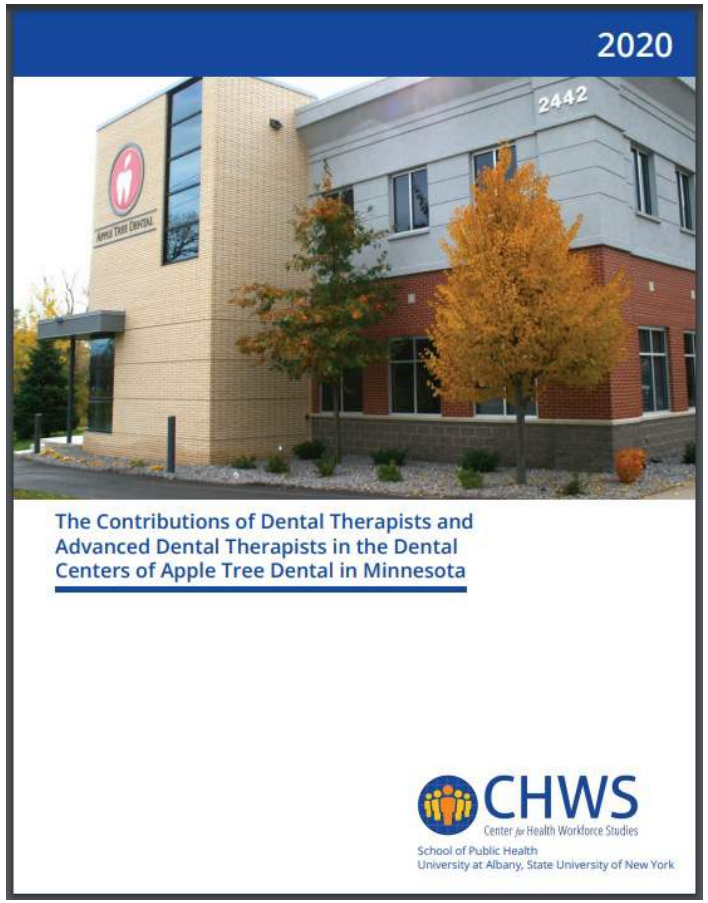




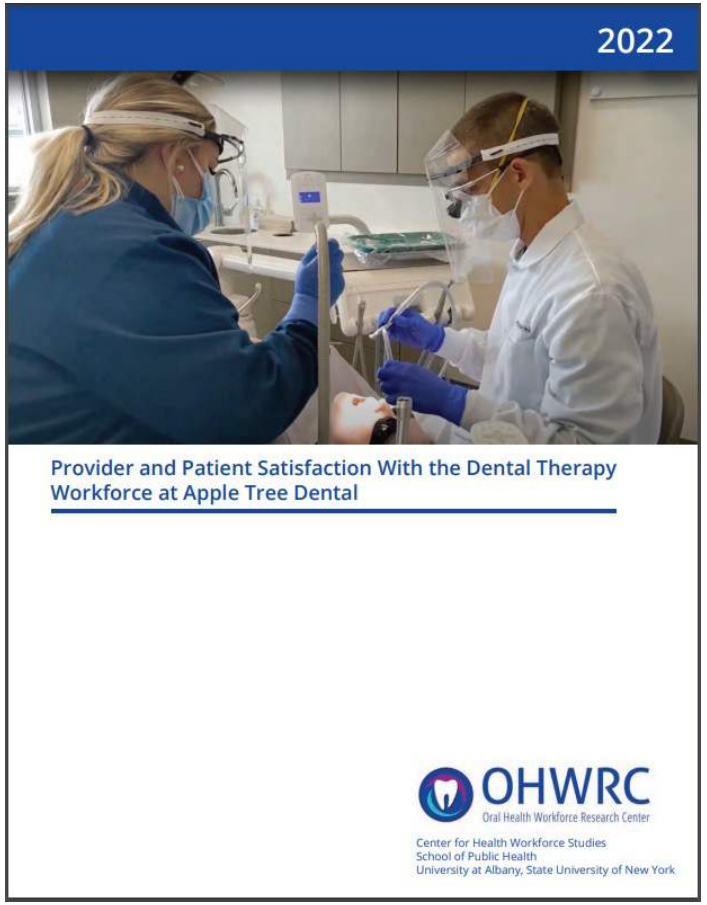
- Dental Policy and Procedure Code Manual lists reimbursement for D9995 and D9996 as $0 (ADA recommended dental codes for teledentistry)
- Several other states compensate for D9995 and D9996
- In NY, Q3014 is reimbursed as “telehealth originating-site facility fee”
- If D9995 and D9996 are used, reimbursable for additional procedures rendered, but if D9996 is used, reimbursement is reduced by 25% and D9996 should be first line item on claim

Teledentistry regulation is complicated and the variation in such regulations across states makes teledentistry another disjointed service modality when in-fact, it requires uniform regulatory clarity

Previous OHWRC Project Highlights: Dental Therapy



https://www.chwsny.org/wp-content/uploads/2020/09/CHWS_Contributions_of_DTs_ADTs_at_Apple_Tree_Dental_2020.pdf



https://oralhealthworkforce.org/wp-content/uploads/2022/05/OHWRC-Provider-and-Patient-Satisfaction-With-the-Dental-Therapy-Workforce-at-Apple-Tree-Dental-2022.pdf

Authorization Status of Dental Therapists by State

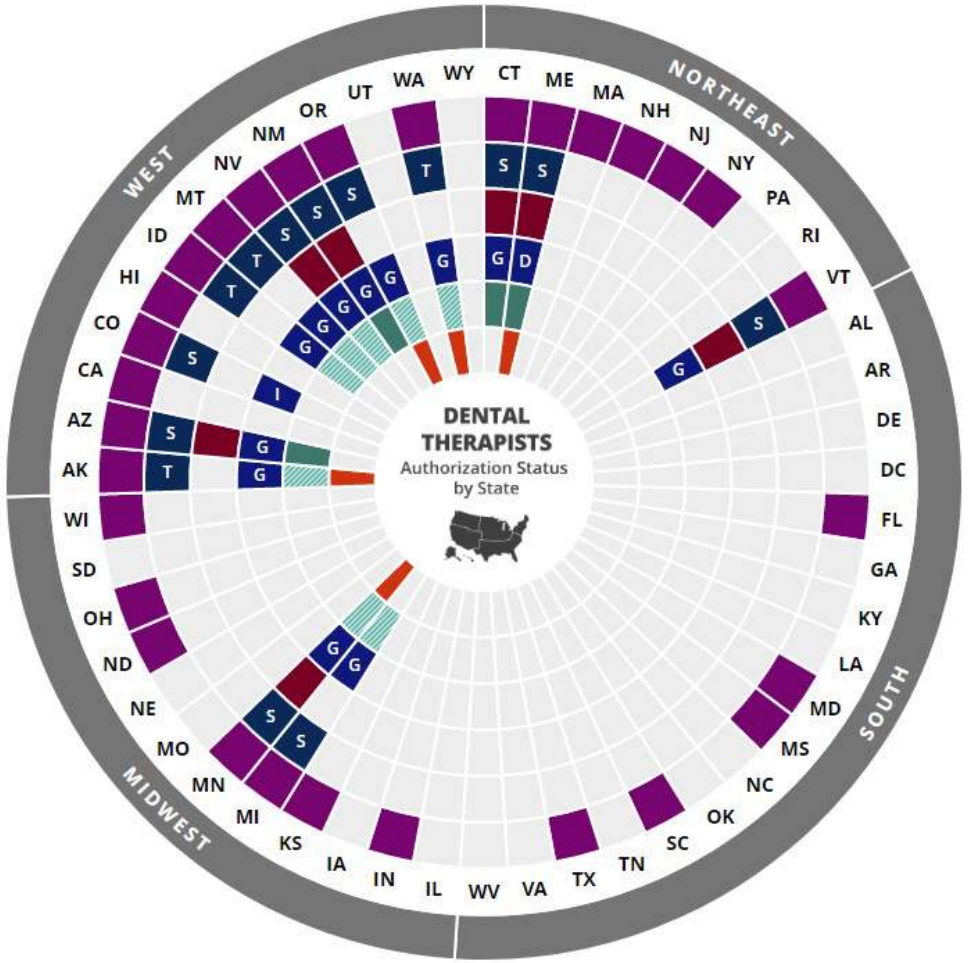
Authorization Status of Dental Therapists By State

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.



Campaign for Dental Therapy in the State (Active or Prior)

Authorization of Dental Therapy

T Tribal Dental Therapy Learn More ›

S Statewide

Mandated Dual Dental Hygiene and/or Degree Requirement in State Statute

Dental Therapist Supervision Level by Dentist

D Direct

I Indirect

G General

Population/Setting Restrictions on DT Practice

Setting Only

Population Only

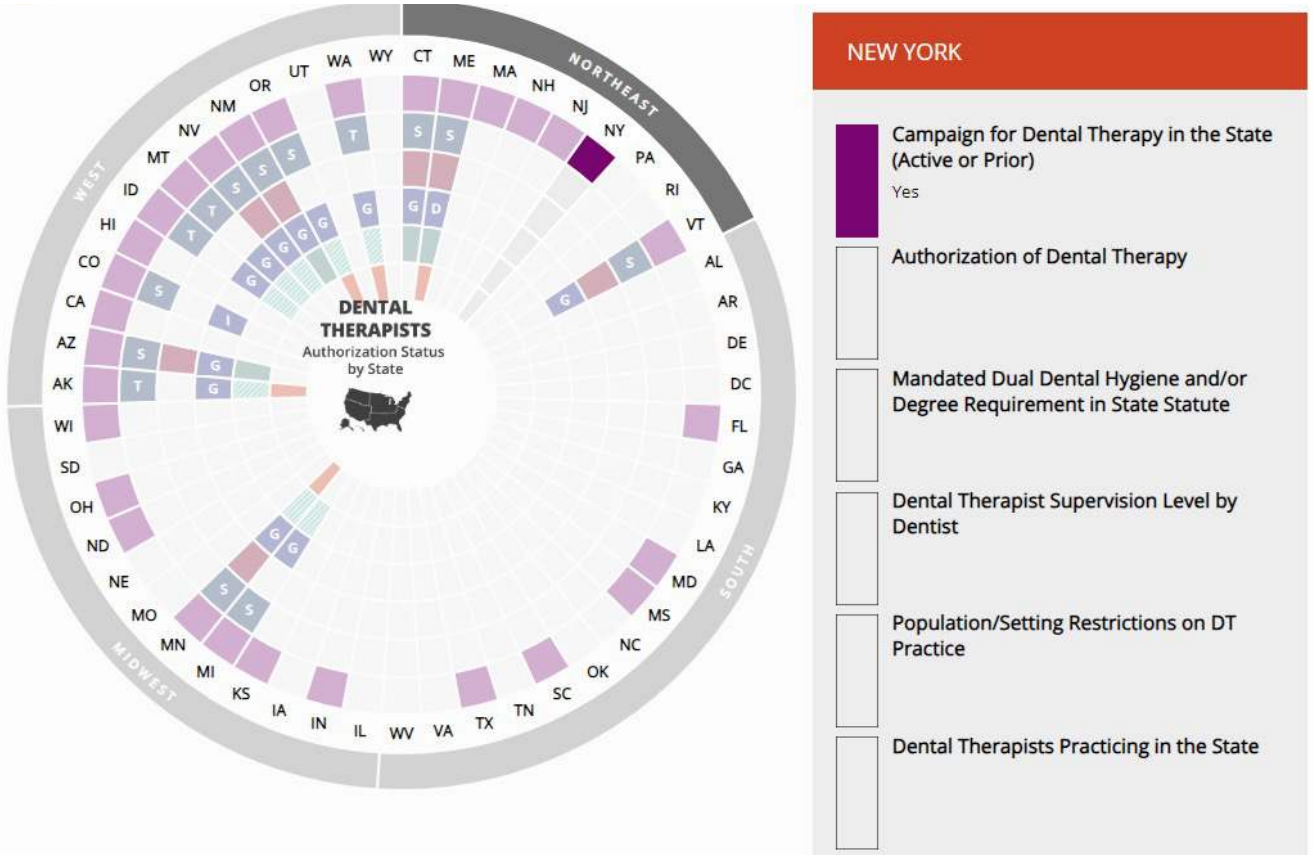
Both

Dental Therapists Practicing in the State

Last Updated September 2020
https://oralhealthworkforce.org/authorization-status-of-dental-therapists-by-state/

OHWRC
Oral Health Workforce Research Center

Authorization Status of Dental Therapists (DTs) in NY



Recent Developments on Campaign for DTs in NY

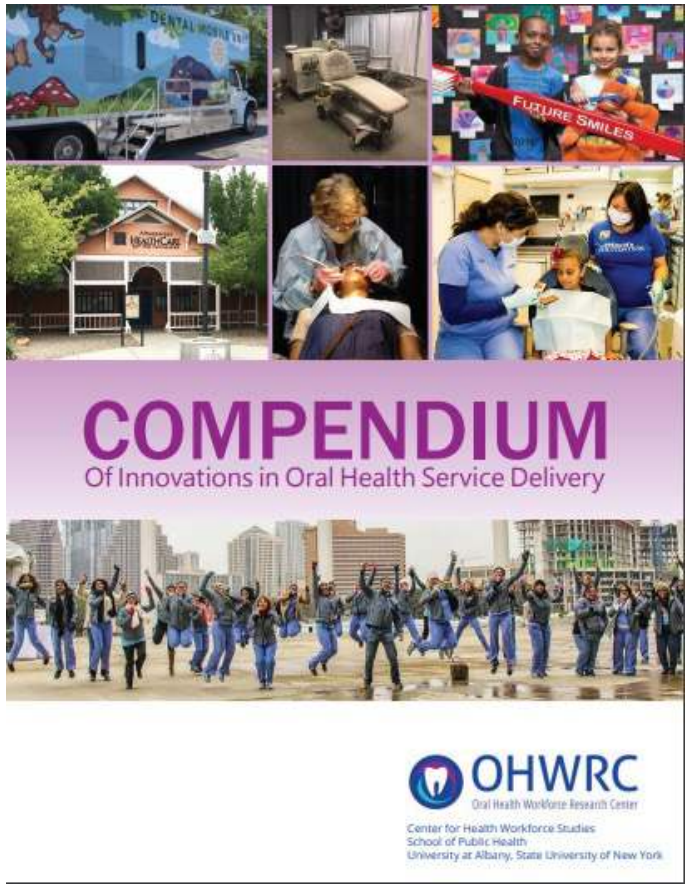
New York State Senate Bill S4428 (2023-2024 Legislative Session)

Provide licensing of a DT and an advanced dental therapist (ADT)

Summary of Provisions:

- Amend the education law to include DTs and ADTs
- Amend the social services law to require that Medicaid covers care and services provided by enrolled DTs

Previous OHWRC Project Highlights: Compendium of Innovations in Oral Health Service Delivery



- OHWRC developed a compendium that summarizes best practices in innovative oral health service delivery programs drawn from over 40 case studies
- Benchmark **mobile/portable dentistry programs** highlighted include *Eastman Institute for Oral Health in Rochester, NY*
- Benchmark **teledentistry programs** highlighted include *Finger Lakes Community Health in Penn Yan, NY* and *NYU Langone Dental Medicine in Brooklyn, NY*
- Benchmark **integration of primary care, oral health, and behavioral health programs** highlighted include *Hudson River Health Care Inc./Brightpoint Health in New York, NY*

https://oralhealthworkforce.org/wp-content/uploads/2020/02/Compendium_of_Innovations_in_Oral_Health_Service_Delivery_2020.pdf

Integration Is Not a Destination – It's a Process

- A primary organizational goal
- Substantial leadership and provider engagement
- Staff comfortable working in team-based care models
- Formal communication processes that enable referral and information sharing
- An integrated electronic health record (EHR)
- Encourages innovation and frequent, informal communications across and within disciplines
- Organizational engagement with internal and external providers to improve collective impact on patients

Workforce Innovations

- Community health workers
- Community dental health coordinators
- Advanced practice dental hygienists
- Dental therapists

Strategies to Improve Workforce Diversity

- Mentoring, bridge, pipeline, and post-baccalaureate programs to recruit minorities to dental school
- Changes to dental school admissions policies
- More financial aid (scholarship and loan repayment for service, health professions education grants for improving diversity, HRSA scholarships and training programs)
- Licensing foreign-trained providers

Default Approach: assuming minority providers will be the minority access solution

- They are a critical part, but more must be done to address large structural inequalities in the system

Designed Approach: rooted in social justice

- Approach to reform the delivery model with diversity and inclusion as core values infused into dental education, financing, and organizational design

While many evidence-based solutions are known, political will is absent for parity in oral health policy and practice, including workforce diversity.

Training Opportunities for Oral Health Professionals

- Recruit students from underserved communities
- Promote interdisciplinary collaboration
- Provide opportunities to train in the safety-net
- Enhance students' understanding of the oral health needs of the underserved
- Offer incentives for graduates who agree to practice in underserved communities

Next Steps

- Many strategies and policy priorities to consider
- Prioritize and identify a small number of recommendations which could be implemented
- Monitor progress and evaluate impacts
- Engage the OHWRC and tell us what research we can do to advance your priorities based on equity and access to care for all, especially the safety-net and other priority populations

Questions?

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

- Sign up for the OHWRC mailing list here

- Visit us at:


@OHWRC


@OHWRC


/company/center-for-health-workforce-studies