

Enhancing Access to Dental Care Through Foreign-Educated Dentists Practicing as Hygienists with Extended Duties

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ABSTRACT

Background: The United States continues to experience significant disparities in access to oral healthcare and shortages in the dental hygiene workforce, particularly within community health centers. Limited licensure pathways that allow foreign-trained dentists to practice as dental hygienists with extended duties may represent a strategy to address workforce gaps while maintaining regulatory oversight.

Methods: This retrospective descriptive study analyzed clinical data extracted from the Epic electronic health record system over a 24-month period at a community health center in Massachusetts. Data collected included patient demographics and the number and types of procedures performed. Procedures were categorized as preventive, periodontal, restorative, or surgical. Descriptive statistics were calculated using Microsoft Excel.

Results: A total of 13,677 dental procedures were performed during the study period. The majority of services were preventive, including oral hygiene instruction, adult and pediatric prophylaxis, fluoride varnish applications, and sealants. Periodontal procedures, particularly scaling and root planing, also represented a substantial portion of clinical care. Restorative and surgical procedures were performed infrequently, consistent with the defined scope of practice for the limited licensure model.

Conclusion: Internationally trained dentists practicing under limited dental licensure as dental hygienists with extended duties primarily deliver preventive and periodontal services within regulated institutional settings. This workforce model may represent a structured approach to mitigating dental hygiene workforce shortages while maintaining patient safety and adherence to scope-of-practice regulations.

Keywords: Dental hygiene workforce shortage; internationally trained dentists; limited dental licensure; access to dental care; community health centers.

INTRODUCTION

Access to oral healthcare in the United States remains uneven, with persistent shortages of oral health professionals disproportionately

affecting low-income populations, rural communities, and patients served by community health centers.^{1,2} While workforce discussions have traditionally focused on shortages of dentists, recent evidence highlights a growing deficit in the dental hygiene workforce. Dental hygienists play a critical role in preventive care delivery, periodontal maintenance, and oral health education. Shortages in this sector can reduce clinic capacity, increase wait times, and limit access to routine preventive services.³

Dental licensure in the United States historically requires graduation from a dental school accredited by the Commission on Dental Accreditation (CODA), followed by successful completion of national and state examinations. This regulatory framework was established to promote patient safety and ensure standardized professional competency. However, these requirements can create barriers for internationally trained dentists, many of whom possess extensive clinical education and experience but are unable to obtain full licensure due to accreditation requirements.^{1,3} As a result, a highly trained segment of the oral health workforce remains underutilized despite ongoing workforce shortages.

In response to workforce shortages and access disparities, several states have implemented limited or restricted dental licensure models. Historically, these licenses permitted qualified dentists to practice under defined conditions, such as within public health clinics, hospitals, correctional facilities, or academic institutions, often under supervision and with a restricted scope of practice.⁴

More recently, some states have explored alternative pathways allowing internationally trained dentists to practice as dental hygienists through limited licensure or credentialing programs. In Massachusetts, dental practice is regulated by the Massachusetts Board of Registration in Dentistry, which oversees licensure of dentists, dental hygienists, and dental assistants and establishes regulatory standards for dental practice within the Commonwealth.⁵

This workforce model leverages the advanced clinical training of internationally educated dentists to address dental hygiene shortages while maintaining regulatory oversight and patient safety. Placement of these providers in community health centers may expand service capacity

Table 1. Dental Procedures from 1/1/2024 to 1/31/2026

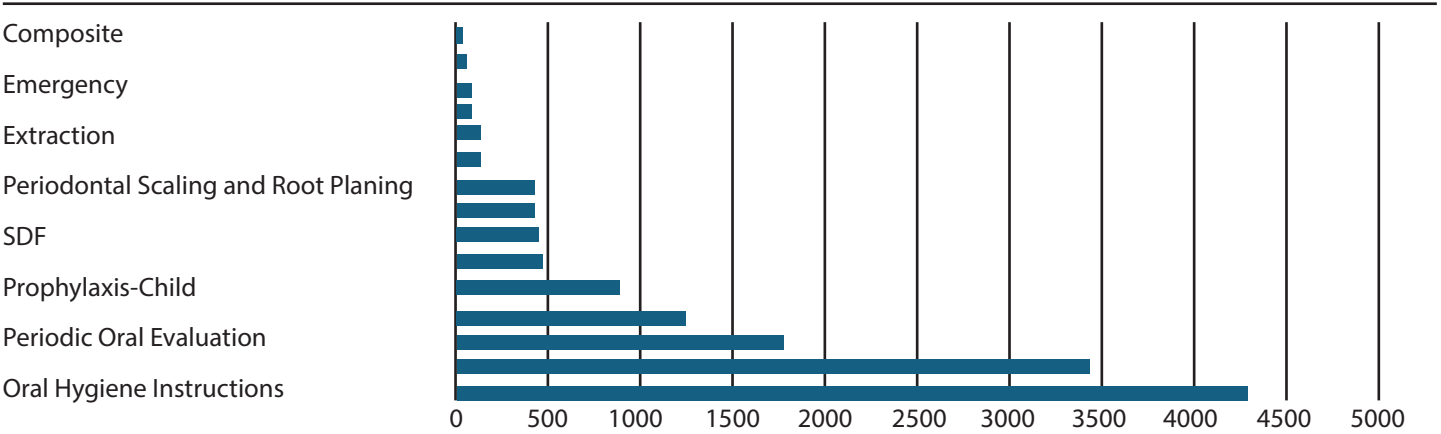
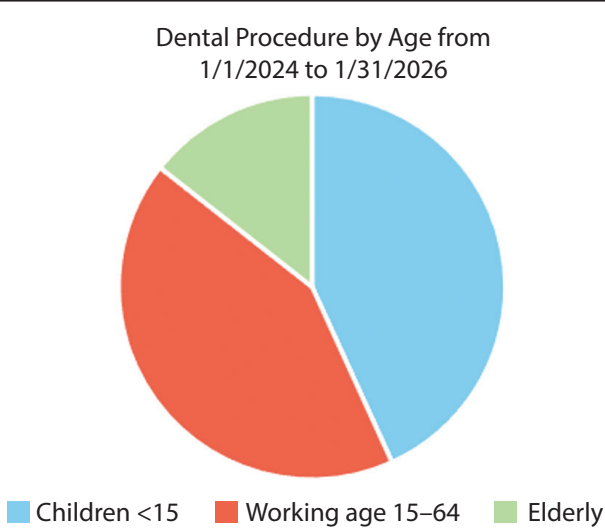


Table 2. Dental procedures by age distribution



ity, reduce appointment backlogs, and improve access to preventive and periodontal care.

As oral health needs continue to grow, policymakers are increasingly exploring workforce strategies that extend beyond traditional dentist licensure models. Research suggests that expanded hygiene roles may improve access to care, increase service utilization, and enhance efficiency in community-based and safety-net settings.^{2,3}

This study examines the procedural distribution and workforce contributions of a limited-licensure model that enables internationally trained dentists to practice as dental hygienists with extended duties in a Massachusetts community health center over 24 months.

MATERIALS AND METHODS

This retrospective descriptive study was conducted at Charles River Community Health in Massachusetts, USA. The study evaluated clinical activity over 24 months involving three internationally trained dentists practicing as

dental hygienists with extended duties under a limited dental license.

Clinical data were obtained from the Epic electronic health record (EHR) system using standardized reporting functions. All data were de-identified prior to analysis to ensure patient confidentiality.

The following variables were collected:

- ▲ Patient demographics (age and sex)
- ▲ Language spoken
- ▲ Procedure codes and descriptions using Current Dental Terminology (CDT) codes
- ▲ Frequency of procedures performed

Procedures were categorized into four clinical groups:

1. Preventive
2. Periodontal
3. Restorative
4. Surgical

Data was exported to Microsoft Excel (Microsoft Corporation, Redmond, WA) for organization and analysis. Descriptive statistics were calculated, including total procedure counts, frequencies, and percentages. No inferential

statistical testing was conducted, as the study aimed to provide a descriptive analysis of procedural activity.

ETHICAL CONSIDERATIONS

This study utilized retrospective, de-identified clinical data and did not involve direct patient interaction. No protected health information was included in the dataset. Institutional policies regarding data access and confidentiality were followed. Given the retrospective, de-identified nature of the data, the project qualified for an exemption from full Institutional Review Board (IRB) review in accordance with institutional guidelines.

RESULTS

A total of 13,677 dental procedures were recorded between January 1, 2024, and January 31, 2026. (See Table 1) The most frequently performed procedure was oral hygiene instruction (4,330 procedures; 31.7%), followed by adult prophylaxis (3,461; 25.3%) and periodic oral evaluations (1,681; 12.3%). Preventive services represented the majority of procedures performed. Topical fluoride varnish applications were recorded 1,219 times (8.9%), while child prophylaxis accounted for 900 procedures (6.6%). Additional preventive treatments included sealants (475; 3.5%) and silver diamine fluoride applications (454; 3.3%). Periodontal procedures included comprehensive periodontal evaluations (425; 3.1%) and scaling and root planing (421; 3.1%). Less frequently performed procedures included comprehensive oral evaluations (79; 0.6%), extractions (75; 0.5%), occlusal guards (55; 0.4%), emergency visits (42; 0.3%), limited oral evaluations (36; 0.3%), and composite restorations (24; 0.2%).

Table 3. Dental procedures by sex distribution.

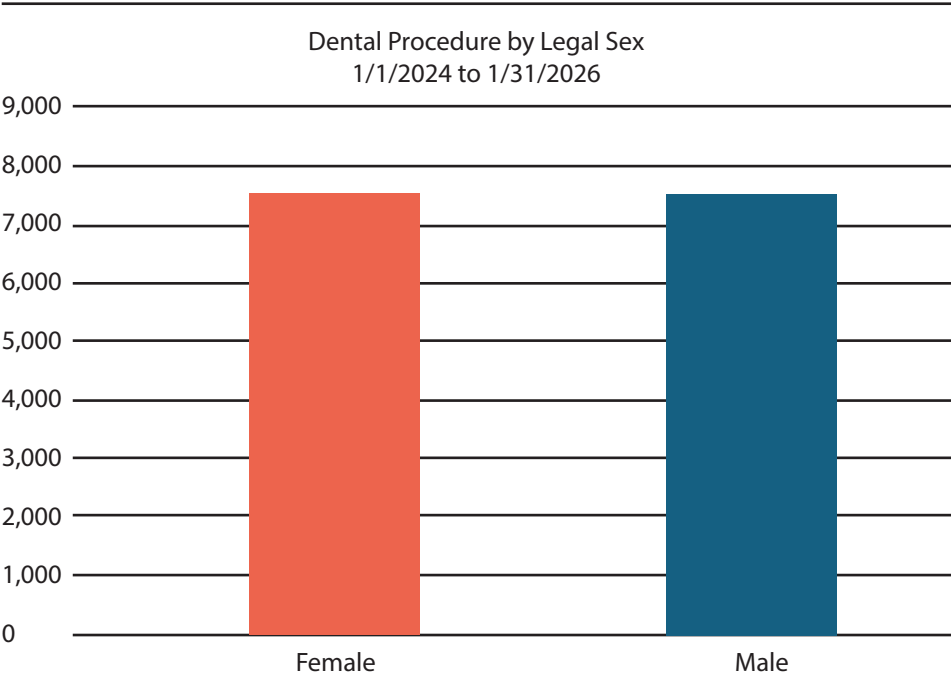
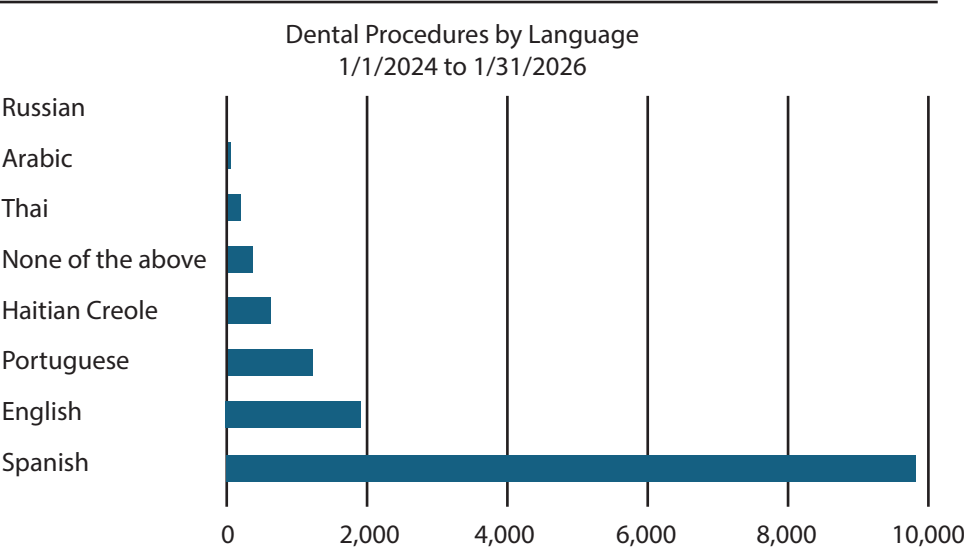


Table 4. Number of dental procedures by language



AGE DISTRIBUTION

Children younger than 15 years accounted for the largest proportion of procedures (5,910; 43.2%). Patients aged 15–64 years accounted for 5,798 procedures (42.4%), while patients aged 65 years and older accounted for 1,969 procedures (14.4%). (See Table 2).

SEX DISTRIBUTION

Female patients accounted for 7,653 procedures (55.9%), whereas male patients accounted for 6,024 procedures (44.1%). (See Table 3).

LANGUAGE DISTRIBUTION

Spanish-speaking patients accounted for the majority of procedures (9,737; 71.2%).

English-speaking patients represented the second largest group (1,944; 14.2%), followed by Portuguese-speaking patients (1,227; 9.0%). Additional languages included Haitian Creole (179; 1.3%), Haitian (151; 1.1%), and Thai (122; 0.9%). Smaller numbers of procedures were associated with Spanish (Castilian), Arabic, Brazilian Portuguese, and Russian speakers. Overall, non-English-speaking patients accounted for 11,733 procedures (85.8%) of the services delivered. (See Table 4).

DISCUSSION

This study evaluated the clinical activity of internationally trained dentists practicing as dental hygienists with extended duties under

a limited dental license in a Massachusetts community health center over 24 months. The findings indicate that the majority of procedures performed were preventive and periodontal in nature, including adult and pediatric prophylaxis, fluoride varnish applications, sealants, and scaling and root planing. These results are consistent with the preventive focus of dental hygiene practice and reflect the role of community health centers in delivering routine and disease-prevention services to underserved populations.^{2,8}

The procedural distribution observed in this study demonstrates clear alignment between the defined scope of limited licensure and hygiene-centered service delivery. Restorative and surgical procedures accounted for only a small proportion of clinical activity, suggesting appropriate adherence to regulatory scope-of-practice boundaries and effective supervisory oversight within the institutional setting. These findings support the feasibility of implementing limited-licensure models that allow internationally trained dentists to contribute meaningfully to preventive care delivery while maintaining established regulatory safeguards. Similar workforce integration models have been discussed as potential strategies to expand access to dental services while maintaining patient safety and regulatory compliance.^{9,10}

From a workforce perspective, these results are particularly relevant given the documented shortages of dental hygienists in community health centers and other safety-net settings.^{2,3}

Workforce shortages can limit clinic capacity, increase appointment wait times, and reduce access to preventive care. Integrating internationally trained dentists into extended-duty hygiene roles may represent a practical strategy to expand clinical capacity and address gaps in preventive service delivery. These findings are consistent with recent policy discussions within the American Dental Association that encourage states to create licensure pathways allowing internationally trained dentists to practice dental hygiene as a strategy to address workforce shortages while maintaining regulatory oversight.^{6,11} In addition to strengthening the oral health workforce, this model may also provide internationally trained dentists with a structured pathway toward professional integration within the U.S. healthcare system. Previous research has highlighted that foreign-trained dentists face

substantial barriers to practicing in the United States, including licensing requirements, educational costs, and limited opportunities for clinical integration.¹⁰

The demographic distribution of services further highlights the role of community health centers in serving diverse populations. A substantial proportion of care was provided to Spanish-speaking and other non-English-speaking patients, reflecting the linguistic diversity commonly seen in safety-net clinical environments.⁷ Community health centers play a critical role in addressing health disparities among racial, ethnic, and linguistic minority populations who often face barriers to accessing dental care.^{2,12} The ability of clinics to deliver preventive services to linguistically diverse populations may therefore be essential for improving health equity and reducing disparities in oral health outcomes.

Overall, the high volume of preventive services delivered during the study period suggests that this workforce model contributes meaningfully to both clinical care delivery and public health goals. Preventive and periodontal interventions are central to reducing the burden of dental disease, particularly in underserved communities that face structural and socioeconomic barriers to accessing routine oral healthcare.⁸ Structured limited licensure pathways that incorporate internationally trained dentists into preventive care roles may therefore represent a valuable strategy for expanding access to dental services while maintaining patient safety, professional oversight, and regulatory standards.

RECOMMENDATIONS

Policy Development: States should consider structured, limited-licensure pathways to expand access to preventive dental services, particularly in underserved communities.

Standardized Scope Guidelines: Clear regulatory frameworks should define allowable procedures to maintain patient safety and professional accountability.

Outcome Research: Future studies should evaluate patient outcomes, quality indicators, and cost-effectiveness of this workforce model.

Workforce Integration Programs: Institutions should develop mentorship and evaluation systems to support international dentists practicing under limited licensure.

Longitudinal Analysis: Further research should examine whether limited-licensure

roles serve as transitional pathways toward full licensure and long-term workforce retention.

CONCLUSION

This study examined the distribution of dental procedures delivered within a limited licensure workforce model in which internationally trained dentists practice as dental hygienists with extended duties in a community health center setting in Massachusetts. Over the 24-month study period, the majority of procedures performed were preventive and periodontal services, including oral hygiene instruction, prophylaxis, fluoride applications, sealants, and scaling and root planing. Restorative and surgical procedures were performed less frequently, reflecting adherence to the established scope of practice for this workforce model.

The demographic distribution of services demonstrated that care was provided primarily to children and working-age adults, populations that commonly rely on community health centers for preventive and routine dental services. Additionally, the linguistic distribution of patients revealed substantial diversity, with the majority of services delivered to Spanish-speaking and other non-English-speaking populations. These findings highlight the critical role that safety-net clinics play in providing oral healthcare to linguistically and socioeconomically diverse communities.

Collectively, the results suggest that internationally trained dentists practicing under limited dental licensure can meaningfully contribute to the delivery of preventive and periodontal care in community health center settings while remaining within defined regulatory boundaries. By leveraging the clinical expertise of foreign-educated dentists, this workforce model may help expand service capacity, reduce barriers to care, and mitigate dental hygiene workforce shortages.

As access disparities and workforce challenges continue to affect oral healthcare delivery in the United States, structured licensure pathways that integrate internationally trained dentists into preventive care roles may be a practical, scalable strategy to strengthen the oral health workforce while maintaining patient safety and regulatory oversight.

LIMITATIONS

Several limitations should be acknowledged. First, the study was conducted at a single

community health center, which may limit generalizability to other institutional settings or states with different regulatory frameworks. Second, the analysis was descriptive and did not include comparison groups, such as traditionally licensed dental hygienists, limiting conclusions regarding relative productivity. Third, the study did not evaluate progression to full licensure for internationally trained dentists, which is an important workforce consideration.

Future studies should incorporate multi-site analyses, comparative workforce models, and outcome-based metrics to further evaluate the impact of limited-licensure frameworks. **JMDS**

REFERENCES

1. Guay AH. Access to dental care: the triad of essential factors in access-to-care programs. *JADA* 2004;135(6):779–785.
2. Mertz E, Wides C. The oral health workforce: past, present, and future. *J Public Health Dent*. 2016;76(S1):S1–S8.
3. Wing P, Langelier M, Continelli T, Battrell A. A dental hygiene professional practice index (DHPPI) and access to oral health status and service use in the United States. *JDH*. 2017;91(5):26–34.
4. Speer K. Workforce strategies to improve access to oral health care. National Conference of State Legislatures. 2023 Feb 13. <https://www.ncsl.org/health/workforce-strategies-to-improve-access-to-oral-health-care>
5. Massachusetts Department of Public Health. Dentistry. 2024. <https://www.mass.gov/topics/dentistry>
6. American Dental Association. New ADA policies empower states to alleviate dental workforce shortage. *ADA News*. 2024 Nov 15. <https://adanews.ada.org/ada-news/2024/november/new-ada-policies-empower-states-to-alleviate-dental-workforce-shortage/>
7. Pannu V, Thompson AL, Pannu DS, Collins MA. Education for foreign-trained dentists in the United States: currently available findings and need for further research. *J Dent Educ*. 2013;77(11):1521–1524.
8. Dye BA, Thornton-Evans G, Li X, Iafolla TJ. Dental caries and tooth loss in adults in the United States, 2011–2012. *NCHS Data Brief*. 2015;197:1–8.
9. Bazargan N, Chi DL, Milgrom P. Exploring the potential for foreign-trained dentists to address workforce shortages and improve access to dental care for vulnerable populations in the United States: a case study from Washington State. *BMC Health Serv Res*. 2010;10:336.
10. Kellesarian SV. Foreign-trained dentists in the United States: challenges and opportunities. *Dent J*. 2018;6(3):26.
11. American Dental Association. Comments on the Rural Health Transformation Program Notice of Funding Opportunity. *ADA Commons*. 2025. <https://commons.ada.org/cgi/viewcontent.cgi?article=1002&context=advocacy>
12. Flores G. Language barriers to health care in the United States. *NEJM*. 2006;355(3):229–231.