

IMPACT REPORT

A Learning Community That Aims to Change Oral Health

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A Learning Community That Aims to Change Oral Health

Through the introduction of a unique educational collaborative — the COVID-19 Oral Health Recovery and Transformation Learning Community — oral health care providers across Massachusetts collaborated on solutions to systemic issues affecting the provision of dental care within the state.

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Summary

Oral health care in the United States is neither easy to obtain nor equitable for all Americans. With a focus on invasive treatments and an outdated fee-for-service system of reimbursement, dental care delivery in the US is ripe for change. While the global pandemic had serious consequences on the nation's health and economy, it has also wrought something of great value: the opportunity for transformation.

CareQuest Institute for Oral Health® and its supporting partners are working to maximize the potential for such transformational change, beginning with the creation of a unique and innovative educational collaboration in the state of Massachusetts. The COVID-19 Oral Health Recovery and Transformation (COHRT) Learning Community was born to enable federally qualified health centers (FQHCs) to create systemic changes in their delivery of oral health care. The goal was not only to respond to the pandemic, but to create long-lasting changes that will benefit patients, providers, and payors.

The COHRT Learning Community uses the Three Domain Framework, developed by the CareQuest Institute, to facilitate a move from a “drill and fill” mindset to a prevention- and value-based system of dental care delivery. The framework focuses on the use of teledentistry in oral health disease prevention, minimally invasive care, and integrated and personalized treatment.

The COHRT Learning Community offered FQHCs a variety of necessary tools to adapt to the significant upset in the dental care delivery system caused by COVID-19. With these tools — ranging from monthly telephone calls to access to subject-matter experts to a private virtual learning environment where peer interaction was encouraged — participants identified problem areas and strategized to implement needed changes.

The COHRT Learning Community helped participants adopt teledentistry, expand their emphasis on minimally invasive procedures, and support their implementation of a new level of infection control protocol. While these changes were initiated by COVID-19, the resultant data show a variety of positive effects — from improved knowledge and interest in using teledentistry in prevention efforts to a significant increase in oral health evaluations and caries risk assessments — that provide value beyond practicing in a pandemic environment.

We invite you to learn more about how the COHRT Learning Community produced positive changes in the delivery of oral health care among FQHCs in Massachusetts. Let's envision what applying these lessons could look like across a broader swath of the American oral health care delivery system in the endeavor to provide patients with more equitable, value-based, and effective dental care during the pandemic and beyond.



Introduction

The COVID-19 pandemic created unprecedented challenges for dental professionals across the country. As federally qualified health centers (FQHCs) were forced to temporarily close or modify services provided to ensure the safety of both patients and providers, a number of financial and operational challenges came to light — spurring new questions about how the pandemic may affect dentistry operations in the long term.

In response to the drastic reduction of oral health care services across Massachusetts due to COVID-19 — particularly for vulnerable populations — three organizations took action. CareQuest Institute for Oral Health (a nonprofit dedicated to ensuring equitable access to oral health care); Community Care Cooperative (an accountable care organization that operates through through the Massachusetts Medicaid and Children's Health Insurance Program); and Massachusetts League of Community Health Centers (a primary care association focused on providing health care for state residents) initiated a partnership with 16 FQHCs throughout the state to create a new educational environment — the COVID-19 Oral Health Recovery and Transformation (COHRT) Learning Community. Their goal was to strategize solutions to emerging pandemic-related issues.

With a shared belief in the importance of medical-dental integration and value-based oral health care as solutions to the state's access-to-care problems, the COHRT Learning Community was implemented to:

1. Align stakeholders and assess the potential of their oral health care systems.
2. Develop consensus on needed changes/improvements within health centers.
3. Execute necessary changes via the Three Domain Framework, an oral health model designed to reduce costs, maximize value, and increase equity of care.
4. Identify and understand best practices for dissemination and spread of the knowledge gained.

The curriculum was designed to meet COHRT participant needs while also addressing new and emerging practice issues presented by changing COVID-19 milestones.



Implementing the Three Domain Framework into the Learning Community

Created by CareQuest Institute and its partners, the Three Domain Framework is designed to increase efficiency and boost patient outcomes. It is a roadmap to lead dentistry away from its historic focus on invasive procedures within a fee-for-service private practice model toward a new goal of health promotion and disease prevention. This primary care oral health care model focuses on three areas: prevention through teledentistry, minimally invasive care, and integrated and personalized treatment.

The COHRT Learning Community used the Three Domain Framework to identify strategies and adapt care pathways for the delivery of safe, effective, and financially sustainable oral health care. COHRT participants were involved in the following activities from June 2020 to December 2020:

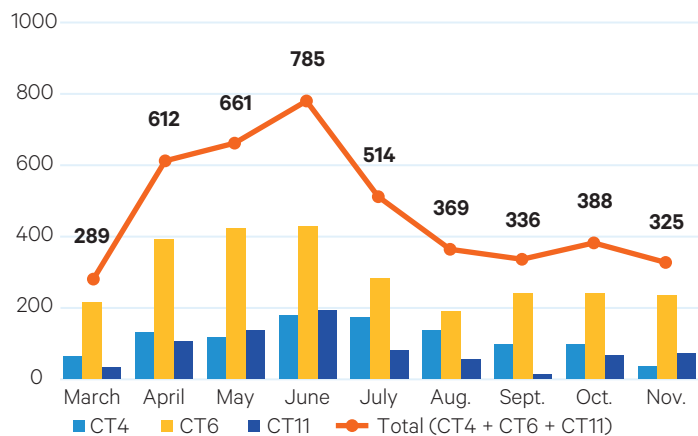
- **Monthly community calls:** Virtual touch points provided FQHCs with relevant clinical guidance on dental practice recovery as well as the Three Domain Framework.
- **Access to expert faculty:** Highly knowledgeable educators, or learning community coaches, provided FQHC staff with virtual opportunities for individualized support and assistance throughout implementation of the Three Domain Framework.
- **Improvement coaching and change management:** Based on previous quality improvement work and research, learning community coaches provided FQHCs with resources and strategies to support implementation of the Three Domain Framework.
- **Peer-to-peer virtual learning community:** FQHCs gained access to an online platform in which they could ask questions and share best practices through a discussion board, while also accessing relevant clinical content and industry guidance.

Adapting to Practice Interruption with Teledentistry

At the start of the global pandemic, when the American Dental Association recommended that dental practices close except for emergency care, most COHRT participants pivoted to teledentistry — the use of electronic communication to diagnose and/or treat patients as well as provide referrals for in-person care — to deliver dental services. Its use was vital for revenue and maintaining operations.¹

Early in the learning community, providers primarily used teledentistry for triage, reserving any in-person appointments for dental emergencies. Although participants continued to successfully implement teledentistry strategies, teledentistry visits declined over the course of the COHRT Learning Community (Figure 1). This decrease aligns with the overall timeline of COVID-19 restrictions in the state. For example, from March 2020 to June 2020, FQHCs were only permitted to provide emergency dental care in person. After June 2020, restrictions were relaxed and patients began receiving elective procedures; rescheduling patients for in-person procedures became the priority.

Figure 1. Total Count of Teledentistry Visits by Health Centers: June 2020–November 2020



As providers became increasingly familiar with teledentistry, many considered adopting the technique permanently, pending concurrent changes in reimbursement policies. Using teledentistry also improved FQHCs' overall in-person no-show rate, which helped clinics maintain revenue and operations during a period of uncertainty. A significant positive correlation between teledentistry visits and the number of oral health evaluations was noted, suggesting that growth in overall teledentistry visits was associated with an increase in the total number of oral health evaluations.

A variety of factors facilitated clinics' implementation of teledentistry, including providers' seriousness about infection control and administrations' willingness to learn about necessary changes, such as appointment lengths. Clinics found merit in centralizing dental appointment requests with one administrator who was experienced in the following: telehealth workflow, double-booking of emergency appointments, balancing patients' desires to see their customary clinician with the need to distribute appointments across different providers, scheduling telephone encounters to review treatment planning, care coordination, oral health instruction, bundling codes to facilitate reimbursement, and maintaining compliance with HIPAA telehealth regulations. Internal team motivation and telehealth training for patients and providers were additional key drivers in the success of teledentistry.

Providers also overcame numerous impediments to implementing teledentistry. For example, they adapted space to comply with HIPAA privacy regulations and coped with the limitations of existing technological resources, including electronic health records, internet quality to support video, and IT support. Billing also proved challenging, as providers struggled to successfully file for reimbursement for different teledentistry appointment characteristics, such as telephonic and asynchronous modalities, varying appointment length, and counseling/education-only visits. Some clinics felt disincentivized from robust teledentistry implementation by a lack of confidence in the longevity of Medicaid teledentistry reimbursement.

Some FQHCs with patient populations facing social and educational barriers, including cell phone data plan limitations, preference for in-person treatment, and lack of awareness regarding teledentistry's benefits, experienced limitations to teledentistry's success. A few clinics found similar hesitations among providers, for example, remaining uncomfortable with patients as their own remote operators and preferring in-person workflow. Some providers also expressed skepticism about adopting a new modality under the rushed circumstances of the COVID-19 pandemic and frustration about adding a new modality while also managing staffing shortages and pressure to return to the in-person delivery of care.

Most providers, however, felt optimistic about teledentistry becoming a routine part of future care, and confident about strengthening their use of teledentistry. They identified

strategies to bolster teledentistry's use in their FQHCs, such as improving documentation, particularly by regularizing codes and systematically documenting in the electronic health record; deepening multidisciplinary care team integration and referrals

both within the clinic and with local social services agencies; consistently educating patients and staff; conducting pre-appointment screenings before in-office procedures; and, most critically, making reimbursement permanent.

Emphasizing Minimally Invasive Care

The COVID-19 environment prompted the need for risk mitigation, provision of less invasive treatment, and reduction in aerosol-producing procedures. Minimally invasive dentistry reverses or slows early disease stages using anticipatory guidance and collaborative decision-making with patients.

FQHCs needed to stratify their patient population by risk factors to more effectively triage patients and optimize scheduling. Several clinics implemented or expanded their use of minimally invasive care during the COHRT Learning Community. Caries risk assessment (CRA) proved a strong growth area, as the longer appointment times necessitated by COVID-19 infection control protocols provided valuable time for providers to familiarize themselves with in-person CRAs. Figure 2 and Figure 3 demonstrate the steady increase of CRAs over the course of the learning community. Additionally, CRA was positively correlated to oral health evaluations. This indicates that, among participating FQHCs, teledentistry enabled oral health evaluations, which, in turn led to completion of more CRAs. While the completion of CRAs did not affect the number of primary interventions (those used to prevent dental caries) or secondary interventions (those implemented to slow the progression of caries) performed, it did help providers identify growth opportunities. For example, the systematic documentation of CRAs in the electronic health record using Current Dental Terminology (CDT) codes helped

providers appropriately schedule recalls, sequence treatments, and improve reporting. Some providers also envisioned expanding the use of CRAs among adult populations and strengthening the dental team by appropriately distributing CRA responsibilities.

For most FQHCs, the number of primary and secondary interventions — such as fluoride varnish, sealants, and silver diamine fluoride (SDF) — increased, thanks to strong acceptance among patients and providers, and the incentive of limiting patients' and providers' exposures to aerosols.²

FQHCs also encountered barriers to the optimal use of primary and secondary interventions, including expense of supplies, limited appointment availability, patient noncompliance with preventive visits or follow-up, and provider issues, such as staffing shortages and providers feeling overwhelmed by the magnitude of changes required by COVID-19. Some dental hygienists were reluctant to use hand scaling and slow-speed polishing due to concerns regarding quality of patient outcomes. With the use of SDF, staining of the tooth surface was a concern, though the ability to be reimbursed for the service and provide patients with a non-aerosol-producing option increased its appeal. Fluoride varnish proved more challenging, however, as it remained non-reimbursable for adults covered by Medicaid.

Figure 2. Total Count of Caries Risk Assessments Completed by Health Centers: June 2020–November 2020

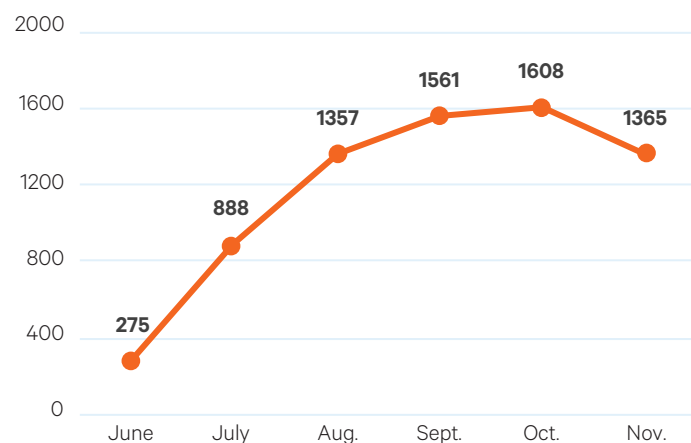
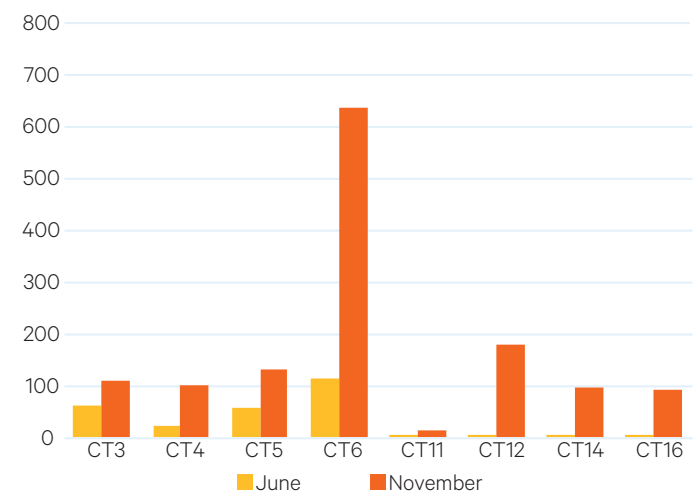
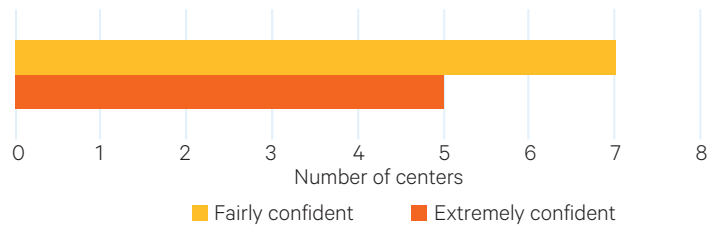


Figure 3. Total Count of Caries Risk Assessments Completed by Health Centers: June 2020 vs. November 2020



By the end of the COHRT Learning Community, most participants reported that they were “fairly confident” or “extremely confident” in their ability to use primary and secondary interventions (Figure 4). Participating FQHCs expect to continue with minimally invasive dentistry after the pandemic, envisioning innovative strategies such as “drive through” services for sealant placement and maximizing longer appointment times to integrate motivational interviewing, a highly successful approach to initiating behavior change.

Figure 4. Confidence Level in Health Centers’ Ability to Use Primary and Secondary Interventions.



Guidelines for Implementing a New Level of Infection Control

During the COHRT Learning Community, providers were charged with remaining up to date on professional guidelines, while complying with Massachusetts state and local regulations. Patients returning to the dental office also needed to feel confident in the safety of receiving dental care.² The COHRT Learning Community strongly emphasized infection control as participants were navigating the new COVID-19 pandemic environment.

Participants successfully implemented numerous new infection control measures, many of which will likely be long-term. Foremost were physical clinic changes such as installing doors on all operatories and adding HVAC filtration and air purifiers in individual rooms. Pre-appointment COVID-19 testing and screening mitigated transmission risk and decreased the time patients spent in-office, while also increasing patient appointment compliance.

Following completion of the learning community, participants still had questions about infection control. They felt that guidance about managing patients with exposure to confirmed cases was more important than guidance about managing health care professionals with confirmed exposure. They also expressed concerns about ensuring ongoing staff compliance and creating a consistent culture of focus during a time of professional and personal stress.

Sustaining infection control protocols will require changes in processes. For instance, dentists’ schedules should be streamlined so they focus only on providing noninvasive procedures, and systems need to be readjusted so they support preventive care as opposed to dental repair. The need for interprofessional practice and communication is evident.

Coaching the Change Experience

The COVID-19 pandemic demonstrated a need for training, updates on state protocols, and feedback on operational and clinical workflows. In a virtual environment, the COHRT Learning Community provided participants with useful education and social connections with their peers.³

COHRT Learning Community coaches supported participating individuals, teams, and organizations in making necessary organizational change. Coaches helped participants develop goals, plans, and measurement processes that limited disruption. Coaches often brought in subject matter experts, or “faculty”, to

help participants better understand how to reach their goals. Together, coaches and faculty worked with participants to maintain engagement and achieve improvement.

Coaches and faculty found that data, such as no-show rates, were highly influential in encouraging adoption of new procedures and processes. In addition, the need for new scheduling protocols and workflows exacerbated capacity gaps created by staff furloughs. Infection control changes were implemented quickly and demonstrated the ability of participating sites to make abrupt transformations when necessary.



Opportunities for Oral Health Transformation

At the end of the initiative, participants agreed that the traditional dentistry model needs significant transformation within the next five years (Figure 5.) The COVID-19 pandemic revealed numerous shortcomings in Massachusetts' dental care system, which resulted in overwhelming feelings of fear, confusion, and anxiety among many oral health professionals.⁴ Within the COHRT Learning Community, FQHCs were able to learn best practices and discuss emerging issues with colleagues, peers, and trusted experts. Participants valued the education offered on delivering safe patient care and the resultant sense of community and heightened motivation to transform care delivery (Figure 6). While the global pandemic has brought immense difficulty, particularly in the provision of health care, the learning community demonstrated that facing the challenges presented by COVID-19 enabled positive changes in FQHC management and encouraged dental professionals to redesign how oral health care is delivered.

Figure 5. Health Center Agreement That the Traditional Dentistry Model Will Need to Significantly Transform in the Next Five Years.

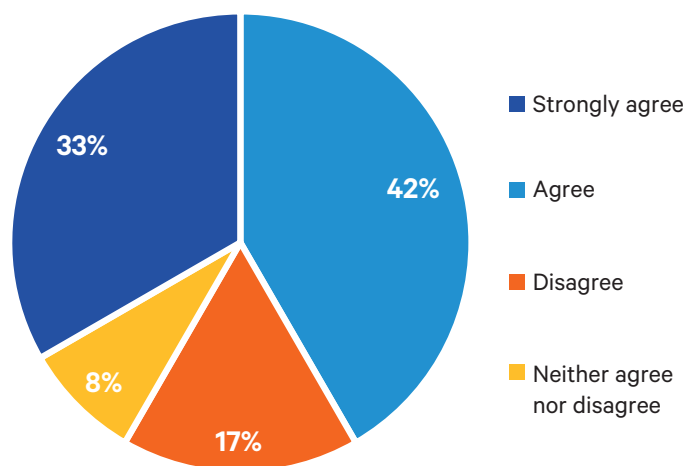
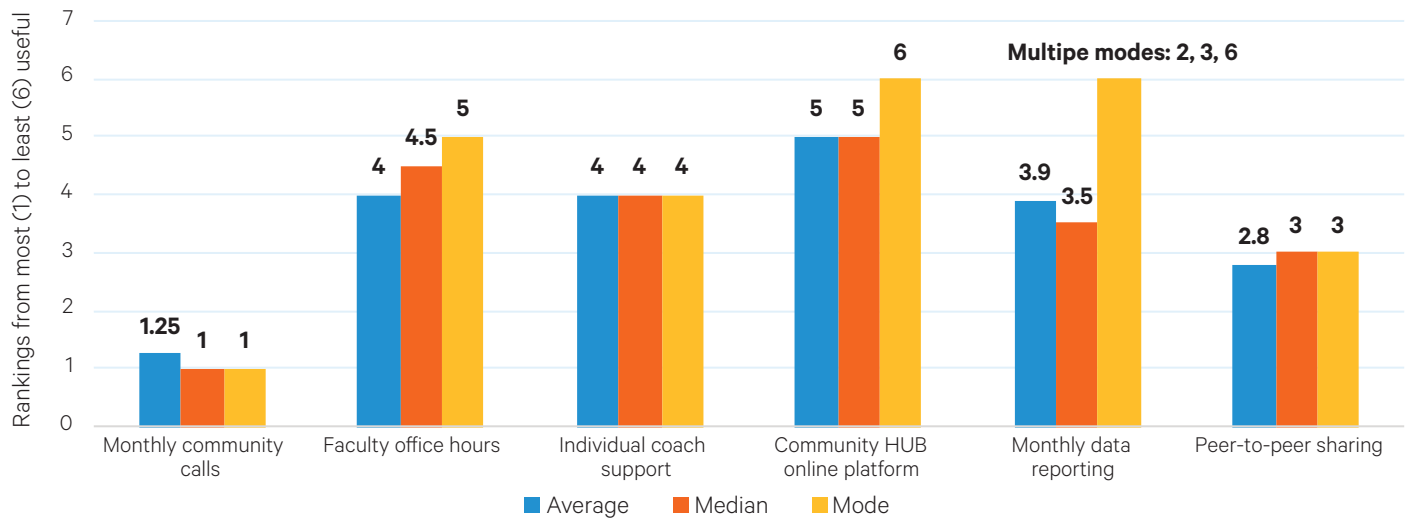


Figure 6. CMOS Average, Median, and Mode Rankings of the COHRT Learning Community Components from Most (1) to Least (6) Useful across All Health Centers



CareQuest Institute is taking important steps to continue supporting providers, patients, and other key stakeholders to transition care delivery using the Three Domain Framework for oral health.¹ States, providers, and organizations throughout the country are interested in a learning opportunity similar to the Massachusetts COHRT Learning Community. To respond to this national need, the CareQuest Institute has developed the Community Oral Health Transformation (COrHT) Initiative to enable more states, dental practices, and partners to gain knowledge and experience in dental practice transformation.

The COrHT Initiative aligns closely with CareQuest Institute’s goal of supporting and developing prevention-focused, financially viable health centers that are positioned for the “new era of health care” within an emerging value-based care environment. The initiative has expanded its curriculum topics, data requirements, and participant expectations to create an environment that allows participants to successfully make improvements to their operations and care pathways. As part of the initiative, CareQuest Institute also aims to develop state and regional champions to provide further, long-lasting support to health centers to facilitate both sustainability and spread of best practices.

Expanding on the data gained in Massachusetts, the COrHT Initiative will introduce concepts related to personalized oral health care that prolong the life of hard and soft tissues by reducing tooth/tissue mortality through risk stratification, medical-dental integration, predictive analytics, and safe, individualized surgical intervention.

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Authors:

Christine Kanan, BS

Quality Improvement Specialist
CareQuest Institute for Oral Health

Sean Boynes, DMD, MS

Vice President, Health Improvement
CareQuest Institute for Oral Health

Kelli Ohrenberger, MA

Director, Interprofessional Practice
CareQuest Institute for Oral Health

Mary Bayham, MPH

Health Improvement Program Manager
CareQuest Institute for Oral Health

Rebekah Mathews, MPA

Director, Value-Based Care
CareQuest Institute for Oral Health

Danielle Apostolon, BS

Training Specialist, Value-Based Care
CareQuest Institute for Oral Health

Caroline McLeod, RDH, MS

Value-Based Solutions Manager
CareQuest Institute for Oral Health

Eric P. Tranby, PhD

Manager, Data and Impact, Analytics and Evaluation
CareQuest Institute for Oral Health

Madhuli Thakkar, BDS, MPH

Biostatistician
CareQuest Institute for Oral Health

Sarah E. Raskin, MPH, PhD

Assistant Professor, L. Douglas Wilder School of Government
and Public Affairs
Virginia Commonwealth University

Kristen Machado

Director of Publishing Operations
Belmont Publications

References

1. CareQuest Institute for Oral Health. *Reshaping Dentistry in Turbulent Times: The COVID-19 Pandemic Demonstrates the Need for Innovation by Dental Providers*. Boston, MA, November 2020.
2. CareQuest Institute for Oral Health. *System Transformation: A Three Domain Framework to Innovating Oral Health Care*. Boston, MA, October 2020.
3. Minter, Daniel J., Patel, Anand, Ganeshan, Smitha, and Nematollahi, Saman. "Medical Communities Go Virtual," *Journal of Hospital Medicine* 16, no. 6 (June 2021): 378-380.
4. Ren, Yanfang; Feng, Changyong; Rasubala, Linda; Malmstrom, Hans; and Eliav, Eli. "Risk for Dental Healthcare Professionals During the COVID-19 Global Pandemic: An Evidence-based Assessment," *Journal of Dentistry* 101 (October 2020): 103434. doi:10.1016/j.jdent.2020.103434.

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