



Teledentistry Learning Collaborative

Teledentistry User Guide



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Executive Summary

Teledentistry can increase access to oral health care, improve the dental care delivery system, and lower costs. It also has the potential to reduce disparities in oral health outcomes among rural and urban communities.¹ National Network for Oral Health Access (NNOHA) has worked with health centers since the spring of 2020 to develop and test a variety of strategies to deliver dental and oral health services via synchronous teledentistry as a consequence of the COVID-19 pandemic. The participating health centers used teledentistry for emergency triage, but also discovered several innovative applications of teledentistry including delivering preventive dental services for children, providing self-management support and oral health goal setting for patients, as well as pre-surgery consultations and post-operative follow-ups, increasing access for underserved/hard to reach populations.

The need and opportunity for innovation in dental service delivery continues to grow. Yet, in many states, dentistry has been slow to adopt innovations in telehealth due to restrictive payment policies and resistance from oral health providers to move beyond the traditional brick and mortar, in-person, delivery model. This User's Guide highlights innovative strategies used in health center dental programs in states with favorable payment and practice environments to support innovation.

In this User's Guide, we include an overview of teledentistry, how it is being used in health center dental programs and describe its rapid growth due to state and federal responses to the COVID-19 pandemic. This guide includes practical tools for implementing teledentistry, promising practices from the field and a summary of the ever-changing landscape of federal and state policy. Also included in this publication is an introduction to NNOHA's Teledentistry Learning Collaborative, comprised of eleven health center dental programs across the United States.

Designed for health center dental professionals, the aim of this User's Guide is to assist health centers in implementing teledentistry to make dental care more accessible. The User's Guide provides inspiration from early adopter health centers, shares the tools needed to build the capacity of dental clinics in how to implement teledentistry and discusses strategies on how to make teledentistry a sustainable part of dental practice.

Background

Teledentistry is the delivery of dental care using telehealth health information technology and methodology. Common teledentistry modalities include live video consultation, store-and-forward, and remote patient monitoring. Examples of teledentistry services include but are not limited to risk assessment, oral exams using photos and videos, motivational interviewing, and

¹Reddy KV. Using Teledentistry for Providing the Specialist Access to Rural Indians. *Indian J Dent Res.* 2011; 22:189

self-management goal setting, supervising fluoride varnish application and emergency care triage.^{2,3}

While not a new concept, teledentistry is an emerging model used by health centers to increase patient-centered access to oral health services. The origin of teledentistry can be linked to a 1994 military project known as the U.S. Army's Total Dental Access Project. The purpose of this project was to improve patient care, dental education and demonstrated that teledentistry could reduce patient care costs.⁴ The project used teledentistry to reach U.S. soldiers who were serving overseas.^{5,6,7} Since then, teledentistry has been implemented in several states to serve a variety of communities, primarily using a virtual dental home model, which allows dental hygienists to work at the top of their scope of practice and deploys them in community settings to provide both preventive and some restorative care via a telehealth connected dental team.

Geographic and socioeconomic status are common barriers to oral health services (i.e., long travel distance to clinics, time missed from school or work). Teledentistry offers a flexible alternative for patients while addressing these barriers that contribute to oral health inequities. Research has shown that teledentistry has the ability to reduce cost and increase access to oral health services.⁸

The strain on health care systems due to the COVID-19 pandemic has prompted states nationwide to expand existing telehealth policies. As a result, many states have included teledentistry in their list of expanded telehealth services. This emergency response has demonstrated an effective way for dental professionals to connect with patients virtually. According to the Center for Disease Control and Prevention (CDC), patients who are at high risk for COVID-19 are also among those with limited access to oral health care and experience health care disparities at higher rates.⁹ The CDC suggests that the advancement of teledentistry can not only mitigate risk of COVID-19 transmission but increase oral health access to underserved and disadvantaged communities.

Since teledentistry is an emerging practice, the concept is new and/or underutilized among many dental professionals. Common barriers to using teledentistry include lack of resources necessary to implement teledentistry (i.e., broadband internet access, technology, staffing) and patients' or providers' beliefs about the effectiveness of virtual dental services.¹⁰ Trust and knowledge of teledentistry continues to evolve as patients and dental providers gain more experience with this

² https://jcdr.net/article_fulltext.asp?issn=0973-709x&year=2015&volume=9&issue=8&page=ZC41&issn=0973-709x&id=6320

³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2232632/pdf/procamiasymp00004-0958.pdf>

⁴ Mihailovic B, Miladinovic M, Vujicic B. Telemedicine in Dentistry (Teledentistry) In: Grasczew G, Roelofs TA, editors. *Advances in Telemedicine: Applications in Various Medical Disciplines and Geographical Areas 2011*. Rijeka (Croatia): InTech; 2011. pp. 215–30

⁵ Friction, J., & Chen, H. (2009). Using Teledentistry to Improve Access to Dental Care for the Underserved. *Dental Clinics of North America*, 53(3), 537–548. <https://doi.org/10.1016/j.cden.2009.03.005>

⁶ Ghai, S. (2020). Teledentistry during COVID-19 pandemic. *Diabetes and Metabolic Syndrome: Clinical Research and Reviews*, 14(5), 933–935. <https://doi.org/10.1016/j.dsx.2020.06.029>

⁷ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2232632/pdf/procamiasymp00004-0958.pdf>

⁸ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3894070/>

⁹ Brian Z, Weintraub JA. Oral Health and COVID-19: Increasing the Need for Prevention and Access. *Prev Chronic Dis* 2020; 17:200266. DOI: <https://doi.org/10.5888/pcd17.200266>.

¹⁰ <https://www.sciencedirect.com/science/article/abs/pii/S1532338214000517?via%3Dihub>

delivery model. Dental students are rarely taught about teledentistry in their educational experience and therefore lack the self-efficacy to implement this service.¹¹

Teledentistry frameworks and strategies for delivering virtual dental services continue to emerge. Successful application of teledentistry requires dental professionals to keep an open mind about the many ways teledentistry can increase access to care for many populations.

Teledentistry Overview

Telehealth is a rapidly expanding health care delivery model and COVID-19 has only accelerated the pace. Investments made in technology and infrastructure to support the industry are expected to reach \$64 billion by 2025.¹² Care providers in medical, physical therapy, occupational therapy, home health, hospice, pediatric behavioral health, even veterinary care are now providing services via telehealth. The use of telehealth for dental services, also known as teledentistry, is one part of this emerging field.

What is teledentistry

Teledentistry is a form of telehealth used in dentistry. In teledentistry, a variety of technologies and methodologies are used to deliver oral health services virtually. These advances in technology provide the opportunity for a patient to receive services when they are in one location and their care provider is in another. According to the American Dental Association (ADA), teledentistry can be an effective way to increase access to care by reducing barriers to care due to distance or transportation.¹³ Figure 1 shows how teledentistry is one part of a comprehensive patient-centered system for delivering oral health care to communities.

Patient Story

“One of our more rural clinic sites was closed. This site is 40 miles from our nearest clinic. A patient called our main clinic to be seen with a concern regarding a recent procedure. Thanks to our work with this teledental collaborative, we had our providers set up to do teledental calls. It is important to note that our provider was skeptical about this whole process. When he saw how thrilled the patient was, he was converted!”

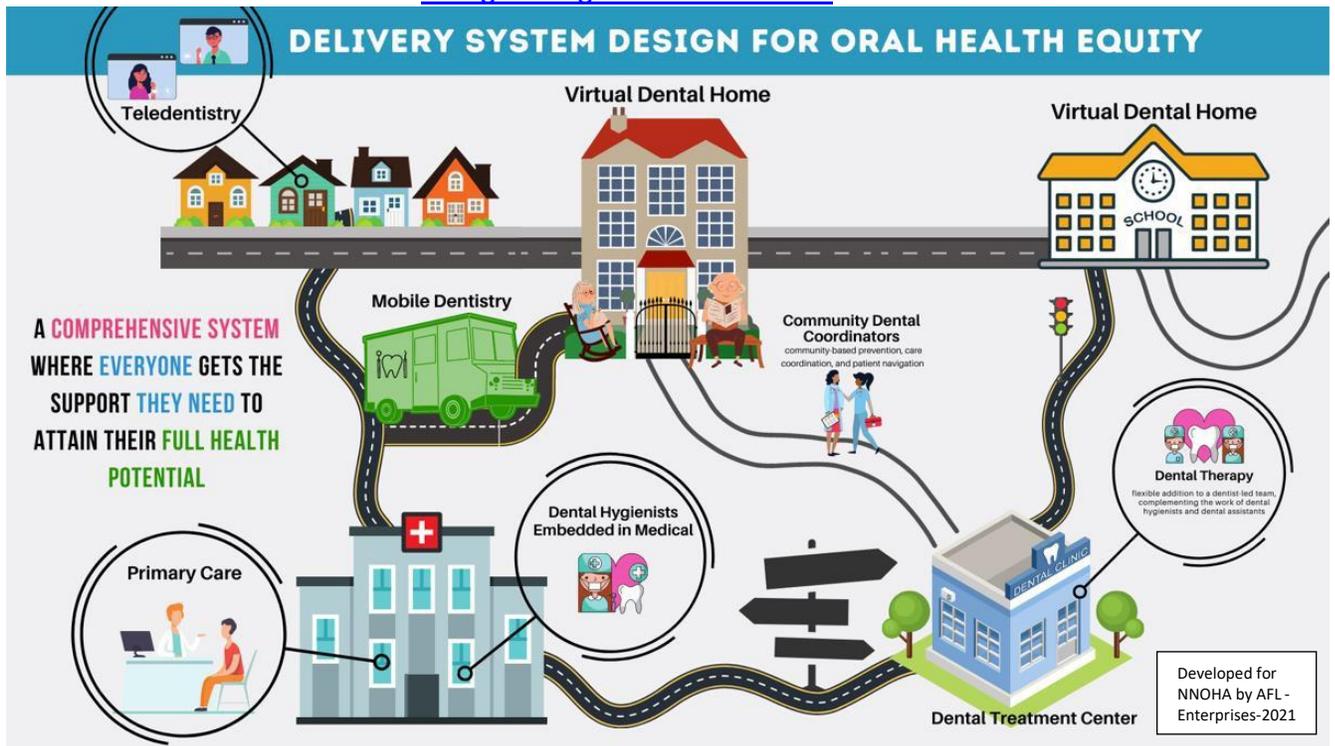
¹¹ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7523925/>

¹² <https://www.ama-assn.org/practice-management/digital/telehealth-53-growing-faster-any-other-place-care>

¹³ <https://www.ada.org/en/about-the-ada/ada-positions-policies-and-statements/statement-on-teledentistry>

Figure 1: Oral Health Care Delivery System Design for Health Equity

[A larger image is available here.](#)



DEFINITIONS¹⁴

Telehealth

The mode of delivering long distance health care services through virtual, telecommunication technologies in order to diagnose, consult, educate, and provide self-management of patient health. Technologies include videoconferencing, broadband internet, store- and-forward imaging, streaming media, and landline and wireless communications.

Teledentistry

The use of telehealth technologies or methodologies to deliver oral health services. Teledentistry can include patient care and education delivery using synchronous and asynchronous modalities among others.

Synchronous (live video)

A real-time, face-to-face interaction between patient and a provider located at a distant site using audiovisual telecommunications technology, such as smartphones, tablets, or computers. In some cases, another healthcare professional (such as a dental hygienist) can be physically with the patient and use peripheral equipment, while the consulting dentist conducts a remote evaluation.

¹⁴Definitions adapted from *Teledentistry Rules* by Paul Glassman (February 10, 2020)

Asynchronous (store and forward)

In this technique, electronic patient information is captured by the patient, or a visiting health professional, stored, and then forwarded to the treating dental provider for evaluation at a later time. This could include radiographs, photographs, video, digital impressions and photomicrographs of patients sent through a secure electronic communications system to the provider. This information is utilized to evaluate a patient’s condition or render a service outside of a real-time or live interaction.

Remote patient monitoring (RPM)

Personal health and medical/dental data collection from a patient in one location via electronic communication technologies, which is transmitted to a provider (sometimes via a data processing service) in a different location for use in care and related support of care.

Mobile health (mHealth)

Health care and public health practice and education supported by mobile communication devices such as cell phones, tablet computers, and other smart devices.

Distant Site

The site where the health care provider provides health services through telehealth modality.

Originating Site

The site where the patient is located at the time a health care service is provided via telehealth technology.

Applications of Teledentistry

The uses of teledentistry can be divided into four subcategories¹⁵ summarized in Table 1:

Table 1. Subcategories of Teledentistry

Teleconsultation	Telediagnosis	Teletriage	Telemonitoring
<ul style="list-style-type: none"> • Consultations • Prevention • Risk Assessment • Exams • Speciality referral • Patient-administered care • Self-management support • Patient education • Care coordination 	<ul style="list-style-type: none"> • Exams • Risk assessment • Treatment planning • Patient education • Prevention • Patient-administered care • Self-management support • Case Management • Care coordination 	<ul style="list-style-type: none"> • Screening • Prioritize urgent dental care/close clinical examination • Emergencies • Trauma • Acute Infections • Remote assessment of school children 	<ul style="list-style-type: none"> • Replacement for in person visits • Remote monitoring • Frequent virtual visits to monitor progress of treatment or condition

¹⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7297180/>

Advantages of Teledentistry

Teledentistry has several potential benefits for patients and providers as listed in Table 2. It has been shown to improve the dental hygiene of patients, cost less than in-office dentistry, improve access to oral health care, and provide the same quality of care compared to traditional methods.¹⁶ NNOHA members who developed teledentistry services during the COVID-19 pandemic also found that patient engagement in home care and subsequent in-person (when needed) visit compliance improved for those patients who received care via virtual dental visits. Teledentistry also has the potential to reduce disparities in oral healthcare between rural and urban communities.¹⁷ Teledentistry has the potential to be an affordable, easier to implement method to bridge the rural-urban health divide.

Table 2. Benefits of Telehealth Services for Patients and Providers

Benefits to patients	Benefits to providers
<ul style="list-style-type: none"> • Lower costs^{18,19} • Improved access to care^{8,20, 21,22,23} • Improved dental hygiene • Patient satisfaction^{21, 24} • Convenience due to reduced barriers (e.g., time missed from work and school, childcare, etc.)^{20,25} • Slow the spread of infections²³ • Builds trust, reduces anxiety^{26,27} 	<ul style="list-style-type: none"> • Reduced overhead expenses^{8,19, 28,29} • Increased access to care³⁰ • Less exposure to illness and infections • Patient satisfaction^{21, 24} • Keeping pace with patient demand^{31,32,33} • Improved outcomes¹⁹ • Improved patient engagement³⁴

¹⁶ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3894070/>

¹⁷ Reddy KV. Using Teledentistry for Providing the Specialist Access to Rural Indians. *Indian J Dent Res.* 2011;22:189.

¹⁸ Scuffham PA, Steed M. An economic evaluation of the Highlands and Islands teledentistry project. *J Telemed Telecare.* 2002;8(3):165-177.

¹⁹ <https://jdh.adha.org/content/identhyg/87/6/345.full.pdf>

²⁰ <https://pubmed.ncbi.nlm.nih.gov/19482128/>

²¹ <https://www.healthaffairs.org/doi/10.1377/hlthaff.2018.05102>

²² http://dental2.anamai.moph.go.th/download/download/2014_Teledentistry-A%20Key%20Component%20in%20Access%20to%20Care.pdf

²³ <https://www.cdc.gov/coronavirus/2019-ncov/hcp/telehealth.html>

²⁴ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7427495/>

²⁵ http://www.quintpub.com/journals/ohpd/fulltext.php?article_id=20588

²⁶ http://www.quintpub.com/journals/ohpd/fulltext.php?article_id=20588

²⁷ González, A. P., Torreira, M. G., Petronacci, C. M. C., & Sayáns, M. P. (2021). Teledentistry: A New Approach in Dental Medicine. *Enhanced Telemedicine and e-Health: Advanced IoT Enabled Soft Computing Framework*, 410, 41.

²⁸ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7605980/>

²⁹ Ignatius E, Mäkelä K, Happonen RP, Perala S. Teledentistry in dental specialist education in Finland. *J Telemed Telecare.* 2006; 12:46-49.

³⁰ <https://www.nashp.org/wp-content/uploads/2015/08/Enhancing-Oral-Health-Primer-for-Medicaid-Agencies.pdf>

³¹ <https://onlinelibrary.wiley.com/doi/full/10.1111/jphd.12421>

³² <https://www.proquest.com/openview/9ecb169ea08819358d61dfad78841326/1?pq-origsite=gscholar&cbl=536318>

³³ <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1063.3890&rep=rep1&type=pdf>

³⁴ <https://asmj.ro/wp-content/uploads/2021/04/asmj-2021-0001.pdf>

With teledentistry available, patients may not need to come into the dental practice as often and have easier access to their dental team. This makes care both more accessible, particularly for hard-to-reach populations, and more convenient. The time and cost savings should mutually benefit patients and providers as well. Patients don't need to worry about barriers such as transportation or childcare, while providers are able to provide care more efficiently. Furthermore, with about 20%³⁵ of Americans living in rural areas, teledentistry eliminates geographical barriers as well as challenges with staffing shortages, allowing patients increased access to care.

Using teledentistry also allows for more efficient use of in-person visits, allowing clinics to prioritize in-person visits for services that require face-to-face interaction. In emergency situations, a patient can quickly connect with a dentist remotely. Providers can assess the problem virtually and make recommendations that may save the patient a trip to a hospital or dental clinic. This alleviates the burden of costly emergency visits.

Each year in the United States, there are approximately 2 million³⁶ hospital ED visits for nontraumatic dental problems. According to a mixed methods study, most of these visits were for oral health needs that could have been addressed at a dental office, including care delivered through teledentistry.³⁷ Research has also found that patients with Medicaid and those with no insurance coverage are more likely to appear at the ED with a dental condition.³⁸ The ADA estimates that every 15 seconds someone visits a hospital emergency department for a dental condition, at a cost of \$749 per visit.³⁹ If they received any care at all, it was a prescription for antibiotics or pain relief. The use of emergency departments for non-urgent medical conditions is a growing concern in the United States. Teledentistry is an opportunity to relieve crowded emergency departments and ensure urgent and non-urgent dental needs are met.

Finally, consideration should be given to patient satisfaction and demand for virtual services. Studies on the use of telehealth services have shown that most patients are comfortable communicating with their healthcare providers via text, email, or video and will prioritize access to remote care over seeing a provider in person.⁴⁰ With advancements in technology and the use of modern forms of communication, patients' needs and preferences should be taken into account when offering services via teledentistry. Telehealth is projected to continue growing rapidly reaching over \$1 billion by 2027, compared to \$263.66 million in 2019.⁴¹

³⁵ <https://mtgis-portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=49cd4bc9c8eb444ab51218c1d5001ef6#:~:text=At%20the%20time%20of%20the,areas%20of%20the%20United%20States.>

³⁶ <https://ajph.aphapublications.org/doi/10.2105/AJPH.2014.302398>

³⁷ https://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0814_1.ashx

³⁸ Seu K, Hall KK, Moy E. Emergency department visits for dental-related conditions, 2009. HCUP Statistical Brief #143. Agency for Healthcare Research and Quality, Rockville, MD. November 2012. Available from: <http://www.hcupus.ahrq.gov/reports/statbriefs/sb143.pdf>. Accessed April 15, 2021.

³⁹ Health Policy Institute American Dental Association (2015) Emergency Department Use for Dental Conditions Continues to Increase <http://mediad.publicbroadcasting.net/p/wusf/files/201802/ADA.pdf>.

⁴⁰ <https://www.aha.org/system/files/research/reports/tw/15jan-tw-telehealth.pdf>

⁴¹ <https://www.globenewswire.com/news-release/2021/03/04/2187500/0/en/The-North-America-Teledentistry-market-is-expected-to-reach-US-1-056-00-million-by-2027-from-US-263-66-million-in-2019.html#:~:text=sign%20in-,The%20North%20America%20Teledentistry%20market%20is%20expected%20to%20reach%20US,4%25%20from%202020%20to%202027>

Growing Evidence Base for Teledentistry

Several studies have shown that teledentistry approaches are as reliable as real time assessments of clinical diagnoses, improve patient access and reduce costs. These findings were demonstrated across the field of oral medicine, maxillofacial surgery, endodontics, orthodontics, and pediatric and preventive dentistry.

Examples of these studies include the clinical diagnosis of impacted or semi impacted third molars,⁴² identifying root canal orifices based on images of endodontically accessed teeth,⁴³ identifying periapical bone lesions⁴⁴ and examining for dental caries screening in young children.^{45,46}

Results from one study suggest that oral health professionals have the potential to screen for caries from intraoral photographs and available x-rays with the same diagnostic accuracy and reliability as an in-person visit.⁴⁷ Moreover, research also indicates that a virtual examination is an effective substitute for an in-person examination and validates the use of teledentistry-enabled exams.⁴⁸

Teledentistry can reduce the costs and barriers to accessing oral health care, leading to improvements in oral health.^{49,50} Teledentistry is also more affordable. A 6-year study in California found that telehealth-connected dental teams⁵¹ as part of a Virtual Dental Home (VDH) system can “deliver more prevention and intervention at less cost per patient than the current state dental Medicaid system.” Using telehealth, according to this study, offers a safe and effective alternative, bringing dental care to vulnerable and underserved people.

Study Highlights:

In-Person Versus “Virtual” Dental Examination: Congruence Between Decision-Making Modalities

The results of this study indicate that a dentist, utilizing virtual clinical exams and records from allied health personnel, can correctly assess if a patient can be treated in the community or must be seen in a dental office.

- ☑ Patient information collected in the field included intra- and extraoral radiographs, photographs, and charting collected by an RDH.
- ☑ In this study, individual dentists were consistent in their decisions about a specific patient whether the examination was in-person or virtual. A dentist can, with a great degree of certainty, decide on the best next action for that patient.
- ☑ Validity tests underscored that the virtual exam is a strong substitute for an in-person exam.

⁴² Duka M, Mihailovic B, Miladinovic M, Jankovic A, Vujicic B. Evaluation of Telemedicine Systems for Impacted Third Molars Diagnosis. *Vojnosanit Pregl.* 2009;66:985–91

⁴³ Brullmann D, Schmidtman I, Warzecha K, d’Hoedt B. Recognition of root canal orifices at a distance – A preliminary study of Teledentistry. *J Telemed Telecare.* 2011;17:154–7.

⁴⁴ Baker WP, 3rd, Loushine RJ, West LA, Kudryk LV, Zadinsky JR. Interpretation of Artificial and In Vivo Periapical Bone Lesions Comparing Conventional Viewing Versus a Video Conferencing System. *J Endod.* 2000;26:39–41

⁴⁵ <https://www.cureus.com/articles/7777-use-of-a-teledentistry-based-program-for-screening-of-early-childhood-caries-in-a-school-setting>

⁴⁶ Kopycka-Kedzierawski DT, Billings RJ. Prevalence of dental caries and dental care utilization in pre-school urban children enrolled in a comparative-effectiveness study. *Eur Arch Paediatr Dent.* 2011;12:133–8

⁴⁷ <https://pubmed.ncbi.nlm.nih.gov/27713449/>

⁴⁸ Namakian M, Subar P, Glassman P, Quade R, Harrington M. In-person versus “virtual” dental examination: congruence between decision-making modalities. *J Calif Dent Assoc.* 2012 Jul;40(7):587-95. PMID: 22916380

⁴⁹ <https://pubmed.ncbi.nlm.nih.gov/30633668/>

⁵⁰ <https://www.ada.org/en/publications/ada-news/2019-archive/january/teledentistry-can-improve-access-to-care-for-underserved-children-researchers-say>

⁵¹ <https://www.ada.org/en/publications/ada-news/2016-archive/september/virtual-dental-homes-offer>

Teledentistry and COVID-19

IMPACTS OF COVID-19 ON TELEHEALTH USAGE

Health centers expanded the use of telehealth considerably due to the COVID-19 pandemic. According to 2019 data from the CDC, 43% of health centers were capable of providing telemedicine at the time.⁵² With the emergence of COVID-19 during 2020, 95% of health centers reported using telehealth in a voluntary weekly Health Center COVID-19 Survey administered by HRSA. Geographically, there were differences with health centers in the South and rural areas reporting the lowest average weekly levels of telehealth visits compared to other regions, particularly, urban areas. As in-person visits dropped during the early phase of the pandemic, telemedicine visits rose rapidly. Telehealth visits declined as the number of new COVID-19 cases decreased but plateaued as the number of cases increased.⁵³

Stay at home orders, changes in state and federal policies allowing for providers to serve patients across state lines, and the Centers for Medicare and Medicaid Services (CMS) 1135 waiver (discussed later in this publication) that provided reimbursement for Medicare services via telehealth has led to rapid innovation in telehealth implementation.

IMPACTS OF COVID-19 ON TELEDENTISTRY USAGE

Teledentistry activities in the U.S.

A poll by the American Dental Association (ADA) Health Policy Institute found, for the week of April 20, 2020, 24.8% of responding U.S. dentists reported they were conducting remote problem-focused evaluations through virtual technology.

In 2021, an ADA survey found that, for the week of February 15, 2021, 61% of dentists in public health are using virtual technology.⁵⁴

As part of the ongoing COVID-19 pandemic, reducing person-to-person contact has been essential to reduce the spread of the virus. In early 2020 Health center dental programs suspended in-person care in response to state emergency orders. By summer 2020 most dental programs resumed in-person operations, but at reduced capacity due to staffing, personal protective equipment shortages, and to comply with new CDC recommendations for infection control. The CDC issued revised guidelines for dental practice June 3, 2020.⁵⁵

In response, HRSA-funded health centers expanded telehealth services.⁵⁶ Additionally, CMS⁵⁷ eliminated geographic restrictions* and enhanced

⁵² [https://www.cdc.gov/mmwr/volumes/70/wr/mm7007a3.htm#:~:text=According%20to%202019%20Health%20Center,2020%20\(4%2C5\)](https://www.cdc.gov/mmwr/volumes/70/wr/mm7007a3.htm#:~:text=According%20to%202019%20Health%20Center,2020%20(4%2C5))

⁵³ <https://www.cdc.gov/mmwr/volumes/70/wr/mm7007a3.htm>

⁵⁴ <https://surveys.ada.org/reports/RC/public/YWRhc3VydmV5cy02MDJjMjg3ZmRkMDg4YTAwMTE2ZmVlYjltVVJfM3BaeGhzWm12TnNMdjB4>

⁵⁵ https://emergency.cdc.gov/coca/calls/2020/callinfo_060320.asp?fbclid=IwAR3Urt-01INicg4ed-ysTZgBP2GZriUEBO3AKL25RcQGQoO1YknPRiM_0Js

⁵⁶ Telehealth consists of the use of electronic information and telecommunication technologies to support clinical health care, patient and professional health-related education, public health, and health administration. <https://www.hrsa.gov/rural-health/telehealth>

⁵⁷ Centers for Medicare & Medicaid Services. Telemedicine health care provider fact sheet. Baltimore, MD: US Department of Health and Human Services, Centers for Medicare & Medicaid Services; 2020. <https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>

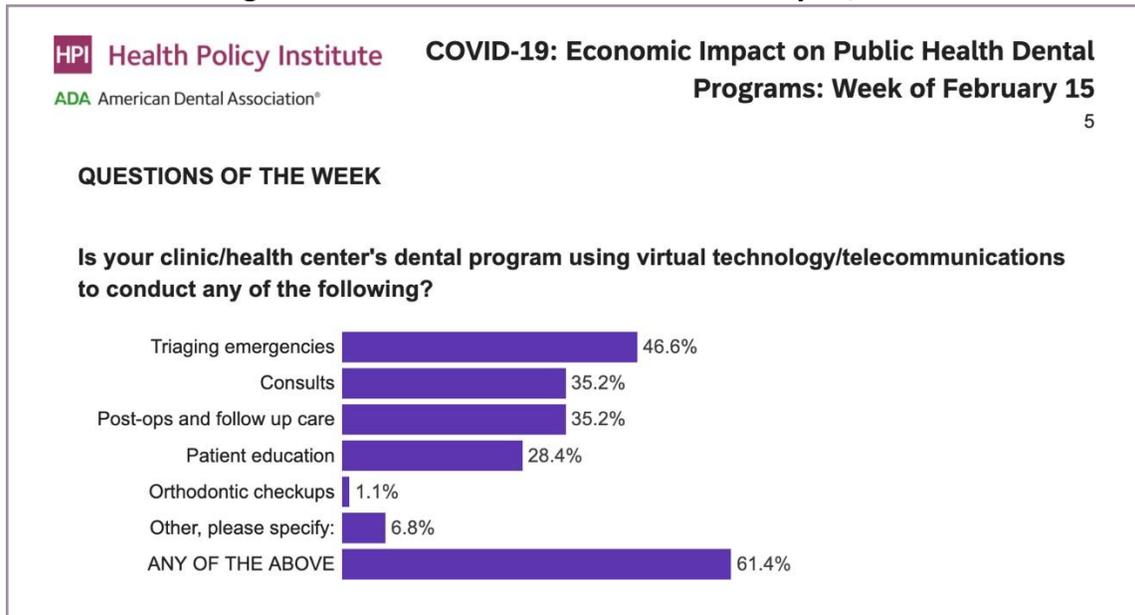
*Note: Although CMS eliminated this geographic restriction for Medicare reimbursement, some states did not eliminate this restriction (e.g., California)

reimbursements so that telehealth-enabled health centers could continue providing care through telehealth services.

Telehealth can reduce the risk of transmission of COVID-19, conserve scarce medical supplies, including personal protective equipment, and improve continuity of care while reducing strain on health providers and facilities. Initially, remote triaging of suspected COVID-19 patients for dental treatment was employed to limit the spread of the virus.

In 2021, the ADA asked public health dental programs including health centers whether they were using virtual technology/telecommunications tools. On the week of February 15, 2021, 61% of respondents reported using some form of virtual technology. The most common use was to triage emergencies (46.6%), for consults and follow up appointments (35.2% each), and patient education (28.4%).⁵⁸ These results are summarized in Figure 2 below.

Figure 2: HPI Question of the Week February 15, 2021



CHANGES TO BILLING DURING COVID-19

In response to the COVID-19 pandemic, the Centers for Medicare and Medicaid Services waived some requirements to give states broad flexibility to cover teledentistry through Medicaid⁵⁹. Federal approval was not needed for state Medicaid programs to reimburse providers for

⁵⁸ <https://surveys.ada.org/reports/RC/public/YWRhc3VydmV5cy02MDJjMjg3ZmRkMDg4YTAwMTE2ZmVlYjltVVJfM3BaeGhzWm12TnNMdjB4>

⁵⁹ <https://www.cms.gov/files/document/cms-waivers-and-covid-19-response.pdf>

teledentistry services in the same manner or at the same rate that states pay for face-to-face services.

Some states have extensive legislation surrounding telehealth, and others have little to no laws explicitly addressing teledentistry or telehealth services. In some states, teledentistry is only reimbursed for emergency dental consultations. In other states, Medicaid reimburses for services such as oral screenings, assessments, problem-focused evaluations, or re-evaluations via teledentistry to help limit in-person visits, determine when dental procedures can be deferred, and avoid unnecessary trips to hospital emergency departments⁶⁰. Many states have passed legislation to make the telehealth services available during the public health emergency permanent. For health center dental programs, it is important to review your state policies related to teledentistry reimbursement policies. Health centers can investigate their state policies through their local primary care association, American Dental Association, and local dental societies.

The NNOHA Teledentistry Learning Collaborative

The NNOHA Teledentistry Learning Collaborative, which ran from September 2020 through April 2021 was comprised of 10 federally qualified health center dental teams across 9 states. This Learning Collaborative was designed to provide technical assistance to health centers to implement synchronous teledentistry services for preventive and emergency dental care. All participating health centers tested strategies to expand or strengthen teledentistry services and shared promising practices to make teledentistry a sustainable long-term practice.

OBJECTIVES OF THE PROJECT

1. Increase the percentage of health center patients who receive oral health services through synchronous teledentistry services
2. Test strategies that improve health center capacity to offer services via teledentistry
3. Develop and implement an effective teledentistry service line

PROJECT OVERVIEW

Ten health centers were selected for participation in the Learning Collaborative through a competitive national application process. For the pilot Learning Collaborative, only health centers in states with legislation that allowed for teledentistry were eligible to participate, to eliminate the potential policy barriers would limit health center implementation efforts.

The participating health centers attended four virtual convenings with the following topic areas:

⁶⁰ <https://www.medicaid.gov/state-resource-center/downloads/covid-19-fags.pdf>

1. Introduction to Teledentistry & Models
2. Conducting Exams in Remote Environments & Developing Visit Workflow
3. Mock Teledentistry Visit, the Vision for Teledentistry, & Preparing the Patient for a Teledentistry Visit
4. Team Progress: Achievements & Challenges

In addition to the convenings, each participating health center had a monthly coaching call with one of the members of the Learning Collaborative faculty. Faculty included health center leaders with experience delivering teledentistry services, NNOHA staff, and a NNOHA consultant with expertise in implementing teledentistry in health center dental programs.

The names and locations of the health centers appear in **Table 3**.

Table 3: Teledentistry Learning Collaborative Participating Health Centers

Health Center	City/State	Health Center	City/State
University of California Irvine	Irvine, CA	Mosaic Health	Rochester, NY
Alameda Health System	Oakland, CA	Cincinnati Health Department	Cincinnati, OH
Terry Reilly Health Services	Nampa, ID	Multnomah County Health Department	Portland, OR
Choptank Community Health System	Federalsburg, MD	Valley View Health Center	Chehalis, WA
Center for Family Health	Jackson, MI	Charlotte Community Health Center	Charlotte, NC

Participants in the NNOHA Teledentistry Learning Collaborative represent nine states. Regulation and policy for teledentistry practices vary from state to state by whether the states regulate or recognize teledentistry practices and by Medicaid coverage policies. Among the nine states, none have the same combination of teledentistry practice policies. Table 4 lists the Teledentistry laws, regulations and Medicaid reimbursement for the states participating in the learning collaborative.

Patient Story

“The registered dental hygienist was doing a follow up oral hygiene instructions/educational teledental visit for a high risk four-year-old patient who had not followed up from operating room treatment. They had missed several follow up appointments due to barriers at home. Teledentistry allowed the patient access to care.”

Table 4. Individual State Teledentistry Laws, Regulations, and Medicaid Reimbursement of Learning Collaborative Participants⁶¹

	Teledentistry Laws and Regulations	Teledentistry Medicaid Reimbursement	Expanded Teledentistry Functions	Interim COVID-19 Teledentistry Expansions	Telehealth Payment Parity
CA	☀	*❖	▶	●	★
ID	☀	*			
MD	■	*	▶	●	★
MI	■	*	□	●	★
NC	■	*❖	◎	●	
OH	☀	*	▶	●	★☆
OR	■	*❖	□	●	★
NY	☀	*❖	◎	●	★
WA	☀	*❖	□	●	★

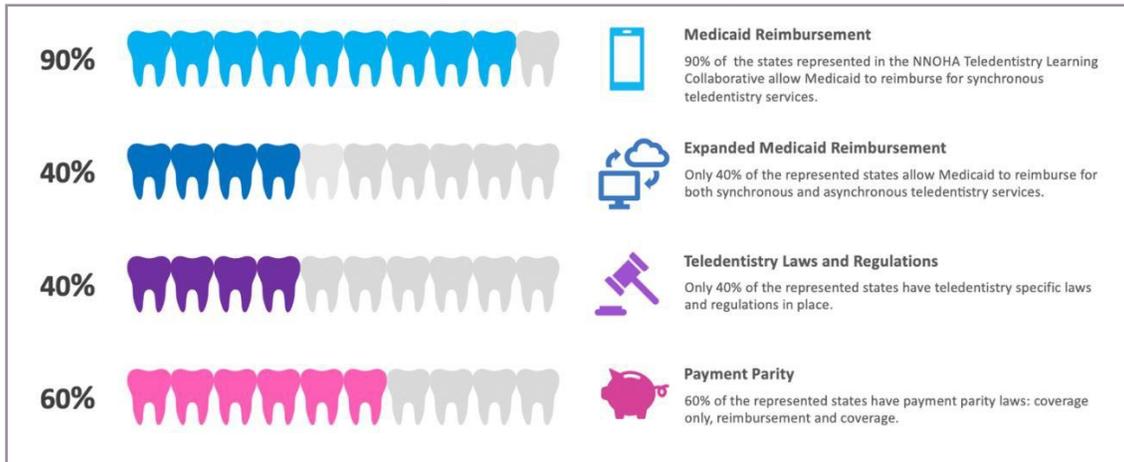
Legend				
Teledentistry Laws and Regulations	Teledentistry Medicaid Reimbursement	Expanded Functions	Interim COVID-19 Teledentistry Related Expansions	Telehealth Payment Parity (reimbursed at the same fee as in-person care) ⁶²
<ul style="list-style-type: none"> ◆ Extensive ■ None 	<ul style="list-style-type: none"> * Synchronous ❖ Asynchronous 	<ul style="list-style-type: none"> ▶ Registered Dental Hygienists Can Perform Assessments w/ Remote Dentist Supervision ◎ Dental Hygienists Can Communicate/Connect with Dentists via Teledentistry □ Dental Therapist/Hygienist Use Teledentistry w/ Written Dentist Plan for Situation Beyond Capabilities 	<ul style="list-style-type: none"> ● Existing/In effect 	<ul style="list-style-type: none"> ★ Reimbursement ☆ Limited Coverage

As of spring 2021, among the nine states, 90% have some sort of Medicaid reimbursement policy for synchronous teledentistry services. In comparison, only 40% of the states offer Medicaid reimbursement for *both* synchronous and asynchronous teledentistry services. Only 40% of states have specific laws and regulations for teledentistry practice. In comparison, 100% of states have some sort of *telemedicine or telehealth* law in place. Finally, 60% of the states have some sort of payment parity in place (either coverage based, or reimbursement based). Figure 3 demonstrates these differences in policy and reimbursement.

⁶¹ Poleman, T. (April, 2020). Nationwide Survey of Teledentistry Regulations CCHP. (2020) <https://www.cchpca.org/>

⁶² "Understanding The Case For Telehealth Payment Parity," Health Affairs Blog, May 10, 2021. DOI: 10.1377/hblog20210503.625394

Figure 3: Combined State Teledentistry Laws, Regulations, and Medicaid Reimbursement of Learning Collaborative Participants



For the health centers in participating in the learning collaborative variations in policy, regulation and payment between states act as barriers to implementing promising practices from a health center in one state by a health center in another state, due to dissimilar policies and regulations across states, different Medicaid reimbursement policies across states and differences in teledentistry scope of practice between states.

RESULTS OF THE COLLABORATIVE

With support from the peer learning community, health centers were able to develop teledentistry services for their patients. Flexibility and creativity were crucial because payment and practice act policies are unique in every state. Table 5 lists examples of innovative applications of teledentistry developed by the participating health centers during the Learning Collaborative that met the needs of patients and communities while adhering to individual state rules and regulations for teledentistry:

Table 5: Examples of teledentistry services being tested in health centers

- At home preventive visits for children, when x-rays are not indicated, including anticipatory guidance.
- Patient administered care such as at-home fluoride varnish.
- Prescribing fluoride
- Exams using photos and video.
- Motivational interviewing and self-management goal setting for patients and caregivers, for patients with diabetes, leading to a stronger partnership with the dental team, more consistent home care, and a greater likelihood of attending dental appointments.
- Conducting risk assessments and providing anticipatory guidance.
- Preventive dental services for children 0-5 where parents send images taken with their smart phone ahead of the appointment. Then during the appointment, the parent can

demonstrate their competency with brushing their child's teeth, address any questions or concerns they have, and set goals for health behaviors to support their child's oral health

- Coaching toothbrushing and helping set up home care routines
- Pre-planning care for those who may be experiencing symptoms
- Supporting pain management strategies
- Providing dental services to patients in a residential substance use treatment center, eliminating pain, and supporting patients on their addiction recovery
- Diagnose dental abnormalities, disturbances in tooth eruption, malocclusion, periodontal disease, infections, presence of soft tissue lesions, temporomandibular joint dysfunction
- Demonstrate brushing and flossing at home, increasing patient self-efficacy.
- Pre-surgery consultations and post-operative consultations, eliminating the need for an in-person visit prior to surgery, saving families costs related to time off work and transportation
- Walking a patient through adjusting his dentures, leading to greater awareness of this device, and a satisfied patient who was kept safe and healthy at home.
- Nutritional counseling and chronic disease management

Patient Story

“A 13-year-old was referred to us for routine care and we scheduled a tele video visit. During the tele visit we noticed that she had braces. They were placed in her country of origin and when they saw an orthodontist in the US, they were charging to remove the braces, so they did not have that taken care of. We scheduled her quickly and, in the chair, we could see that she was most likely dealing with a lot of discomfort due to extremely overgrown and inflamed tissues. The child mentioned that she had a wire poking her also. We were able to communicate with another FQHC that does orthodontics and they agreed to see the child immediately to remove the braces. Seeing this patient was very rewarding knowing that if we would not have done the teledental visit with her, she would not have been seen so quickly and could still be living in an uncomfortable situation.”

Implementation of Teledentistry

Several important operational aspects must be addressed to successfully implement telehealth services: technology, communication, reimbursement and coding, and processes.⁶³

⁶³<https://www.michigandental.org/Portals/pro/ProDocuments/Membership/Coronavirus/June%202020%20MDA%20Journal%20Teledentistry%20Article.pdf>

Technology and Teledentistry Platforms

The Health Insurance Portability and Accountability Act (HIPAA) rules for telehealth service were relaxed temporarily to address urgent needs brought on by the COVID-19 pandemic. HIPAA privacy requirements will likely resume in the not-too-distant future and technologies selected for the short term will need to be replaced. Despite the relaxed regulations, health center dental programs that conducted teledentistry visits in the learning collaborative only used HIPAA compliant platforms to protect patient privacy. Some of the available platforms that NNOHA members are using for synchronous teledentistry include Cisco Webex, Doxy.me, Doximity, EPIC MyChart, Google Duo, Zoom for Health Care and Microsoft Teams.

Some features to look for in teledentistry solutions include the ability to integrate with the electronic dental record, practice management and billing systems, laboratory integration, and patient communication tools that are accessible and easy for the patient to use. A number of software packages that make these features available are emerging.

Currently, for states that usually require them, formal patient consent forms are not required in this HIPAA relaxed environment, however the doctor must document consent in the progress notes. Therefore, the use of an electronic consent form should be included in the process. Be sure to check individual state rules and regulations regarding consent.

Equipment

The equipment listed below is not intended as a comprehensive list as every practice environment will differ based on the needs of the patients and communities, what type of teledentistry is used, as well as state payment and practice policies.

- For patients:
 - Devices such as smart phones, tablets or computers that are connected to the internet for patients to take and submit photos and participate in video visit (see [this video](#) that explains how patients should take photos for a teledentistry visit).
- For dental providers:
 - Devices needed for synchronous and/or asynchronous care:
 - Intraoral cameras (virtual dental home/asynchronous)
 - Portable x-ray equipment, including digital sensors (asynchronous)
 - Digital camera to take extraoral photos (virtual dental home/synchronous direct to patient/asynchronous)
 - Camera Phones (both synchronous and virtual dental home/asynchronous)
- Other tools/technology the provider may need
 - iPads/Tablets
 - Laptop
 - Phone

- Encryption software for sending emails with sensitive patient information
- Dual monitors
- Webcam
- Green screen
- Consent Forms/Patient Forms
 - Docu-Sign or Hello Sign software
 - Scannable (for printing, completing and scanning back PDF's)
 - Apps for creating a fillable online PDF
- Direct communication tools
 - Email, text, or other patient communication platforms (e.g., WellApp, Lighthouse, RevenueWell, ProSites, eClinicalWorks Messenger or DemandForce)

Appointments

ADVERTISING TELEDENTISTRY

Informing patients of the availability of teledentistry is crucially important so they can understand its purpose and how it fits in with their care. Patients could receive these updates through the patient newsletter, direct calls, emails, texts, social media or a flyer given out during other health center appointments. As soon as a communication strategy is developed, reach out to existing patients to let them know about the new teledentistry service.

The health center website may also include a link to an email address or web portal so that a patient can request a teledentistry appointment online.

If a third-party vendor or call center handles emergency calls, the option of teledentistry can be added to the scripting. Using this option, emergency cases that require in-office care can be separated from those that can be seen via teledentistry. Many health centers found that having front desk staff observe a teledentistry visit resulted in a greater likelihood of scheduling teledentistry.

PRIOR TO THE APPOINTMENT

To prepare patients for their teledentistry session, it is good practice to send patients an email or text in advance of the visit. Include the relevant appointment information such as date and time as well as login instructions. Also include a request for any photos that need to be sent in advance and prepare them for their appointment. Patients should be in a well-lit, quiet space, with good Wi-Fi. You may need to instruct them to wash their hands before the appointment as the patient may be required to put their fingers in/around their mouth. Remind patients to silence their phones and turn off any other devices during the visit in order to avoid distractions.

AT THE APPOINTMENT

To begin the teledentistry session, your protocol should include confirming the patient's identity and introducing other people present on the call, obtaining consent for a teledentistry appointment and getting the patient's address and contact information in case of an emergency or disconnection. Also, acknowledge the limitations of the visit due to technology. Be sure to document the length of the appointment.

Policies and Procedures

Health center policies and procedures governing patient privacy, patient intake, record-keeping, and patient billing need to be updated and/or created to accommodate teledentistry. Minors or the disabled should not receive teledentistry visits without a parent or guardian visibly present. Service via teledentistry should never be recorded, just as an in-person visit would not routinely be recorded.

WORKFLOWS

It is recommended to develop workflows for conducting synchronous teledentistry visits using quality improvement (QI) methodologies like PDSA testing. Using QI principles will allow the development of the most efficient workflow utilizing every dental team member working at the top of their scope of practice during the teledentistry visit.

For a sample of a Synchronous Teledentistry Workflow for Preventive Visits see [Appendix A](#).

Billing and Reimbursement

Billing for services provided via teledentistry may include several CDT and CPT codes. Each code set provides specific guidelines for their use. Additional coding support has been provided by the ADA and the American Medical Association (AMA). You can refer to these and other resources for practice implementation tips, coverage and policy summaries, as well as example coding scenarios provided in the resources section of this publication.

In cases where you are using telecommunication technology to triage patients or offer an evaluation, you may be able to document and report the following CDT codes in the patient's record and to a third-party payer.

Table 6 below presents codes that may be used when billing for teledentistry. Regulations and policies vary from state to state.

Table 6: Codes That May Be Used in Billing for Teledentistry

CODES THAT MAY BE USED IN BILLING FOR TELEDENTISTRY	TELEDENTISTRY CDT CODES
<p><u>Oral Evaluations</u> D0140* - limited oral evaluation D0170 re-evaluation – limited, problem focused (established patient, not post-operative visit) D0171 re-evaluation</p> <p><u>Case Management</u> D9992 dental case management – care coordination D9994 dental case management – patient education to improve oral health literacy</p> <p><u>Image Capture Only</u> CDT 2021 expanded the “Image Capture Only” category with nine new codes: D0701, D0702, D0703, D0704, D0705, D0706, D0707, D0708, D0709 (See ADA’s Guide to “Image Capture Only” Procedures for details)</p> <p>Additional codes to consider and report with teledentistry patient care: D1330 oral hygiene instructions D9311 consultation with a medical health care professional</p>	<p>When you are providing services via teledentistry one or the other of the following codes would be reported in addition to those for the actual service provided.</p> <p>D9995 teledentistry – synchronous; real-time encounter</p> <p>D9996 teledentistry – asynchronous; information stored and forwarded to dentist for subsequent review</p>
<p><i>Remember to only code for what you do!</i></p>	

Source: https://success.ada.org/~media/CPS/Files/COVID/ADA_COVID_Coding_and_Billing_Guidance.pdf

*Codes may vary depending on state.

Note: The information in this document was accurate at the time of the printing of this User’s Guide. As regulations and information regarding Health Centers are not static, NNOHA recommends readers verify any critical information with different state/federal regulations and changes that may have occurred since printing.

SAMPLE CODING SCENARIOS⁶⁴

The ADA provided sample coding scenarios as part of the interim guidance. For more information on these codes, refer to the [ADA's Guide to Understanding and Documenting Teledentistry Visits](#). Some of the sample coding scenarios are provided below. This list does not capture all possible scenarios, nor will it apply to every state.

Patient contact with dentist who provides the consultation using audio means only

- DENTIST: D0190 (screening) or D0999 Patient contact with dentist who provides the problem focused evaluation using audio and visual means
- DENTIST: D0140 or D0170 or D0171

Patient contact with triage call center who then forwards to dentist who provides the problem focused evaluation using audio and visual means

- CALL CENTER: D0190 (screening) or D0999
- DENTIST: D0140 or D0170 or D0171

Patient contact with GP dentist (or specialist) who then forwards to specialist (or different specialist) who provides the problem focused evaluation using audio and visual means

- GP Dentist: D0190 (screening) or D0999
- GENERAL PRACTITIONER OR SPECIALIST DENTIST: D0140 or D0170 or D0171

Patient contact with hygienist off-site where diagnostic imaging equipment is available. Image capture is on Monday. The dentist in the practice office receives and interprets the images the next day.

- D0709 is reported for the Full Mouth Radiographs (FMX) with the date of service
- D0391 is also reported, but the date of service is the day the images were interpreted
- D9996 teledentistry – asynchronous; information stored and forwarded to the dentist for subsequent review with the same date of services as D0391

*Note: In all cases above the relevant teledentistry code should be included when applicable: Real-time synchronous (D9995) versus store-and-forward asynchronous (D9996).

⁶⁴ https://success.ada.org/~media/CPS/Files/COVID/ADA_COVID_Coding_and_Billing_Guidance.pdf

Promising Practices in Teledentistry

Promising Practice #1: Patient Centered Care and Teledentistry

CHARLOTTE COMMUNITY HEALTH CENTER FAMILY DENTISTRY

CHARLOTTE, NC

Due to COVID-19, staff of Charlotte Community Health Center (CCHC) Family Dentistry were close to being furloughed until teledentistry services were approved allowing them to reopen in August 2020. The dental team at CCHC Family Dentistry is able to provide synchronous teledentistry services to their patients one half day per week. To establish their workflow for teledentistry, the dental team used various online resources and webinars and participated in the first NNOHA Teledentistry Learning Collaborative (2020-2021) to learn from their peers. Additionally, CCHC received grant funding to support the clinic, allowing them to purchase new cameras.

Throughout this time, the clinic had to navigate changing policies at their site and community. When children were allowed to go back to school in person, for example, they experienced an increase in no-show rates for visits because parents and their children were no longer available for their teledentistry appointments. Despite these challenges, they have implemented practices to achieve an almost 0% no-show rate among their pediatric population. To the team at CCHC Family Dentistry, teledentistry is a useful tool that allows them to spend additional time educating and building trust with their patients. This benefit is unique to teledentistry compared to in-person visits due to time constraints. The team hopes to build their teledentistry program and add on more providers to grow their school-based program and reach more people experiencing homelessness.

Just dive in and try something new. This is the future. It's going to relieve stress for a lot of providers and patients. [Patients] don't have to stop their lives just to get to you for something. I would say remain open, because when you keep a closed mind to things, you don't grow. – Dentist, CCHC

Because of the payment and practice restrictions, the dental team at CCHC uses teledentistry to complete a portion of dental appointments for patients with diabetes. The dental hygienist connects with the patient, completes health history, risk assessment, motivational interviewing, self-management goal setting, and oral health education. The dentist then completes an exam at the in-person visit. This allows for the dentist and public health hygienist to collaborate with medical providers to set the patient up for success. The dental team reports having seen some patient's glucose levels improve with this medical-dental integration.

The dental team reports that implementing teledentistry processes has resulted in these benefits:

- Cut the in-clinic time in half

- Has reduced “no shows” to virtually zero for in-person visits following a teledentistry appointment
- Reduces the amount of PPE the care team uses
- Creates stronger patient engagement and better supports patients in understanding and managing their care

Promising Practice #2: Teledentistry for Patients in Substance Abuse Treatment Centers

TERRY REILLY HEALTH SERVICES

BOISE, ID

Terry Reilly Health Services (TRHS) provides dental services to patients receiving treatment at an in-patient detoxification center. Thanks to grant funding and their commitment to medical-dental integration, they are able to reach a population that often doesn't receive dental services. Frequently, patients report experiencing dental pain, and during their time at the treatment center they can receive dental treatment.

In response to COVID-19, TRHS started using teledentistry to continue offering services at the treatment center. The community dental health coordinator, who is a licensed dental hygienist, provides in-person dental hygiene services and collects patient records such as images, x-rays, health history and their chief complaint. Then using telehealth technology, the records are sent to the dentist at the clinic who reviews the records and makes a treatment plan. Patients are triaged based on their health needs and whether or not they are experiencing dental pain. For patients who need the specialized services of a dentist, care coordination assures that patients get dental appointments as soon as possible. The dentist offers teledentistry visits every other week in the afternoons. Additionally, patients who require a prescription are administered their medications by a nurse practitioner while in the treatment program.

[The patients] were super excited to be able to do all the things we did, from a distance. The last patient we had was so impressed. He said “I got a full dental appointment sitting here in a medical room, I never thought I could do this.

This is where technology is taking us now. This is amazing. – Community Dental Health Coordinator

Using telehealth technology helps connect patients to a dental home at a time in their substance use recovery when they are highly motivated to care for their overall health. In addition, when patients are scheduled for dental treatment, they are able to receive definitive care because a treatment plan and health record has already been established. Finally, the connection to medical personnel for prescriptions assures patients are started on antibiotics to reduce swelling for dental infection so that when they arrive at the dental clinic, the patients can get the dental treatment that they need. This innovative partnership between a federally qualified health center dental program and a substance abuse recovery center is supporting community members in addressing their overall wellness and advancing a path to long-term recovery.

Promising Practices #3: Teledentistry and Prenatal Care

UNIVERSITY OF CALIFORNIA, IRVINE FAMILY HEALTH CENTER

SANTA ANA, CA

The teledentistry program at University of California, Irvine (UCI) Family Health Center provides primarily synchronous services to patients. The purpose of the program was initially to triage patients to the appropriate services. Over time, the dentist noticed that people who were pregnant were not scheduling in-person perinatal appointments at the clinic, which meant that they were not receiving dental care either. Patients are most often referred from the high-risk obstetrics clinic as they are likely to be suffering from gestational diabetes and may have other conditions like preeclampsia and other chronic conditions. As a result, the dentist created a teledentistry plan tailored to meet the needs of patients who are pregnant.

As soon as the health center began offering telehealth appointments for other services, the dentist adapted their existing infrastructure and technology for teledentistry. The dentist also worked closely with IT to get the dental codes entered into the system. Nurse Practitioners in the OBGYN Department refer patients who are pregnant to the dentist, and the front desk staff or RDAs contact them to schedule them for a teledentistry appointment. At that time, the patient is encouraged to sign up for EPIC MyChart if they don't already have an account. During the visit, the dentist uses teledentistry to discuss medical and dental histories, give oral hygiene instructions and set goals and answer any questions the patient has. She uses the initial teledentistry visit as a tool to build trust with her patients.

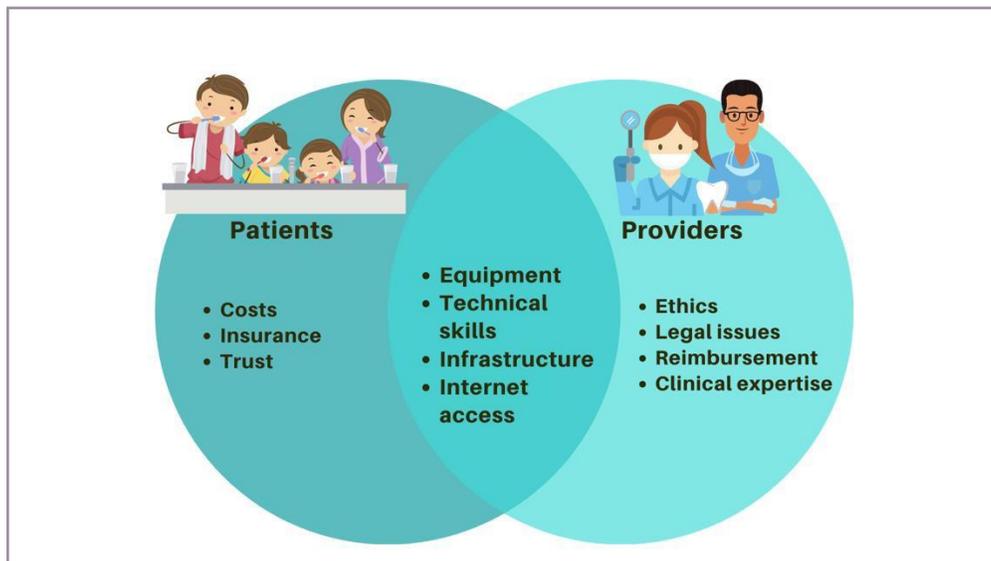
If an in-person visit is required, the patient's next appointment is scheduled at the end of the teledentistry visit. Because many of the patients haven't been to the dentist in a long time, patients often need x-rays and dental treatment. *The clinic discovered that patients are much more likely to attend their dental appointments after they have had a teledentistry visit.* With this innovative approach, the dentist at UCI plans to continue this program beyond the pandemic and has plans to expand as well. In addition to improving dental care for pregnant people, she aims to use teledentistry to reach patients with diabetes.

"You'll have better outcomes for patients who have a better relationship with their provider. Teledentistry is a trust building tool." – Dentist, UCI Family Health Center

Challenges/Barriers to Implementing Teledentistry

Although teledentistry has many benefits, there are individual, organizational, and infrastructural factors affecting the adoption of telehealth.⁶⁵ Figure 4 lists some of these barriers. Patient barriers to using telehealth include costs, insurance and trust. Patients may be hesitant to use teledentistry, for example, due to not knowing what services can be provided or how it can meet their needs. For providers, the lack of direct contact with patients is a challenge, while issues with reimbursement and clinical expertise also affect adoption of telehealth.

Figure 4: Barriers to teledentistry experienced by patients and providers



Equipment, technical skills and internet access also pose barriers to usage. Many rural communities do not have internet access or access to smart phones or computers. For those that do have access, the technology can be complex and requires additional staffing to train patients how to use the technology. On an organizational level, there are problems with reimbursement structures.

To overcome these challenges, dental care teams and patients must be adequately trained and educated on the technology. Furthermore, issues of reimbursement and ethical and legal implications must be addressed as well. The acceptance of teledentistry will grow when these challenges are addressed.

ETHICAL AND LEGAL ISSUES

Confidentiality of patient information is of great concern when medical histories and records are being transferred and stored electronically. It is essential that providers safeguard patient

⁶⁵ <https://hitconsultant.net/2020/05/04/teledentistry/#.YFodPkhKh24>

privacy — and inform their patients that the information is being sent in an electronic form. In addition, standards of clinical care for teledentistry visits should be the same as in-person visits. To avoid abuse of teledentistry if the dentist is unable to evaluate the patient to the same extent as an in-person visit, then billing the exam code may not be appropriate. An exam conducted via teledentistry will often allow the patient to avoid an in-person visit and wherever applicable and consistent with the standard of care, dental providers should minimize the number of dental visits.

However, many patients will still face barriers in getting to the clinic if their problem requires an in-person visit. Health centers are encouraged to develop systems of care coordination so that when a dentist identifies a problem via teledentistry, the patient is able to follow up as necessary in the clinic. This can be done through the help of community health workers, care coordinators, social workers, and others. As such, each patient should receive an individualized treatment plan that is safe, effective, patient centered and equitable.

LICENSURE JURISDICTION AND MALPRACTICE⁶⁶

The ADA's policy states that *"dentists and allied dental personnel who deliver services through teledentistry modalities must be licensed or credentialed in accordance with the laws of the state in which the patient receives service."* Further, teledentistry services must comply with the state's scope of practice laws, regulations, or rules and cannot be used to broaden the scope of dental practice.

PRACTICING ACROSS STATE LINES

Depending on the states in which each clinician holds a license and where the patient lives, clinicians may not be licensed to practice medicine across state lines.

PAYMENT/REIMBURSEMENT

As teledentistry adoption increases, more payers are reimbursing for teledentistry services. ADA's policy states:⁶⁷*"Dental benefit plans and all other third-party payers, in both public (e.g., Medicaid) and private programs, shall provide coverage for services using teledentistry technologies and methods (synchronous or asynchronous) delivered to a covered person to the same extent that the services would be covered if they were provided through in-person encounters. **Coverage for services delivered via teledentistry modalities will be at the same levels as those provided for services provided through in-person encounters and not be limited or restricted based on the technology used or the location of either the patient or the provider as long as the health care provider is licensed in the state where the patient receives service.**"*

⁶⁶ <https://www.ada.org/en/about-the-ada/ada-positions-policies-and-statements/statement-on-teledentistry>

⁶⁷ <https://www.ada.org/en/about-the-ada/ada-positions-policies-and-statements/statement-on-teledentistry>

TECHNOLOGICAL CONCERNS

Finding the right telehealth platform to use can be challenging.

ADA's policy⁶⁸ states: *"Dentists are encouraged to consider conformance with applicable data exchange standards to facilitate delivery of services via teledentistry modalities. These include, but are not limited to, Digital Imaging and Communications in Medicine (DICOM) standards when selecting and using imaging systems, X12/HL7 for the exchange of information and ICD-9/10-CM/SNOMED/SNODENT for documentation consistency."*

INSURANCE COVERAGE

Not all insurers cover services provided via telehealth in general, so teledentistry is more limited. Only 26 states currently require insurers to cover or reimburse the costs of services provided via telehealth.⁶⁹ For remote patient monitoring (RPM), 26 states have some form of reimbursement for Medicaid patients. However, many of the states that offer RPM reimbursement have a variety of restrictions on its use. Usually, these restrictions include limiting reimbursement to home health agencies, the clinical conditions for which symptoms can be monitored or on the types of monitoring devices used or information that can be collected. Only 18 states have a policy regarding Medicaid reimbursement for store-and-forward techniques. However, payment policies are constantly changing.

State and Federal Policy

There were already excellent reasons for states to encourage the use of telehealth technologies long before COVID-19 as reviewed earlier. States would be equipped to respond to similar crises in the future if permanent changes are made to laws and policies that impact teledentistry. Federal and state policy must accommodate needs that have surfaced or been exacerbated by the pandemic. Leveraging the Coronavirus Aid, Relief and Economic Security (CARES) Act, CMS' Waiver 1135 and state provisions explicitly aimed at promoting telehealth are a good start.

Since 2019, nearly all states have a definition for telehealth and nearly all Medicaid programs reimburse live video services. However, the advancement of teledentistry lags behind most other health disciplines, even in states where teledentistry is supported in some form. It is important for policymakers to be aware of how laws or regulations can enhance promotion of teledentistry. Some states have implemented policies that move innovations in teledentistry forward. Pennsylvania's Medicaid has been reimbursing for preventive dental codes through teledentistry, including oral hygiene instruction and tobacco cessation and is making these

⁶⁸<https://www.ada.org/en/about-the-ada/ada-positions-policies-and-statements/statement-on-teledentistry>

⁶⁹<https://www.cchpca.org/policy-trends/>

codes permanent after realizing savings, preservation of PPE, etc.⁷⁰ Nevada, Virginia, Connecticut and Rhode Island have allowed reimbursement for oral health case management codes provided via teledentistry.⁷¹ Nevada's board of dental examiners has been petitioned to determine if parents can apply a single dose of fluoride as part of a teledental visit.⁷² California has adopted a number of specific patient-centered standards that dentists must meet when providing care via teledentistry. These standards are part of meeting the law's general requirement that teledentistry care be in parity with the care patients receive in brick-and-mortar dental offices.⁷³

A use case from a health center showed that teledentistry can be used to screen, triage and treat patients, as well as provide preventive outreach to those who have forgone dental care. Petaluma Health Center (California) found that 100 dental patients were becoming overdue for care daily during the pandemic and implemented a successful model for preventive teledental services for patients 0-5.⁷⁴ Arizona, Idaho, Iowa, Ohio, Tennessee, Virginia, Washington and others also have extensive teledentistry laws.⁷⁵ Procedural manuals have been developed such as [this resource](#) from Oregon.⁷⁶

Policy opportunities

Teledentistry offers a way to address disparities in access to care. However, payment policy often lags behind practice innovation. It is important to advocate to bring about changes to payment and practice act policies to make teledentistry a permanent way to provide care.

- Align payment to support teledentistry as a sustainable and permanent service line.
 - Health center dentists and Primary Care Associations (PCA), in collaboration with other stakeholders, can advocate with their state legislatures to reimburse services provided via teledentistry.
- Scope of practice acts should support teledentistry so that dental care team members can work to the top of their licensure.
 - Coverage for periodic and comprehensive exams, motivational interviewing, risk assessment, nutritional counseling, case management, self-management.
 - Allow providers to establish new patients via tele-health.
 - Promote the use of tele-health for integration and continuity of care rather than patient- initiated visits only.

⁷⁰ Mozaffarian, M DMD. (2020) Preventive TeleDentistry Pennsylvania's Medicaid Policy. The American Dental Association Poster Session of the AIDPH 2020 Virtual Mini-Colloquium <https://www.youtube.com/watch?feature=youtu.be&v=P-z7FLqZ1M&app=desktop>

⁷¹ Digangi, P, Purdy, C. (2018) Teledentistry pathway to Prosperity: Critical Decisions workbook

⁷² <https://www.astdd.org/docs/nv-petition-form-parent-fvornish-training.pdf>

⁷³ <https://www.ada.org/en/publications/ada-news/2019-archive/october/california-passes-law-strengthening-teledentistry-requirements>

⁷⁴ https://www.nnoha.org/nnoha-content/uploads/2021/02/Promising-Practice_Teledentistry-during-COVID_2.12.21.pdf

⁷⁵ Poleman, T DDS. (2020) Nationwide Survey of Teledentistry Regulations, https://nnoha.org/nnoha-content/uploads/2020/04/Teledentistry-Regulations-Guide_updated_430.pdf

⁷⁶ <https://nnoha.org/nnoha-content/uploads/2020/05/Telehealth-and-Teledentistry-Guide.pdf>

- Systems of health care policy should include oral health representation and input. For example, include teledentistry in national conversations and policy decisions regarding telehealth.
- Electronic Dental Records (EDRs) should facilitate teledentistry through development of easy-to-use patient platforms, and integration of telehealth platforms with dental records.

The Future of Teledentistry and Next Steps

For many Americans, access to dental care remains an insurmountable challenge due to cost, geography, or a myriad of other barriers such as lack of transportation, work schedules that don't allow for time off for dental appointments, fear of dental treatment, and historic and structural factors. Dental practices have started to evolve to better understand the complex interplay between system and social factors that impact the delivery of dental care. Patients are more diverse than ever in ethnicity, socioeconomic status, and medical complexity. Considering that social determinants of health play a significant role in accessing, obtaining, and receiving quality health care, an opportunity exists to consider health care delivery models, such as teledentistry, that helps patients navigate or overcome barriers to receiving care and promotes a trusting partnership with patients to support them in managing their oral health.

Prior to the COVID-19 pandemic, teledentistry was available in many states, primarily using asynchronous, store-and-forward methods, but utilization was low. The COVID-19 pandemic accelerated innovation and adoption of synchronous teledentistry to provide high quality, evidence-based services to patients in the safety and security of their homes. The NNOHA Teledentistry Learning Collaborative participants identified a growing list of applications and patient populations who are better supported with teledentistry. This innovation, and creative application of technology as a part of a comprehensive system of care continues to grow.

There is a cost to families and the health care system every time a patient enters a dental operatory. For families the costs may include time off work, transportation, finding childcare for family members, and time out of school. For some patients, teledentistry is a much more patient-centered delivery method because patients can receive quality care with less stress, and less cost. Health center dental programs have identified the value and cost-savings to patients and their families.

Teledentistry comes with an endless list of benefits that will outlast the impacts of COVID-19 on dental care delivery. With the integration of teledentistry and enhanced infection control procedures, clinics can overcome future challenges to access caused by external events and continue to serve their patients. The rapid adoption of teledentistry during the COVID-19 emergency presents learning opportunities that add to telehealth's body of knowledge. Meanwhile, additional research can provide valuable insights on how to apply teledentistry in

the most cost-effective, patient-centered way. As such, teledentistry has the potential to completely revolutionize the field of dentistry in the near future.

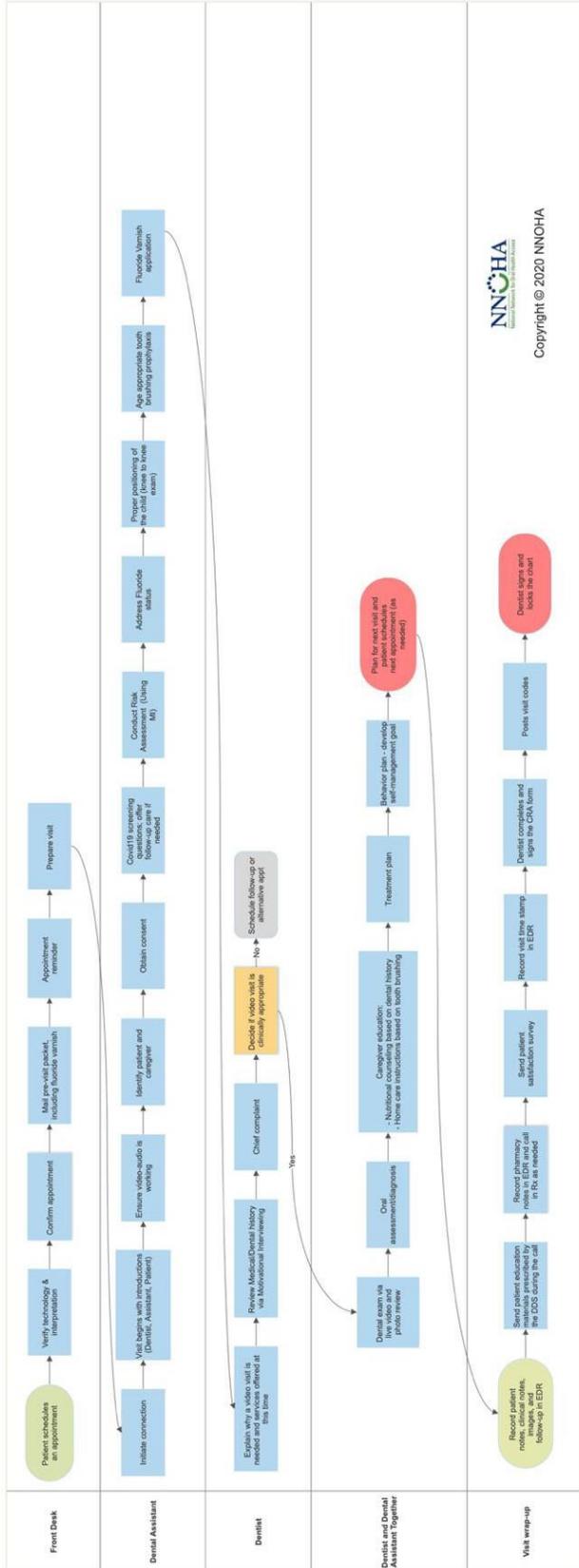
However, there are still barriers that need to be addressed for teledentistry to reach its fullest potential. There is a general lack of awareness among dental professionals, patients, and policy makers of how teledentistry can be part of a quality dental program. Patients are unaware of the telehealth and teledentistry options available to them, and many people have doubts about the quality of care that can be offered without touching the patient. For many dental providers, the paradigm shift of virtual care will require training, testing, and quality improvement methods to develop a value-added system of care. In addition, dental has largely been left out of national conversations about telehealth payment and policy solutions.

Up to one third of primary care patient visits can be completed via telehealth. With alignment of policy and reimbursement, dental care teams will continue to innovate and learn strategies to better serve patients using telehealth technology, and NNOHA envisions a future where teledentistry could have the same impact in dental care.

APPENDIX A: Sample Synchronous Workflow

Larger Sample Synchronous Workflow available at: https://nnoha.org/nnoha-content/uploads/2020/06/NNOHA-Generic-Teledentistry-Workflow_V7.pdf

Sample Workflow for Teledentistry Visits



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APPENDIX B: Additional Resources

Additional Resources

- [ADA COVID-19 Coding and Billing Guidance](#)
- [ADA Guide to Understanding and Documenting Teledentistry Events](#)
- [ADA Guide to “Image Capture Only” Procedures and Their Reporting](#)
- [Telehealth Basics](#)
- [Emergency Department Visits for Dental Conditions: A Snapshot](#)
- [Notification of Enforcement Discretion for Telehealth Remote Communications During the COVID-19 Nationwide Public Health Emergency](#)
- [Medicaid.gov – Telemedicine](#)
- [Telehealth FAQs – AAOMS](#)
- [DQ Communications Brief](#)
- [Implementing Teledentistry: The Why and the How](#)
- [AFL Blog](#)
- [NNOHA Teledentistry Resources](#)
- [NNOHA Oral Health Infrastructure Tool Kit](#)

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Contributors:

Colleen Lampron, MPH – Project Lead, Owner and President, AFL Enterprises
Lily Suyaying Rogers-Grant, MPH – Public Health Intern, AFL Enterprises
Irene Hilton, DDS, MPH – Dental Consultant, National Network for Oral Health Access
Rachel Johnston, MPA – Program Manager, National Network for Oral Health Access
Candace Owen RDH, MS, MPH - Education Director, National Network for Oral Health Access

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