



# Dental Public Health Project/Activity Descriptive Report Form

Please provide a detailed description of your **successful dental public health project/activity** by fully completing this form. Expand the submission form as needed but within any limitations noted. Please return completed form to: [lcofano@astdd.org](mailto:lcofano@astdd.org)

**NOTE: Please use Arial 10 pt. font.**

<b>CONTACT PERSON PREPARING THE SUBMISSION AND TO ANSWER QUESTIONS</b>
--

**Name:** Deborah Jacobi, RDH, MA

**Title:** Policy Director

**Agency/Organization:** Apple Tree Dental

**Address:** 2442 Mounds View Blvd. Mounds View, MN 55112

**Phone:** 651-238-1301

**Email Address:** [djacobi@applereedental.org](mailto:djacobi@applereedental.org)

<b>PROVIDE CONTACT INFORMATION FOR ONE ADDITIONAL PERSON WHO COULD ANSWER QUESTIONS REGARDING THIS PROGRAM</b>
--

**Name:** Michael J. Helgeson, DDS

**Title:** Chief Executive Officer

**Agency/Organization:** Apple Tree Dental

**Address:** 2442 Mounds View Blvd. Mounds View, MN 55112

**Phone:** 763-754-5780

**Email Address:** [mhelgeson@applereedental.org](mailto:mhelgeson@applereedental.org)

**SECTION I: ACTIVITY OVERVIEW**

Title of the dental public health activity:

[Apple Tree Dental: Teledentistry from 2002 to 2020](#)

**Public Health Functions\* and the 10 Essential Public Health Services to Promote Oral Health:**

Check one or more categories related to the activity.

<b>“X”</b>	<b>Assessment</b>
	1. Assess oral health status and implement an oral health surveillance system.
	2. Analyze determinants of oral health and respond to health hazards in the community
	3. Assess public perceptions about oral health issues and educate/empower them to achieve and maintain optimal oral health
	<b>Policy Development</b>
	4. Mobilize community partners to leverage resources and advocate for/act on oral health issues
	5. Develop and implement policies and systematic plans that support state and community oral health efforts
	<b>Assurance</b>
	6. Review, educate about and enforce laws and regulations that promote oral health and ensure safe oral health practices
X	7. Reduce barriers to care and assure utilization of personal and population-based oral health services
	8. Assure an adequate and competent public and private oral health workforce
	9. Evaluate effectiveness, accessibility and quality of personal and population-based oral health promotion activities and oral health services
	10. Conduct and review research for new insights and innovative solutions to oral health problems

[\\*ASTDD Guidelines for State and Territorial Oral Health Programs that includes 10 Essential Public Health Services to Promote Oral Health](#)

**Healthy People 2030 Objectives:** Please list HP 2030 objectives related to the activity described in this submission. If there are any state-level objectives the activity addresses, please include those as well.

- Reduce the proportion of adults with active or untreated tooth decay — OH-03
- Increase use of the oral health care system — OH-08
- Reduce the proportion of people who cannot get the dental care they need when they need it — AHS-05

**Provide 3-5 Key Words (e.g. fluoride, sealants, access to care, coalitions, policy, Medicaid, etc.) These will assist those looking for information on this topic:**

Access to Care: Adults and Older Adults Services, Access to Care: Children Services, Access to Care: Communities, Teledentistry, Telehealth

**Executive Summary:** Complete after Section II: Detailed Activity Description. Please limit to 300 words in one or two paragraphs.

Provide a brief description of the dental public health activity. Include information on: (1) what is being done; (2) who is doing it and why; (3) associated costs; (4) outcomes achieved (5) lessons learned, both positive and negative.

Apple Tree Dental was founded as a non-profit in 1986 to provide dental care to nursing home residents at long-term care facilities in the Twin Cities metropolitan area. Today, its eight Centers for Dental Health (clinics) provide care to people of all ages and abilities and also function as care coordination hubs for more than 140 community sites served by their mobile programs. Patient records are linked by a cloud-based electronic health record (EHR) which includes digital x-rays and images. From the early 2000's through today, teledentistry has helped: reduce patients' barriers to care; improve program and dental team efficiency; and respond to the Covid-19 pandemic.

In a traditional dental office visit, a dental hygienist, therapist or assistant typically collects and documents the patient's oral and overall health status for interpretation by a dentist or advanced dental therapist. This is very similar for teledentistry, however patient information captured by the on-site dental team is reviewed by the remote dentist in either synchronous (real-time) or asynchronous (store and forward) modality. Minnesota statutes require that specific diagnostic, radiographic, and consultation dental services are reimbursed at the same rate whether provided at a traditional in-person visit or via teledentistry in the Medicaid program. Beyond the originally envisioned use in Apple Tree's mobile programs, teledentistry has helped launch a new program, overcome staffing shortages, and promote "top of license practice" by our dental teams. Apple Tree's teledentistry experience greatly enhanced our response to Covid-19 pandemic restrictions' urgent care and deferred patient needs. Lessons learned include the importance of common language and clear communication about teledentistry regulations and reimbursement, the value of piloting and the scaling innovations within the organization, and that careful planning along with training for staff and partners will support success. Once implemented, process improvements and new applications will be identified by mission-oriented dental team members.

## SECTION II: DETAILED ACTIVITY DESCRIPTION

Provide detailed narrative about the dental public health activity using the headings provided and answering the questions. Include specifics to help readers understand what you are doing and how it's being done. References and links to information may be included.

**\*\*Complete using Arial 10 pt.**

### **Rationale and History of the Activity:**

1. What were the key issues that led to the initiation of this activity?

Apple Tree Dental was founded as a non-profit in 1986 to provide dental care to nursing home residents at long-term care facilities in the Twin Cities metropolitan area. Over its history, Apple Tree has been an early adopter of innovative approaches that increase the reach, efficiency, and effectiveness of the dental team. Apple Tree now has eight Centers for Dental Health across Minnesota. To provide regional access to dental services, Centers also function as care coordination hubs for more than 140 community sites served by their mobile programs. All patients' dental records are linked by a cloud-based electronic health record (EHR). The desire to provide comprehensive, ongoing care across all settings has driven numerous delivery system and workforce innovations. The emergence of teledentistry technologies offered further opportunities to advance our mission to overcome barriers to oral health.

2. What rationale/evidence (may be anecdotal) did you use to support the implementation of this activity?

Teledentistry was implemented and expanded at Apple Tree to help:

- o Reduce patients' barriers to care
- o Improve program and dental team efficiency
- o Respond to the Covid-19 pandemic

### Reduce patients' barriers to care

Apple Tree's mobile program brings care on-site, reducing patients' needs to travel for routine care. For rural residents, this reduces time and travel expenses. For families with children, it reduces time away from work or school. For frail elders and other people with mobility issues or disabilities, the support staff and special medical transportation services required to get to a dental office, often cost far more than the dental services themselves. Adding diagnostic services delivered via teledentistry to our mobile program enhanced our on-site services.

Similarly, teledentistry can reduce the travel when patients are referred for advanced services or specialty care. This can reduce the number of appointments and associated travel for Apple Tree's pediatric, oral surgery, and IV sedation services or for referrals to external specialists.

### Improve program and team efficiency

Teledentistry creates opportunities for top-of-license practice for team members, allowing more patients to be seen and more care to be provided. Apple Tree has used both synchronous (real-time) and asynchronous (store and forward) modes of teledentistry. In both, a remote dentist reviews the patient information and images (that have been collected on-site by a dental hygienist or dental therapist) to create a treatment plan.

For individual patients, teledentistry can mean fewer visits and more timely care. Individual patients seen at community sites and their caregivers can consent to recommended care in advance of treatment that may require an in-office visit. The ability to capture the needed patient data and images can also expedite insurance prior-authorization and consultations.

At the long-term care facilities and other community sites served by our mobile program, determining the need of all patients at that site improves operational efficiency. The urgency and volume of restorative and routine preventive services needed at a specific site helps care coordinators determine the frequency and number of days to schedule a mobile team, as well as the specific mix of dentist, dental therapists, dental hygienist and dental assistants needed.

### Respond to the Covid-19 pandemic

Early in 2020, the COVID-19 pandemic resulted in the temporary closure of many dental clinics. Under its emergency powers, the State required dental providers across Minnesota to limit dental care to urgent cases only. Even as restrictions were lifted, shortages of Personal Protective Equipment (PPE) were experienced across the state.

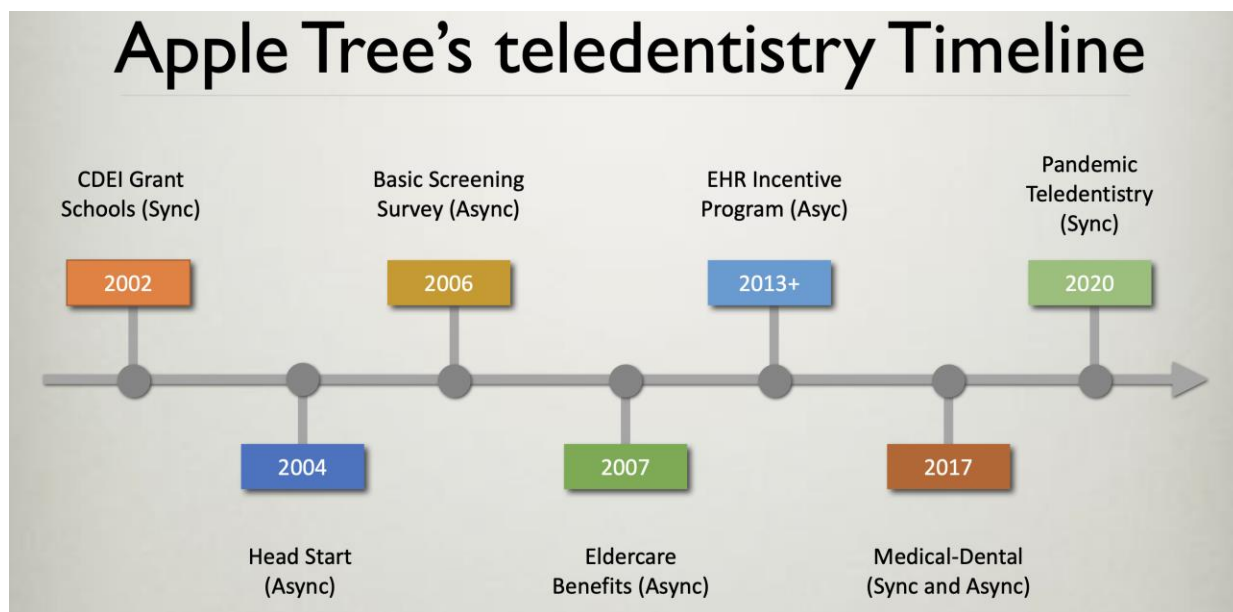
Expanded use of teledentistry made it possible for patients to connect with our dentists and dental therapists over their computer or smart phone in a virtual appointment. Dental providers discussed options and recommendations with patients including whether their concern could be managed at home. For more serious dental problems requiring an in person visit, teledentistry triage, medical history review, and other pre-appointment processes could be done virtually, reducing in-person exposure time in the dental operator.

3. What month and year did the activity begin and what milestones have occurred along the way? (May include a timeline.)

For over 18 years, Apple Tree Dental has utilized teledentistry in collaboration with community partners to connect dental providers to patients and to other providers. Initial pilot projects were supported by grant funding and a limited, inconsistent patchwork of reimbursement by managed care organizations for diagnostic services provided through teledentistry.

From 2006 – 2015, Minnesota Medicaid restricted reimbursement for teledentistry based upon their interpretation that for services be personally furnished by a dentist an in-person encounter was required. An important change came with the inclusion of dentistry in Minnesota's 2015 telehealth legislation: <https://www.revisor.mn.gov/statutes/2015/cite/62A.672>. The State established guidance on coverage and billing procedures, which financially support the practice. As a result, more information on its use is available through claims data.

Around 2017, teledentistry was used to support a new Apple Tree program operating as an outreach site inside a rural, regional medical facility. Services were initially launched with a staff dental hygienist who lived locally and a twin cities-based staff dentist. Their collaborative agreement and teledentistry allowed new patients to receive preventive care from the dental hygienist, treatment plans to be developed by the dentist, and scheduling of needed restorative care until Apple Tree had recruited and onboarded local staff including a dentist and dental therapist.



- 2002 Clinical Dental Education Innovations Grant – educational partnership with Normandale Community College Dental Hygiene Program
- 2004 Head Start Innovations Project – federal grant funded
- 2006 Basic Screening Survey Project - standardized data collection in collaborative practice
- 2007 Eldercare Dental Benefits Project – exploratory use in assisted living facilities
- 2013 EHR Incentive Program – for meaningful use standards
- 2017 Little Falls Outreach Clinic – launch of a new Apple Tree program
- 2018 North Metro Pediatrics – medical dental integration
- 2018 Madelia Center Project – local staff supported by remote dentist in response to staffing shortages
- 2020 Pandemic Response – overcoming practice restrictions and responding to urgent and deferred patient needs

The sections below follow a logic model format. For more information on logic models go to: [W.K. Kellogg Foundation: Logic Model Development Guide](https://www.kellogg.org/sites/default/files/2017-09/Logic%20Model%20Development%20Guide.pdf)

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
--------	--------------------	---------	----------

1. What resources were needed to carry out the activity? (e.g., staffing, volunteers, funding, partnerships, collaborations with various organizations, etc.)

For teledentistry, resources include equipment and supplies such as laptops, software and licenses, digital x-ray sensors, handheld x-ray units and intraoral cameras. Because Apple Tree uses digital radiography and an electronic health record, needed supplies and equipment are in use at all our Centers. Based upon review of available software and its compatibility with Open Dental, Apple Tree selected XV web and XV Capture software. The cloud-based software links digital images with patients' EHR, regardless of the setting in which they are captured and allows the review and diagnosis to occur from another location.

Significant investment in planning, researching products, developing procedures and protocols, electronic health record integration, staff training, and technical assistance have been essential to successful implementation of teledentistry across the organization and its expansion over time.

Apple Tree's mobile programs deliver care through multiple community partnerships. Effective communication and collaboration with Head Start, schools, long-term care facilities, and other community-based organizations are necessary to serve their clients with teledentistry.

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
--------	--------------------	---------	----------

2. Please provide a detailed description the key aspects of the activity, including the following aspects: administration, operations, and services.

Teledentistry offers additional options for the dental team to evaluate a patients' condition and establish a treatment plan. The equipment and workflow are similar to standard collection and documentation of patient's oral and overall health status through medical history review, x-rays, visual findings, periodontal probing, etc. However, teledentistry adds the flexibility and benefits described earlier to capture patient information in an accessible community location followed by evaluation by the remote dentist.

Apple Tree's original use of teledentistry in partnership with Head Start helped increase compliance with dental examination requirements and to triage children into care as needed. The information and images collected by the on-site dental team are used to develop individual treatment plans and understand how many children in need of treatment need help finding a source care, whether through Apple Tree's mobile program or Centers, or through referral to another practice. This same approach has been used at outreach sites for older children in regional partnership with other organizations.

At partnering long-term care facilities, including nursing homes and assisted living, teledentistry allows frail elders to receive as much care on-site as possible, is more efficient than having support staff accompany them to clinic appointments, and reduces the expense of special transportation services. As part of our dental director program, long-term care facilities contract with Apple Tree to conduct the oral health portion of the Minimum Data Set (MDS), develop individual care plans for each resident, and respond to dental emergencies. Visual screening can be enhanced by capturing images of lesions or problem areas for follow up. For residents who have selected Apple Tree as their dental provider, teledentistry can be used as part of our on-site care team's workflow.

For Minnesota's Medicaid program, providers must complete a *Telemedicine Provider Assurance Statement*: <https://edocs.dhs.state.mn.us/lfserver/Public/DHS-6806-ENG>. With this attestation and frequency limitations, the following CDT codes are eligible for reimbursement.

- D0120: Periodic oral evaluation—established patient
- D0140: Limited oral exam
- D0145: Oral evaluation for a patient under 3 years of age
- D0150: Comprehensive oral evaluation—new or established patient
- D0210: Intraoral—complete series of radiographic images
- D0220: Intraoral—periapical first radiographic image
- D0230: Intraoral—periapical each additional radiographic image
- D0270: Bitewing—single radiographic image
- D0272: Bitewings—two radiographic images
- D0274: Bitewings—four radiographic images
- D0240: Intraoral—occlusal radiographic image
- D0330: Panoramic radiographic image
- D9310: Medical Dental Consultation

Initially, most teledentistry at Apple Tree was asynchronous, “store and forward,” to help overcome early internet bandwidth issues at community sites, especially in rural areas. Although, improvements in internet services make connection to the cloud-based electronic health record possible, store and forward remains helpful in the efficient use of providers' time and flexibility for scheduling. Increasingly during the pandemic, Apple Tree has used Microsoft Teams (Teams) as a HIPAA secure means for

real-time interaction for synchronous patient to provider appointments. Patients can email a secure image or attach a photo within Teams to be used during their virtual visit. Apple Tree staff upload the information from Teams into Open Dental for a complete electronic health record.

As reported by staff members, Apple Tree has used teledentistry benefit our patients and our practice:

- Provide examinations for the collaborative practice dental hygienist and on-site care team.
- Triage patients to determine the urgency of the care they need and coordinate their care for efficient in-office visits.
- Launch a new program while hiring local staff.
- Overcome shortages in clinical dental staffing.
- Free up dentists to work at the top of their licensure with our most high needs patients in our clinics.
- Schedule stable recall patients with a dental hygienist using workflow/protocol so a dentist or advanced dental therapist can later review findings.
- Expand staff options during the COVID-19 pandemic, including providing telehealth visits while quarantined at home.

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
--------	--------------------	---------	----------

3. What outputs or direct products resulted from program activities (e.g., number of clients served, number of services units delivered, products developed, and accomplishments)?

The use of teledentistry at Apple Tree increased during the for the four-year period following the legislation restoring coverage in Minnesota’s Medicaid Dental program.

	2017	2018	2019	2020
# Teledentistry exams	50	555	608	1,481
# of ATD providers	5	21	22	52

The total number of teledentistry examinations during the 4-year period was 2,694. The total number of providers (dental hygienists, dental therapists, and dentists) is not cumulative as early adopters are included in the counts over time. As shown, the COVID -19 pandemic resulted in increases in both examinations and involvement of Apple Tree providers in 2020. Pandemic restrictions on dental practice in Minnesota also led to an increase in the use of synchronous interactions between patients and providers. Of the 1,481 examinations done in 2020, 34% were synchronous.

Beyond the shift to the synchronous modality, the pandemic also led to an increase in the use of teledentistry for limited, problem-focused exams. Nearly all teledentistry was comprehensive / new patient examinations and periodic examinations for routine “recall” patients via teledentistry were part of Apple Tree’s comprehensive care approach. However, in 2020 just over 1/3 of exams were problem-focused, limited exams. The shift reflects not only Minnesota’s pandemic restrictions on routine services but also an increase in the number of new patients seeking care at Apple Tree. This included many patients referred from dental offices and clinics that remained closed and people who simply had no source of care other than a hospital emergency department.

The original implementation of teledentistry and its expansion required the development of clinical workflows and associated training for staff. Record keeping within Open Dental and billing processes have been updated to better support our clinicians and staff and also to meet changing requirements of payors and health plans.

Although Apple Tree’s pandemic response greatly benefitted from having teledentistry systems in place, the pandemic created the need for further adaptation. A process to triage the need for in-person versus a virtual visit was developed. Prompts and scripts were created for our care coordinators to help them discuss teledentistry as an option for patients as part of our Covid-19 precautions. Our typical use of teledentistry had been between on-site staff with the patient and a remote dentist. However, the pandemic highlighted the need for “patient to provider” encounters. Care coordinators provided patients, their parent, caregiver, or facility staff with instructions and a Microsoft Teams meeting link prior to their virtual dental visit.

# Pandemic Teledentistry: Patient Instructions

You are scheduled for a virtual dental appointment with Apple Tree Dental.





1. For your privacy, **please choose a private location** during your Teledentistry appointment, if possible.
2. For optimal video quality, **please choose a well-lit location**, with the light source in front of you rather than behind you.
3. Before your appointment, please **wash your hands thoroughly with soap and water** as you may be asked to retract your lips to show the provider any areas of concern.
4. At the scheduled appointment time, **click the Join Microsoft Teams Meeting link below** from your smart phone or computer. **By joining the Microsoft Teams Meeting you are agreeing to a Teledentistry Exam. Important:** If joining from a computer it needs to have a webcam and microphone for the video call.
5. Choose to **join the meeting as a guest** by web browser (if you prefer to download the app please do so before your scheduled appointment time). Be sure to allow use of your camera and microphone when prompted.
6. You will be placed in a **virtual waiting room** until the dentist is ready to see you.

Patients were also provided with a tip sheet on how to capture their own photos. "Patient Instructions – Photos for Teledentistry" is included as an attachment.

The COVID-19 pandemic was particularly difficult for residents and staff of long-term care settings. Most have periodically closed their facilities to outside visitors, including our on-site dental teams, to reduce transmission risk. In July of 2020, Apple Tree surveyed partnering facilities about their readiness to resume dental services, as shown in the attached "**LTC Communication and survey**". A new option for patient/resident to provider teledentistry was offered along with full on-site services with multiple team members or on-site screenings only with a dental hygienist. Responses from 65 facilities showed that the vast majority were ready to resume some level of service including teledentistry. More than one service option could be selected. Of the 26 teledentistry responses shown below, 9 were teledentistry only and 17 were in combination with either on-site screenings or the full dental team on-site.

## 2. Which dental services is your facility prepared to resume at this time? (Check all that apply)

[More Details](#)

 Teledentistry Visits	26
 On-site Dental Screenings	35
 Full Dental Team On-Site Visits	39
 None at this time	11



Synchronous teledentistry limited exams done for patients residing at 18 facilities (a group home, assisted living, nursing homes, and combined nursing home/assisted living facilities) with support from their staff.



INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
--------	--------------------	---------	----------

4. What outcomes did the program achieve? (e.g., health statuses, knowledge, behavior, care delivery system, impact on target population, etc.) Please include the following aspects:
- a. How outcomes are measured
  - b. How often they are/were measured
  - c. Data sources used
  - d. Whether intended to be short-term (attainable within 1-3 years), intermediate (achievable within 4-6 years), or long-term (impact achieved in 7-10 years)

Beyond the numbers of services provided and staff involved reported above, many of the outcomes achieved through teledentistry are more subjective in nature or are not quantified as part of our normal reporting. For example, we have not measured the following benefits of teledentistry:

- reduction in travel by patients to access care
- efficient triage for reassurance, follow-up, prescriptions, etc. via virtual visits
- increased patient engagement
- career enhancement/job satisfaction
- optimized in-person clinic visits
- reduced use of personal protective equipment
- reduced COVID-19 transmission risk

A dental therapist with experience at both the community site where images are captured and as the provider reviewing images for limited examinations, which are within their scope of practice, noted that the variety and innovation of teledentistry improved job satisfaction. Additional positive outcomes for our patients, providers, and organization are reflected in these comments from staff:

“Without teledentistry and before COVID, a patient with a tooth concern was scheduled for a half an hour appointment for diagnosis and again for treatment. Teledentistry triage has reduced that to one appointment for treatment.”

“I have been able to provide reassurance for parents concerned about normal loss of “baby teeth” and eruption of permanent teeth and other situations where a consultation with video is enough to understand what is needed.”

“Beyond COVID-19, this modality can continue to be used for patients who are unable to come into the clinic, whether that is because of a compromised immune system, other medical reasons, or because a patient simply is unsure if their dental concern requires an in-person appointment.”

Apple Tree’s pandemic teledentistry experience revealed potential new ways to increase patient engagement by providing follow up and education to patients and their caregivers. Services with the potential to impact oral health area for future exploration include motivational interviewing, enhanced oral hygiene instruction, tailored patient and family support, nutritional counseling, and risk assessment.

**Budgetary Information:**

NOTE: Charts and tables may be used to provide clarity.

1. What is the annual budget for this activity?

Apple Tree’s strategy for sustaining its programs is to design our programs so they produce sufficient earned income from patient care activities to cover ongoing operating costs. This allows us to use grants, gifts, and donations primarily to fund the one-time costs related to launching new projects, carrying out educational and research activities, and building and staffing new innovations. The total 2021 Annual Budget is \$22,223,497.

2. What are the costs associated with the activity? (Including staffing, materials, and equipment)

Apple Tree uses digital radiography and an electronic health record in all settings. Because the equipment and types of staff involved in teledentistry are quite similar, the associated costs are therefore considered part of clinical operations.

Nomad, handheld x-ray units, are used with portable equipment for preventive services at Head Start and for pediatric outreach sites and are also useful when patient positioning is difficult for older adults. The full mobile dental office, with complete A-Dec units on wheels, also has a cart-mounted x-ray unit. Mobile program laptops are similar to those used in the clinics. In our experience, teledentistry makes efficient use of providers' time and available appointments, which is important for a non-profit organization concerned with meeting the significant unmet dental needs of public program enrollees.

### 3. How is the activity funded?

Minnesota's Medicaid program covers diagnostic services performed via teledentistry at the same reimbursement rate as those traditionally delivered. Specified by the CDT codes listed above, this includes periodic, limited, and comprehensive evaluations, common intraoral and panoramic radiographs, and Medical Dental Consultation. Enrolled providers must self-attest that they meet all of the conditions of Minnesota's telemedicine policy, prior to delivering services, by completing a Provider Assurance Statement for Telemedicine (<https://edocs.dhs.state.mn.us/lfserver/Public/DHS-6806-ENG>). Grant funding is also sought to purchase equipment and to develop new partnerships.

### 4. What is the plan for sustainability?

Apple Tree expects to expand use of teledentistry to expand access and improve oral health in new ways which benefit our patients, providers, and programs. Increased awareness of health disparities and under-use of minimally invasive approaches to controlling dental disease are two areas where teledentistry may be used to engage patients in health behavior change. We also anticipate greater collaboration with a broader array of community partners and interprofessional colleagues. As previously done by Apple Tree, grant funded pilot projects may be needed to drive policy changes to support promising practices.

## **Lessons Learned and/or Plans for Addressing Challenges:**

### 1. What important lessons were learned that would be useful for others looking to implement a similar activity? Was there anything you would do differently?

Advocacy on behalf of under-served patients and safety-net providers helped promote teledentistry in Minnesota. A lesson learned is that legislative authorization is necessary but not sufficient for teledentistry to be widely implemented within a state. In Minnesota, early momentum was lost due to conflicting guidance and coverage restrictions put in place by the State, which have been loosened subsequently. A recommendation would be that the multiple stakeholders involved reach consensus, use common definitions, and provide consistent communication to support teledentistry as a tool to improve access to care. For example:

- Scope of practice rules and regulations – State board of dentistry, health departments including agencies regulating radiation safety
- Billing and payment - Medicaid agency, insurance companies, health plans and third-party administrators
- Professional education – Dental professional education programs, and continuing dental education

Secondly, Apple Tree has learned the importance of first piloting and then replicating innovative approaches. Often, our earliest efforts are undertaken by staff "champions" who have an interest in the new approach. This allows systems and procedures to be tested and improved before full implementation. When ready to scale up, providing education and training for staff and partners based upon the lessons learned makes it easier for those with less experience or more hesitance to succeed.

Finally, Apple Tree's teledentistry experience included benefits beyond those originally anticipated. Many process improvements and new applications have been staff generated. Through their experience, we learned that teledentistry could be used to triage pandemic-

deferred care, adapt to staffing shortages, contribute to providers' job satisfaction, and to increase patient engagement.

2. What challenges did the activity encounter and how were those addressed?

In the early days of teledentistry, limitations to available bandwidth and internet connectivity issues were addressed through the use of Store and Forward. Improved internet access in rural areas, advancements in available technology and an explosion of products have all occurred over the last 20 years.

Other challenges, such as policy and reimbursement are included under #1 above.

**Available Information Resources:**

Share any models, tools, and/or guidelines developed by the program specifically for this activity that may be useful to others seeking additional information. Hyperlink resources if possible.

**Apple Tree Dental Resources:**

Information for patients from Apple Tree dental website: <https://www.appletreedental.org/services/apple-tree-technology/>

Long-term care letter and facility readiness survey: <https://www.astdd.org/docs/mn-atd-ltc-letter-tx-survey-teledentistry-2020.pdf>

Patient instructions for taking photos for teledentistry: <https://www.astdd.org/docs/mn-atd-pt-inst-photos-teledentistry-2021.pdf>

Teledentistry in a Pediatric Primary Care Setting (Apple Tree Dental video): <https://youtu.be/9rgjAMc7qWc>

**Other Resources:**

Langelier M, Rodat C, Moore J. Case Studies of 6 Teledentistry Programs: Strategies to Increase Access to General and Specialty Dental Services. Rensselaer, NY: Oral Health Workforce Research Center, Center for Health Workforce Studies, School of Public Health, SUNY Albany; December 2016  
[https://oralhealthworkforce.org/wp-content/uploads/2017/02/OHWRC\\_Case\\_Studies\\_of\\_6\\_Teledentistry\\_Programs\\_2016.pdf](https://oralhealthworkforce.org/wp-content/uploads/2017/02/OHWRC_Case_Studies_of_6_Teledentistry_Programs_2016.pdf)

Utility of Teledentistry in Increasing Access to Oral Health Care Services  
Presentation by Margaret Langelier, MSHSA Co-Deputy Director, Oral Health Workforce Research Center, Center for Health Workforce Studies, School of Public Health, SUNY Albany, March 15, 2021 American Dental Education Association Annual Session and Exhibition  
<https://oralhealthworkforce.org/wp-content/uploads/2021/03/032021a.pdf>

Minnesota Legislature, 2015 62A.672 COVERAGE OF TELEMEDICINE SERVICES  
<https://www.revisor.mn.gov/statutes/2015/cite/62A.672>

Minnesota Department of Human Service, 2030 State Oral Health Plan  
<https://www.health.state.mn.us/people/oralhealth/contact/stateplan.html>

Minnesota Department of Human Services, Teledentistry information:  
[https://www.dhs.state.mn.us/main/idcplg?IdcService=GET\\_DYNAMIC\\_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=ID\\_008953#teledentistry](https://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=ID_008953#teledentistry)

Telemedicine Provider Assurance Statement: <https://edocs.dhs.state.mn.us/lfserver/Public/DHS-6806-ENG>

<b>TO BE COMPLETED BY ASTDD</b>	
Descriptive Report Number:	26013
Associated BPAR:	Teledentistry
Submitted by:	Apple Tree Dental
Submission filename:	<b>DES26013MN-teledentistry-2021</b>
Submission date:	November 2021
Last reviewed:	November 2021
Last updated:	November 2021