



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

NOTE: Please use Arial 10 pt. font.

CONTACT PERSON PREPARING THE SUBMISSION AND TO ANSWER QUESTIONS

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PROVIDE CONTACT INFORMATION FOR ONE ADDITIONAL PERSON WHO COULD ANSWER QUESTIONS REGARDING THIS PROGRAM

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SECTION I: ACTIVITY OVERVIEW

Title of the dental public health activity:

Organizational use of teledentistry to enable health equity and prevention

Public Health Functions* and the 10 Essential Public Health Services to Promote Oral Health:
Check one or more categories related to the activity.

"X"	Assessment
	1. Assess oral health status and implement an oral health surveillance system.
X	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
Policy Development	
X	4. Mobilize community partners to leverage resources and advocate for/act on oral health issues
X	5. Develop and implement policies and systematic plans that support state and community oral health efforts
Assurance	
	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
X	9. Evaluate effectiveness, accessibility and quality of personal and population-based oral health promotion activities and oral health services
X	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.

- OH-08 – increase use of the oral health care system
- AHS-05 – reduce the proportion of people who cannot get the dental care they need when they need it
- OH-09 – increase the proportion of low-income youth who have a preventive dental visit

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:

Telehealth, teledentistry, teleprevention, access to care, health equity

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.

CareQuest Institute for Oral Health is a nonprofit committed to improving the oral health of all. Its for-profit affiliate, CareQuest Innovation Partners, shares the same mission. Both organizations aim to

transform the oral health care system and envision expanding the use of technology, namely teledentistry, as a fundamental component. These organizations pursued two primary objectives: 1) Promote teledentistry as a tool to enable health equity, prioritizing the underserved, increasing their access to care, and 2) Endorse and grow teledentistry as a vital tool for education and preventive care.

CareQuest Institute and CareQuest Innovation Partners worked toward meeting these objectives through three areas of activation:

1. CareQuest Institute has been leading health improvement program known as the Community Oral Health Transformation (CO_RHT) Initiative that enables dental providers to deliver integrated and value-based care, including virtual care that applies technology for enhanced disease prevention and whole-person health. To date, CareQuest Institute has funded two iterations of a learning community at approximately \$350,000 over the last two years. Funding advanced not only use of teledentistry, but also minimally invasive care and medical-dental integration. Outcomes from this program have included increased utilization of teledentistry for emergent and preventive care.
2. CareQuest Institute implements its grant making through a systems-change approach and supports teledentistry initiatives focused on building, piloting, and sharing new models that better serve historically marginalized populations. Funding for a few key teledentistry initiatives has reached more than \$1 million and outcomes include sustained implementation of private practitioners in community-based and rural settings, strategic delivery of care to patients with special health care needs, and delivery of preventive care and education through teledentistry.
3. CareQuest Innovation Partners collaborated with Advantage Dental, DentaQuest's care deliver team in Oregon to rollout a synchronous emergency access program to their oral health centers using MouthWatch TeleDent in 2020 in response to the COVID-19 pandemic. Funding for the initiative came from Advantage Dental, and the program showed evidence of teledentistry increasing access to care, and being effectively used for risk identification, management, and triage, while driving system wide cost savings when deployed in a value-based care system.

Lessons learned from all three areas of activation follow similar patterns including the need for provider and patient buy-in, comprehensive workforce empowerment to use teledentistry, and viable teledentistry reimbursement avenues.

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?

The oral health care system is largely inaccessible, fragmented, and inequitable, especially for historically underserved populations. Expanding the use of technology, particularly teledentistry, has shown [evidence](#) of improving access to dental care and patient satisfaction, as well as lowering the cost of care. Widespread adoption of teledentistry has struggled due to a variety of barriers like state regulations, lack of reimbursement, and inadequate technology and connectivity. With the vision of building on existing evidence for teledentistry, overcoming common barriers, and establishing best practices, CareQuest Institute and CareQuest Innovation Partners both established teledentistry as strategic priorities for their organizations to ultimately improve access to and quality of prevention-focused, person-centered oral health care. To do this, CareQuest Institute operationalizes health improvement programs and grant making, while CareQuest Innovation Partners works on innovation advancements.

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

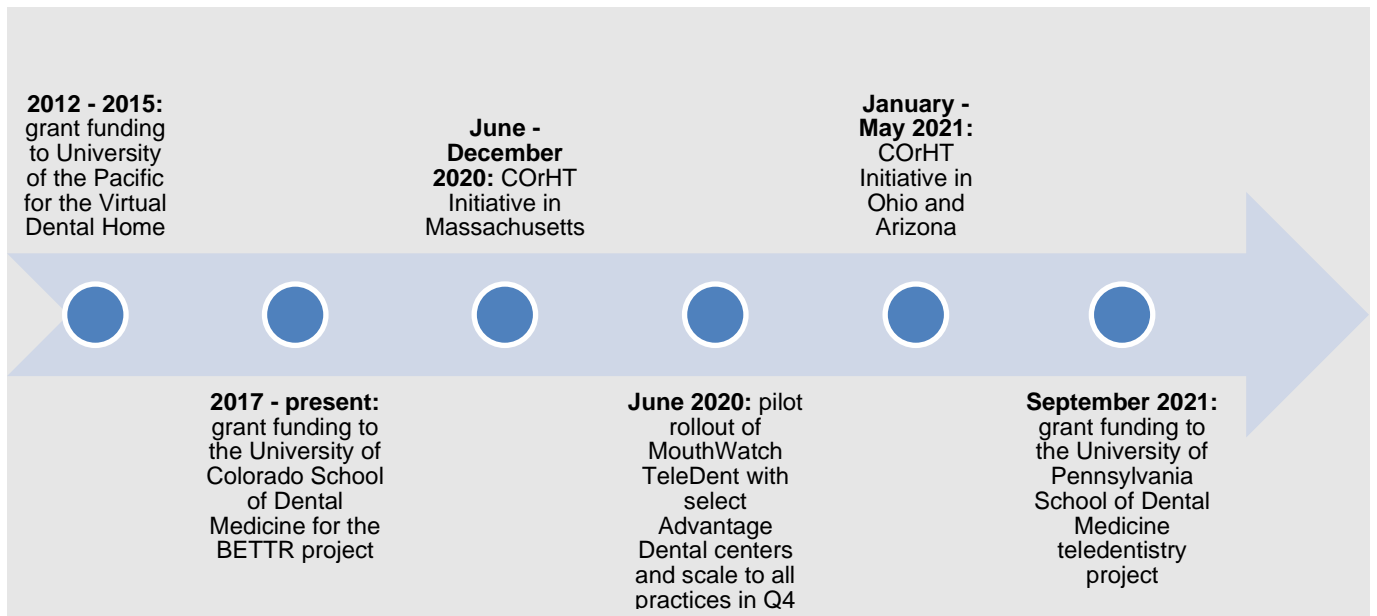
The strategic focus on teledentistry through health improvement programs, grant making, and innovation advancements can be rationalized by a plethora of recent teledentistry environmental activity. The COVID-19 pandemic brought increased awareness and necessitated utilization of teledentistry by [patients](#) and [providers](#), and reimbursement by [payors](#).

The Community Oral Health Transformation (COrHT) Initiative is a health improvement program initially created to help dental providers navigate the pandemic’s unprecedented challenges, including the need to use teledentistry. Since then, this initiative has leveraged the rapid growth of teledentistry use cases and reimbursement allowances to promote delivery of education and preventive care.

Before the pandemic, CareQuest Institute funded teledentistry activities through grantmaking, leaning on existing evidence of its impact on access to care and to promote it as a tool to enable equitable health care delivery. The pandemic enhanced this funding priority, as the number of teledentistry grants awarded has increased, showcasing the need for best practices for teledentistry efforts and funding.

The need to respond to the demands put on dental offices by COVID-19 and the impact that teledentistry has on ability to access care, especially during a pandemic, led the CareQuest Innovation Partners to help fund and rollout a teledentistry platform (MouthWatch TeleDent). Knowing that teledentistry is a [historically advantageous tool](#) for care delivery and that Oregon has an environment that enables value-based care, it was intended for teledentistry to facilitate emergency and preventive care.

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



The sections below follow a logic model format. For more information on logic models go to: [W.K. Kellogg Foundation: Logic Model Development Guide](#)

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

The inputs of the CareQuest Institute and CareQuest Innovation Partners for teledentistry as a strategic priority vary based on the area of activation but a high-level overview of inputs for each area are provided below:

1. **Community Oral Health Transformation (COrHT) Initiative (health improvement program):** the initiative required first and foremost partnership. While CareQuest Institute facilitated the initiative, a collaborative partnership was formed with the three states' (MA, AZ, OH) Primary Care Associations and Federally Qualified Health Centers in each state. CareQuest Institute provided other resources, including staff to plan and execute the learning community and stipends for participating clinics.
2. **Grant making:** this strategy has leveraged funding as a catalyst for the development of strategic relationships with partners engaged in designing and piloting new models of care that center around teledentistry. In addition to funding, CareQuest Institute supported through content expertise with and between grantees, as well as collaboration on the spread of new ideas through the national Oral Health Progress and Equity Network (OPEN).
3. **Innovation:** CareQuest Innovation Partners identified a partner, MouthWatch in the teledentistry space and invested capital in it to further the teledentistry initiatives. Advantage Dental, DentaQuest's care delivery team used MouthWatch's teledentistry platform, TeleDent, to deliver teledentistry services. Staffing for all aspects and necessary IT equipment was needed to complete and support the TeleDent workflow into Advantage Dental's oral health centers.

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

The program activities of the CareQuest Institute and CareQuest Innovation Partners for teledentistry as a strategic priority vary based on the area of activation but a high-level overview of activities for each area are provided below:

1. **Community Oral Health Transformation (COrHT) Initiative (health improvement program):** the initiative activities were organized in several phases. The *planning phase* involved budget development, staff allocation to the project, initiating partnerships with the primary care association, development of the learning community curriculum as well as inviting health centers to participate in the learning community. The *implementation phase* involved onboarding of health center participants, data collection/ reporting from the health centers, and participation of health centers in monthly learning activities around focused topics, including teledentistry. The *post-implementation phase* involved discussions of project sustainability by the primary care association and collection of desired data from the health centers.
2. **Grant making:** Through funding a variety of programs and partners that seek to equitably and innovatively advance new models of teledentistry, we have fostered a portfolio of learnings around the facilitators and barriers to implementation in a variety of environments. In the grant funded partnerships, a core activity has been to ask and understand how historically marginalized communities are 1) informing the work that is happening and 2) the primary stakeholder the program is seeking to impact. Once the grant partnerships were established, completed, and

reported on, an additional key activity has been to share the learning with the field through local, state, and national networks and support the opportunities to bring models to scale.

3. **Innovation:** The rollout of TeleDent within Advantage Dental required collaboration of many small and medium-sized enterprises to design and implement teledentistry. Utilization of a change management framework focusing on Awareness, Education, Training, and Sustainability was kept at the forefront of the team. Company communication was used to raise awareness on the use of teledentistry and the implementation plan within the practices. Education on the use of telehealth in addressing patient needs and training of the workflow specific to TeleDent occurred. Ongoing support was made available through both online learning modules and in-person support. Data highlighting teledentistry within each of the practices and regions was utilized and continues to be utilized to engage staff. In addition, it supports identification of challenges and successes within the practices to utilize teledentistry as a standard of care.

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
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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 outputs of the CareQuest Institute and CareQuest Innovation Partners for teledentistry as a strategic priority vary based on the area of activation but a high-level overview of outputs for each area are provided below:

1. **Community Oral Health Transformation (COrHT) Initiative (health improvement program):** through two iterations of the learning community, CareQuest Institute partnered with three state primary care associations, 27 health centers, and 105 individual participants. Twenty-two learning activities were facilitated and data were collected and reviewed with all health centers.
2. **Grant making:** Since 2012, CareQuest Institute has made at least nine grants related to teledentistry to three organizations across the country, totaling more than \$1 million. New models of care were tested that specifically supported the advancement of equitable access to care for rural communities, low wealth patients, patients with special health care needs, and other historically marginalized populations.
3. **Innovation:** Since 2020, patients in seven regions of Oregon, both rural and urban, served by Advantage Dental’s oral health centers have received teledentistry services totaling almost 12,000 virtual visits.

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
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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)

The outcomes of the CareQuest Institute and CareQuest Innovation Partners for teledentistry as a strategic priority vary based on the area of activation but a high-level overview of outputs for each area are provided below:

1. **Community Oral Health Transformation (COrHT) Initiative (health improvement program):** Outcomes were measured through specific teledentistry measurements created for the initiatives and recorded at baseline (pre-implementation phase), monthly during the implementation phase and for 3 months post-implementation (for the second iteration only). The first iteration (2020) of

COrHT measured “number of telehealth visits.” The second iteration in 2021 measured “percent of telehealth encounters” and “percent of patients receiving oral health services (case management, counseling, emergency triage, evaluation or screening) via telehealth encounter.” All data were self-reported from a data manager at each health center using their electronic health record. Additionally, qualitative data on participant experience with teledentistry were collected by CareQuest Institute during learning activities. Initial changes in the metrics were intended to be seen in the short-term (5-6 months) as health centers participated in the learning community but CareQuest does expect changes to be sustained post-project.

Outcomes achieved from the initiative were primarily focused on participant behavior change and increased utilization of teledentistry based on the metrics above. For the first iteration of COrHT (2020), participants leaned on teledentistry at the beginning of the pandemic, primarily for triage. A significant positive correlation between teledentistry visits and the number of oral health evaluations was noted, suggesting that growth in overall teledentistry visits was associated with an increase in total number of oral health evaluations. As providers became increasingly familiar with teledentistry, many considered adopting the technique permanently. In the second iteration (2021), the percentage of telehealth encounters were highest at baseline (October-December 2020) and decreased at a sustained rate during the learning community. One of the takeaways from telehealth discussions and learning activities with the participants was that teledentistry utilization varies across states and individual centers due to policies, regulations and workforce availability.

2. **Grant making:** Each of the grants made included a set of outcomes relative to the project being implemented. For example, the Building Equity Through Telehealth Reach (BETTR) project out of the University of Colorado School of Dental Medicine sought to design a sustainable business model that could be replicated by private practices throughout the country while having an intermediary, such as academic setting or university, serve as workforce facilitator between providers and the community-based sites. Currently, the University of Pennsylvania School of Dental Medicine is seeking to measure improved oral health and quality of life outcomes for patients with special health care needs through piloting a new teleprevention approach in their clinic.

As a result of implementing a grant making strategy, there is a greater understanding of the role of teledentistry as a mechanism for creating more equitable access to care, particularly for historically marginalized communities.

Additionally, the impacts of COVID-19 have shown the need for a realignment of state and federal policy and regulatory environments to better facilitate effective use of teledentistry. The grant making strategy has created not just a deeper understanding of new ways of approaching telehealth, but a deeper knowledge base of the policies and systems that serve to either enable broader spread of implementation or serve as a barrier to adoption.

3. **Innovation:** Outcomes were measured according to patient and provider benefits and cost of care primarily through survey tools and cost-analyses. Measurement began with the rollout of TeleDent in June 2020 to a pilot group of practices, continued into Q4 2020 as TeleDent was scaled to all Advantage Dental oral health centers and continues today. First, it was found that rural patients used teledentistry to a higher degree than urban patients. Additionally, 30% of the patients who had teledentistry consult did not need to come in for in-person care, which allows providers to remotely manage appropriate patients and frees up chair time in the dental office. Lastly, compared to in-person visits, teledentistry visits are considerably less expensive at \$60 per member per virtual visit vs. \$200 per member per in-person visit. Taken together these findings support the notion that not only can teledentistry increase access to care, but it is an important risk identification, management, and triage tool, while driving system wide cost savings when deployed in a value-based care system.

Budgetary Information:

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

1. What is the annual budget for this activity? Variable according to submissions and opportunities for partnership.

The budget for teledentistry as a strategic priority for CareQuest Institute and CareQuest Innovation Partners has totaled to about \$2 million since 2012. Teledentistry as a strategic priority alone does not have an annual budget, but rather is parsed out in budgeting considerations for multiple initiatives between the two organizations.

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

The costs associated with the teledentistry activities of CareQuest Institute and CareQuest Innovation partners has totaled to about \$2 million since 2012 and includes the inputs and activities described in the previous section.

3. How is the activity funded?

The majority of funding is supported by partnership investment and the utilization of philanthropic endowment, though separate for the nonprofit CareQuest Institute and for-profit affiliate, CareQuest Innovation Partners

4. What is the plan for sustainability?

- **Advocacy:** increase the number of states and third-party administrators recognizing teledentistry as a necessary service and reimbursing for those services and support the expansion of broadband capabilities across the U.S.
- **Grant making:** continue to fund community-based initiatives that improve access to quality care and enhance oral health and provide community funding for start-up needs.
- **Improvement programs:** develop toolkits and provide collaborative learning experiences that increase the utilization of teledentistry services and develop operational toolkits that aid the dental business model in achieving financial sustainability.
- **Research:** continue to evaluate and analyze teledentistry's impact on oral health and add to the evidence base.
- **Innovation:** continue to drive the development of new technologies and devices that ease the use of a telehealth medium and improve the convenience of accessing the healthcare system.

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?

Lessons learned from all three efforts follow similar patterns including the need for provider and patient buy-in, comprehensive workforce empowerment to use teledentistry and viable teledentistry reimbursement avenues. The teledentistry environment is different in every state, but considerations remain the same. When working with dental providers, it is important they understand how to use teledentistry technology, create efficient workflows, and partner with patients to meet their needs using the modality. To enable the use of teledentistry for accessible preventive care, it is critical that allied dental professionals are supported by their practice act and fellow-dental practitioners to use teledentistry. Reimbursement for a variety of teledentistry services must be supported by state Medicaid and commercial payors to gain provider buy-in and use of the modality. The majority of states CareQuest Institute worked with on teledentistry initiatives had limited reimbursement for emergency services using teledentistry but going forward, it will be important that reimbursement for prevention, education, and integration are prioritized to enhance teledentistry as a tool to promote health equity. Additional learning is critical when it comes to implementation for historically underserved communities such as rural

populations or patients with special health care needs. Expanding implementation into both public and private sectors likely will mean one size does not, or cannot, fit all and consumer or community engagement must be a fundamental part of any approach.

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

When implementing the COrHT Initiative, the main challenges to teledentistry implementation were policy restrictions. Working in three different states, CareQuest Institute encountered barriers in the form of limited reimbursement (especially for preventive services) and workforce that could use teledentistry, need for a teledentistry permit and lack of provider buy-in due to the other challenges. To overcome these, the CareQuest Institute leaned on partnerships. We created a learning community space where health centers could discuss challenges and identify solutions together. Additionally, we worked with the states' Primary Care Associations to raise awareness of teledentistry needs and for coalition building.

In addition to challenges related to the policy and regulatory environment, across the country there is a varying number of resources, intent, and comfort when it comes to more deeply engaging consumers and/or community members in the design or delivery of new teledentistry strategies. This is especially true when seeking to engage historically marginalized communities who suffer from a myriad of inequities and are likely balancing their own immediate needs. There are opportunities to build and spread new approaches to community and consumer engagement that have the potential to enhance utilization, increase provider and patient buy in, and bolster impact.

CareQuest Innovation Partners faced similar challenges including regulation on teledentistry, reimbursement for preventive services, provider adoption, understanding use cases, and sharing best practices. One unique challenge to the Innovation initiative was that the rollout of teledentistry happened under a value-based model of care and payment. Advantage Dental is a dental accountable care organization that reimburses through a capitated system. Teledentistry use was figured into this existing payment model. The ongoing challenge lies in the ability to generalize this VBC-focused teledentistry initiative to the larger existing fee-for-service system seen nationally.

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.

- Visit the [Community Oral Health Transformation \(COrHT\) Initiative homepage](#) for more information about the program.
- The Community Oral Health Transformation (COrHT) Initiative aims to implement the [Three Domains Framework to Innovating Oral Health Care](#) and may be useful to those seeking information on teleprevention.
- Visit the CareQuest Institute for Oral Health [grant making homepage](#) for more information on our grant making opportunities.
- View the “Improving Oral Health Using Telehealth-Connected Teams and the Virtual Dental Home System of Care: Program and Policy Considerations” [white paper](#) for more information about the Virtual Dental Home initiative.
- Visit www.carequestinnovation.com for more information on CareQuest Innovation Partners.
- Teledentistry research briefs from the CareQuest Institute for Oral Health address [patient satisfaction](#) and [cost savings](#).

TO BE COMPLETED BY ASTDD	
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