California Emerging Technology Fund Healthcare Partnership for the Federal Communications Commission COVID-19 Telehealth Program

Funding Commitment Number: 0572

Telehealth:
No Longer Just About COVID-19 –
It's About Healthcare Access and Digital Inclusion

Evaluation Final Report

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Preface from the Sponsor

The California Emerging Technology Fund (CETF), in partnership with Los Angeles Jewish Health, was awarded a $862,906 grant from the Federal Communications Commission (FCC) COVID-19 Telehealth Program: Round 2. This program provided reimbursement to healthcare facilities "to obtain up to twelve months of eligible telecommunications services or information services and eligible connected devices needed to provide telehealth services in response to the coronavirus disease 2019 (COVID-19). …Any funding, therefore, received by the applicant shall only be provided to eligible healthcare provider(s) to reimburse them for their respective eligible costs incurred under the COVID-19 Telehealth Program (Program)."[1]

This FCC Telehealth Award and the findings included in this Final Evaluation Report continue to inform and are integral to CETF strategy to close the Digital Divide in California through its priority programs, which includes ensuring digital access for healthcare through Telehealth.

The mission of the California Emerging Technology Fund in (CETF) as designated by the California Public Utilities Commission (CPUC) is to close the Digital Divide in California by accelerating the deployment and adoption of broadband, which is a generic term for high-speed Internet infrastructure including both wireline and wireless network and technologies. Research shows that one of the most valued uses of the internet by residents is for healthcare information and connecting with health and medical care providers. Thus, supporting and promoting the use of Telehealth is a major strategy to help close the Digital Divide.

The COVID-19 pandemic shelter-in-place and social distancing orders spotlighted the need for all Californians to be able to use Telehealth and exposed the existing digital access inequities. It illuminated the imperative for investments in constructing high-speed Internet infrastructure capable of supporting Telehealth services and the imperative for getting all residents online with appropriate computing devices and functional digital literacy. The Digital Divide has become a "Digital Cliff" with residents falling off into deeper poverty and greater isolation. Although much progress has been made in advancing Telehealth with the federal government issuing waivers that removed significant hurdles, California has not yet optimized the use of Telehealth to close gaps for medically-underserved communities and economically-segregated neighborhoods, which also are home to the most digitally-disadvantaged residents.

Further, given that technology is only a tool—yet powerful and empowering—but just a tool and not the end game, it is essential for policymakers who seek to achieve Digital Equity to understand how to effectively integrate the use of technology into all institutions and systems, including the delivery of health and medical care. CETF continues to undertake Telehealth activities to inform its strategy to optimize Telehealth in California. These efforts have solidified its vision goal for Telehealth:

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[1] FCC Funding Commitment Letter – FCC COVID-19 Telehealth Program: Round 2, Funding Commitment Letter, August 26, 2021, Grant Application Number: GRA0010830.

Optimize the use of Telehealth to augment and enhance health and medical care for all California residents, especially those who are medically-underserved, to improve individual patient outcomes and overall population health.

It is understood that an effective Action Plan must build upon the expertise within the Health and Human Services Agency and Department of Health Care Services, Center for Connected Health Policy and California Telehealth Policy Coalition, OCHIN and California Telehealth Resource Center, and all of the providers to medically-underserved communities and residents. However, there must be focused leadership with accountability for results to optimize the use of Telehealth, which requires legislation. (Please see the Fact-Finding Listening Conferences of 2020 Summary Report for additional documentation for the goal.)

CETF Telehealth Activities

CETF has a long history as a Telehealth trailblazer as a founding partner and the largest investor in the California Telehealth Network (CTN). CETF provided seed capital and operational funding for the California CTN and developed a Business Plan to achieve "critical mass" of providers to optimize use of technology for medically-underserved communities. In 2017, CTN was given to OCHIN (formerly the Oregon Community Health Information Network) over the objection of CETF, which resulted in an absence of a dedicated network based in California responsible for promoting Telehealth to improve patient outcomes and overall health status.

FCC Telehealth Program – Round 1

In 2020, CETF applied to the FCC Round 1 Telehealth Program to acquire Telehealth equipment for skilled nursing facilities (SNFs), which were one of the hardest hit segments of the healthcare system during the COVID-19 pandemic. Due to high demand, the FCC exhausted available funding early and before it was able to review and consider the CETF application. In response, the CETF Board of Directors recognized the urgency of Telehealth optimization and funded a Telehealth Skilled Nursing Facility (SNF) Pilot Project to further inform its Telehealth strategy.

CETF Telehealth SNF Pilot Project

During the COVID-19 pandemic, CETF organized and managed a Telehealth SNF Pilot Project with 5 partner facilities: 4 SNFs and 1 Assisted Living Facility. The overall purpose of the Pilot Project was: study barriers to Telehealth implementation; provide timely treatment and prevent costly transfer of patients to hospitals; and reduce the spread of COVID-19 to protect residents and personnel. A Final Report was issued: *Unanticipated Outcomes of a Telehealth Pilot Project in Skilled Nursing Facilities Care – Don't Put the Cart Before the Course*[2]. The key findings included:

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[2] CETF SNF Telehealth Pilot Project Final Evaluation Report, 2023: https://s42263.pcdn.co/wp-content/uploads/2023/03/230307_CETF_SNF_Telehealth_Pilot_Project_Final-Evaluation-Report_2023.pdf

— Telehealth prevented nearly 20% of transfers and admissions to an outside facility, thereby reducing emergency transportation and hospitalization costs, and very likely reducing COVID-19 transmission.
— Telehealth is accepted by residents and staff when sufficient preparation and training has been provided for effective use of technology: 94% of residents and family members reported being comfortable or very comfortable with Telehealth visits.

Many of the findings in the SNF Pilot Project are mirrored in this FCC Evaluation Final Report, along with the Lessons Learned that inform public policy for both implementation and practice.

Telehealth Fact-Finding Listening Conferences

As previously referenced in the above text, for the Telehealth Fact-Finding Listening Conferences, CETF joined forces with CENIC[3], Partners in Care Foundation, and California Primary Care Association to convene Fact-Finding Listening Conferences in 2020 with more than 160 experts and stakeholders. The Fact-Finding Listening Conferences explored the convergence of technology with healthcare to optimize Telehealth to ensure quality care for medically-disadvantaged residents to improve overall population health, and to develop and publish an Action Plan to institutionalize Telehealth in public policy to improve patient outcomes and overall population health.

The working premise from the CETF experience and reinforced by the first Fact-Finding Listening Conference is that there must be a mission-driven entity in California designated and supported by the Legislature and Administration to achieve this shared vision. Such an entity could be inside the Administration and/or a new California-based non-profit with responsibility to report to the Legislature and Administration.   Further, a ubiquitous high-speed Internet infrastructure throughout California is required to ensure that all residents, especially those who reside in rural remote communities and low-income urban neighborhoods, can access health and medical care using Telehealth. Thus, it is presumed that the State will accommodate this functionality in allocating approved funding for the Middle-Mile Network and Last-Mile Projects.

The Fact-Finding Listing Conferences produced a Summary Report and Action Framework[4]:
➢ Enact legislation to permanently reimburse Telehealth services comparable to in-person visits.
➢ Invest in and ensure ubiquitous high-speed Internet infrastructure to support Telehealth for all patients and providers.
➢ Institutionalize Telehealth with accountability for improving patient outcomes and overall population health.

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[3] CENIC - Corporation for Education Network Initiatives in California.
[4] Telehealth Fact-Finding Summary Report, 2020: https://s42263.pcdn.co/wp-content/uploads/2021/04/Delivering-on-the-Promise-of-Telehealth-to-Improve-Health-Status-in-California-Final-Report-and-Action-Plan_210409.pdf

Much progress has been made in Telehealth since the 2020 Fact-Finding Listening Conferences, which have all informed and/or reinforced this Action Framework, including recent legislation:

AB133 for which the Department of Health Care Services (DHCS) convened a Telehealth Advisory Workgroup and produced a report[5] with recommendations to support Telehealth and a policy white paper[6]; and AB32 and SB966 which allow more flexibility for the use of Telehealth in the delivery and reimbursement of health and medical services to Medi-Cal recipients. The California Office for Data Insights and Innovation is a valuable resource to help inform and shape future legislation.

Proposed Telehealth Legislation

CETF has been working on parallel tracks to promote a legislative proposal based on the recommendations from the Fact-Finding Listening Conferences, as well as its other efforts in Telehealth. Recently, Assemblymember Dr. Akilah Weber – a practicing physician – has agreed to author AB1275 – Telehealth for All Act in the 2024 Legislative Session. This legislation will:

> ***Optimize the use of Telehealth to augment and enhance health and medical care for all California residents – especially those who are medically-underserved – to improve individual patient outcomes and overall population health.***

This legislation will focus on the federal Medicaid Program in California, Medi-Cal, and the data and analysis that is available and/or is needed to optimize Telehealth for Medi-Cal enrollees – the most medically-disadvantaged residents.

FCC Telehealth Program – Round 2

In August 2021, the Federal Communications Commission (FCC) COVID-19 Telehealth Program awarded a grant of $862,906 to the California Emerging Technology Fund (CETF) in partnership with Los Angeles Jewish Health[7] through the COVID-19 Telehealth Program: Round 2. The award funded "eligible health care providers to obtain up to twelve months of eligible telecommunications services or information services and eligible connected devices needed to provide telehealth services in response to the coronavirus disease 2019 (COVID-19) pandemic."[8] The FCC set-up this award as a reimbursement program, where participants would pay all upfront costs and then submit for reimbursement to the FCC Administrator, the Universal Service Administration Company (USAC). In Round 2, CETF was the only California awardee and one of the highest-rated nationally, as the FCC applications outlined the metrics it prioritized for this Program.

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[5] DHCS Telehealth: Research and Evaluation Plan, December 2022. https://www.dhcs.ca.gov/provgovpart/Documents/DHCS-RE-Plan.pdf.
[6] DHCS Post-COVID-19 Public Health Emergency, Final Telehealth Policy Proposal, December 2022. https://www.dhcs.ca.gov/provgovpart/Documents/Telehealth-Policy-Paper.pdf.
[7] Los Angeles Jewish Health is located in Los Angeles County and was founded in 1912 and provides an array of services to its residents. https://www.lajhealth.org/about-us.
[8] FCC Funding Commitment Letter to CETF and the Los Angeles Jewish Home for the Aging. Page 2, August 26, 2021.

The metrics or points system[9] were outlined in the application as follows:

- ➤ Hardest Hit Area (Up to 15)
- ➤ Low-Income Area (Up to 15)
- ➤ Round 1 Unfunded Applicant (15)
- ➤ Tribal Community (15)
- ➤ Critical Access Hospital (10)
- ➤ Federally Qualified Health Center/Federally Qualified Health Center Look-Alike/Disproportional Share Hospital (10)
- ➤ Healthcare Provider Shortage Area (Up to 10)
- ➤ Round 2 New Applicant
- ➤ Rural County (5)

For this Project, in an effort to be inclusive of hardest-hit communities, CETF reached out to more than 40 healthcare facilities, including the 5 CETF Telehealth Pilot Project Partners. Importantly, CETF reached out to statewide organizations to assist with outreach and referrals of potential grant participants, which included: Partners in Care Foundation, California Association of Health Facilities, California Association of Long-Term Care Medicine, LeadingAge California, California Assisted Living Association and others. CETF recruited 12 healthcare facilities to participate in the CETF Healthcare Partnership for the FCC COVID-19 Telehealth Program, which is referred to throughout this Evaluation Final Report as "the Project." As the Project was launched, 2 facilities had unanticipated hardships and withdrew. Their departure also informed the challenges and Lessons Learned.

In this Evaluation Final Report, the Project participants included:
- Los Angeles Jewish Health (Los Angeles County)
- Brethren Hillcrest Homes (Los Angeles County)
- Carmel Valley Manor (Monterey County)
- Chaparral House (Alameda County)
- Chapa-De Indian Health Program – Auburn (Placer County)
- Chapa-De Indian Health Program – Grass Valley (Nevada County)
- The Fountains Skilled Nursing and Rehabilitation (Sutter County)
- Inland Christian Home (San Bernadino County)*
- Sacramento Native American Health Center (Sacramento County)
- Sierra View Homes (Fresno County)*
- Southern Inyo Healthcare District (Inyo County)
- Tiburcio Vasquez Health Centers (Alameda County)

*SNFs that withdrew from the Project.

Overall, CETF aspires to provide its years of experience and knowledge to become part of the solution in the battle to fight the COVID-19 epidemic and future public health and medical care crises. Additionally, CETF is committed to helping California develop foundational policy and to implement effective practices.

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[9] FCC Report and Order, COVID-19 Telehealth Program Promoting Telehealth for Low-Income Consumers, WC Docket No. 20-89, WC Docket No.18-213, Adopted March 29, 2021, FCC 21-39, Page 18.

However, it is important to note, although COVID-19 was the impetus for rapid expansion of Telehealth, it also illuminated the most medically-disadvantaged and the digitally-disadvantaged. Telehealth is no longer just about addressing COVID-19 – it is about healthcare access and digital inclusion. This is an important factor and distinction.

Project Objectives

The objectives of the CETF Healthcare Partnership for the FCC COVID-19 Telehealth Program ("the Project") with 12 diverse healthcare organizations were to:
➢ Implement Telehealth technology within healthcare facilities.
➢ Analyze the impact of Telehealth on patients, staff, and providers, and the implications for COVID-19: prevent spread of infection, reduce emergency room transfers, and reduce costs.
➢ Identify possible barriers and challenges to implementing Telehealth with fidelity to optimal use of technology in these healthcare facilities.
➢ Identify Lessons Learned and Best Practices for healthcare providers.
➢ Formulate recommendations for policymakers and regulators.

For this FCC Telehealth Project, CETF had the unique opportunity to engage Dr. Glen Xiong, M.D., C.M.D., who specializes in Internal Medicine and Psychiatry at U.C. Davis Health, to serve as the Chief Medical Advisor and provide valuable oversight for this Evaluation Final Report. Dr. Xiong's clinical expertise is in Memory Care, Post-Acute and Long-term Care, and Neuropsychiatry. Dr. Xiong is nationally and internationally recognized for his medical expertise and research in Telehealth, with funding from the National Institutes of Health. Dr. Xiong is passionate about patient-centered care that is jargon-free and is collaborative. He welcomes family members as part of the treatment plan to gain a holistic understanding of his patients. Dr. Xiong was an extraordinary collaborator and partner in this Project.

This Project provided many promising insights and Lessons Learned about Best Practices, which are detailed in this Evaluation Final Report. The findings support these Conclusions:
• There is a high level of patient and provider satisfaction of Telehealth as a modality for care (including family satisfaction for SNF patients).
• Telehealth can decrease emergency transfer of patients to the hospital, particularly from SNFs, which reduces impacts on patients and reduces costs to the system.
• Telehealth is increasingly being used for behavioral health visits to improve access to high quality care and decrease missed appointments.
• Telehealth can increase access to medical expertise and specialty care to improve patient outcomes, in specialties such as pain medicine, endocrinology, neurology, among others.
• Telehealth can decrease the number of vehicle trips to healthcare facilities without impairing patient outcomes, thereby reducing impacts on the environment.
• There are set-up, training, and maintenance costs. Therefore, administrative oversight and dedicated support staff are needed to fine-tune and upgrade Telehealth services as technologies (such as connectivity and electronic medical record systems) emerge.
• Successful implementation of Telehealth requires organizational leadership and focus.

We are encouraged by the findings in this Evaluation Final Report. Our hope is that this Telehealth Project will inspire policymakers, funders, and other stakeholders to see the promise of Telehealth and work to advance Telehealth in California to improve individual patient outcomes and overall population health.

<u>Partnership with AMD Global Telemedicine, Inc.</u>

CETF had no preference for Telehealth cart vendors for this this Project. In its research of Telehealth products, it sought a product that was intuitive for the end-user, had basic peripherals included, easily integrated into clinical workflows, vendor provided sufficient training and support, and was cost-effective at an affordable price point. The vendors selected were AMD Global Telemedicine Inc. and American Well Corporation (Amwell).

As 1 of the 2 vendors for this Project, AMD agreed to enhance the suite of training and technical support, which AMD typically offered at an additional cost. AMD executive leadership agreed to these additional supports and services in-kind to acknowledge its shared commitment to improving healthcare access. The support provided by AMD for this Project is commendable and was pivotal to the success of the Project. AMD provided in-person training, as well as contributed numerous hours training and re-training staff (as facilities experienced frequent turnover) Additionally, AMD addressed cyber-security and connectivity issues, and problem-solved as needed, which were all well beyond the scope of its contract.

This Project provided many promising insights and Lessons Learned, which are detailed in the following pages. In sum, this Evaluation Final Report affirms that Telehealth, indeed, can decrease patient transfers to hospitals, and in turn, reduce costs and the spread of infection. It also finds that providers and patients are comfortable using Telehealth, which can increase access to specialty care, including behavioral health. Telehealth is no longer just about COVID-19, it is about healthcare and digital access – as reflected in the title of this Evaluation Final Report

Our hope is that these findings will inspire policymakers, funders, and other stakeholders to see the promise of Telehealth and work to advance Telehealth in California to improve individual patient outcomes and overall population health.

Sincerely,

Sunne Wright McPeak
President and CEO

Barb Yellowlees
Founding Director
Chair of Telemedicine Committee

Leticia Alejandrez
Director of Telehealth and Human Services

Executive Summary

The Federal Communications Commission (FCC) awarded $862,906 to the California Emerging Technology Fund (CETF) in partnership with Los Angeles Jewish Health from the FCC COVID-19 Telehealth Program. This was a reimbursement program allowing awardees to purchase eligible telecommunications or information services and eligible connected devices needed to provide Telehealth services in response to COVID-19.

The COVID-19 pandemic emergency response has been the impetus for the rapid expansion of Telehealth. The pandemic shelter-in-place orders illuminated the needs and implications for medically-disadvantaged and digitally-disadvantaged populations. It highlighted the imperative for investments in constructing high-speed Internet infrastructure capable of supporting Telehealth services and the urgency for getting all residents online with appropriate computing devices and functional Digital Literacy. However, the agility of the healthcare industry and ability of government agencies to immediately embrace Telehealth in an emergency also spotlighted the potential of Telehealth to improve patient outcomes and overall population health. Telehealth is no longer just about emergency response to COVID-19 – it is about access to quality health care and medical expertise—it is about closing the Digital Divide, promoting Digital Inclusion, and achieving Digital Equity—a 21st Century Civil Right.

The objectives of this Project were:
➢ Implement Telehealth technology within healthcare facilities.
➢ Analyze the impact of Telehealth on patients, staff, and providers, and the implications for COVID-19: prevent spread of infection, reduce emergency room transfers, and reduce costs.
➢ Identify possible barriers and challenges to implementing Telehealth with fidelity to optimal use of technology in these healthcare facilities.
➢ Identify Lessons Learned and best practices for healthcare providers.
➢ Formulate recommendations for policymakers and regulators.

Using a diverse set of research methods and Evaluation tools, the findings from respondents indicate that:
- 53.5% of partner facilities reported that Telehealth prevented an emergency transfer of COVID-19 patients, thereby reducing transportation and other related healthcare costs, and possibly reducing COVID-19 transmission, especially in skilled nursing facilities.
- 49.7% of patients reported a high degree of openness to Telehealth visits.
- 62.7% of providers reported being "comfortable" and 35.8% reported being "very comfortable" (for a total of 98.5%) with Telehealth as a modality of care.
- Telehealth is used more frequently for behavioral health, which resulted in more timely preliminary diagnoses of conditions for patients with: Depression (28.4%); Bipolar (25.7%); and Anxiety (16.7%).
- Telehealth holds promise for increasing access to specialty care.

Through this study, the CETF Evaluation Team was able to identify the challenges and barriers to Telehealth including: up-front costs to acquire technology, both equipment and Internet infrastructure; investment of staff time to learn how to use Telehealth equipment; staff turnover; cybersecurity concerns; and compatibility with electronic medical records (EMS) systems. The FCC Grant was a major resource to address the first challenge regarding up-front costs to acquire the Telehealth technology, but not the Internet access. Further, given that the FCC Grant was reimbursement-based, for some Project Partners only the ability of CETF to underwrite cash flow made the Grant feasible for their participation. Importantly, purchase of equipment does not assure it will be used in healthcare, especially facilities serving the most medically-disadvantaged residents because they have the least resources and are the most stressed in recruiting and retaining personnel. Thus, the positive impact of the FCC Grant was possible only because CETF funded personnel for a year to train personnel, support partners in regular group meetings (Learning Sessions), and conduct an Evaluation. This experience should cause all government grant programs to be revised for greater results of public investments.

Key Recommendations for effective implementation of Telehealth include:
1. Identify a champion for the provider and within each facility who will provide leadership.
2. Prepare and pave the way for staff buy-in with sufficient orientation and training.
3. Recognize sources of resistance to change and engage those who have concerns.
4. Realize the importance of initial investment of time and resources to derive the benefits and optimize return on investments.
5. Ensure coordination and support between information technology (IT) and clinical staff to ensure that both technical and clinic considerations are integrated into implementation.

Background: A Summary of the Literature

SARS-CoV-2, commonly known as COVID-19, devastated the long-term care industry and the residents living in nursing facilities and senior living communities. According to an early estimate, 42% of COVID-19 deaths in the U.S. occurred in skilled nursing facilities (SNFs) (Thompson et al., 2020). In response to the rapid spread and the vulnerability of residents, facilities sought to reduce transmission by closing their doors to visitors and confining residents to their rooms. Under such "lockdown" conditions, Telehealth offered an essential tool to help treat patients in place (Bonvissouto, 2022; Groom et al., 2021; Hollander & Carr, 2020).

What is Telehealth?

Telehealth is a broad term that refers to providing medical care remotely rather than in an in-person visit. In the broadest sense, Telehealth includes connecting by phone or video, sending and receiving information, maintaining files electronically, and remote medical monitoring (U.S. Department of Health and Human Services, 2022). It can also include training providers to use Telehealth technology, the process of setting up necessary equipment, and other activities involved with delivering telemedicine to patients.

The terms **Telehealth** and **Telemedicine** are often used interchangeably, yet there are differences. Telemedicine is "the practice of medicine using technology to deliver care at a distance" (Mao et al., 2022). Although the focus of this Evaluation primarily involved examining the effects of direct patient care, given the inclusion of training as well as the need to understand facilitators and barriers to using equipment, the CETF Evaluation Team uses the term **"Telehealth"** throughout this report.

Why Use Telehealth?

At the height of the COVID-19 pandemic, SNFs were "ground zero" and arguably a system that provided and demanded thorough consideration of Telehealth. Thus, SNFs have been an early emphasis for study by CETF, which continues with this Project and the focus of this literature review.

Residents living in group settings, such as skilled nursing and assisted living facilities, are at high risk for infection and negative outcomes given that many have multiple chronic conditions and vulnerable immune systems coupled with the nature of infection spread in congregate living. Telehealth offers the promise of protecting healthcare practitioners and their patients as well as enhancing the efficiency of diagnosing diseases and injuries without requiring transport to a physician's office or Emergency Department (Bashshur et al., 2022). Telehealth also offers continuity of care even when residents need to be quarantined or clinicians are required to work remotely (Wosik et al., 2020).

Reducing the need for residents to be seen in settings outside the facility offers the promise of reducing the spread of disease in long-term care communities (Dhaliwal, 2022). To the extent that Telehealth improves access to medical care, reduces time constraints, and increases efficiencies, it also offers the potential to reduce medical expenses.

In March 2020, to support broader use of Telehealth, the Centers for Medicare & Medicaid Services (CMS) authorized waivers to expand Telehealth for Medicare and Medicaid beneficiaries. These waivers allow payment parity for Telehealth in-home visits with in-person visits (Gillespie et al., 2020; Mao et. al, 2022). An Evaluation of Telehealth expansion in 2020 found that nearly 85% of SNFs reported that they had adopted Telehealth (Alexander et al., 2021). Medicare Part B visits using Telehealth increased from 840,000 in 2019 to 52,700,000 in 2020 (Suran, 2022). According to the American Telemedicine Association (2021), Telehealth claim lines increased 2980% nationally from September 2019 to September 2020. This increase in use is reflected in burgeoning literature on Telehealth in facility-based care. Early studies suggest that SNFs that adopted Telehealth for their residents' treatments had lower hospitalization rates and mortality rates compared with SNFs that did not (McMichael et al., 2020; Harris et al., 2021).

In primary care, evidence supported the effectiveness of using Telehealth for wellness checks, chronic disease management, medication consultation, regular follow-up appointments, and new patient encounters (Olayiwola et al., 2020). Receiving timely treatments "in place," especially after hours, is also a strength of Telehealth (Grabowski & O'Malley, 2014) as it can help reduce emergency room visits and transfers. A case-control study found that about 6.7% of emergency room visits were prevented by Telehealth, yielding $2,468 in cost savings per emergency room visit (Langabeer et al., 2017). A qualitative content analysis of a guided interview with healthcare professionals (physicians, nurses, and medical technical assistants) demonstrated that using Telehealth in nursing homes reduced workload, and increased the efficiency of care provision for residents because the workflow related to care was more streamlined (May et al., 2021). Telehealth visits, which include opportunities for family members to observe and weigh in, with the residents' approval, may help family members become more engaged and better understand the treatment plan.

Challenges and Barriers to Implementing Telehealth

Despite the promises, facilities implementing Telehealth confront a number of barriers and challenges (Tuckson et al., 2020; American Telemedicine Association, 2021). These include upfront costs in equipment and training. For instance, constructing the infrastructure to implement Telehealth and cultivating protocols, practices, and policies related to using the technology are prerequisites to realizing the potential benefits of Telehealth.

Successful Telehealth visits are backed by stable Internet and devices capable of visual communication (Sieck et al., 2021). Long-term care facilities may need to spend extra funding to upgrade and maintain their Internet and devices. Although basic knowledge and skills for practice remain the same for clinicians, the platform and channel to deliver medical visits through Telehealth may be different, such that additional competence in using Telehealth is required (Purc-Stephenson & Thrasher, 2010; Honey & Wright, 2018), which could lead to learning costs for health providers.

Some patients, clinicians, and nursing home staff may prefer in-person visits over Telehealth for a variety of reasons, such as quality concerns, reimbursement issues, training requirements (Groom et al., 2021), which may impede the acceptance of Telehealth. As an example, Telehealth promotes collaboration among patients, family members, nurses, and physicians. This initial "collaborative" framework may in fact take longer than anticipated. This eliminates redundancy for the parties involved and ultimately leads to more efficient care for the patient. In the nursing homes environment, Telehealth introduces a "culture shock" to nursing and physician teams who are used to seeing patients separately.

When providers use an Electronic Medical Records (EMR) system to enter patient information during the visit it was noted that, if they had to leave their EMR system to conduct the Telehealth visit, there was hesitation from the provider to conduct the visit via Telehealth modality. This experience is similar to what is outlined in the literature with providers preferring integration of a Telehealth portal into the EMR system (Uscher-Pines et al., 2022).

Purpose of the Evaluation

It is important to build a better understanding of the potential benefits and costs of implementing Telehealth coupled with investments in implementation strategies needed in the types of healthcare facilities what were Project Partners – SNFs, FQHC/Community Clinics, Tribal Clinics, and Critical Access Hospitals. It is especially important to inform those seeking to adopt Telehealth as a modality for healthcare delivery and policymakers considering funding this approach.

The purpose of this Evaluation was to:

1. Examine the impact of Telehealth on patients, staff, and providers in participating facilities.
2. Identify possible barriers and challenges in implementing Telehealth in these facilities and document Lessons Learned and recommendations.

Therefore, CETF evaluated both processes and outcomes of the CETF Healthcare Partnership for the FCC COVID-19 Telehealth Program (Project), conducted in 10 facilities in various regions in California. This Project was intended to help facilities reduce the spread of COVID-19 and other infectious diseases and to improve overall medical care for patients. Specifically, the Evaluation sought to:

1. Increase understanding of implementation of Telehealth technology within healthcare facilities.
2. Analyze and provide a better understanding of concerns by patients, staff and providers, along with barriers, acceptance of Telehealth, strategies to facilitate comfort with Telehealth and understanding implications for COVID-19.
3. Identify promising approaches and possible barriers and challenges to implementing Telehealth with fidelity to optimal use of technology in these healthcare facilities.
4. Identify Lessons Learned and best practices for healthcare providers.
5. Formulate recommendations for policymakers and regulators by offering feasible recommendations on how to better deliver, promote, and oversee Telehealth in healthcare facilities.

Methods

Setting

The Evaluation was designed to be conducted in all 12 healthcare facilities, which included:
7 Skilled Nursing Facilities (with 2 of the SNFs withdrawing from the Project – Sierra View Homes and Inland Christian Home); 3 Tribal Clinics; 1 FQHC; 1 Critical Access Hospital.

Goals

The goals of the Project Evaluation were to:

1. Work in collaboration with Project Partners to develop the design, measures, and data collection approaches for the Project study.
2. Address the following questions:
   a. To what extent and in what ways does Telehealth make a difference to patients, staff, and providers in these participating healthcare facilities?
   b. What are the implications of Telehealth for COVID-19, with regard to preventing spread of infection, reduction in emergency room transfers, and reduction of costs?
   c. What were the essential steps or processes used to implement the Telehealth program in each facility and what were barriers and/or challenges?
3. Document Lessons Learned and provide recommendations to inform policymakers and service providers on how to better deliver, promote, fund, and oversee Telehealth in healthcare facilities.

Deliverables

Provide a Final Report describing the findings and outcomes, Lessons Learned, and recommendations.

Evaluation Procedures

1. Project Partners met with CETF Evaluation Team to review, advise and agree on data to be collected in the Telehealth Visit Documentation Form (Appendix 1) and on the bi-weekly Check-In Information questions (Appendix 2); and data collection processes, including the collection of data from the Telehealth Visit Documentation Form.
2. Include relevant information collected through the bi-weekly Check-In Information questions to inform the Evaluation Final Report.
3. Project Partners met with CETF Evaluation Team to identify Lessons Learned and Recommendations during monthly Learning Sessions, bi-weekly Check-Ins and/or one-on-one discussions.

Data Sources

Literature

To obtain a synopsis of the potential benefits and costs of implementing Telehealth in a variety of healthcare care facilities, the CETF Evaluation Team reviewed relevant papers published from 2010 to 2022 in PubMed, as discussed in the introduction.

Telehealth Visit Documentation Form

The Telehealth Visit Documentation Form that was developed through the CETF SNF Pilot Project was reviewed by the FCC Project Partners and determined that the tool was adaptable with some revisions to reflect the various Partner healthcare facilities. Together, the Partners advised on the changes that were needed to collect data. The revised Form (see Appendix 1) included demographic information of patients who participated in Telehealth; Telehealth equipment used; reason for visit; type of clinician; preliminary diagnosis; orders given; whether emergency transfer was prevented (for SNFs only); patients' and clinicians' comfort using Telehealth; and whether Telehealth equipment operators perceived the usefulness of each Telehealth visit in improving facilities' performance.

Monthly Learning Sessions

During the Evaluation period, CETF had monthly, one-hour group Learning Sessions with representatives, primarily Executive Directors, Medical Directors, and Telehealth leads to discuss progress and updates. The goals of the monthly Learning Sessions were to provide mutual support for colleagues in the field, encourage implementation momentum, and address challenges and problem-solve issues. To document Lessons Learned about barriers and implementing Telehealth that emerged from the monthly Learning Sessions, comments were recorded and analyzed for themes that emerged.

Bi-Weekly Check-In Meetings

To support implementation, CETF Project Staff met bi-weekly with key healthcare facility staff responsible for Telehealth implementation. These meetings were designed to support Telehealth momentum in the facility, trouble-shoot issues as they emerged, and learn how and when Telehealth was being used by each facility. These discussions were guided by the bi-weekly Check-In Information (see Appendix 2).

COVID-19 Tracking

Although COVID-19 was on the decline during this reporting period and vaccinations were available, Project Partners reported occasional COVID-19 cases or outbreaks during the monthly Learning Sessions. Due to the low rates of COVID-19 during this period, the data shows only some COVID-19 activity, primarily reported by SNFs.

Description of the Project Intervention

The approach of the CETF Project Team was to do whatever necessary to support successful implementation of Telehealth with Project Partners. Project Partners participated in monthly Learning Sessions, which were led by Dr. Glen Xiong, MD, Chief Medical Advisor to the Project, and who was also available for one-on-on consultations with Project Partners, providers, and clinical staff. Dr. Xiong served an advisor, mentor, medical expert, and thought partner. The Learning Sessions were designed to support collective learning and support, address barriers and challenges, and an opportunity problem-solve collectively. Project Partners also participated in bi-weekly Check-In Meetings with Project staff to build and support momentum for Telehealth implementation, address barriers or challenges, and trouble-shoot as needed.

The CETF Project Team provided project management, technical support, and training (both in-person and virtually) that augmented what vendors provided, problem-solved as needed, processed all reimbursements for equipment purchased, managed all FCC reporting and requirements, convened monthly Learning Sessions, facilitated meetings between vendors and Project Partners, and addressed any issues or concerns raised by Project Partners, such as billing for Telehealth visits.

Throughout implementation, the Project Team supported and encouraged cross-organizational collaboration and information exchange. From this process, several documents were developed and shared with Project Partners to support and encourage implementation. The following is a sampling of some of these documents:

- Top 10 Telehealth Questions and Answers (Appendix – A-1)
- Telehealth Rollout Implementation Guide (Appendix – A-2)
- Sample Letter to Providers Announcing Telehealth (Appendix – A-3)
- Telehealth Cart – Quick Reference Guide for AMD/AGNES Cart (Appendix – A-4)
- Telehealth Equipment Competencies Check-List (Appendix – A-5)

Each healthcare Partner determined the type of Telehealth cart and/or additional equipment and peripherals they wished to acquire, including additional iPads, boosters and access points, wireless antennas, headsets, and any other FCC-eligible equipment that was within the scope and budget of the Project. The 2 Telehealth cart vendors selected were available through: AMD Global and Amwell (also known as American Well). Each Telehealth cart was equipped with a tablet, camera, peripherals, and associated software programs for connectivity and for training. Each vendor provided equipment set-up and training support – either in-person or remotely.

Both vendors provided training on their Telehealth cart equipment, peripherals, and software programs. CETF Project staff participated in training as well to ensure additional support to Partners was available should re-training be needed. Both vendors provided 24/7 technical support via telephone or via email.

Findings

Characteristics of the Sample – Facilities

Table 1 shows the characteristics of each participating healthcare facility, which provides a variation of types and size of facility, along with the region and the programs offered.

Table 1: Characteristics of Healthcare Facilities

Facility and Location	Size/Capacity	Patient Population	Programs
LA Jewish Health *Reseda, CA*	8-Building Campus Facility: 1108 Beds (Approx.)	Geriatric	Residential Living, Comprehensive Care, and Community Involvement: SNF and Assisted Living; Independent Living; Memory Care; Hospice and Palliative Care; Short-Term Rehabilitation; PACE[10]; Annenberg School of Nursing Program
Brethren Hillcrest Homes *LaVerne, CA*	Care Campus Complex: 450 Beds	Geriatric	SNF; Independent Living; Residential Living; Assisted Living; Memory Care
Carmel Valley Manor *Carmel, CA*	28-Acre Care Campus Complex: 24 Beds – Assisted Living 36 Beds – SNF 149 Units – Indep. Living	Geriatric	SNF; Independent Living; Assisted Living; Health Clinic
Chaparral House *Berkeley, CA*	49 Beds	Geriatric	SNF; Memory Care; Post-Acute Care
Chapa-De Indian Health (2 Facilities) *Auburn, and Grass Valley, CA*	2 Health Care Complexes: 17,754 Patients Served in 2021	Founded to serve Native populations, but serves all patients.	Dental, Health, Diabetes Clinic, Rheumatology Clinic, and Psychiatry
(The) Fountains Skilled Nursing and Rehabilitation *Yuba City, CA*	145 Bed Facility	Geriatric	SNF; Short Term Rehabilitation; Hospice Care
Sacramento Native American Health Center *Sacramento, CA*	1-Building Facility: Approx. 12,000 Patients Served Annually	Serve Native populations and underserved communities.	Medical; Dental; Vision; Behavioral Health; Specialty Care
Southern Inyo Health District *Lone Pine, CA*	2-Building Facility: 4 Acute-Care Beds 33 SNF-Beds	Rural Community	Acute Care; Diagnostic Imaging; Emergency; Infusion Therapy; Regenerative Medicine; Rehabilitation; Rural Health Clinic; SNF; Suboxone Clinic MAT[11] Program; Wound Care
Tiburcio Vasquez Health Center *Southern Alameda County, CA*	8 Primary Care Clinics	Underserved Populations Over 25,000 Patients Served Annually.	Primary Care; Dental, Behavioral Health; Youth Health Services; Optometry

*Inland Christian Home and Sierra View Homes withdrew from the Project.

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[10] PACE (Program of All-Inclusive Care for the Elderly) is provided under Medi-Care and Medi-Caid (Medi-Cal in California) Programs: https://www.medicaid.gov/medicaid/long-term-services-supports/program-all-inclusive-care-elderly/index.html.
[11] MAT – Medically Assisted Treatment (MAT) for Substance Use.

Telehealth Visit Documentation Form

Table 2 shows data collected by facility. A total of 8 of the 10 facilities collected data for this study. However, there was uneven participation in data collection. A major factor was that the Telehealth Visit Documentation Form had to be completed manually, unless facilities were willing to integrate it into their Electronic Medical Record (EMR) software program, which was discovered to be cost and time prohibitive for most of the facilities. Only SNAHC was able to include it into its EMR system in that it was already collecting most of the needed data. Thus, SNAHC is responsible for 86.39% of the data collection forms submitted for this Project. However, SNAHC did not collect data on gender or age of patient. Chapa-De collected 10% of the total data forms submitted. Notably, Chapa-De was an early adopter of Telehealth and had been using Telehealth in its facilities for years. This Project allowed Chapa-De to expand its Telehealth program.

Importantly, some of the issues that challenged data collection included: too time consuming to complete handwritten form; staff had competing demands – patient care or paperwork; only had time to enter into 1 system either EMR or survey form. Some facilities were delayed with Telehealth implementation, which limited their ability to collect data. Importantly, Tiburcio Vazquez Health Center joined the Project mid-way and was able to contribute to the data collection.

Table 2: Data Collection by Facility

Facility	Total # of Forms Submitted (n=)	Percentage of Total Number of Forms Received (8,756)
Los Angeles Jewish Health	n= 51	.58%
Brethren Hillcrest Homes	n= 2	.02%
Carmel Valley Manor	n= 0	—
Chaparral House	n= 2	.02%
Chapa-De Indian Health Program – Auburn & Grass Valley	n= 912	10.42%
(The) Fountains Skilled Nursing and Rehabilitation	n= 4	.04%
*Inland Christian Home	n= 0	—
Sacramento Native American Health Center (SNAHC)	n= 7,564	86.39%
*Sierra View Homes	n= 0	—
Southern Inyo Healthcare District	n= 61	.70%
Tiburcio Vasquez Health Centers	n= 160	1.83%
TOTAL	**8,756**	**100%**

Facilities that Withdrew from Project.

Characteristics of the Sample

Table 3 shows characteristics of patients participating in a Telehealth visit. By gender, more Females (63%) than Males (37%) participated in Telehealth visits. Most patients were White (43.2%), followed by African American (17.7%), and Native American (15%).

Table 3: Characteristics of the Patients and Visits

Gender (*SNAHC did <u>not</u> collect Gender data and it is not included in this Gender Table.)

Female	Male	Total
741	435	1,176
63%	37%	← **Percent of Total**

Race/Ethnicity (*SNAHC did collect Race/Ethnicity Data)

Asian Pacific Islander	Black/ African American	White	Latino/Hispanic	Native American	Other	Total
628	1383	3379	654	1184	602	7,830
8%	17.7%	43.2%	8.4%	15%	7.7%	← **Per. Total**

Age (*SNAHC did collect Age data)

0-1	1-12	13-17	18-30	31-45	45-64	65+	Total
17	207	187	1371	2660	3326	932	8,700
0.2%	2.4%	2.1%	15.8%	30.6%	38.2%	10.7%	← **Per. Total**

Table 4-A shows the type of device or equipment used for the Telehealth visit by facility type. The most common devices used during Telehealth visits were tablets (or iPads) for FQHCs (95.62%), telephones (smart or dial) for Tribal Clinics (93.42%), and Telehealth carts for SNFs (91.53%) and Critical Access Hospital (65.57%).

Importantly, the "Unspecified Device" was reported by the Sacramento Native American Health Center (SNAHC) due to its Telehealth platform that is integrated into its EMR system and through this set-up it cannot be determined what type of device is being used on the other end.

Table 4-A: Device and Equipment Used by Facility Type

Device and Equipment Used by Facility Type	Laptop	*Unspecified Device	Tablet	Telehealth Cart	Telephone (Smart or Dial)	Total
Skilled Nursing Facilities	—	—	—	(54) 91.53%	(5) 8.47%	(59) 100%
Tribal Clinics *(Chapa De and SNAHC)*	(393) 4.64%	(98) 1.16%	(20) 0.24%	(46) 0.54%	(7,919) 93.42%	(8,476) 100%
Critical Access Hospital	—	—	—	(40) 65.57%	(21) 34.43%	(61) 100%
FQHC *(TVHC)*	—	—	(153) 95.62%	—	(7) 4.38%	(160) 100%
Total Telehealth Visits Reported						8,756

Table 4-B illustrates the type of device or equipment used for Medical or Behavioral Health Care Telehealth visits. Smart phone or landline is the device most frequently used for Medical Health (92.56%) and Behavioral Health (82.21%).

Table 4-B: Device and Equipment Used by Medical or Behavioral Health Care Visit

Device and Equipment Used by Visit Type	Laptop	*Unspecified Device	Tablet	Telehealth Cart	Telephone (Smart or Dial)	Total
Medical Health	(221) 3.03%	(43) 0.59%	(153) 2.11%	(125) 1.71%	(6,747) 92.56%	(7,289) 100%
Behavioral Health	(165) 11.24%	(62) 4.23%	(17) 1.16%	(17) 1.16%	(1,206) 82.21%	(1,467) 100%
Total Telehealth Visits Reported						8,756

Equipment Operator

When patients are in-person in a medical facility or clinic and the provider is remote, an equipment operator is needed to conduct the Telehealth visit. Data reported indicates that Medical Assistants (MA) were the equipment operators for 79.9% of the visits. Although MA performed as the equipment operator in the majority of visits, any medical professional can operate the equipment and can serve as the link for the tele-physician and the patient.

Telehealth Visit Conducted by Medical Staff

Medical staff information was reported and documented by type of medical degree. This data shows that Medical Doctors (MD) and Doctor of Osteopathic Medicine (DO) conducted 50.7% of the visits, while Physician Assistants (PA) conducted 22.2% of the visits, and Nurse Practitioners (NP) conducted 27.1% of the visits.

Figure 1 shows the type of Primary Care or Specialty Care that was provided via Telehealth. It is thought that Telehealth has the potential to increase access to healthcare, particularly for the digitally-disadvantaged and medically-disadvantaged populations. Without baseline data, this study cannot determine whether or not Telehealth increased access to Primary or Specialty Care; however, it does show the promise of access to Primary Care with 77.7% healthcare visits, along Psychiatry with 17.3% of the reported visits in this study.

Figure 1: Telehealth Clinician Specialty

Telehealth Clinician Speciality

N= 8,718

Rheumatology
0.4%

Psychiatry
17.3%

Pediatrics
3.8%

Primary Care
77.7%
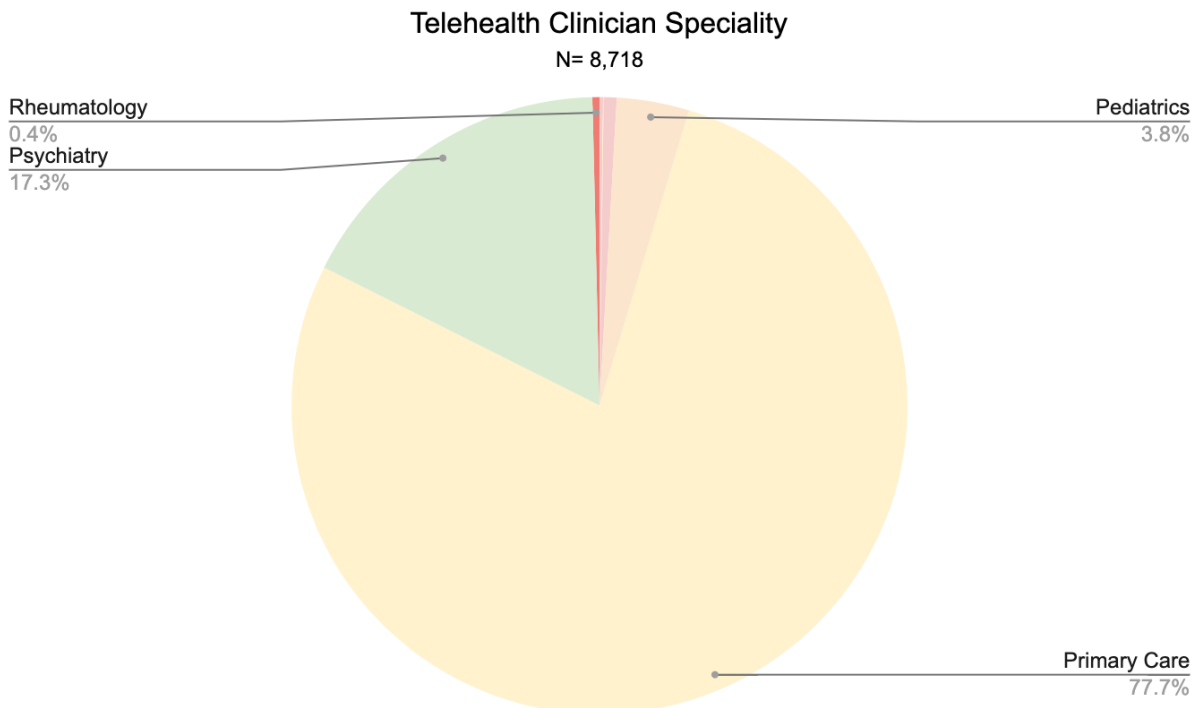
Figure 2 illustrates other types of healthcare professionals present during 171 of the Telehealth visits. Although LVNs are reported as being present 85.9% of the time during Telehealth visits, the data also show promise that Telehealth can lend itself to coordination of care among a multitude of practitioners. In this study, there were instances where Nurse Practitioner (1.8%), Registered Nurse (4.7%), Dietitian (1.8%), and MD/DO (5.9%) were present during a Telehealth visit.

Figure 2: Coordination of Care

Coordination of Care
N= 171

NP
1.8%
RN
4.7%
Dietitian
1.8%
MD/DO
5.9%

LVN
85.9%
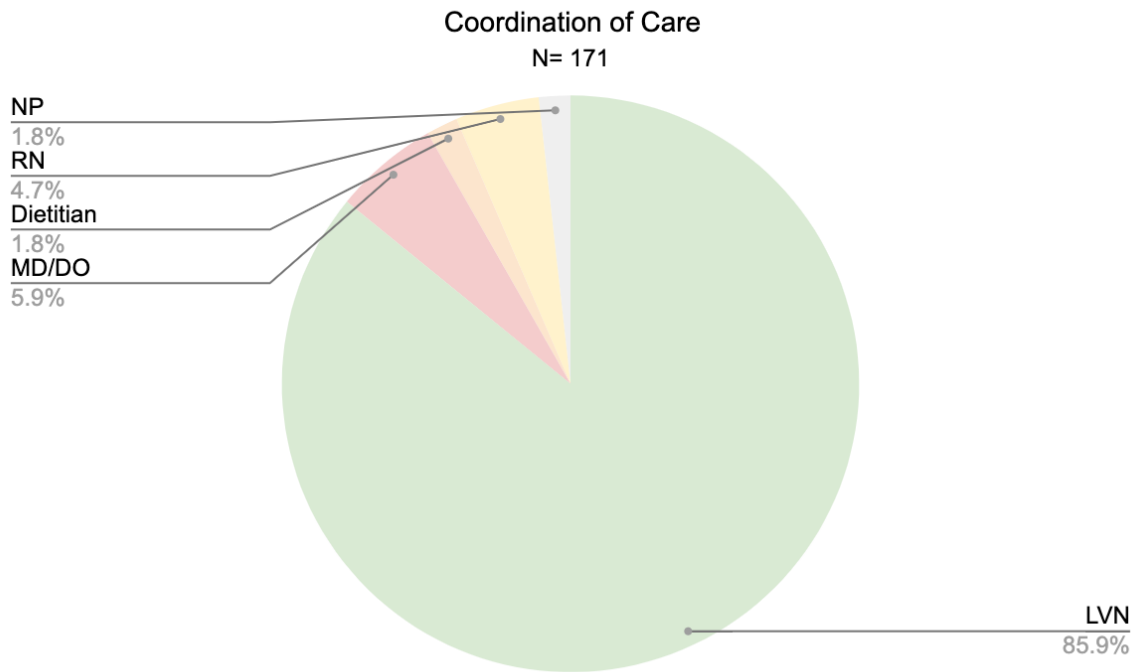
COVID-19 Tracking

Data for reporting COVID-19 related Telehealth visits were captured in the data collection process, primarily through SNF respondents. The queries related to COVID-19 included whether Telehealth visit prevented transfers (Figure 3), if COVID-19 was the reason for the Telehealth visit (Table 5 – see page 25), and if COVID-19 was the preliminary diagnosis given during the Telehealth visit (Figure 5 – see page 27).

Prevent Transfers

The data shows that Telehealth prevented 53.5% of transfers to an outside clinic or Emergency Department, thereby reducing transportation and other related healthcare costs, and possibly reducing COVID-19 transmission if transfer occurs during an outbreak.

Figure 3: Telehealth Prevention of Transfers

Telehealth Prevention of Transfers
N= 59 (Just SNF)

No, Due to Routine Visit
46.5%

Yes, Prevented Transfer
53.5%
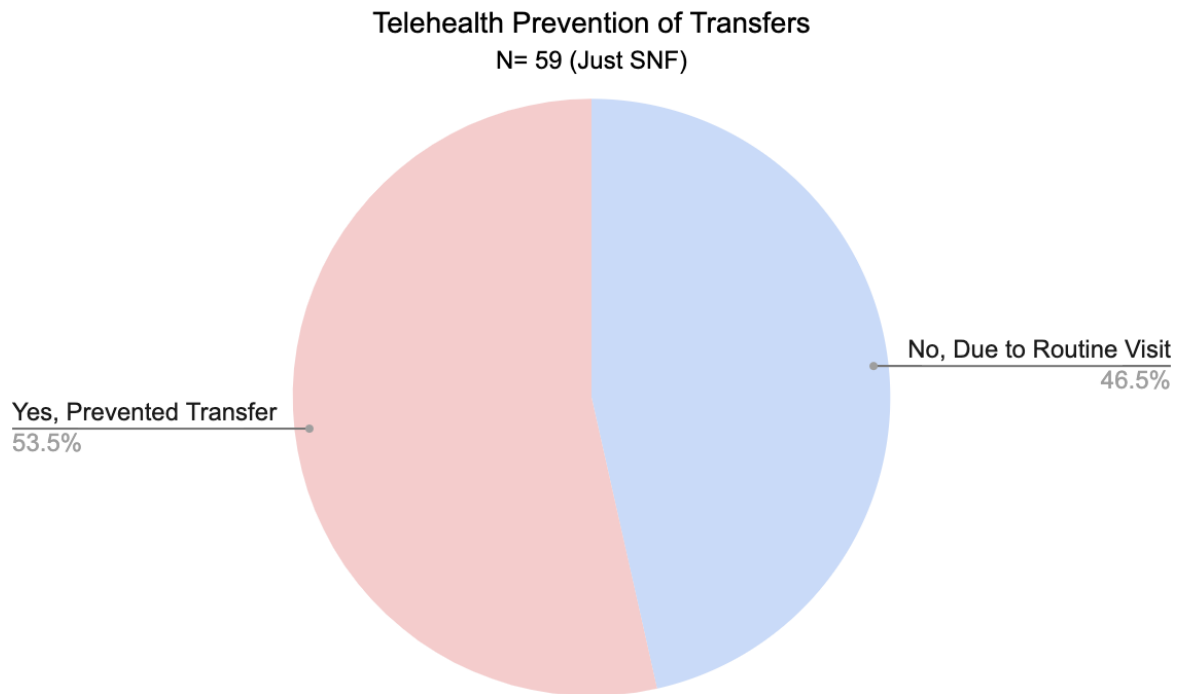
Table 5 reflects responses from all Project Partners (not only SNFs). The data show that only .32% of Telehealth visits were specific to COVID-19, while 98.89% were for Regular or Routine Check-ups. While in Figure 5 (see page 27) for Preliminary Diagnosis, the data shows that 1.5% were diagnosed with COVID-19, while the highest percent of Preliminary Diagnosis was 13.4% respectively for Respiratory and Arthritic Disease.

Table 5: Reason for Telehealth Visit

Reason for Visit	Percent (%)	N= 8,521
Regular or Routine Check-up	98.89%	N= 8,427
Change of Condition	0.27%	N= 23
COVID-19	0.32%	N= 27
Other (Primary Concern)		
Miscellaneous	0.27%	N= 23
Confidential	0.25%	N= 21
Total Visits	**100%**	**8,521**

Preliminary Diagnosis – Mental Health Telehealth

Figure 4 shows the number of patients (n= 844) who had a behavioral health appointment and received a preliminary diagnosis related to mental health. The highest preliminary diagnosis was reported for depression (28.4%), followed by bipolar (25.7%), and anxiety (16.7%). This data suggests that Telehealth holds tremendous promise for under-served communities seeking behavioral health care.

Figure 4: Preliminary Diagnosis for Mental Health Telehealth Appointments

Preliminary Diagnosis for Mental Health Telehealth Appointments
N= 844

Schizophrenia 4.4%
PTSD 9.9%
OCD 1.5%
Mood Disorder 6.3%
Insomnia 0.4%
Gender Dysphoria 0.5%
Depression 28.4%
Anxiety 16.7%
Attention Disorders 6.3%
Bipolar 25.7%
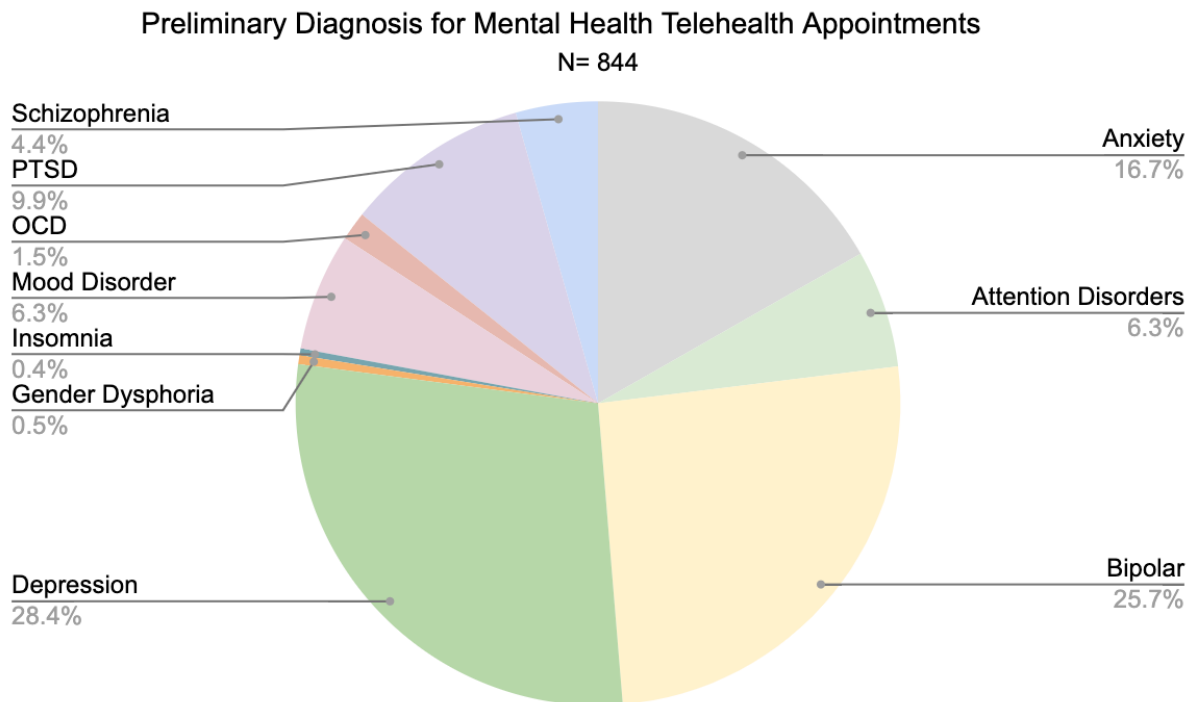
Preliminary Diagnosis – Medical Telehealth

Figure 5 shows Preliminary Diagnoses made for medical Telehealth appointments. The data illustrates that Telehealth facilitated diagnoses for 12 categories of which the top Preliminary Diagnosis were for Respiratory Disease (13.4%), Arthritic Disease (13.4%), and Heart Disease (10.4%). Telehealth shows the ability to be used to treat a number of diseases, which could help expand access to care for medically-disadvantaged populations suffering from these conditions.

Figure 5: Preliminary Diagnosis

Preliminary Diagnosis for Medical Telehealth Appointments
N= 135

Thyroid Issue 6.0%
Respitory Disease 13.4%
Pregnancy Related 5.2%
Neurological Disease 6.7%
Kidney Diease 3.7%
Heart Diseases 10.4%

Other 9.0%
Arthritic Disease 13.4%
Autoimmune Disease 9.7%
Chronic Pain 9.7%
COVID-19 1.5%
Diabetes 11.2%
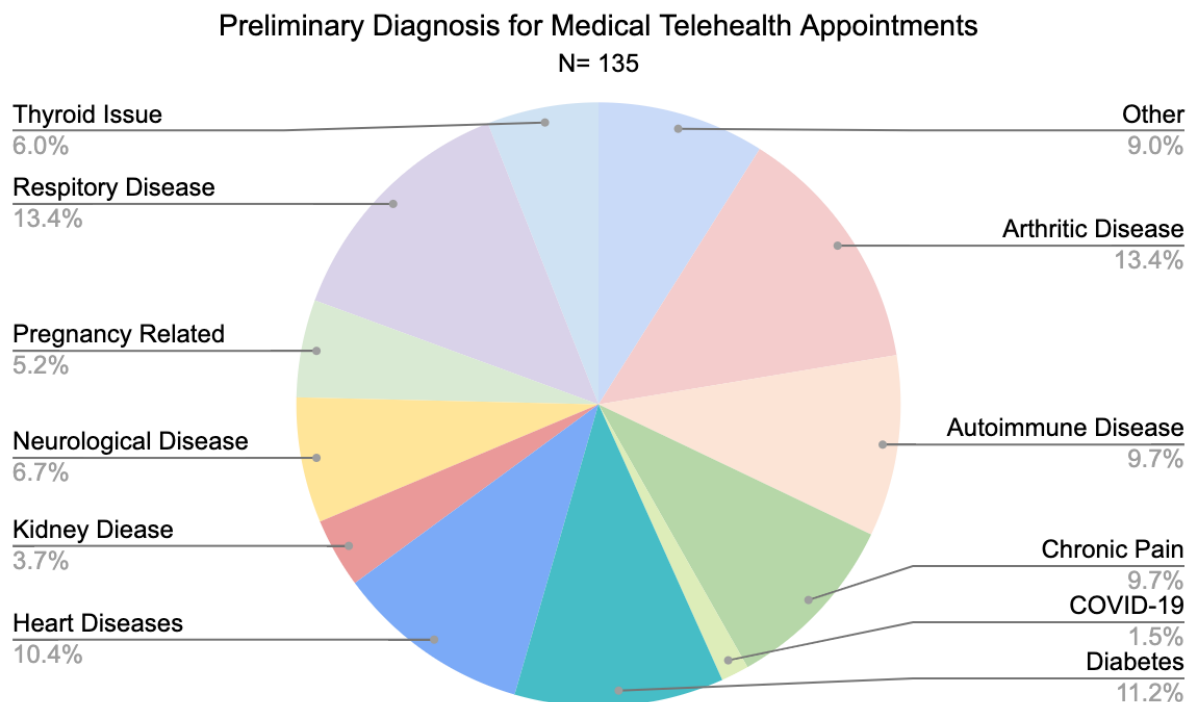
Orders Given

The Telehealth Visit Documentation Form collected data on the orders given by the clinician providing care through Telehealth. The data shows that 44.7% of the Telehealth visits resulted in a new prescription given and 21.6% resulted in a prescription refill. These findings suggest that Telehealth can have an economic impact on patients by not having to schedule an in-person visit which may require time-off work, childcare, travel time and transportation costs.

Additionally, 18.6% of orders given were for immunizations and 15% were for laboratory tests, such as blood work, CT scan, urine labs, X-ray, and IV hydration treatment. Again, orders given via Telehealth can be more efficient and a time and economic savings for patients who have one less in-person doctor appointment to coordinate.

Patient Comfortability and Preference

In studying the patient comfortability with Telehealth and preference of modality, the data shows that of total responses (n= 1,147), 62.7% were Comfortable, 35.8% were Very Comfortable, and 1.5% reported that they were Not Comfortable. Some of the reasons of being Not Comfortable with Telehealth included: they prefer in-person visit; they thought their appointment was in-person; they had issues with the Telehealth cart; and they did not like the physician.

Patient Satisfaction

Figure 6 shows patient preference of modality for future visits. The data illustrates that 49.7% reported that they were open to any of the Telehealth modalities, as well as in-person visits; 17.9% preferred a Telephone Visit; and 15.5% preferred a video visit. This data suggests that collectively more than 87% of respondents are open to Telehealth visits.

Figure 6: Patient Preference of Modality for Future Visits

Patient Preference of Modality for Future Visits
N= 1,130

Video Visit or Telephone
4.7%

Telephone
17.9%

Video Visit or In Person
3.5%

In Person or Telephone
0.7%

In Person
8.1%

Video Visit
15.5%

Any of These Listed
49.7%
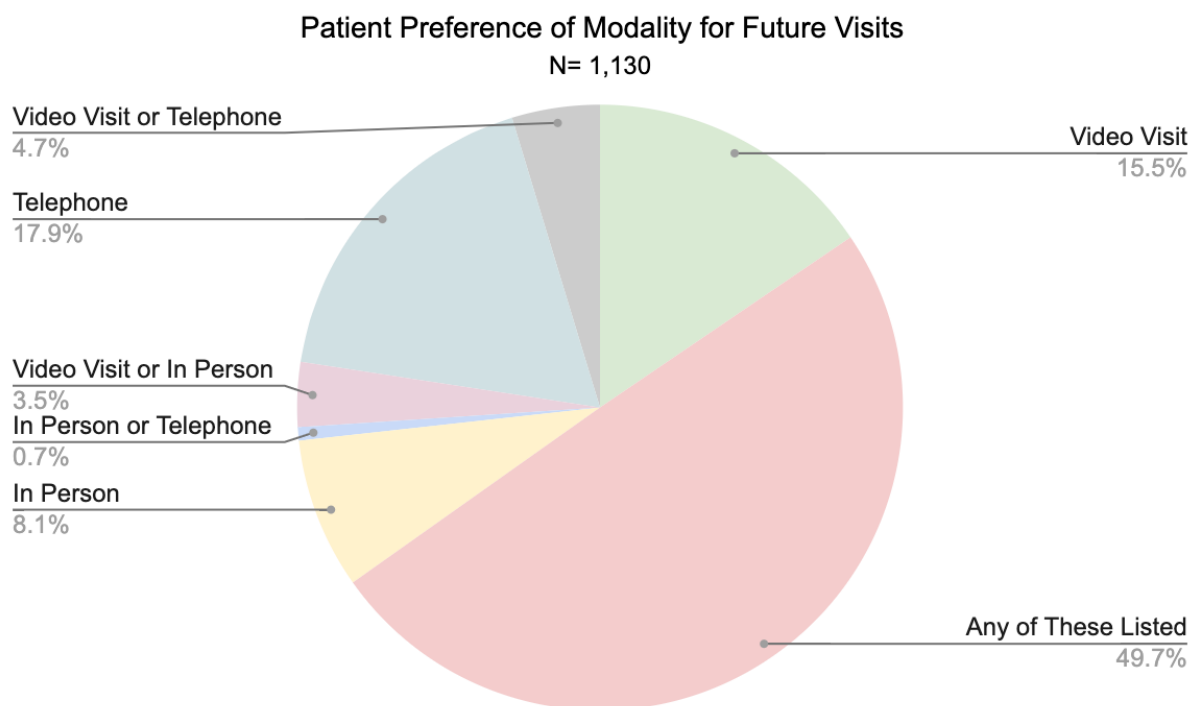
Patient Satisfaction – Recommend Telehealth to Friend

Figure 7 shows that patients are satisfied with Telehealth and are willing to recommend this modality to a friend with 54.4% reporting satisfaction with all modalities including Telehealth and in-person visits; 15.1% would recommend a Video Visit; 14.8% would recommend a Telephone visit. More than 87% of patients responding are willing to refer a friend for a Telehealth visit. This illustrates a high level of patient satisfaction.

Figure 7: Patient Modality Recommendation for Visit of Best Friend

Patient Modality Recommendation for Visit of Best Friend
N= 1,127

Video Visit or Telephone
3.2%
Video Visit or In Person
2.0%
Telephone
14.8%

In Person or Telephone
0.5%

In Person
9.1%

Video Visit
15.1%

Any of These Listed
54.4%
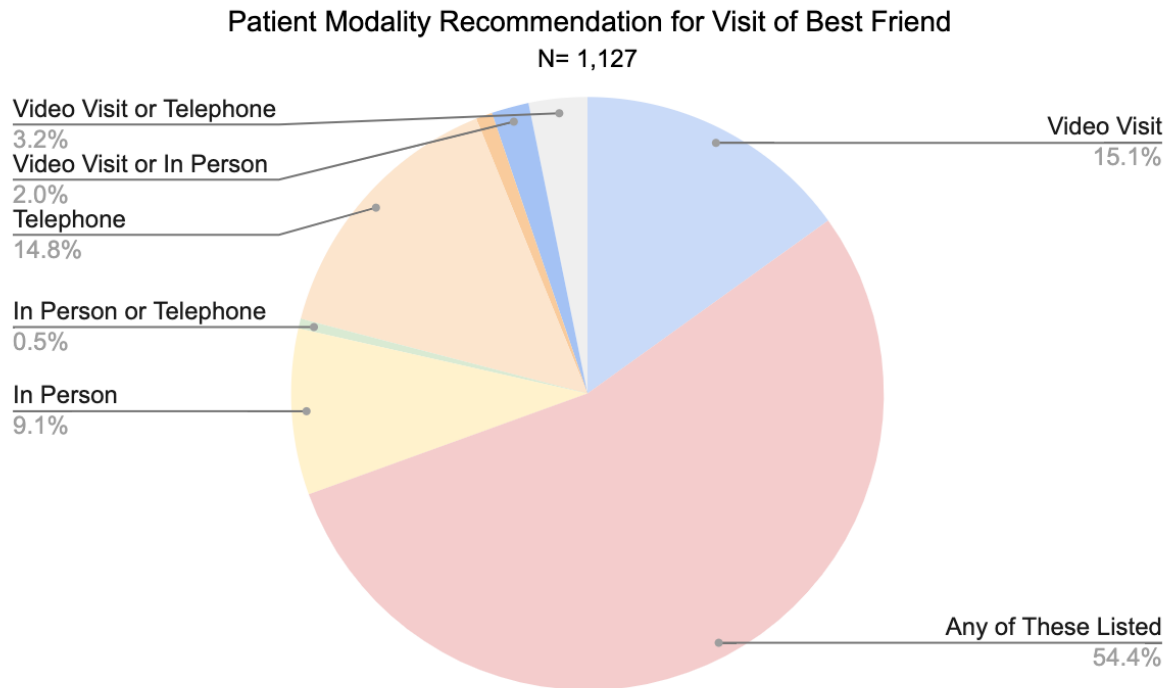
Clinician Comfortability and Care to Patient

Through the Telehealth Visit Documentation Form, clinicians were queried if they were comfortable providing care through Telehealth. Of the total responses (n= 1,158), 99.6% of clinicians reported they were comfortable using Telehealth. For clinicians who responded not being comfortable, they attributed it to the technology or patient preference of in-person modality.

Improve Facility's Ability to Deliver Care

An important factor is the ability of Telehealth to improve a facility's ability to deliver care. In this study, the data shows that of the total responses (n= 1,063), 99.3% of bedside staff indicated that the Telehealth visits improved the facility's ability to provide care to patients.

Substance Use Disorders

This study shows that Telehealth can be an important modality to address substance use disorders. Specifically, Southern Inyo Health District (SIHD) is a Critical Access Hospital, a designation given by the Centers for Medicare and Medicaid Services (CMS) to rural hospitals. Despite its remote location, SIHD has established a Medication-Assisted Treatment (MAT) Program to address substance use disorders. For SIHD, Figure 8 shows that Telehealth has been used to treat Alcohol Use (43.9%), Unspecified Substance Disorders (26.8%), and for Opioid Use (9.8%). SIHD is in a rural and remote region of California and having the ability to treat Substance Use Disorders is an important resource for patients who would not have access to treatment or would need to travel long distances to seek treatment.

Figure 8: Telehealth for Substance Use Disorders

Substance Use Disorders
N= 43

ADHD
4.9%

Unspecified Substance
26.8%

Alcohol
43.9%

Polysubstance
2.4%

Opioid
9.8%

Meth
7.3%

Benzodiazepine
4.9%
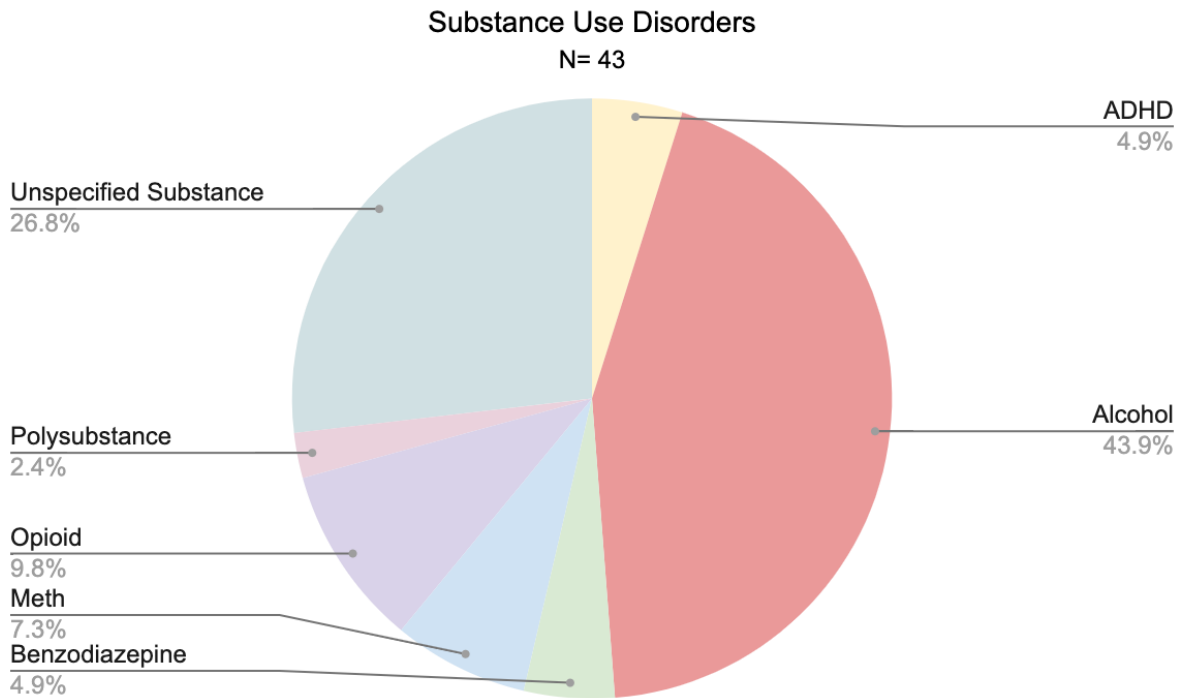
Lessons Learned Implementing the Program

In addition to widespread acceptance of Telehealth by patients and clinicians, along with indications that transfers were reduced, several other benefits emerged that support using Telehealth. These were identified during virtual monthly Learning Sessions with the Partner facilities and during bi-weekly Check-in Meetings. Key Lessons Learned are delineated below, which offer guidance for healthcare facilities seeking to implement and/or expand Telehealth in their facilities, and for the institutions that fund and/or regulate Telehealth.

Notably, there is a fundamental Lesson Learned that is key to a successful Telehealth program. It is important to note that due to the relatively high set-up, training, and maintenance cost of telehealth services, especially in the medically underserved population, reimbursements for set-up costs should be thoughtfully determined.

Telehealth Benefits

Patient and Provider Satisfaction

There is a high level of patient and provider satisfaction of Telehealth as a modality for care. Telehealth creates the opportunity for better coordination of care among clinicians, as well as with family members who are able to participate in Telehealth visits and provide a more complete health history and background for their loved ones' care plan.

Additionally, Telehealth presents both economic and environmental benefits to patients who opt for Telehealth visits. Patients do not need to miss work, arrange child-care, or incur transportation costs to see a provider in-person. This is especially important for patients in rural and remote and medically-disadvantaged areas. Telehealth can decrease the number of vehicle trips to healthcare facilities without impairing patient outcomes, thereby reducing environmental impacts.

Telehealth has tremendous potential to increase access to primary care and specialty care providers. This is increasingly important in medically-underserved communities and is compounded by the shortage of healthcare providers, particularly in rural, remote and medically-disadvantaged communities.

Behavioral Health

Telehealth is increasingly being used for behavioral health visits to improve care and decrease missed appointments. Providers are reporting a significant reduction in "no show" rates for behavioral health.

Potential Reduction of Administrative Costs for Nurses and Other Providers

Particularly for SNFs, Telehealth visits were thought to prevent transfer, potentially reducing costs, trauma for the resident, and administrative charting time. In addition to the health care costs involved when a resident is transported to and seen in the Emergency Department, the administrative burden of required paperwork at the facility is high.

The Chief Medical Officer at the Los Angeles Jewish Health (LAJH) developed a list of advantages (see Appendix 3). The list was based on discussions with nursing staff who reported that fewer transfers reduced their workload because they did not have to complete the paperwork required for a resident to transfer out of and return to the facility.

LAJH reported that Telehealth can make nurse-centered improvements because of decreased calls, tests, and forms. Nurses in facilities become true health providers rather than performing like clerks. LAJH also reported that Telehealth is a cost-savings. Arranging transportation is costly and getting residents to hospitals is time-consuming. Lastly, Telehealth saves money for CMS by preventing transfers, along with cost savings for Emergency Departments and hospital.

Reduction of Overuse of Emergency Rooms and Related Reimbursement

Telehealth permits collaboration between treatment providers such as among attending physicians, nurses, physical therapists, and other care professionals. For nurses, it reduced redundancy or attempts to fax/call a physician for treatment orders because the physician is able to provide verbal orders immediately after the Telehealth visit. It provided opportunities to elevate the competency of the clinical team. For example, a physician can provide in-the-moment teaching to nursing staff when they listen to the heart and lungs together.

Challenges Implementing Telehealth

Concerns About Lower Quality

Although Telehealth is not a new technology, it was perceived as a non-traditional form of healthcare by some patients, family members, and healthcare providers. Some patients may reject Telehealth out of concern that the quality of care was lower. Some indicated that when in-person visits were possible, it was not acceptable to deliver services virtually. This stereotype was addressed to some extent once providers were engaged.

Upfront Costs, Including Increased Cybersecurity and Changes in Workflow, Associated with Optimal Use of Telehealth Carts

Several costs were incurred before facilities could reap the benefits of Telehealth. There were significant broadband planning and implementation considerations. For example, before installing Telehealth equipment, facilities needed to work with their IT staff to ensure cybersecurity and to assess whether or not there was adequate connectivity throughout the building for technical accommodations or authorizations and/or security clearances needed to be made. For several sites, this was a laborious process that required approval and appropriate configuration to ensure that capacity and safeguards were adequate. An additional step involved a heat-map analysis to determine WiFi strength and range as well as to assess barriers to adequate connectivity.

The biggest challenge identified was shifting how work was done in terms of day-to-day operations. Sites experienced that initially, Telehealth takes more rather than less time, until it is fully integrated into standard practice. Given other issues, it is understandable that some clinicians and operators were unwilling to take the time to learn and become fully competent in operating the Telehealth cart. Some were concerned that the equipment was difficult to use and most had little time to devote to learning a new skill.

One of the most significant difficulties was changing patterns of workflow and standard operating procedures. Moreover, breaking previous patterns for how work was done was hard to initiate during the COVID-19 healthcare crisis. Often nurses, technical support staff, and clinicians made additional efforts at the beginning to learn how to use Telehealth equipment, mainly the cart and its online platform. Adopting new technology involved changes in the routine they were accustomed to. Although CETF provided training and technical support for how to use the carts in each of the facilities along with some support from the Telehealth cart vendors, at some facilities, turnover coupled with shortages of key staff increased demands on staff and further limited time to learn to use the cart. Some sites shared that putting too much effort in training could add to workloads and disrupt their scheduled plans.

Time Constraints

One common misconception about Telehealth is that it takes less time. While transportation time and the need to transfer residents to the Emergency Department are reduced, these costs and time savings are not realized by the individual providing Telehealth services. In fact, the Telehealth per visit time may be longer than an in-person visit (especially in SNFs) since family members and nurses are often able to participate in the clinical visit along with the treating providers. A related concern, in terms of how things were done, was that physicians who arrive for regular in-person visits are often scheduled to see multiple residents at once. Thus, the cart does not save the travel time it would if they were coming to see only one or two people.

Concerns About Investing in Faster Internet and Devices

Although each of the facilities were reimbursed for the Telehealth carts purchased, many of the sites also needed to upgrade their Internet bandwidth and/or install boosters or access points to be able to use the carts in various parts of the facility. For facilities seeking to launch a similar approach to Telehealth, purchasing the equipment, including carts and, in some facilities, expanding or upgrading its capacity for connection reliability to the Internet would be additional budget items.

Coordination of Different Platforms in Healthcare System

In some sites, outside clinicians used different platforms for Telehealth visits. This required Telehealth operators to serve as a coordinator to set up the platform. Additionally, some providers said that they preferred to use their smartphones for Telehealth. This approach circumvented the facility's Telehealth platform and meant that they were not taking advantage of the multiple diagnostic tools offered by the cart.

Aftermath of COVID-19 Staffing Chaos

A major issue was staffing challenges in the aftermath of the acute phase of the COVID-19 Pandemic. The dangers and burnout from staff working in health care, coupled with what has been called "the great resignation" or high turnover, meant that some facilities experienced ongoing staff shortages requiring them to consistently hire and train new staff.

A related issue was that the costs of implementing Telehealth are mostly on the front end around training and making the cart part of standard operating procedures. One Administrator reported that the biggest challenge was getting staff involved – getting them to buy in. There is a lot of work to be done before starting Telehealth. With staff turnover, staff said they could go faster using old ways, so why do they have to adopt new technology? Telehealth is treated as an emergency tool rather than a routine tool. If it is not used every day, staff would lose the capacity to use it; they need to go through the training and also maintain the ability and familiarity of using Telehealth since there is a staff shortage. They don't want to spend extra time to learn, since they are experiencing staff turnover, and it is hard to maintain the momentum of using Telehealth.

Staffing continues to be a challenge, and some reported that learning how to use the cart was difficult. Several solutions were offered to address these issues. For example, one site had a specialist who served as the go-to person for support. Another provider suggested that implementation might work better if the program took some pages out of a franchise model. Using this approach, sites would be provided with a hotline to connect to troubleshooting experts; the model suggested that facilities could join together to fund a troubleshooter when problems arose.

Recommendations

Telehealth: No Longer Just About COVID-19 –
It's About Healthcare Access and Digital Inclusion

Successful implementation of Telehealth requires recognizing and addressing potential barriers and challenges and proactively addressing them. This Project was able to identify barriers and challenges that were encountered by Project Participants, and are likely to be encountered by most facilities that develop a Telehealth Program. The following delineates major barriers and challenges (*The Problem*) and sets forth suggestions to address them (*Possible Solution).* Although in general technology will lead to more efficient and effective care, adoption of Telehealth requires multiple levels of investment. This is true for all technologies.

Recognize Sources of Resistance to Change

The Problem: Leadership may approach Telehealth with the idea that "if we build it, they will come." Experience shows this is rarely the case. Resistance to change occurs, in part, because effective personnel have internalized standard operating procedures; they are typically efficient because they know how to do their job. Changing those patterns is challenging.

Possible Solution: Rather than approach implementation as a "top-down" initiative as leadership's solution to the staff's challenges, first meet with staff to engage them in identifying their workload issues. Then educate them on how Telehealth will address several of their concerns, although will require commitment up front.

Recognize the Need to Invest Time and Resources Before Benefits Are Realized

The Problem: Staff and management may not be willing to invest time and money upfront to save time and money later. This is even truer in a crisis when everyone is doing their best to stay afloat.

Possible Solution: Develop easier funding paths and grant processes for facilities to apply and receive grant funds from both government and private sources that are less labor intensive for staff that are already over-burdened by the public health emergency.

Understand and Address Contextual Issues

The Problem: Every healthcare facility is different in terms of its culture, resident mix, leadership, environment, physical plant, and available resources. In addition to being aware of implementation issues, leadership will need to be aware of how these issues interact with the unique aspects and needs of their facility.

Possible Solution: Government and foundations should provide funding for healthcare facilities to develop a standardized survey that highlights contextual issues (such as culture, resident mix, leadership, environment, physical plant, and available resources) that facilities must complete and identify how they intend to address these issues.

Prepare and Pave the Way for Staff Buy-in

The Problem: Staff, especially those who are stressed by challenges beyond their control, will need preparation and support. Leaders will need to identify what it will take to get genuine staff buy-in and what barriers need to be overcome. In addition to an initial plan, management will need to work closely with staff as they begin to implement the program. For a list of conditions most conducive to using Telehealth, see Appendix 4. Healthcare facilities should consider what incentive structure is needed and how to address problems by supporting staff who identify problems and participate in resolving them.

Possible Solution: Use tools such as the FAQ for Nurses (see Appendix 5) and FAQ for Physicians (see Appendix 6) prior to or at the beginning of the first session. Subsequent sessions should start with asking staff what issues they had and provide positive acknowledgment of staff members who bring forward previously unidentified issues.

Walk the Talk: Identify a Champion

The Problem: Lack of an identified champion slows down implementation across the organization and when barriers arise without an effective champion, they may stop the program entirely.

Possible Solution: Prior to staff buy-in, leadership will need to be firmly behind the program. We recommend that this includes identifying a champion who will work to support all aspects of preparation, training, and ongoing support. This requires understanding the potential benefits, as well as knowing what could go wrong and how to address it. The most successful facilities were due in large part to the knowledge and hands-on approach of a key champion – such as a Chief Medical Officer or a Telehealth Program Manager. For example, Los Angeles Jewish Health hired a Telehealth Program Manager to support successful implementation – funds for the position were provided by a private grant.

Ensure that Sufficient Training and Support are Available

The Problem: Most people need some handholding in addition to standardized training protocols. One idea is to develop a short readiness assessment to get a sense of how willing those who will carry out the program are to participate. Of course, to the extent that this is time-consuming, it could be counterproductive.

Possible Solution: Facility leaders should consider what kind of incentive system would get people to the table and enhance their willingness to do what is necessary to learn and use the program. The key takeaway here is to create a course that identifies where the staff and facility are at prior to implementation. Then in that course show how the program supports them and connects to their values. Then, train the staff in the use of the equipment. Invest the time for essential training, support, and ongoing efforts to effectively roll out the program.

<p style="text-align:center">***</p>

Conclusion

The California Emerging Technology Fund (CETF) is grateful to the Federal Communications Commission (FCC) COVID-19 Telehealth Program Grant (Round 2) for the resources to acquire Telehealth equipment and to gather greater experience in how to effectively implement Telehealth in healthcare facilities. Overall, the Project illuminated many unanticipated outcomes related to implementation that must be taken into consideration by policymakers, private funders, and practitioners. However, it is clear that providing Telehealth equipment alone is not sufficient. Implementation must include Project management and sufficient facility staff to support rollout, implementation, and adoption. In addition, a technical assessment should be made in advance in each facility to determine broadband capacity, network compatibility, and whether or not Internet connectivity enhancements are needed coupled with cybersecurity considerations.

High-level leadership must be identified and consistent to support staff buy-in and address resistance to new technology and concerns regarding change management and workflows. Initially, it may be labor-intensive for staff to learn the new technology, but quality training, technical support, daily practice, and mutual support are essential. Given that skilled nursing facilities (SNFs) are most impacted by patient transfers to emergency departments, 53.5% reported that Telehealth prevented hospital transfer.

The findings support the following Conclusions for Telehealth, which are encouraging overall, especially for medically-disadvantaged communities and for the future of Telehealth.
- There is a high level of patient and provider satisfaction of Telehealth as a modality for care (including family satisfaction for SNF patients).
- Telehealth can decrease emergency transfer of patients to the hospital, particularly from SNFs, which reduces impacts on patients and reduces costs to the system.
- Telehealth is increasingly being used for behavioral health visits to improve access to highly quality care and decrease missed appointments.
- Telehealth can increase access to medical expertise and specialty care to improve patient outcomes, in specialties such as pain medicine, endocrinology, neurology, among others.
- Telehealth can decrease the number of vehicle trips to healthcare facilities without impairing patient outcomes, thereby reducing impacts on the environment.
- There are set-up, training, and maintenance costs. Therefore, administrative oversight and dedicated support staff are needed to fine-tune and upgrade Telehealth services as technologies (such as connectivity and electronic medical record systems) emerge.
- Successful implementation of Telehealth requires organizational leadership and focus.

Key Recommendations for effective implementation of Telehealth include:
1. Identify a champion for the provider and within each facility who will provide leadership.
2. Prepare and pave the way for staff buy-in with sufficient orientation and training.
3. Recognize sources of resistance to change and engage those who have concerns.
4. Realize the importance of initial investment of time and resources to derive the benefits and optimize return on investments.
5. Ensure coordination and support between information technology (IT) and clinical staff to ensure that both technical and clinic considerations are integrated into implementation.

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Appendices

Appendix 1: Telehealth Visit Document Form

Telehealth Visit Documentation Tool –
Final 11.04.22

CETF

1. **Date/Time:** _____   **Patient ID:** _____
    (For privacy, please only use: First/Last Initials and Medical Record #)

2. **Equipment Used:**   ☐ AMD   ☐ Amwell   ☐ Smart Phone   ☐ iPad   ☐ Other:_____

3. **Equipment Operator:** *(Name/License or Title)* _____

4. **Telehealth Clinician Provider Name:**_____

    Degree/License: _____**Specialty:** _____

5. **Other Healthcare Professional(s) Present:** *(Name/License or Title)* _____
    _____

6. **Reason for Visit:**   Regular/Routine Check-up: _____   Change of Condition:_____   COVID-19: _____
    Other – (Indicate Primary Concern): _____

7. **Patient:** *(circle)* Female **OR** Male   Age:_____   *(Or prefer not to answer)* ____

8. **Ethnicity:**   ☐ African American/Black   ☐ Latino/Hispanic   ☐ Other: _____
    ☐ Asian/Pacific Islander   ☐ White

9. **Preliminary Diagnosis** *(Please list top 3 conditions)*: _____
    _____

10. **Orders Given:**   ☐ New Rx   ☐ Labs: *(circle)* Blood X-Ray EKG Ultrasound
    ☐ Change RX   ☐ Other: _____

11. **(*Question for SNFs only) Did Telehealth Visit Prevent Hospital Transfer?** *(Please circle one of the following:)*
    _Yes. This Telehealth visit prevented the need to send patient to ED.
    _No. Because the visit was routine.   *Other:* _____
    _No. Patient needed to go to ED even after the Telehealth visit.

12. **PATIENT:** Were you comfortable with your video healthcare visit?
    ☐ Comfortable   ☐ Very Comfortable   ☐ NOT Comfortable (If not, why not?)_____

13. **PATIENT:** For the condition you were treated for today, which of the following types of visit would you prefer in future?   ☐ Video Visit   ☐ In-Person   ☐ Telephone   ☐ Any of these listed

14. **PATIENT:** For the condition you were treated for today, which type of visit would you recommend to your best friend?   ☐ Video Visit   ☐ In-Person   ☐ Telephone   ☐ Any of these listed

15. **CLINICIAN:** Were you comfortable providing care through video visit?
    ☐ Comfortable   ☐ Very Comfortable   ☐ NOT Comfortable (If not, why not?) _____

16. **EQUIPMENT OPERATOR (Bedside Staff):** Did the video visit improve the facility's ability to deliver care to this patient?
    ☐ Yes   ☐ No   ☐ Not Sure

Bi-Weekly Telehealth Utilization Check-in

Date: _____

Staff Name: _____

Facility: _____

Completed by: Leticia Alejandrez, CETF Director of Telehealth and Human Services or Kyle O'Ryan, CETF Program Coordinator

1. Do you have a fully operating/functional AMD (or Amwell) Telehealth cart?   Yes/No

    a. If no, why not? What are you struggling with?
    b. Is there any support that can be provided (and from whom) to resolve issue?
    c. What is the timeline for resolving issue?

2. Have you used the AMD (or Amwell) Telehealth Cart?   Yes/No

    a. If no, why not? What are you struggling with?
    b. What support is needed to help resolve this issue?
    c. What is the timeline for resolving issue?

3. How many times has Telehealth cart been used this week?

    _____

    a. Was the experience successful? If not, why not: _____
    b. What can be done differently or better to be improved? _____
    c. How can I be supportive? _____

4. What is limiting a more widespread use of Telehealth?   _____

    a. Have more staff been trained? If yes, who (e.g., MDs, RN, CNA, etc.) _____
    b. Are you having connectivity or broadband issues? _____
    c. What other technical issues are you having (i.e., EMR, old infrastructure, etc.)?
        _____

5. Are you aware of Telehealth use in your facility to prevent the transmission of infectious disease –
    i.e., COVID-19, influenza, CDEF, MRSA, etc.?   Yes/No
        What type of infectious disease has been addressed – i.e., COVID-19,
        influenza, CDEF, MRSA, etc.? _____

6. Other/Comments:

Advantages of Using Telehealth Equipment in SNF Clinical Encounters to SNF Staff

- Reduces transfers out of the facility.
    - Transferring a resident out is a lot of work for nurses and is very time consuming.
        - Numerous phone calls to family, ambulance, ER, hospital, and clinicians.
        - Copying records.
        - Closer monitoring until ambulance arrives.
        - Discontinuing all the orders then rewriting them upon return.
    - Transfer out makes a new admission more likely.
        - Not all transfers out return.
        - Admitting a new resident is the most time consuming activity.
        - Admissions do not consistently occur when staffing is at its richest.
        - If transfer not replaced than administrators get anxious and may reduce shifts available for nurses.
- Reduces the number of phone calls.
    - Family connects at time of visit and direct communication between doctor, nurse, and resident.
    - Less back and forth between physician and nurse.
    - Less upset families that are concerned because they do not know what is going on, or assume that nothing is being done because they cannot see for themselves.
- Reduces the number of tests ordered.
    - Doctors have higher confidence that they know what is going on, so they do not order as many tests.
    - Ordering tests is time consuming.
    - Nurses often have to drop everything and facilitate the lab technicians.
    - Phone calls to clinicians and family are reduced since less tests ordered.
    - Reduction of need to scan test results into medical record.
- Reduces nurse stress.
    - Nurses and doctors are more confident with the diagnosis and treatment plan.
    - Less physician anxiety and therefore less physicians with behavioral issues.
    - Less work on low value activities provides more time for higher value work.
- Reduces nurse turnover.
    - Increased job satisfaction.
    - More loyalty to organization that invested in resources for better clinical outcomes.
    - Could improve staffing ratios since less nurse turnover and absenteeism.
    - Pride in organization that is industry leader and easier to recruit new staff.

Appendix 4: List of Conditions/Change of Conditions

Change of Condition (COC) Types of Clinician Contact[1]

System	Condition	Telehealth Contact Preferred	Telephone Contact Preferred
General			
	BP or Pulse out of range	Y	
	Weakness	Y	
	Fall	Y	
	Worsening independent mobility	Y	
	Fever	Y	
	Abnormal Lab test		Y
	Abnormal x-ray		Y
Neurologic			
	Confusion, Delirium, Less alert	Y	
	Possible CVA	Y (if not 911)	Y (if 911)
	Head Injury		Y
	Seizure		Y
	Hallucinations or Delusions		Y
	Anticipating new or increased dose of antipsychotic medication	Y	
Respiratory			
	RR< 10 or >35		Y
	O2 Sat <90%	Y if up with O2	Y if not up with O2
	Dyspnea, SOB, Abnormal breath sounds	Y	
	Cough without respiratory distress		Y
	Cough with respiratory distress	Y	
Cardiovascular			
	Chest Pain		Y
	New Irregular rhythm BP OK	Y (if BP OK)	Y (if BP low)
	c/o palpitations and rhythm OK	Y	
	New or worsening edema	Y	
	Color changes to extremities or lips	Y	
Gastrointestinal			
	Abdominal pain or GT out		Y
	Nausea/vomiting		Y
	Diarrhea/constipation		Y
	Hematemesis or hematochezia		Y
	New Jaundice	Y	
Urogenital			
	Suspected UTI	Y	
	Reduction in urine output	Y	
	Hematuria		Y
	Flank pain, r/o kidney stone	Y	
	Urinary catheter issues		Y
Muscular			
	Extremity, joint, back pain		Y
	Joint swelling or color change	Y	
	Extremity swelling or color change	Y	
Skin			
	Bruises		Y
	DPI or ulcer		Y
	Rash	Y	
	Skin tear		Y

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[1] Prepared by Anton Domingo, RN, Director of Telehealth, Los Angeles Jewish Health to guide clinical staff to determine under what COC to use Telehealth or Telephone for patient visit with doctor.

Appendix 5: Frequently Asked Questions of PALTC Nurses Regarding Telehealth

FAQ of PALTC Nurses Regarding Telehealth

- Will it change the time we spend discontinuing orders and entering orders?
    - It decreases transfers and therefore eliminates the time discontinuing orders and re-entering the orders upon return.
    - It can decrease new admits (the most time consuming process for nurses) because less discharges lead to less empty beds.
    - Since doctors could be sitting at their computers, they may increase the orders they put into the E.H.R rather than asking nurses to input the orders.
- How will it decrease the calls we have to take or make?
    - Rather than nurses calling family with doctor's recommendations or calling the doctor the doctor with the family's concerns, family members can connect with doctors directly, at the time of the physician's visit.
    - Less calls to upset families because they are less likely to have anxiety, and fear, because they directly see the doctor and patient. Anxious, fearful, and untrusting families are very stressful and time consuming for nurses.
    - Less calls to doctors with test results and request for re-admission orders.
- Will it decrease or increase the time spent ordering and following up on tests?
    - Doctors are less likely to order tests when they can directly question and examine their patients.
    - Telehealth decreases the time nurses spend putting in the orders for tests, stopping other tasks when the phlebotomist or x-ray technician comes on site, and decreases the calls back to the physicians with results.
    - Not unusual for doctors to give nurses more orders when they are called with test results.
- How will it affect my anxiety and stress levels?
    - Both doctors and nurses are more confident with diagnosis and care plans which is a key source of nurses' stress.
    - Doctors might be more pleasant in their encounters with nurses because they can do the visits in their preferred setting and may have more trust with staff.
    - With the time saved not doing low value tasks, nurses can spend more with their residents, and do what they love the most. Listening and talking to their patients.
- Nurse turnover is a big issue. Can Telehealth help that?
    - Since it can increase job satisfaction, and reduce workload, it should also reduce nurse turnover.
    - Staff feel better knowing that their organization invested in new technology that is staff and patient centered.
    - It builds nurses' feelings of being valued when they participate in visits with doctors and their thoughts are heard.

Appendix 6: Frequently Asked Questions of PALTC Physicians Regarding Telehealth

FAQ of PALTC Physicians Regarding Telehealth
- How much time does it take to be trained on the equipment?
  - Typical training takes 20-30 minutes.
- Can I use my cell phone to conduct a telehealth visit?
  - Cell phones can be used, but tablets and desktop computers are preferred.
  - Headphones not only help reduce others from hearing the conversation but help hear the sounds from the stethoscope better.
- Will it change the time spent conducting SNF visits?
  - Telehealth visits typically do take more time than in-person visits.
  - Time is saved by not having to don and doff PPE to conduct the visit.
- Do I need to perform and document consent prior to conducting a Telehealth visit
  - Informed consent must be done prior to the start of the Telehealth encounter.
  - Informed consent does not have to be done each time.
- Has Telehealth changed the frequency or timeliness of SNF visits?
  - Visits can occur more timely because physician does not have to travel to facility.
  - Visits can occur more frequently since physician can be almost anywhere.
- Will it change the time spent discontinuing and entering orders?
  - It decreases transfers and therefore eliminates the time discontinuing orders and re-entering the orders upon return.
  - It reduces need to order tests and therefore reduces orders for test follow up.
- How will it decrease the calls we have to take or make?
  - Rather than nurses calling family with doctor's recommendations or calling the doctor with the family's concerns, family members can connect with doctors directly, at the time of the physician's visit and that decreases calls.
  - Less calls to upset families because they are less likely to have anxiety, and fear, because they directly see the doctor and patient. Anxious, fearful, and untrusting families are very stressful and time consuming for nurses.
  - Less calls from nurses with questions, test results and re-admission orders.
- How will it affect my anxiety and stress levels?
  - Since nurses participate in Telehealth visits and family members can be invited to participate, a more complete history is obtained in a more efficient manner, which reduces medical uncertainty and anxiety.
  - Confidence in diagnosis is improved by visually seeing and examining patients.
  - Conducting visits in a location of your choice reduces stress levels.
  - Telehealth visits reduce interruptions of other activities.
- What type of Telehealth visits are billable under the current COVID pandemic wavers?
  - Acute changes in condition.
  - Follow-up of acute medical conditions.
  - Consultant visits.
  - Every other routine monthly visit following the first three months after admission.
  - It builds nurses' feelings of being valued when they participate in visits with doctors and their thoughts are heard.

TOP 10 Telehealth Questions and Answers

1. **What is Telehealth?**
   Telehealth is the exchange of medical information from one site to another via electronic communications. It allows patients and clinicians to be in two different locations and provides the clinician information to educate, diagnosis, and treat health conditions.
2. **What is the difference and Telehealth and TeleMedicine?**
   The two terms are often used interchangeably. The word Telemedicine is most commonly used for when the interaction is for clinical education and diagnosis whereas the term Telehealth also includes things like robotic surgery via remote access or home monitoring through continuous sending of patient health data.
3. **Is it safe for me to discuss confidential information using Telehealth?**
   Yes. All telemedicine sessions are safe, secure, encrypted, and follow the same privacy (i.e., HIPAA) guidelines as traditional, in-person medical appointments.
4. **Why do I have to provide written consent for it?**
   Current laws specify that prior to using this type of technology, the individual receiving services must be informed of the benefits and potential risks of participation. This is similar to completing consent forms prior to any medical procedure.
5. **Is my insurance company going to be billed for it and will they pay for it?**
   Possibly. A clinician can bill insurance providers when the use Telehealth technology. There are strict governmental rules and requirements around this issue. Insurance company paying for it depends on the insurance company. Medicare will reimburse for Telehealth services under certain circumstances. The circumstances are expanding and many of the restrictions were eliminated during the COVID-19 pandemic.
6. **Will I have to pay anything for it?**
   In most cases, no. Insurance companies can charge a co-pay or fee when their members use Telehealth technology. Most do not. Therefore, it is best to check.
7. **Who can see the images or hear the sounds that are sent?**
   Only the people within visual and hearing range of the persons using the equipment. Typically, clinicians use headphones to limit anyone around them from hearing the session. Sessions should be in areas that limit others hearing or seeing anything.
8. **What happens to the images and sounds when the session is done?**
   o   No recordings are made of the Telehealth session. No sounds or images from the interaction are forwarded to anyone else or placed into your medical record.
9. **Does this mean that I cannot request that my doctor see me in person?**
   o   No. You can always request that your clinician see you in person. This technology helps your providers care for you at times that they are not able to see you in person.
10. **Do I need to know or learn how to use the equipment?**
    o   No. A trained member of our team will connect with the clinician and will be present throughout the session unless there is time you want them to not be present.

Appendix A-2: Telehealth Rollout Implementation Guide

TELEHEALTH ROLLOUT
IMPLEMENTATION GUIDE

Pre-Plan

1. Determine where Telehealth will be utilized in the facility (ER, clinic, SNF). In addition to determining where Telehealth will be used, you will also need to determine who will operate the carts and who will be the super-user (e.g., CNA, IT). Those who will be the super-users should also be able to train new onboarded staff.

2. Determine which providers you will seek to implement Telehealth, who will be most likely to use the devices, and which might already be using Telehealth in their practice. Discuss with CMO on which providers in the community will use Telehealth and how to onboard physicians.

3. Determine what your "Go Live" Date.
   o This date is what you will be working towards and will be crucial to actually implementing Telehealth.

Implementation
1. Determine with facility's IT Director if there is a stable internet connection throughout the facility, so the Telehealth appointments can occur.

2. Those who will either be trainers or super-users will attend an initial training session, these are the staff which will train additional users at the facility.

3. The administrators to the Telehealth project will be given access from AMD or Amwell to give providers and staff access to the carts. The admin will need to add all users, both physicians and staff, who will be using and conducting the Telehealth visits.

For Physicians
4. After the physicians have access to the internal system to call the Telehealth carts, they will need training on how to use the software. You will need to have the providers practice after the training session to ensure competency of visit technology.

For Staff Users
5. After the staff have access to the internal system, train the staff on how to operate the cart, use any peripherals, if applicable, and have the staff simulate a call to a provider. Staff will need to have simulation visits to ensure competency of cart usage.

Go Live
1. After both the physicians and staff have been trained and are competent on the Telehealth visit, the facility can start scheduling visits with the provider. Have ample time, about 15 minutes, before scheduled visit for staff to explain to the patient the cart, take vitals, and other steps.

2. After visit assess what has gone well and what can improve for the next visit. After you have "gone live" have refresher trainings for staff and providers to stay up to date on the procedures.

Appendix A-3: Sample Letter to Providers Announcing Telehealth

Dear Dr. _____ :

The Los Angeles Jewish Home has secured Telehealth carts, and trained staff in their use. As you are aware, these carts, now utilized broadly across the medical field, allow visual and verbal communication between clinicians and their patients in a virtual, secure platform. In addition, we have a digital stethoscope that transmits heart and lung sounds to medical personnel and an attachment that allows the viewer to see into the external auditory canals and mouth, as well as integumentary conditions. As you may be aware, CMS as well as California health officials have waived most of the restrictions around Telehealth visits, and you are able to bill for these visits per current regulations. For any billing questions or assistance related to these services, you would need to contact your specific billing professionals.

We performed our first beta tests on scheduled visits, and we will soon be implementing using our carts for residents who experience a change of health condition. This is a grant-funded program, and per the requirements of the grant, we are launching this program for the residents of the Jewish Home's Mark Taper Building.

We have already demonstrated numerous advantages that this amazing technology offers, from allowing a physician to listen to their patient's heart and lung sounds remotely, to conducting visits with the patient and their family members. The use of this equipment is optional and is based on the needs of the clinician and the needs of a specific patient. In order for a visit to occur, the resident or their surrogate decision maker must have consented to it in advance.

This technology works equally well on desktops, laptops, and tablets, and can be used on smartphones. We highly recommend the use of headphones rather than your devices' speakers. One of our nurses trained on this technology is present during the visit, facilitates the use of any of the attachments such as the stethoscope, and can take orders from you that will then be inputted into our electronic record.

Please contact the manager of our Telehealth program, Anton Domingo, who can help you put the link to our program on your electronic devices. He will provide simple instructional materials and you can also schedule an individual training session with him. Anton can be contacted at anton.domingo@jha.org. You may also ask our staff to contact Anton the next time that you are on our Grancell Village campus to arrange a meeting with him.

We appreciate your ongoing partnership and leadership as we begin this exciting new chapter in the over one hundred year story of the Los Angeles Jewish Home.

Respectfully,

Noah Marco, M.D.
Chief Medical Officer
Los Angeles Jewish Home

QUICK REFERENCE GUIDE – AGNES/AMD CART

Administrative Support

1. The provider and cart operator should be given the credentials prior to the visit.
   a. Contact facility administrator if provider or operator does not have credentials.
   b. Each facility has its website link for the visit: *https://connect.amdagnes.com/*[1]
2. The provider cannot use Safari as his/her browser and must use "full screen" during the visit.
3. Different views during the call are the following:
   - Split view (patient/provider view); portal screen (during sharing); and full screen (click ESC).

Prior to Visit

1. 15 minutes prior to the appointment time:
   a. Inform the physician which cart he/she should call for the visit.
   b. Turn on cart, connected devices, and sign in with username and password on Agnes portal.
   c. Bring the cart into the patient's room and check for light and noise.
   d. Have the patient sign a Telehealth consent form[1] and have documents for the physician.
   e. Enter patient information for the provider to view, which is entered at the top of the screen.
      i. Enter in the patient's name and save.
      ii. Take the patient's vitals (only edit once or it will clear)
         a) Use the vital sign tool attached to cart: BP, Pulse, O2 and Temp will automatically fill.
         b) Must manually enter: WT, HT, Respirations and Blood Glucose.
            - To save vitals click "Take Snapshot"

During the Visit

1. Both parties must be logged in to the system to initiate a call; to see if the provider is in the call, look at bottom left to see how many active users are present – there should be two. Either the physician or cart can initiate a call and accept a call.
2. To adjust sound, the right side of the cart has a black round speaker and adjust the + or – sign.
3. During the call use the connected devices (e.g. stethoscope).
   - To use stethoscope, click on "no Audio tab—Stethoscope" which starts the stethoscope. Both parties can toggle between the settings and control volume and sound type.
4. During the call you can add notes in the notes section of the Agnes platform.
   - To save both the vitals and notes and view them, go to the "Documents" section.
5. For tech issues, reach AMD or Amwell Support.

After the Visit

CETF Telehealth Visit form must be completed and emailed to: Kyle O'Ryan (kyle.oryan@cetfund.org).

Appendix A-5: Telehealth Equipment Competencies Check-List

Telehealth Equipment Competencies – Check-List

1. Staff knows cart must be plugged in when not in use.

2. Staff knows how to adjust height of the Telehealth cart.

3. Staff knows which each peripheral is and knows how they are connected to the cart.

    a. Stethoscope

    b. Horoscope (Derm-camera)

    c. Vital sign monitor

    d. Other peripherals

4. Staff knows how to access AGNES Software and launch the app.

5. Staff knows and has their appropriate log-in for AGNES Software.

6. Staff knows how to navigate the AGNES modules.

    a. Patient Information

    b. Video Conference

    c. Vitals

    d. Stethoscope

    e. Medical Video

    f. ECG

    g. Notes

7. Staff knows how to initiate a call with provider OR join call.

8. Staff knows how to use each peripheral and how to share with provider on call.

    a. Vitals

    b. Stethoscope

    c. Horoscope (Derm-camera)

    d. ECG

    e. Other peripherals

9. Staff knows how to save vitals and other screenshot that were taken during the visit.

10. Staff knows how to end a call with provider.

11. Staff knows how to put away peripherals and clean the cart after use.