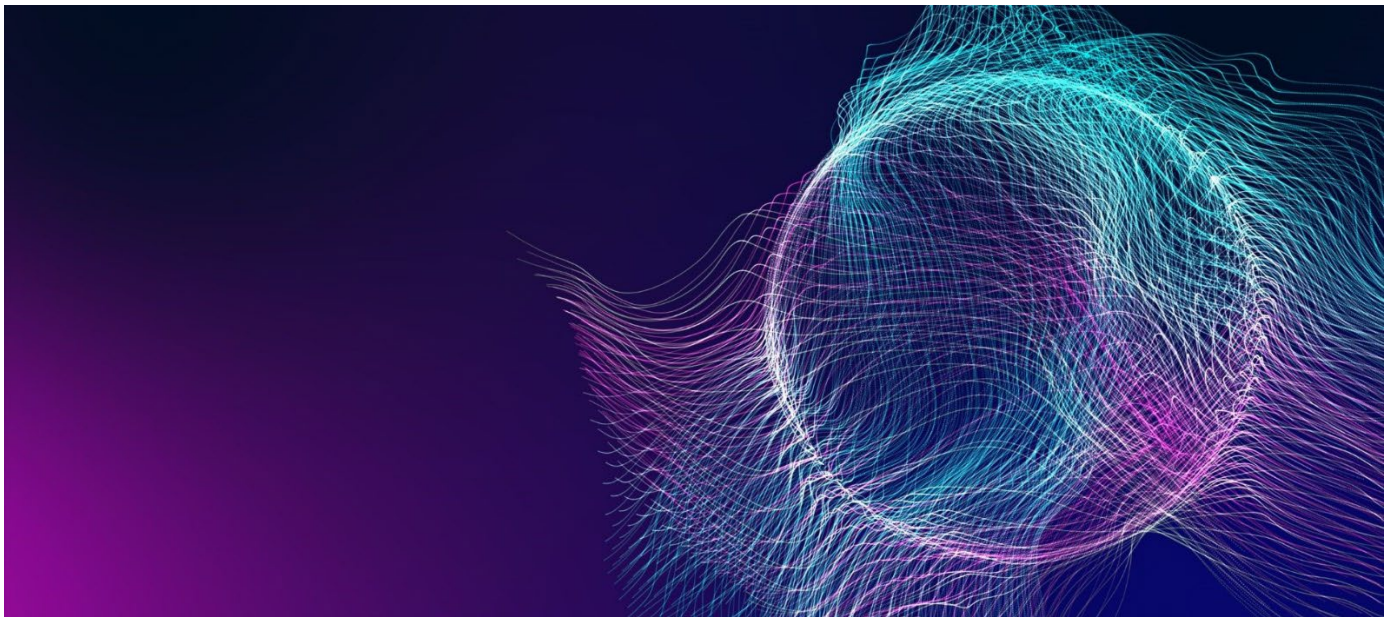


WASHINGTON STATE DEPARTMENT OF HEALTH

Clarion Call for Public Health's Role in Telehealth & Digital Health v1



DOH 810-015 November 2023

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Executive Summary

Human ingenuity and innovation helped stave off the worst potential outcomes of the COVID-19 pandemic. COVID-19 caused the tragic deaths of more than 1.1 million Americans, but the revolutionary science which led to the development and distribution of COVID-19 vaccines in less than one-year saved millions more and allowed us to move beyond the acute phase of this global pandemic. Similarly, broad deployment of telehealth practices allowed the health ecosystem to continue functioning, while permitting populations to maintain social distance and reduce transmission.

The COVID-19 pandemic served as a **catalyst for innovation** across the health ecosystem, from how people access effective COVID-19 vaccines, therapeutics, and other public health services, to how patients virtually engage their providers through telehealth. Telehealth in the health care setting rapidly evolved from being a fringe service with low utilization to a generally accepted means for people to access care.¹

The Washington State Department of Health (DOH) utilized telehealth during the pandemic to protect providers and the public. This included providing COVID-19 therapeutics to the general population, focusing on populations most at risk for severe disease, and maintaining access to our comprehensive public health services and programs. DOH supported implementation of regulatory flexibility, so licensed health care professionals in Washington state could provide critical health care services via telehealth. As we move beyond the pandemic, **telehealth is a promising tool to increase equitable access to health care and public health services.**

The **purpose of this report** is to (1) provide **visibility on current telehealth practices** across the Washington state health ecosystem; (2) describe the **policy landscape for telehealth**, especially for public health purposes; and (3) describe **potential future actions** to increase equitable access through telehealth innovation. The findings in this report are based on **interviews with 50 professionals**, internally and externally, engaged in telehealth, as well as a literature review.

In 2022, DOH unveiled its guiding blueprint, **The Transformational Plan, A Vision for Health in Washington State**, which encompasses telehealth.² DOH renewed its commitment to our cornerstone values of **Equity, Innovation, and Engagement (EIE)**. Additionally, the plan calls out **Health Systems and Workforce Transformation**, which includes investing in and supporting innovative health information technologies and infrastructure support. It also requires investing in previously developed tools, technologies, and strategies, including ones utilized during the COVID-19 pandemic. And finally, the plan names transformations in action that include, **innovation and technology, community centered, visibility and value, equity driven and collaborative engagement** that each drive “how” we will do our work.³ DOH needs to examine our commitment to these values and priorities within its current and future roles in

¹ [The State of Telehealth Before and After the COVID-19 Pandemic - PMC \(nih.gov\)](#)

² [DOH Transformational Plan: A Vision for Health in Washington State](#)

³ Internal DOH document. Transformational work is... [Agency Transformational Plan - Transformations in Action One-Pager.pdf - All Documents \(sharepoint.com\)](#)

telehealth. DOH has an important role to play in supporting telehealth advancement in Washington state. As we look ahead, **policy recommendations** include:

Enhancing internal and external DOH coordination of telehealth.

- DOH should convene a telehealth workgroup, possibly including telehealth providers and community partners, to better identify and address telehealth-related issues across the agency.
- DOH should identify DOH staff(s) to represent our agency with strategic partners, track the rapidly evolving policy landscape, and help lead internal coordination.
- DOH should utilize regulatory tools, including training, to assist health care providers in maintaining quality care via telehealth.

Interoperability of systems.

- DOH should prioritize resources to support digital health systems and a workforce capable of successfully utilizing advanced technologies to support creation of bidirectional interoperable data systems.

Map out funding.

- DOH must identify additional funding opportunities, especially in interoperability of systems funds. One source of funding is the HRSA Office of the Advancement of Telehealth funding for telehealth in Washington.

Plans for enacting and/or scaling up digital health.

Use telehealth to connect with and serve vulnerable and underserved populations.

- DOH should consider partner/pilot programs with colleagues like academic institutions and health care partners to support development of telehealth applications.
- DOH should utilize regulatory tools, including training, to assist health care providers in maintaining quality care via telehealth.

Build in data collection and evaluation for telehealth programs.

- DOH should continue efforts to understand how telehealth is impacting people and evaluating its uses should be paramount as technology becomes more and more intertwined with public health.
- DOH could contribute to the research base in various ways and the CDC published focus areas that need additional public health research⁴ in Table 3. The speed of change will only increase with the advent of machine learning, artificial intelligence, and ever-increasing use of digital technology across the health ecosystem. This report serves as a **clarion call** that state public health agencies must prioritize resources and quickly expand agency telehealth knowledge and capacity to continue serving as a leader in the health ecosystem.

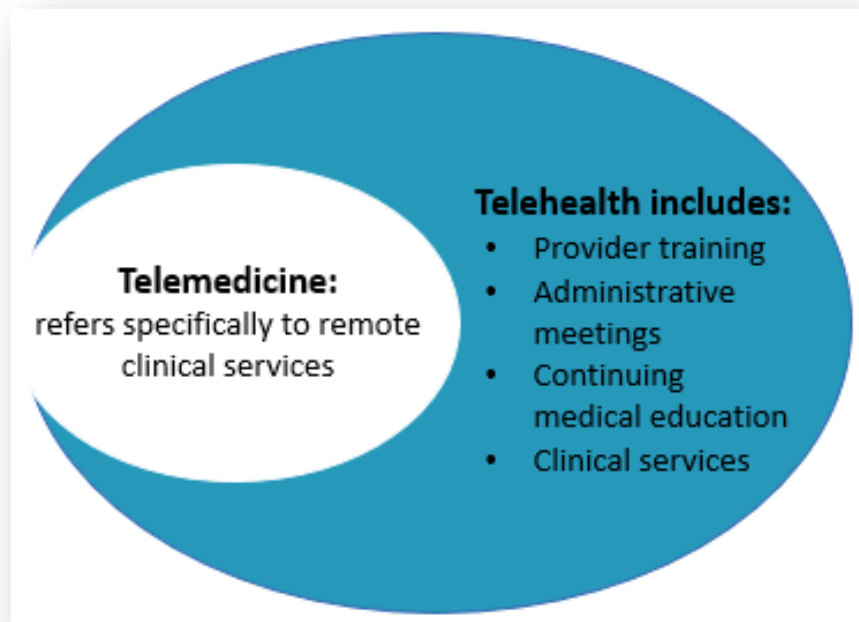
⁴ Neri, Antonio J., et al. "Practice Full Report: Telehealth and Public Health Practice in the United States—Before, During, and After the COVID-19 Pandemic." *Journal of Public Health Management and Practice* 28.6 (2022): 650. [Practice Full Report: Telehealth and Public Health Practice in the United States—Before, During, and After the COVID-19 Pandemic - PMC \(nih.gov\)](#)



What is Telehealth?

Telehealth is a general term that can include education, consultation, videoconference meetings, and patient contact. **Telemedicine** is a subpart of telehealth and usually refers solely to clinical patient encounters with a health care professional.⁵

Figure 1. Understanding Telehealth and Telemedicine.⁶



“Telehealth” is not defined in Washington state law, but the United States Department of Health and Human Services (HHS) describes telehealth as the “use of electronic information and telecommunications technologies to support and promote long-distance clinical health care, patient and professional health-related education, and public health and health administration. Technologies include videoconferencing, the internet, store-and-forward imaging, streaming media, and landline and wireless communications. Telehealth services may be provided, for example, through audio, text messaging, or video communication technology, including

⁵ [Telehealth | Washington State Department of Health](#)

⁶ [Telehealth Along the Texas–Mexico Border | \(ruralhealthquarterly.com\)](#)

videoconferencing software.”⁷ This is an expansive definition, which includes upstream public health activities.

Washington state law defines telemedicine as “the delivery of health care services through the use of interactive audio and video technology, permitting real-time communication between the patient at the originating site and the provider, for the purpose of diagnosis, consultation, or treatment. For purposes of this section only, ‘telemedicine’ includes audio-only telemedicine, but does not include facsimile or email.”⁸ Other definitions of telehealth and the narrower term telemedicine are also worth reviewing (Appendix 1).⁹

Telehealth also involves many different levels of government and regulatory systems. As a result, it is important to understand the various entities involved and the regulatory landscape. Washington state has a strong collaborative approach to telehealth, which goes well beyond DOH. For example, the Washington State Health Care Authority (HCA) interacts with telehealth in a variety of ways. HCA’s Medicaid and behavioral health programs pay for a variety of telemedicine services. During the pandemic, HCA quickly adapted and expanded its procedures to make all eligible providers could offer telehealth services.¹⁰ HCA also offered Zoom lines to providers and cellphones to consumers.¹¹ Commercial health systems often took similar steps. The U.S. Department of Veterans Affairs has also been a leader in utilizing telehealth services for service members.¹²

The Washington State Telehealth Collaborative consists of a group of twenty-two statewide experts on telehealth, and four state legislators, two from each chamber and party.¹³ The Collaborative was created in 2016 after the passage of SB 6519, which recognized a dedicated group to provide guidance, research, and recommendations for the advancement of telemedicine and the benefit of professionals providing care through telemedicine. The group meets every 6-8 weeks. Meetings are open to the public and time is reserved at the end of every meeting for public comments and questions.” Currently, DOH does not send a representative to this meeting.

Northwest Regional Telehealth Resource Center (NRTRC) “serves a seven-state region (AK, WA, OR, MT, ID, WY, UT) to advance the development, implementation, and integration of telehealth through sharing information, leveraging resources, and creating a synergistic telehealth community. The NRTRC draws on the experience of UETN, NRTRC Board Members, and that of our regional partners to assist health care providers and organizations throughout the region through technical assistance, tools and training.”¹⁴

⁷ [3015-What is telehealth? | HHS.gov](#)

⁸ [RCW 41.05.700: Reimbursement of health care services provided through telemedicine or store and forward technology—Audio-only telemedicine.](#)

⁹ WAC 246-335-510; <https://www.dshs.wa.gov/sites/default/files/BHSIA/FMHS/DSHSTelehealthGuidebook.pdf>; [Telemedicine-Frequently-Asked-Questions-for-Patients-Dec-2018.pdf \(wsha.org\)](#); **Revised Code of Washington** – 48.43.735, 70.41.020, 74.09.325; **Revised Code of Washington** – 18.59.180; <https://crsreports.congress.gov/product/pdf/R/R46239/5>; [Telehealth Act - Uniform Law Commission \(uniformlaws.org\)](#)

¹⁰ [Microsoft Word - DRAFT Telehealth_VSSL_Report_Final.docx \(wa.gov\)](#)

¹¹ [HCA telehealth tools help Washingtonians stay connected during the COVID-19 pandemic | Washington State Health Care Authority](#)

¹² [VA Telehealth Services | Telehealth VA](#)

¹³ [Washington State Telehealth Collaborative - Washington State Hospital Association \(wsha.org\)](#)

¹⁴ [Northwest Regional Telehealth Resource Center \(nrtrc.org\)](#)

Currently, the 68th Washington State Legislature is considering *The Uniform Telemedicine Act* (SB 5481) this session.¹⁵ At the federal level, the U.S. Government Accountability Office found chronic disease care, behavioral health, and consultation/education pre-operation to be really good areas for telehealth.¹⁶ Telehealth.HHS.gov is “a trusted hub of information you can use to power up your telehealth experience.”¹⁷ National public health leaders, such as the Centers for Disease Control and Prevention (CDC), has is incorporating and evaluating telehealth.¹⁸

Process

To scope the telehealth policy landscape, the authors interviewed 50 professionals during 37 interviews from across Washington state and the nation; a snowball method was used during interviews to identify additional subject matter experts. Additional information about the interview process and guiding questions can be found in Appendix 2.

DOH Telehealth Activities

DOH has many innovative initiatives and programs utilizing telehealth or telemedicine. Many of these initiatives originated or were expanded because of the COVID-19 pandemic. Table 1 provides the initiative, a brief description, the DOH/agency location, and the primary point of contact. This work is dispersed across DOH. Many DOH leaders and their teams have experience in operationalizing telehealth and will be a source of expertise as DOH further utilizes telehealth to transform public health services.

Telehealth encompasses many bodies of work and involves numerous public and private systems, public health being one of them. Due to this complexity, there is a need for coordination and capacity building for how public health interacts with telehealth. The Washington State Telehealth Collaborative¹⁹ and Northwest Regional Telehealth Resource Center²⁰ have already demonstrated the benefits of this type of coordination.

DOH has also provided information about the legal and regulatory landscape for telehealth in Washington,²¹ although to keep the information current will require dedicated resources for that purpose. If DOH continues to get more involved with telehealth in various forms, some type of internal coordination role is warranted.

¹⁵ [Washington State Legislature SB5481](#)

¹⁶ [Medicare Telehealth: Actions Needed to Strengthen Oversight and Help Providers Educate Patients on Privacy and Security Risks | U.S. GAO](#)

¹⁷ [Telehealth.HHS.gov: Learn how to access or provide telehealth care](#)

¹⁸ [CDC | Telehealth and Telemedicine: Practice Full Report: Telehealth and Public Health Practice in the United States—Before, During, and After the COVID-19 Pandemic - PMC \(nih.gov\)](#)

¹⁹ [Washington State Telehealth Collaborative - Washington State Hospital Association \(wsha.org\)](#)

²⁰ [Northwest Regional Telehealth Resource Center \(nrtrc.org\)](#)

²¹ [Telehealth | Washington State Department of Health](#)

Table 1. Description, DOH/Agency Location, and Contact Person.

Initiative	Description	Location	Point of Contact
Therapeutics	Provided COVID-19 therapeutics, opportunities to use models for other diseases.	Office of Health and Science	Bob Lutz
Rural Health	Technical assistance to rural providers. Leads Rural Palliative Care Initiative.	Office of Prevention, Safety & Health/Division of Health Systems Quality Assurance	Pat Justis
Women’s Reproductive Health	Sexual and reproductive services can be accessed via telehealth.	Office of Prevention, Safety & Health/Division of Prevention and Community Health	Katie Eilers
Maternal Mortality	2023 Report identifies telehealth as critical tool to reduce health disparities	Office of Prevention, Safety & Health/Division of Prevention and Community Health	Katie Eilers
Women, Infants, and Children (WIC) Program	WIC client appointments shifted almost entirely virtually.	Office of Prevention, Safety & Health/Division of Prevention and Community Health	Paul Throne
Health care professions Different areas (behavioral, clinical, mental, other)	Federal and state waivers expanded telemedicine.	Office of Prevention, Safety & Health	Christie Spice Micah Matthews
WA Notify	Anonymous smartphone tool alert people of potential COVID-19 exposures.	Office of Innovation & Technology	Les Becker Bryant Karras
WA Verify	Smartphone tool to prove COVID-19 vaccine status.	Office of Innovation & Technology	Les Becker Bryant Karras
Supporting Adolescents and Families Experiencing Suicidality (SAFES)	Partnership to provide crisis consultation service in northeastern Washington.	Office of Prevention, Safety & Health/Division of Prevention and Community Health	Katie Eilers Astrid Newell
988 Suicide & Crisis Lifeline	The suicide and crisis lifeline integrates telehealth to connect people in crisis with care.	Office of Prevention Safety, and Health/Division of Prevention and Community Health	Lonnie Peterson
TB Project Echo	Connect providers for medical education and patient care management	Office of Health and Science	Lana Dov



Therapeutics

During the COVID-19 pandemic, health systems came under incredible strain, sometimes overloading hospitals, and outpatient clinics. In response, DOH funded a telemedicine service for people who test positive for COVID-19 to receive a consultation and if appropriate a

prescription for oral antiviral medications, like Paxlovid.²² This service was free of charge and allowed a person to see a prescriber virtually (either via a smart phone or computer) and to have medications made available for pickup or delivery. This service was available seven days a week from 8am to 8pm.

DOH contracted with **Birds Eye Medical** and **Color Health** for these services.²³ These services were offered entirely via telemedicine and did not require a person to have health insurance. This program successfully connected people to therapeutics and helped lessen strain on other health systems. Now that the public health emergency has expired, DOH is considering whether this model could be used for other diseases. For example, public health could utilize telemedicine to assess need for in-person care and address symptomatic management for other respiratory viruses, or use telemedicine for hepatitis C virus or tuberculosis care.



Telemedicine could be a component of a DOH opportunity to fund programs able to successfully partner with individuals and communities impacted by overlapping and intersecting burdens of HIV, sexually transmitted infections (STIs), viral hepatitis, and other related conditions, such as overdose.^{24,25} DOH refers to this work as a “syndemic” approach.²⁶

Rural Health

DOH runs the Washington State Office of Rural Health, which has supported a variety of telehealth efforts for many years. One important role is providing information to rural communities and health providers about the policy landscape for telehealth services and making that information easily accessible online.²⁷ The Office of Rural Health also collaborates closely with national and Washington state agencies, rural health providers, academic partners, and community members. Telehealth is an important part of providing services to Washington’s rural residents.

DOH also leads the Washington Rural Palliative Care Initiative, a public-private partnership to assist rural health systems and communities to integrate palliative care in multiple settings, such

²² [Free Telehealth Appointments for COVID-19 Treatment | Washington State Department of Health](#)

²³ [Easy, free care for COVID-19 \(color.com\)](#)

²⁴ National Coalition of STD (NCSTD) Directors [“Telehealth Considerations: Challenges and Solutions”](#)

²⁵ National Alliance of State and Territorial AIDS Directors [“State Specific Tele-PrEP Services”](#)

²⁶ [OID Syndemic RFA 2023 \(wa.gov\)](#)

²⁷ [Telehealth | Washington State Department of Health](#)

as emergency department, inpatient, skilled rehabilitation, home health, hospice, primary care, and long-term care.²⁸

One of telehealth's primary benefits is that it can be used to connect to people in remote locations, at community events, and for people who have a hard time getting to in-person appointments. DOH is considering expanding telehealth for some of these situations.

During the pandemic DOH provided funding to an all-volunteer led group called ¡Adiós COVID! facilitated vaccination and wellness for Latino communities in Washington state.²⁹ It partnered with grassroots Community-Based Organizations (CBOs) to conduct outreach and organize wellness resources for Latino communities. It also piloted the test-to-treat program for COVID-19. By bringing services directly to community and offering telehealth services, people can connect with services that they may have otherwise missed out on. ¡Adiós COVID! hopes to expand this type of service and is working with DOH on a grant application to the Centers for Disease Control and Prevention (CDC) to provide services to reduce chronic disease related disparities, risk factors, and inequities in communities across Washington.³⁰ If this program is funded, DOH could also work with some of the contractors that helped with the COVID-19 therapeutics program.



Sexual and Reproductive Health

DOH coordinates a variety of telehealth resources via the Sexual and Reproductive Health Program.³¹ People in Washington can access these services through telehealth and DOH helps connect them via the telehealth clinic partner network, which includes clinics across the state. Sexual and reproductive services can include birth control refills, contraceptive counseling, emergency contraception, pregnancy options counseling, urinary tract infection (UTI) treatment, sexually transmitted infection (STI) screening and treatment, and medication abortion. Information is also provided for how to get these services covered via insurance, Medicaid or Medicare and how to keep information private in an online environment.



Women, Infants, and Children (WIC) Program

DOH administers the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) in Washington state, serving around 125,000 participants each month. WIC supports families by offering health screenings, nutrition education, referrals, and healthy foods.

Telehealth has played a growing role in how WIC services are provided. During the COVID-19 public health emergency, WIC services went almost entirely remote, no longer requiring in-person appointments.³² An evaluation of these changes found that “participation in WIC and appointment completion rates increased after WA WIC implemented service changes in response

²⁸ [Washington Rural Palliative Care Initiative | WaPortal.org](#)

²⁹ [About | ¡Adiós COVID! \(adioscovid.org\)](#)

³⁰ [Funding Opportunity: Addressing Conditions to Improve Population Health \(ACTion\) \(cdc.gov\)](#)

³¹ [Telehealth Services | Washington State Department of Health](#)

³² [WIC Policy and Procedures | Washington State Department of Health](#)

to the COVID-19 pandemic. Staff and participants were highly satisfied with remote services, and both desire a continued hybrid model of remote and in-person WIC appointments.”³³

Now that the national public health emergency has expired, beginning September 1, 2023, Washington WIC agencies must offer in-person appointments for participants who want to come into the clinic for their services; and continue to offer remote services for participants who want to complete their appointments remotely. These changes are also nonpermanent and based on waivers, so federal policy changes may be necessary to make remote options permanent for WIC.

DOH hopes that telehealth can continue to improve WIC services by using technology to make enrolling and navigating the program easier for participants. This type of online portal would allow a participant to verify eligibility, schedule appointments, get information about benefits, and complete required nutrition classes, which may also become an online process. Some resources like this have now gone live, including online nutrition education materials. Another promising use of telehealth for WIC is a collaboration with Walmart that would allow for online orders that automatically sync to WIC.



Health care professions different areas of care (behavioral, clinical, mental, other)

Prior to the COVID-19 pandemic, the Washington Medical Commission and other health professions regulatory authorities were taking steps to adopt policies to facilitate telehealth. During the COVID-19 pandemic, rapid expansion of these telehealth services was vital to the public’s health. DOH and other federal and state partners quickly adapted at the beginning of the pandemic to allow telehealth services to be delivered in low-barrier ways. For example, DOH utilized its statutory authority to quickly implement allowable changes from the Centers for Medicare and Medicaid Services and U.S. Department of Health and Human Services for certain medical practices.³⁴ These included changes to ease enforcement of HIPAA violations and allow for more Medicare telehealth services. Opioid treatment programs, licensed by DOH,³⁵ also took advantage of telehealth flexibilities making it easier for people to access methadone and buprenorphine services.³⁶



WA Notify

In response to the COVID-19 pandemic, DOH worked with partners to develop the WA Notify system which was a free tool people could add to their smartphone to alert them of potential COVID-19 exposures.³⁷ WA Notify was created in collaboration with the University of Washington, Microsoft, Apple, Google, APHL, MITRE, and the Brotman Baty Institute, and

³³ [Insights from Washington State's COVID-19 Response: A Mixed-Methods Evaluation of WIC Remote Services and Expanded Food Options Using the RE-AIM Framework \(jandonline.org\)](#)

³⁴ [COVID19_WSR2014014FederalCMS1135BlanketWaiverHHSandHIPPA_HSQA_Final-20200622.pdf \(wsha.org\)](#)

³⁵ [Opioid Treatment Program | Washington State Department of Health](#)

³⁶ [FAQs: Provision of methadone and buprenorphine for the treatment of Opioid Use Disorder in the COVID-19 emergency \(samhsa.gov\)](#)

³⁷ [Washington Exposure Notifications - WA Notify | Washington State Department of Health](#)

others. WA Notify resulted in nearly 4 million activations. Through this technology, Washington state averted approximately 50,000 COVID-19 cases. WA Notify users who receive a positive COVID-19 test result, either at a provider or lab-based testing site or with an at-home test, can anonymously notify other users that they may have been exposed. This novel use of technology is an extension of the long-running public health practice of contact tracing, but with the added benefit of allowing complete strangers to be notified if they were near someone who had tested positive for COVID-19.



WA Verify

WA Verify is Washington's Digital COVID-19 Verification Record system that draws COVID-19 records from the state's immunization system. To use the tool, people enter their name, date of birth, and an email or phone number associated with their vaccination record. If the information matches an official record, they will receive a text or email with a link to their Digital COVID-19 Vaccine Record. WA Verify currently supports more than 30 languages. DOH created WA Verify in close partnership with MITRE, Microsoft, University of Washington, and the state of California so people can easily and quickly provide digital proof of their COVID-19 vaccination status. WA Verify has generated more than 1.25 million QR codes to share digital proof of COVID-19 vaccine status. The digital record includes a QR code that, when scanned by a SMART Health Cards reader, validates the person's COVID-19 vaccination information and can be easily added to Android or iPhone digital wallets or printed on paper. WA Verify has been translated into 42 languages and bi-lingual display.



Supporting Adolescents and Families Experiencing Suicidality (SAFES)

Behavioral health continues to be a major public health challenge for Washington state, particularly for young people. Telehealth could play an important role in providing a response. For example, DOH was awarded a grant for Supporting Adolescents and Families Experiencing Suicidality (SAFES), which creates a crisis consultation service in northeastern Washington.³⁸ The SAFES project operates via a partnership between DOH, Seattle Children's Hospital, and Frontier Behavioral Health.

SAFES provides rapid access to suicide-specific psychotherapy in a brief four-session model. The program is based on the Crisis Care Clinic model developed at Seattle Children's. The care team at Frontier Behavioral Health will use a combination of in-person and telehealth crisis support services for both the caregiver and their adolescent with suicidality crises and inadequate current support. This program uses the existing HCA funded Partnership Access Line (PAL),³⁹ which provides consultation between pediatric primary care providers and behavioral health specialists, to triage referrals for the program. This leverages an existing telehealth program for

³⁸ [Grant Awarded for Supporting Adolescents and Families Experiencing Suicidality \(SAFES\) – WCAAP - Washington Chapter of the American Academy of Pediatrics](#)

³⁹ [Washington Partnership Access Line - Seattle Children's \(seattlechildrens.org\)](#)

providers, PAL, and adds additional services for people in some of the most remote parts of Washington.



TB Project ECHO

DOH is a key partner in TB Project ECHO® (Extension for Community Healthcare Outcomes), which is a collaborative tele-mentorship model of medical education that provides health care and public health professionals with the knowledge and support they need to manage patients with TB infection and disease through:

- Case-based learning opportunities for clinicians, nurses, and staff working with patients who have TB infection or TB disease. Participants receive case notes, prepared by the TB ECHO panel, following the session.
- Didactics on TB-related topics are offered twice a month. Continuing education credits available for didactics. Mentoring, from TB specialist, on best practice standards in TB care.
- Ability to participate remotely using free, easy-to-use videoconference technology.⁴⁰

The ECHO® model, which originated from the University of New Mexico, is used in a variety of other areas as well, including the University of Washington⁴¹ and with Tribal partners.⁴² Clinician-to-clinician programs allow for specialty care to be delivered in remote areas and are a vital part of telehealth services.



988 – Crisis Response

In 2020 the Federal Communications Commission directed states to implement a new dialing code, 988, to replace the previous national suicide hotline number. Washington state has now enacted this 988 system but has also gone well beyond this mandate to expand behavioral health crisis response and suicide prevention services.⁴³ DOH, alongside partner agencies like HCA and behavioral health service providers, has an important role in transforming crisis services via 988.

Since the 988 Suicide and Crisis Lifeline went live in 2022, people in Washington can now call, text, or chat and be connected to a trained 988 Lifeline crisis counselor. The line is confidential, free, and available 24/7/365. Since launch, Washington’s three 988 Lifeline crisis centers have answered over 83,000 phone calls, 16,000 texts, and 15,000 chats.

The 988 Lifeline also has additional resources for certain populations, including Spanish speakers, Veterans,⁴⁴ LGBTQ+ Youth, and American Indian and Alaska Native people. The Native and Strong Lifeline (accessed by calling 988 from a Washington area code and choosing

⁴⁰ <https://doh.wa.gov/you-and-your-family/illness-and-disease-z/tuberculosis-tb/training-and-education/tb-echo>

⁴¹ [Project ECHO | SPIRIT Lab at the University of Washington \(uwspiritlab.org\)](#)

⁴² [Indian Country ECHO - Indian Country ECHO](#)

⁴³ [988 Suicide and Crisis Lifeline | Washington State Department of Health](#)

⁴⁴ [Home \(veteranscrisisline.net\)](#)

option 4) is the first of its kind in the United States, where calls are answered by Native crisis counselors who are tribal members and descendants closely tied to their communities.⁴⁵

DOH and partners are also in the planning stages for technology platforms necessary to manage and operate behavioral health crisis response and suicide prevention systems. These platforms must include access to real-time information for the coordination of behavioral health crisis response services including – real-time bed availability, coordination with emergency responders, connection to services, and to identify whether follow up care was provided.⁴⁶ By using technology, Washington hopes to transform how crisis response is provided.



Maternal Mortality

A recent report from the Washington State Maternal Mortality Review Panel, which is housed within DOH, points to telehealth as an important part of improving maternal mortality outcomes.⁴⁷ Specific recommendations include:

- Facilities should screen all patients at admission for substance use, mental health, and suicide risk. Screenings should include referral to services, treatment plans, **telehealth** services, or specialty consultation.
- Facilities should co-locate services for prenatal, primary, obstetric, substance use, behavioral health, and well-child care. This may include integrating obstetric and behavioral health providers by offering prenatal care at substance use treatment clinics. Ensure care navigation and coordination is available for co-located services. If co-location is not possible, integrate services using **telehealth**.
- The Department and Health Care Authority should work together across systems to develop strategies for providers, insurers, and agencies to increase access to integrated medical and behavioral health or offer **24/7 telehealth access**.
- **Fund telehealth infrastructure**, including cell phone, Wi-Fi, and broadband access in rural areas.
- Ensure providers are aware that commercial health plans cover **telehealth** services in parity with in-person services.
- Facilities should offer **telehealth**, extended hours, or walk-in appointments to reduce barriers to care.

DOH Authority and Influence

DOH and its partners across Washington have utilized telehealth in a multitude of ways. Coming out of the pandemic, it is an opportune time for DOH to examine its role in telehealth, especially future uses for public health. The following sections describe some upcoming telehealth-related work DOH is undertaking, as well as questions public health leaders should consider when thinking about telehealth.

⁴⁵ [Tribal Services | VOAWW](#)

⁴⁶ [1477-S2.SL.pdf \(wa.gov\)](#)

⁴⁷ [Washington State Maternal Mortality Review Panel: Maternal Deaths 2017-2020](#)

The Association of State and Territorial Health Officials (ASTHO)⁴⁸ assists state health agencies by collecting and disseminating promising public health practices, facilitating or directly providing technical assistance, and providing opportunities for state health agency staff to learn from each other. ASTHO provides guidance on telehealth, has periodically surveyed members about telehealth needs, and convenes a telehealth peer network program.⁴⁹ Their recent survey found...

“Most telehealth activities occur across various agency programs and departments without a central coordinating entity. Respondents’ focus areas include behavioral health, chronic disease, prevention, community health, family and child health, policy, rural health, and communicable disease. Telehealth activities in the represented health agencies include counseling for mental health, family and child health services, and TB screening and treatment. The most used modality to deliver telehealth services is live video/real-time telemedicine. However, a few respondents reported using remote patient monitoring and asynchronous store-and-forward modalities.

The COVID-19 pandemic brought about change related to telehealth by increasing provider participation and interest among payers to reimburse for telehealth. The provision of telehealth services helped prevent and manage chronic disease and address gaps in care by increasing access to services, especially in rural areas. However, barriers such as insufficient staff and prioritization of other agency issues hinder agency and program efforts related to telehealth. Respondents indicated interest in technical assistance to better understand state policy trends related to telehealth and to identify resources available to build the infrastructure that supports telehealth (e.g., broadband access, equipment).”⁵⁰

Additionally, ASTHO developed a Project Initiation Assessment for Telehealth Tool for state health departments to evaluate their authority and influence. DOH staff collaborated with ASTHO to fill out the tool with Washington DOH specific information (Table 2).

⁴⁸ [Telehealth | ASTHO](#); [Public Health's Role in Telehealth | ASTHO](#)

⁴⁹ [Telehealth | ASTHO](#)

⁵⁰ ASTHO – Telehealth Needs Assessment Survey - On File

Table 2. ASTHO Project Initiation Assessment for Telehealth Tool. ⁵¹

ASTHO – Public Health Agency Authority and Influence - Washington Department of Health
Objective: Understand the scope and focus of the public health agency’s statutory authority and clarify where public health uses influence to guide policy and program development.
Guiding Questions: <ul style="list-style-type: none"> What can the agency lead, based on its statutory authority? Where is the agency currently investing resources to use its influence to drive systems change that falls outside its statutory authority? Who are the key stakeholders in implementation or development of public health led telehealth initiatives? What is the health systems landscape within which the initiative would be implemented?

	Areas of Public Health Authority: Regulation, Services	Areas of Public Health Influence & Opportunities for Partnership	Pandemic-Specific Role
Policy	<p>If the state health agency’s regulatory authority over telehealth (if it has any)?</p> <ul style="list-style-type: none"> Telehealth in Washington State Washington State Department of Health [needs update] See also - Telehealth Guidelines (wa.gov)/Note: this webpage contains outdated links/ RCW 18.71.030: Exemptions. (wa.gov) – physician exemptions for telehealth consultations in out of state situations RCW 18.57.040: Licensing exemptions. (wa.gov) – osteopath exemptions for telehealth consultations in out of state situations RCW 18.130.180: Unprofessional conduct. (wa.gov) 	<p>What services can be delivered via telehealth and reimbursed by Medicaid?</p> <ul style="list-style-type: none"> Washington State Telehealth Laws - CCHP (cchpca.org) provides a good overview of WA’s telehealth policy landscape. Medicaid reimbursement for live video, store and forward, remote patient monitoring, and audio-only - RCW 48.43.735: Reimbursement of health care services provided through telemedicine or store and forward technology—Audio-only telemedicine.; RCW 41.05.700: Reimbursement of health care services provided through telemedicine or store and forward technology—Audio-only telemedicine.; WAC 284-170-433 – provider contracts - Telemedicine; Washington Apple Health (Medicaid) – Telemedicine Policy Billing Guide 	<p>What telehealth flexibilities (e.g., no originating site restriction, audio-only services allowed) existed during the pandemic?</p> <p>WA embraced federally permitted telehealth flexibilities and passed legislation for additional audio-only telehealth reimbursement. This website has a good list of guidance that was issued during COVID-19 PHE - Telehealth in Washington State Washington State Department of Health</p>

⁵¹ ASTHO – Telehealth Needs Assessment Survey - On File

<ul style="list-style-type: none"> • RCW 43.70.495: Telemedicine training for health care professionals. (wa.gov) • RCW 70.41.020: Definitions. (wa.gov) • RCW 71.24.335: Reimbursement for behavioral health services provided through telemedicine or store and forward technology— Coverage requirements— Audio-only telemedicine. <p>What regulations, if any, exist for clinical service delivery via telehealth?</p> <ul style="list-style-type: none"> • Telehealth in Washington State Washington State Department of Health [needs update] • WAC 246-847-176 - Telehealth (Occupational Therapy) • WAC 246-915-187 - Use of telehealth in the practice of physical therapy • WAC 284-170-260 - Provider directory information about telemedicine services • WAC 284-170-433: Provider Contracts - Telemedicine • WAC 284-170-130: Definitions • WAC 284-43-5965: Effective communication for people with disabilities • WAC 284-43-5960: Meaningful access for individuals with limited-English proficiency • WAC 246-335-510: Definitions – Home health 	<p>Are there restrictions on the type of modalities that are covered by the state Medicaid program?</p> <p>No</p> <p>Can the state health agency educate policy makers on national regulatory or legislative trends related to telehealth (e.g., audio-only telehealth, geographic eligibility)?</p> <p>Yes, although unclear whether DOH has played that role previously</p>	<p>What was the impact on access to care or quality of care as a result of these policies?</p> <p>Utilization data for certain DOH programs and some customer satisfaction data</p> <p>Which of those flexibilities (if any) have expired?</p> <p>Waiting on federal guidance</p>
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	<ul style="list-style-type: none"> • WAC 246-335-525: Personnel, contractor, and volunteer policies • WAC 246-335-610: Definitions – Hospice • WAC 246-335-545: Supervision of home health services • WAC 246-335-645: Supervision of hospice services • WAC 246-847-176: Telehealth • WAC 246-915-187: Use of telehealth in the practice of physical therapy • See also – Washington Medical Commission - Telemedicine policy 11 19 21.pdf (wa.gov) 		
	<p>Output: documentation of regulatory authority and existing telehealth regulations – Current State</p>	<p>Output: documentation of services eligible for reimbursement – Current state</p>	<p>Output: priority policies for preservation based on PHE unwinding – Future activities</p>
<p>Service Delivery</p>	<p>Which, if any, state health agency-run programs deliver services to clients?</p> <ul style="list-style-type: none"> • COVID-19 Therapeutics • 988 <p>Are those services being delivered using one or more telehealth modality?</p> <p>Yes – virtual, audio</p> <p>Which, if any, state health agency programs deliver provider/patient education via telehealth?</p>	<p>Are the geographic access to care issues created by provider shortages?</p> <p>Yes. Ian Corbridge and Pat Justis can assist.</p> <p>What hospital systems are serving your rural communities?</p> <p>Reports that there are issues on this front and that rural hospitals or hospital services face closure.</p> <p>What FQHCs are serving rural communities?</p>	<p>Did the state health agency shift to or expand existing telehealth services during the pandemic to maintain access to care?</p> <p>Yes</p> <p>Which new/expanded services did the state health agency deliver?</p> <ul style="list-style-type: none"> • COVID-19 Therapeutics • WA Notify – Digital exposure notification • WA Verify – vaccine verification application • Adios Covid • WIC Telehealth Services <p>Why was delivery of that service by the state health</p>

	<ul style="list-style-type: none"> • WIC Nutritional Services • Title X – Sexual and Reproductive Health • TB – Project ECHO 	<p>How are these systems connecting to urban academic medical centers or private health systems for specialty services?</p> <p>UW-ECHO, PALS, DOH-TB-ECHO</p>	<p>agency necessary – i.e., what was the gap public health had to fill?</p> <ul style="list-style-type: none"> • Existing systems overburdened, desire to make services more easily accessible. <p>Has the health care delivery system adapted to ensure the access provided by the agency during the pandemic is integrated into ongoing care delivery?</p>
	<p><i>Output: stakeholder map inputs, current list of clinical services delivered, and telehealth modalities utilized - ?</i></p>	<p><i>Output: geographic priorities, stakeholder map inputs, current state of rural/urban health system collaboration - ?</i></p>	<p><i>Output: priority activities and insight into the role public health needs to play related to telehealth based on pandemic experience ?</i></p>
<p>Infrastructure</p>	<p>What resources exist for the provision of telehealth services by the public health agency (e.g., hardware and software to support service delivery)?</p> <p>DOH Office of Rural Health advises on telehealth.</p> <p>What resources are needed to provide or enhance existing telehealth services (e.g., staff training, hardware, software, etc.)?</p> <ul style="list-style-type: none"> • Integrated health record systems • Interoperability standards between health care systems • Communication tools for providers to coordinate care 	<p>Which workgroups or structures facilitate statewide awareness and coordination of telehealth efforts?</p> <p>WA Telehealth Collaborative</p> <p>Northwest Telehealth Resource Center</p> <p>Washington State HCA</p> <p>Which entities are leading efforts around broadband expansion, especially in rural communities? (E.g., who manages FCC or NTIA funding?)</p> <ul style="list-style-type: none"> • WA State Department of Commerce – State Broadband Office 	<p>What new partnerships with health systems were established during the pandemic?</p> <p>Connection with digital providers like COLOR Health and Birdseye.</p> <p>What was the purpose of the partnership?</p> <p>Contracted providers carried out aspects of the COVID-19 Therapeutics programs.</p>

		<ul style="list-style-type: none"> Governor 2023 Announcement - Making “internet for all” possible in Washington by Governor Jay Inslee Washington State Governor's Office Jun, 2023 Medium <p>What role does the state primary care association play in telehealth service support for FQHCs?</p> <p>What existing digital medicine and telehealth investments are of importance to the state hospital association?</p> <p>Is there a project ECHO portfolio coordinated by an academic medical center or private health system in your state? What programs or services do they provide?</p> <p>Yes University of Washington – Dementia, CBTp, maternal mental health, etc.</p>	<p>How was communication managed or maintained?</p> <p>Was the partnership successful? If so, what made it successful? If not, what was the challenge or barrier?</p>
	<p>Output: resource catalogue, budget inputs</p>	<p>Output: stakeholder map inputs</p>	<p>Output: stakeholder map inputs</p>



Telehealth Activities in Washington and Beyond



Therapeutics

During the COVID-19 pandemic, similar to DOH, many state health departments contracted with vendors to provide telemedicine service for people who test positive for COVID-19 to receive a consultation and if appropriate a prescription for medications like Paxlovid or Molnupiravir. Similar to Washington, this service was free of charge and allowed a person to see a prescriber virtually (either via a smart phone or computer). However, jurisdictions each faced distinct challenges and developed innovative solutions.

The Wisconsin Department of Health Services contracted with Color Health to provide COVID-19 therapeutics via telehealth. Due to the rural nature of the state, a phone-only option was also required, and a phone system was created.⁵² About 20% of consultations occurred on the phone and older populations utilized the phone system at approximately 80%. This telehealth service is extremely efficient – available 7 days a week 8 am to 8 pm with a medium wait time to talk to providers of 4 minutes.

⁵² [COVID-19: Secure a Free Virtual COVID-19 Telehealth Consultation Appointment and Life Saving Treatment Prescription | Wisconsin Department of Health Services](#)

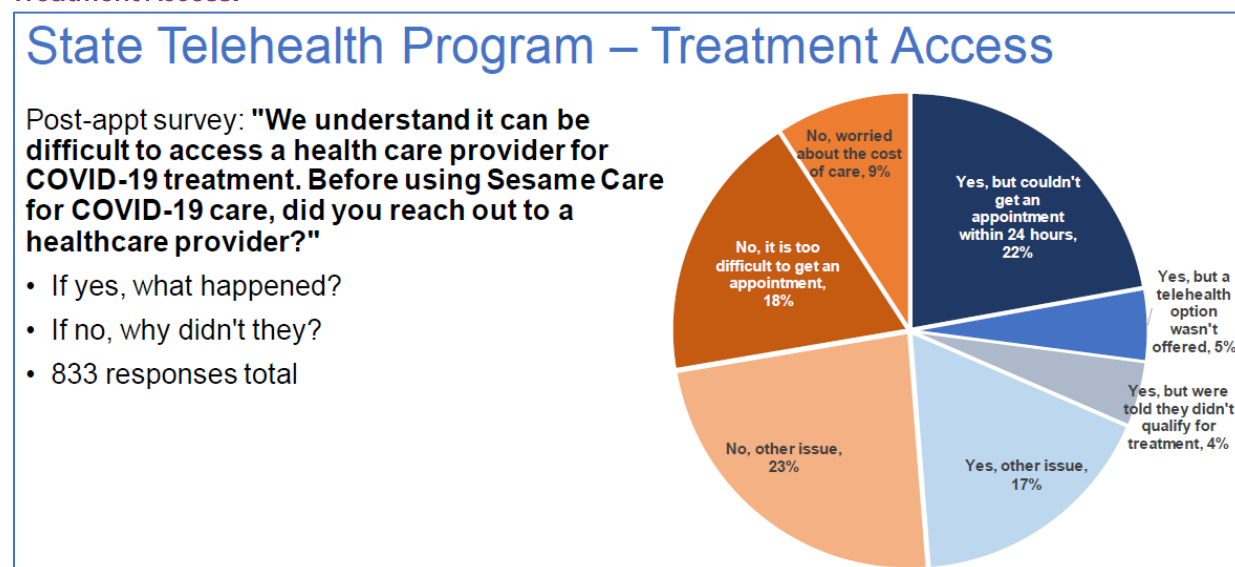
The California Department of Public Health contracted with Sesame Care to provide COVID-19 therapeutics.^{53,54} A second opinion option was offered for people who wanted more information before getting a prescription. A pre-filled medical record release form was linked in the post-appointment email for easier sharing with the patient’s primary care provider. A virtual assistant textbot was developed to connect people to Sesame’s platform.⁵⁵ More than 20,000 appointments were booked and 14,000 courses of Paxlovid prescribed through this service. Survey results indicated Sesame Care was filling a gap in the health care market (Figure 2). The California Department of Public Health is exploring opportunities with Sesame Care to treat other infectious diseases via telehealth.

⁵³ [FREE Virtual COVID-19 Visit for Californians Ages 12 and Up \(sesamecare.com\)](https://www.sesamecare.com)

⁵⁴ [COVID-19 Test-to-Treat Equity Grant \(phcdocs.org\)](https://phcdocs.org)

⁵⁵ [Virtual Assistant Q&A: Answering the Text from 23393 \(ca.gov\)](https://www.ca.gov)

Figure 2. California Department of Public Health and Sesame Care. State Telehealth Program – Treatment Access.⁵⁶



Health Care System

Telehealth has become integrated into the health care system in Washington state, and health care systems are continuing to expand telehealth services.^{57,58,59} Health care systems are identifying telehealth vendors across a range of specialties and evaluating performance – providers indicated confidence of telehealth vendors in specialties such as eating disorders⁶⁰ and behavioral health.^{61, 62} These telehealth services also can increase equity by permitting people to access specialty care which would otherwise not be easily accessible.

Providers shared many promising practices to increase equitable access and improve quality care including:

- **Translation.** Health care systems have begun to utilize services provided by Amazon Web Services (AWS), Google, and other technology companies to translate patient communications and reminders into more languages than just English and Spanish.
- **Telehealth navigators.** Health care systems are developing telehealth navigators that can provide a service for patients who are at greater risk for missed appointments or need more support for virtual visits.
- **Digital health tools.** The spirit of innovation runs deep in the state of Washington, and

⁵⁶ California Department of Public Health – COVID-19 Therapeutics Update – PPT – May 10, 2023. On file.

⁵⁷ <https://www.molinahealthcare.com/members/wa/en-us/mem/telehealth>

⁵⁸ [Connected care that makes life easier | Kaiser Permanente](#)

⁵⁹ [Telemedicine in Washington, Alaska and Montana \(seattlechildrens.org\)](#)

⁶⁰ [Online Treatment for Opioid Addiction and Eating Disorders \(brighthousehealth.com\)](#)

⁶¹ [Boulder Care | Telehealth Addiction Treatment On Your Terms](#)

⁶² [Hazel Health | Home](#)

health care providers are hearing the call. Coltrain mobile medical collaboration app⁶³ was developed by a physician based in Northcentral Washington to span multiple geographies and health care systems, while maintaining HIPAA compliance. This spirit of innovation circles the globe, and we heard of promising practices connected to speech recognition software to identify behavioral health (anxiety and depression) that is being evaluated in Japan.⁶⁴

Providers also identified potential challenges to adoption of telehealth, including:

- **Bias.** Artificial intelligence and machine learning could exacerbate health inequity if based on biased historical data.
- **Data volume.** Health care providers may become overwhelmed by patient information as asynchronous patient portal messaging expands. Possible solutions could include technology to screen the information to assist health care providers.
- **Financial impact.** Virtual care providers could cherry-pick “healthy” patient populations which could impact the populations that safety net health care systems serve.
- **Utilization.** Providers noted different utilization rates of telehealth services by race and ethnicity, as well as age.



Access

There are many promising practices of providers using telehealth to reach communities which have been historically underserved by health care systems. For example, the Latino Center for Health created the ¡Adiós COVID! telehealth platform to allow for Spanish information of test-to-treat therapeutic services^{65,66} This telehealth model can be used to as a bridge to care for people who may have low trust of existing health care agencies; English as second language; or rural, agricultural, or other hard to reach communities. In addition, this telehealth platform significantly reduced the time between screening to accessing care, as compared to traditional health care models.

In Grays Harbor County, the local public health department and Coastal Community Action Program set up rooms for people with limited internet to access telehealth services.⁶⁷ During the COVID-19 pandemic, all service systems experienced disruption and many went virtual, so there was a need to create access for vulnerable populations with complex needs. However, there is not a clear funding source to maintain these designated health access points.

In Eastern Washington, Range Community Clinic is bringing health care and education to underserved populations⁶⁸. Currently, Range Community Clinic is using mobile health clinics to reach communities⁶⁹, but there is an opportunity for secure remote access sites for people in rural areas to access care – telehealth with physical support for follow-up.

⁶³ [Coltrain | HCP Collaboration](#)

⁶⁴ [Home - Canary Speech](#)

⁶⁵ [¡Adiós COVID! Virtual Clinic Beta \(adioscovid.org\)](#)

⁶⁶ [Latino Center For Health – ¡Bienvenidos! The first research center in Washington with a singular focus on advancing Latino health](#)

⁶⁷ <https://www.coastalcap.org/about-ccap/>

⁶⁸ [About - Range Community Clinic](#)

⁶⁹ [Mobile Unit - Range Community Clinic %](#)

Hawaii was an early adopter of increasing access through telehealth services because of the geographic distances between people and hospitals. During the 2016-17, state legislative session, laws were passed to require insurance to cover telehealth at parity with in-person care. Hawaii State Department of Health has continued to explore ways to increase access through telehealth services, including recent investments in 15 libraries in underserved and rural areas for people to access care through telehealth services.⁷⁰ Recent federal investments in broadband as part of the American Rescue Plan will help expand broadband, and there is a focus to promote the public's health by recommending investments are made in underserved communities to increase access to broadband to access telehealth and other critical services.

In Washington D.C., the Department of Aging purchased Apple iPad tablets for seniors and for people with disabilities to access care. This program was focused on connection during the COVID-19 pandemic and included training and support for participants.

For DOH, many opportunities were identified to support transformation of the health ecosystem for a state public health department that also regulates health care providers. First, health care providers will need training, and possibly standards to ensure quality care is provided through telehealth. Second, continued support for creation of bidirectional interoperable data systems between electronic health records (EHRs) and public health data systems focused on whole person care is critical for fostering digital health.⁷¹ Third, support for expanding care through telehealth for diabetes care, hepatitis C virus, heart disease and stroke, tuberculosis, and sexually transmitted diseases – spaces where public health has played a role. Fourth, solutions to help the public better navigate the health care system, similar to the test-to-treat model or CDC's COVID-19 self-checker⁷², but on a larger scale (e.g., when, where, and how to access the health care system because of respiratory disease). Also, other self-care and self-checking apps to assist public wellness. Fifth, possibly develop and deploy telehealth carts to increase specialty care in rural areas; Alabama Public Health⁷³ and Alaska Native Health Services.

Literature Review

The COVID-19 Emergency Increased Demand

Early in the COVID-19 pandemic providers, public health, and policy all quickly considered ways to provide safe access to health care, and as a result in April 2020 telehealth boomed.

- In April 2020, telemedicine accounted for 69% of doctor visits.⁷⁴
- For Medicare beneficiaries, 50% of primary care visits were using telehealth in April 2020 as compared to 1% before COVID-19.⁷⁵

⁷⁰ [Federal Funding to Support Telehealth at Hawaii Libraries \(govtech.com\)](https://www.govtech.com/health/federal-funding-to-support-telehealth-at-hawaii-libraries)

⁷¹ [Health Data Utility: From Vision to Reality in Many States | Healthcare Innovation \(hcinnovationgroup.com\)](https://www.healthcareinnovation.com/health-data-utility-from-vision-to-reality-in-many-states)

⁷² [The v-safe after vaccination health checker: Active vaccine safety monitoring during CDC's COVID-19 pandemic response - PubMed \(nih.gov\)](https://pubmed.ncbi.nlm.nih.gov/35484441/)

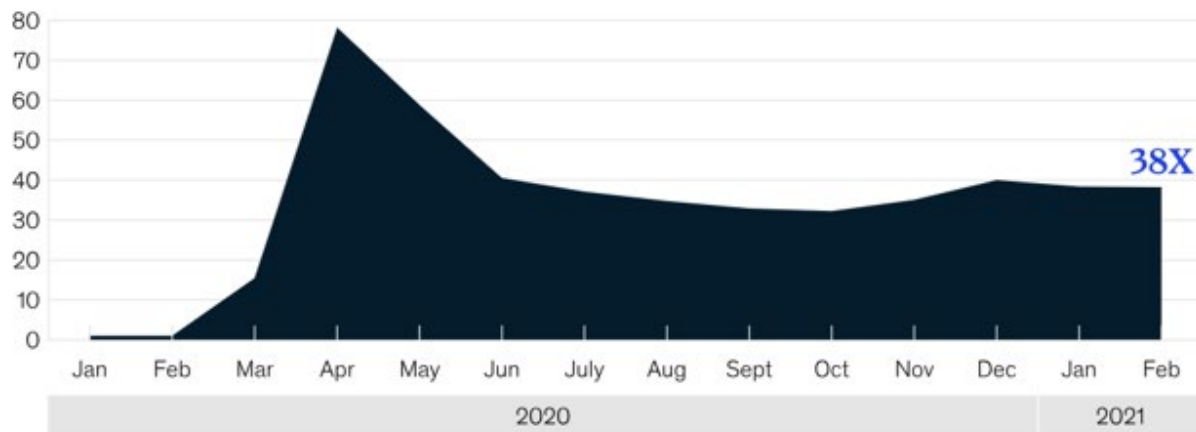
⁷³ [Telehealth | Alabama Department of Public Health \(ADPH\) \(alabamapublichealth.gov\)](https://www.alabamapublichealth.gov/telehealth)

⁷⁴ [The Telehealth Era Is Just Beginning \(hbr.org\)](https://www.hbr.org/the-telehealth-era-is-just-beginning)

⁷⁵ [20200914 Taskforce on Telehealth Policy Final Report.pdf \(ncqa.org\)](https://www.ncqa.org/20200914-Taskforce-on-Telehealth-Policy-Final-Report.pdf)

- At the peak in April 2020, telehealth claims were **78X** times higher than in February 2020 (Figure 3).⁷⁶ As of February 2021 telehealth claims have appeared to stabilize but remain **38X** higher than the pre-pandemic baseline (February 2020).

Figure 3. Telehealth claims volumes, compared to pre-COVID-19 levels.⁷⁷



Consumer Behavior

Various surveys conclude that consumers will continue to use telehealth as the COVID-19 emergency sunsets.

- One study found that 3 out of 4 Americans “said the pandemic has made them more eager to try virtual care.”⁷⁸
- In June 2020, a nationally representative survey of older adults (50-80 years old) reported that 1/3 of their most recent telehealth visit was audio-only (no video) and most (64%) expressed interest in continued care using telehealth.⁷⁹

Increased Investments in Digital Health Companies

Venture funding doubled for digital health companies while revenues increased by 83% between 2019 & 2020 (Figure 4).⁸⁰

Figure 4. Total Venture Funding for Digital Health Companies, by year and Total annual revenues.⁸¹

⁷⁶ [Telehealth: A post-COVID-19 reality? | McKinsey](#)

⁷⁷ [Telehealth: A post-COVID-19 reality? | McKinsey Exhibit 1.](#)

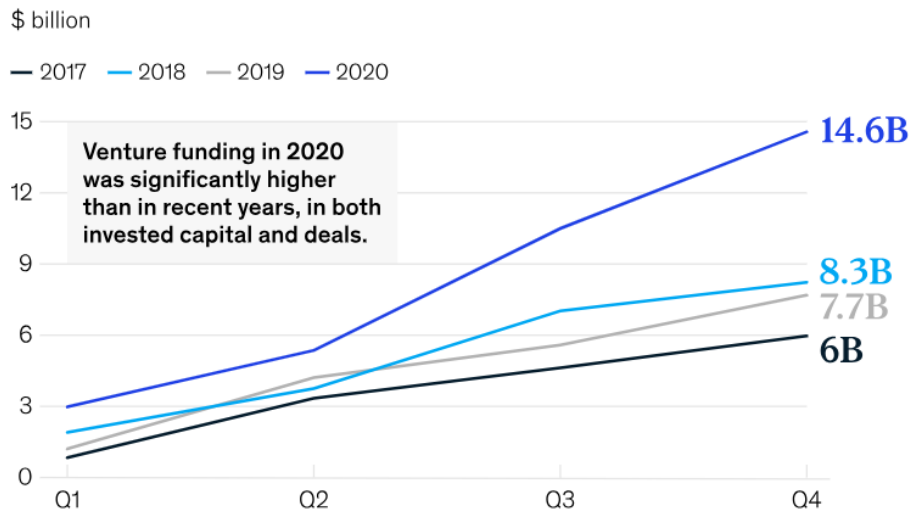
⁷⁸ [Telehealth: The advantages and disadvantages - Harvard Health](#)

⁷⁹ Li, Kathleen Y., et al. "Perceptions of telehealth among older US adults during the COVID-19 pandemic: A national survey." *Journal of Telemedicine and Telecare* (2023): 1357633X231166031. [Perceptions of telehealth among older U.S. adults during the COVID-19 pandemic: A national survey - PMC \(nih.gov\)](#)

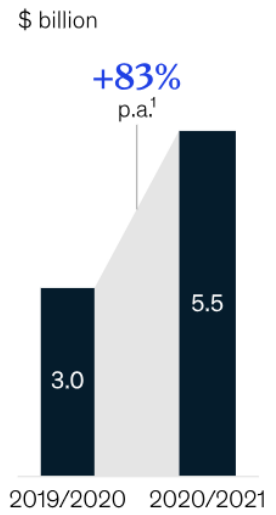
⁸⁰ [Telehealth: A post-COVID-19 reality? | McKinsey](#)

⁸¹ [Telehealth: A post-COVID-19 reality? | McKinsey Exhibit 4.](#)

Total venture funding for digital health companies, by year



Total annual revenues



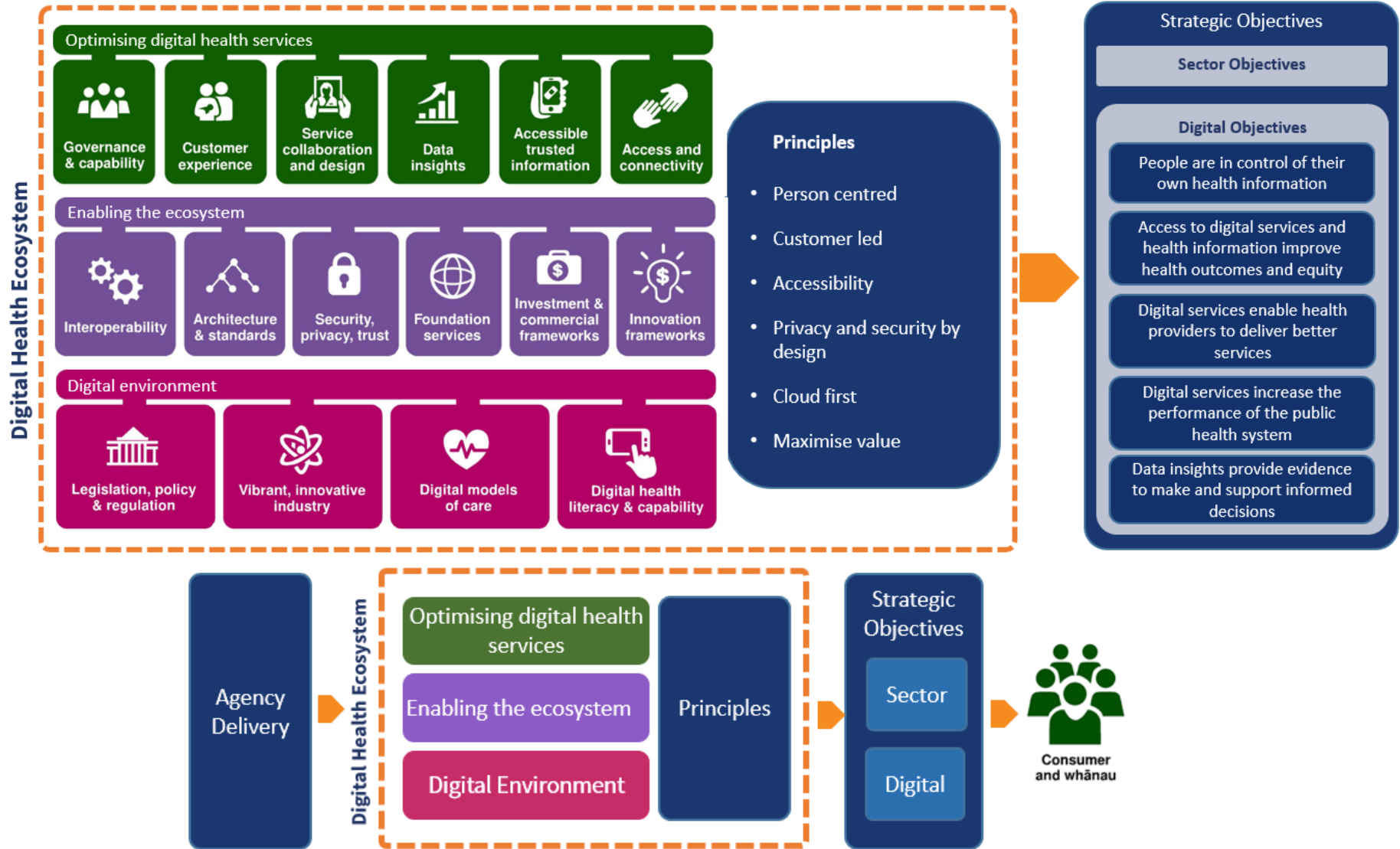
¹ p.a., per annum.

Source: Adriana Krasniansky et al., "H1 2021 Digital Health Funding: Another Blockbuster Year...In Six Months," Rock Health, July 2021, rockhealth.com; McKinsey virtual health vendor database

Frameworks for Understanding the Telehealth Ecosystem

The literature lacks frameworks for understanding the broader telehealth ecosystem but through the literature review one framework from New Zealand was used for reference (Figure 5).

Figure 5. Ministry of Health New Zealand, Digital Health Strategic Frameworks.⁸²



⁸² Accessed via Google Images. [Digital Health – Te Whatu Ora - Health New Zealand](#)

Public Health’s Role

To critically examine public health’s role (or potential role) in telehealth it is first important to understand how clinical medicine has historically differed from public health (Appendix 3).

DOH has historically been involved in the telehealth space in a variety of ways (specific spaces and programs are examined in this report) including acting as an information source for patients and providers and providing funding and innovation for providers. However, during the COVID-19 emergency the DOH chose one avenue of response as being a direct telehealth and telemedicine service provider in response to the COVID-19 pandemic.

In September 2017 the CDC released the *Public Health 3.0: A Call to Action for Public Health to Meet the Challenges of the 21st Century*,⁸³ which included a call to action for a renewed approach to public health through a three buckets of prevention infographic (Figure 6) focusing on buckets two (innovative clinical prevention) and three (total population of community-wide prevention).

Figure 6. The Centers for Disease Control and Prevention’s Three Buckets of Prevention.⁸⁴



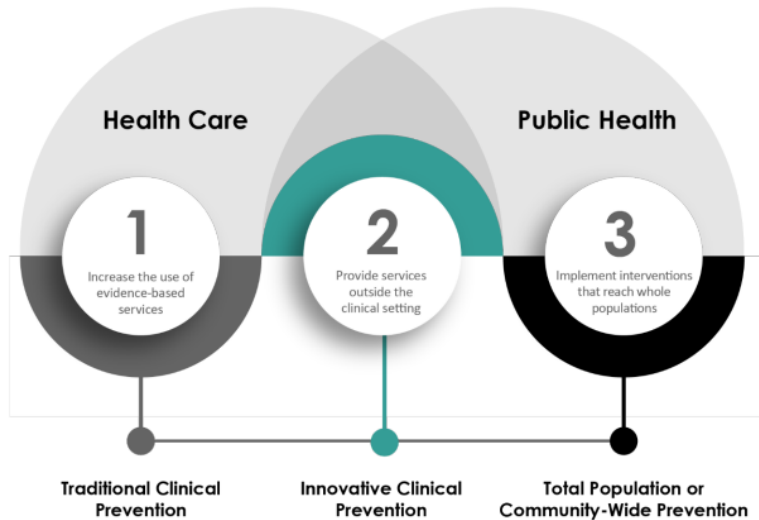
The department even adapted the CDC’s three buckets of prevention infographic in a 2019 diabetes epidemic action report (Figure 7).

Figure 7. Framework for organizing Solutions (modeled after the CDC Three Buckets of Prevention).⁸⁵

⁸³ [Public Health 3.0: A Call to Action for Public Health to Meet the Challenges of the 21st Century \(cdc.gov\)](https://www.cdc.gov/publichealth30/)

⁸⁴ [Public Health 3.0: A Call to Action for Public Health to Meet the Challenges of the 21st Century \(cdc.gov\)](https://www.cdc.gov/publichealth30/)

⁸⁵ [2019 Diabetes Epidemic Action Report \(DEAR\) \(wa.gov\)](https://www.wa.gov/2019-Diabetes-Epidemic-Action-Report-DEAR) and the Healthier Washington’s Population Health Guide



In a 2022 article from Neri et al. the CDC authors share the landscape and data of public health and telehealth before, during, and after the COVID-19 pandemic emergency.⁸⁶ Table 3 lists the CDC’s findings about the potential gaps identified in the nexus of telehealth research and public health practice.

Table 3. Potential Gaps in Telehealth Research in Public Health Practice. Table taken directly from Neri et.al. “Telehealth and Public Health Practice in the United States – Before, During, and After the COVID-19 Pandemic.”⁸⁷

Focus Area and Subtopic	Possible Research Questions
<p>Understand how telehealth practices are used in ways that promote equity</p>	<ul style="list-style-type: none"> • To what extent does improved broadband access lead to greater telehealth usage? • Have telehealth “hubs” in under-resourced settings improved health care access/health? • How has telehealth availability affected health equity and disparities during the pandemic? • Did telehealth availability reduce access barriers to disproportionately affected populations? • How did telehealth affect health care access for patients with physical disabilities?

⁸⁶ Neri, Antonio J., et al. "Practice Full Report: Telehealth and Public Health Practice in the United States—Before, During, and After the COVID-19 Pandemic." *Journal of Public Health Management and Practice* 28.6 (2022): 650. [Practice Full Report: Telehealth and Public Health Practice in the United States—Before, During, and After the COVID-19 Pandemic - PMC \(nih.gov\)](#)

⁸⁷ Neri, Antonio J., et al. "Practice Full Report: Telehealth and Public Health Practice in the United States—Before, During, and After the COVID-19 Pandemic." *Journal of Public Health Management and Practice* 28.6 (2022): 650. [Practice Full Report: Telehealth and Public Health Practice in the United States—Before, During, and After the COVID-19 Pandemic - PMC \(nih.gov\)](#)

	<ul style="list-style-type: none"> • How did telehealth change health care access for populations with geographic, physical, medical, or economic barriers in regard to accessing primary and specialty care? • How has telehealth changed access to behavioral health services and treatment of substance use disorders?
Identify policies and practices related to telehealth that affect population health	
Wellness and disease prevention	<ul style="list-style-type: none"> • Have telehealth approaches affected wellness and prevention through wearable devices and more accessible wellness visits?
Insurance reimbursement policies	<ul style="list-style-type: none"> • Were there changes in telehealth usage with policies requiring parity/near parity in reimbursing telehealth visits (public and private insurance)? • Did states with telehealth payment parity policies in place before the pandemic have an improved ability to scale-up telehealth usage during the pandemic? • What was the impact of medical licensure policy waivers on telehealth usage?
Chronic disease management	<ul style="list-style-type: none"> • How has remote patient monitoring/telehealth affected the frequency of interaction with health care and how has it affected chronic disease management? • Did telehealth and mail-delivered medication affect prescribing practices, medication adherence, or change disease management?
Infectious disease control	<ul style="list-style-type: none"> • Did adoption of telehealth affect the risk of transmission of infectious diseases to health care personnel and patients prior to them receiving in-person care (eg, using telehealth for triage)? • What are the population-level costs and benefits of using automated and semiautomated telehealth approaches to help ensure that patients receive the most appropriate care? • Does early discharge with remote patient monitoring affect iatrogenic disease and quaternary prevention? • What is the impact of telehealth on access and use of sexual health services, as well as the control of communicable disease?
Conservation of medical equipment	<ul style="list-style-type: none"> • Does telehealth adoption affect the amount of medical equipment used (particularly personal protective equipment)?

Impact on the health care workforce	<ul style="list-style-type: none"> • What is the impact of telehealth usage on providers in regard to patient volume, scope of services provided, provider well-being, and leveraging the skills of an otherwise unavailable workforce (e.g., providers who are not able to see patients in person)?
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Identify data needs and metrics

Surveillance for disease and health data	<ul style="list-style-type: none"> • How does telehealth use affect the ability of public health agencies to determine the location of a telehealth-diagnosed disease vs an in-person visit? • What types of information are available regarding telehealth, what populations do those data represent, and what are the quality and extent of the information being collected? • How does increased adoption of telehealth affect the volume and variety of health care data? • What workforce and infrastructure capacity will be needed in public, private, and academic institutions to analyze the larger amounts of health care data?
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Cost

The report section on cost should be carefully considered with two fundamental guiding questions:

1. Who incurs the cost?

It is critical to think about who is incurring the cost. Examples of payer are patient, provider, the state, or a mix of many.

2. Who is the provider of the service and what is their role?

There are more and more analyses being added to the literature base post COVID-19 pandemic emergency on telehealth specifically about direct patient to medical provider care (which is what is primarily analyzed below). However, there are no studies that currently consider the cost/benefit specifically from a State public health provider (non-direct medical care). In the literature, as you move further away from the direct medical care costs there is less clarity on the realized costs although one can speculate (example: increased costs due to contracted medical providers).

What does Telehealth Cost?

Direct Cost (Patient to Provider Telemedicine)

A study from 2021 found that a telemedicine visit was associated with lower total direct medical costs for visits across primary care, and specialties, but differences occurred for out-of-pocket-costs. On average, for an outpatient department telemedicine visits the average reduction was \$228.⁸⁸ A study from 2023 found that costs were reduced by \$239 per patient for a telehealth visit.⁸⁹ These findings are especially important considering health care costs continue to rise, with one estimate has health care costs rising at an annual rate of 2.3% (Feb 2022 – 2023).⁹⁰

A study from 2014 found that 83% of patients engaged in an initial telehealth visit (pre-pandemic) were able to resolve their issue during the initial visit.^{91,92} However, a 2023 study found that these types of reductions in avoiding future visits vary widely by disease. While positive impacts were seen for behavioral health, metabolic and musculoskeletal disorders, and

⁸⁸ Tak, Hyo Jung, Melanie Cozad, and Ronnie D. Horner. "A National Perspective of Telemedicine Use and Direct Medical Costs: Who Uses it and How Much it Costs." *Medical care*. [A National Perspective of Telemedicine Use and Direct Medical Costs: Medical Care \(lww.com\)](#)

⁸⁹ Ayabakan, Sezgin, Indranil R. Bardhan, and Zhiqiang Zheng. "Impact of Telehealth and Process Virtualization on Healthcare Utilization." Information Systems Research (2023). [Impact of Telehealth and Process Virtualization on Healthcare Utilization | Information Systems Research \(informs.org\)](#)

⁹⁰ [How does medical inflation compare to inflation in the rest of the economy? - Peterson-KFF Health System Tracker](#)

⁹¹ Assessment of the Feasibility and Cost of Replacing IN-Person Care with Acute Care Telehealth Services. [Medicare-Acute-Care-Telehealth-Feasibility.pdf \(connectwithcare.org\)](#)

⁹² [The True Cost of Telehealth \(healthrecoveryolutions.com\)](#)

dermatology, still other diseases (heart and lung disease and infections), found little benefit from telehealth.^{93,94}

Indirect Cost

Telehealth-specific indirect costs are like indirect medical costs, including overhead (management, contracting, payroll, human resources, reporting, clinical safety and quality, customer service, accounting, etc.), billing fees, and technology support costs. Indirect costs that could be unique to telehealth could be physical licensing to practice (provide services) in additional states and costs to set-up a home office.⁹⁵

Benefits

This report section on benefit should be carefully considered with the same two fundamental guiding questions:

1. Who receives the benefit?

The Northwest Regional Telehealth Resource Center (NRTRC)⁹⁶ explains telehealth benefits under five buckets: Patients, Providers, Critical Access Hospitals, Communities, and Payers.⁹⁷ It is important to note that some of these categories are intersectional (example, a patient or provider can be a payer). Sorting the benefits in this way allows us to consider how a society may be benefiting without losing sight of who and how individuals or entities are benefiting.

2. Who is the provider of the service and what is their role?

There are more and more analyses being added to the literature base post-COVID-19 pandemic emergency on telehealth, specifically about direct-patient-to medical-provider-care (which is what is primarily analyzed below). However, there are no studies that currently consider the cost/benefit specifically from a State public health provider (non-direct medical care). As you move further from the direct medical care space there is less clarity on the realized benefits for the receiver/patient (examples: provider to provider, providing connection to care).

⁹³ Ayabakan, Sezgin, Indranil R. Bardhan, and Zhiqiang Zheng. "Impact of Telehealth and Process Virtualization on Healthcare Utilization." Information Systems Research (2023). [Impact of Telehealth and Process Virtualization on Healthcare Utilization | Information Systems Research \(informs.org\)](#)

⁹⁴ [Virtual Health Care Has Limited Benefits. Study Finds - UT News \(utexas.edu\)](#)

⁹⁵ Aremu, Elizabeth O., James L. Heffernan, and Joseph C. Kvedar. "The difference in practice expense costs between telehealth and in-office care could serve as the basis for differential reimbursement structures." *Telemedicine and e-Health* 28.6 (2022): 912-916. [The Difference in Practice Expense Costs Between Telehealth and In-Office Care Could Serve as the Basis for Differential Reimbursement Structures | Telemedicine and e-Health \(liebertpub.com\)](#)

⁹⁶ [Northwest Regional Telehealth Resource Center \(nrtrc.org\)](#)

⁹⁷ Benefits of Telehealth. [Northwest Regional Telehealth Resource Center \(nrtrc.org\)](#)

Overarching Societal Benefits of Telehealth

Monetary (\$)

Time Saving (& therefore cost saving)

Shifting in person appointments to virtual appointments

- It is estimated that up to \$250 billion of pre-COVID-19 pandemic emergency health care could be shifted to virtual health care.⁹⁸ And emerging data from the past few years has supported that shift.
- Tens of billions of dollars annually may be saved in the U.S. if 30% to 40% of in-person specialist appointments were shifted to telehealth visits.⁹⁹
- Control of infectious diseases¹⁰⁰ including COVID-19.¹⁰¹

Reducing Travel

- Reduction in miles traveled¹⁰² and fuel expended: A University in Ohio found that between March and July of 2020, 202,900 telehealth visits were conducted which resulted in patients avoiding traveling millions of cumulative miles which equated to a reduction in fuel costs of approximately 2.7 gallons of fuel (and avoidance of approximately 60 miles round trip) per appointment.¹⁰³
- Avoiding productivity losses due to reducing the time needed to be away from usual activities¹⁰⁴ (wages for self and caregivers).

Reducing no-show rates

- Various examples are available in literature, one health care provider between March and July of 2010, missed appointments dropped 3%,¹⁰⁵ while another health clinic speculated that no-show rates dropped by about 10%.¹⁰⁶

Reducing time to seek specialty care

- Reducing time and increasing efficiency.¹⁰⁷

⁹⁸ [Telehealth: A post-COVID-19 reality? | McKinsey](#)

⁹⁹ [The Telehealth Era Is Just Beginning \(hbr.org\)](#)

¹⁰⁰ [Benefits of Telemedicine | Johns Hopkins Medicine](#)

¹⁰¹ Monaghesh E, Hajizadeh A. The role of telehealth during COVID-19 outbreak: a systematic review based on current evidence. BMC Public Health. 2020 Aug 1;20(1):1193. doi: 10.1186/s12889-020-09301-4. PMID: 32738884; PMCID: PMC7395209.

¹⁰² Snoswell CL, Smith AC, Page M, Scuffham P, Caffery LJ. Quantifying the Societal Benefits From Telehealth: Productivity and Reduced Travel. Value Health Reg Issues. 2022 Mar;28:61-66. doi: 10.1016/j.vhri.2021.07.007. Epub 2021 Nov 17. PMID: 34800833.

¹⁰³ [New Data Shows Patients Save Fuel, Time And Missed Appointments With Telehealth | Ohio State Medical Center \(osu.edu\)](#)

¹⁰⁴ Snoswell CL, Smith AC, Page M, Scuffham P, Caffery LJ. Quantifying the Societal Benefits From Telehealth: Productivity and Reduced Travel. Value Health Reg Issues. 2022 Mar;28:61-66. doi: 10.1016/j.vhri.2021.07.007. Epub 2021 Nov 17. PMID: 34800833.

¹⁰⁵ [New Data Shows Patients Save Fuel, Time And Missed Appointments With Telehealth | Ohio State Medical Center \(osu.edu\)](#)

¹⁰⁶ [20200914 Taskforce on Telehealth Policy Final Report.pdf \(ncqa.org\)](#)

¹⁰⁷ [The Telehealth Era Is Just Beginning \(hbr.org\)](#)

Prevention

Preventing more costly care

- Reducing more costly care.^{108,109} One Utah health care provider stood-up a COVID-19 monitoring program that provided patients with Bluetooth pulse oximeters. The program was attributed to freeing up hospital beds and hospital bed-days, that could then be saved for the most critically ill.¹¹⁰

Increase Chronic Disease Management

- Heart & Kidney Disease and high blood pressure often involve routine check-ups. If such disease were monitored via virtual care, there is potential to save both lives and money.¹¹¹

Non-Monetary

Addressing Health Disparities

Equity

- Address health inequities to behavioral health access especially in rural areas that are likely to have less mental-health providers.¹¹²
- One study found that attendance of health appointments for pregnant women battling addiction increased by 50% which reduced the need for neonatal ICU admissions.¹¹³
- Improved access to health care, in particular to those in rural areas who may travel farther to receive quality care.¹¹⁴

Access to the best doctors

- Broaden geographic reach and access of specialty medicine.¹¹⁵
- Closely related with reducing time to seek specialty care.¹¹⁶

Better health outcomes

- A systematic review on the socio-economic impact of telehealth found that a main benefit of telehealth was improve health outcomes and better quality of life among others.¹¹⁷

It is important to note that while benefits may be realized in one area of practice, they may not be in another, depending on the individual, population, disease, or a mix of factors.

¹⁰⁸ [The Telehealth Era Is Just Beginning \(hbr.org\)](#)

¹⁰⁹ [20200914_Taskforce_on_Telehealth_Policy_Final_Report.pdf\(ncqa.org\)](#)

¹¹⁰ [The Telehealth Era Is Just Beginning \(hbr.org\)](#)

¹¹¹ [The Telehealth Era Is Just Beginning \(hbr.org\)](#)

¹¹² [The Telehealth Era Is Just Beginning \(hbr.org\)](#)

¹¹³ [The Telehealth Era Is Just Beginning \(hbr.org\)](#)

¹¹⁴ [How Telehealth is Changing Health Care \(verywellhealth.com\)](#)

¹¹⁵ [The Telehealth Era Is Just Beginning \(hbr.org\)](#)

¹¹⁶ [The Telehealth Era Is Just Beginning \(hbr.org\)](#)

¹¹⁷ Jennett PA, Hall LA, Hailey D, et al. The socio-economic impact of telehealth: A systematic review. *Journal of Telemedicine and Telecare*. 2003;9(6):311-320. doi:10.1258/135763303771005207

Challenges and Lessons Learned

The pandemic forced telehealth services to be ramped up incredibly quickly and to be used in new ways. This provides a learning opportunity for future uses of telehealth and to identify where there were challenges implementing telehealth. This section of the report provides some high-level considerations on the challenges and lessons learned for telehealth coming out of the pandemic.

Evolving Policy Landscape

At the onset of the pandemic many restrictions on the use of telehealth were removed nationally. For example, restrictions on Medicare funded telehealth services were eased to allow services in any locations, not just rural ones, and for audio-only services. Medicaid and Children’s Health Insurance Programs also eased restrictions, of which Washington state took advantage, as well as making sure that telehealth services received parity for payment.¹¹⁸ Many DOH and Washington state programs and partners had already adopted these flexibilities, which allowed people to access services. Many of these changes allowed people to quickly adapt and use technology for services. But, as the pandemic related public health emergency declarations end, some of these changes will be rolled back, while some could become permanent. A comprehensive review of these changes is beyond the scope of this report, but a challenge is presented by this quickly evolving policy landscape. Resources such as the Center for Connected Health Policy provide information about the most up to date policies and regulations at the state level.¹¹⁹

These fluid policy situations are also a reminder for the need for accurate and easy information for providers and consumers at the state and local levels. Due to the interconnecting nature of federal and state policies for telehealth services, entities like DOH will have to make education a key component of any telehealth service going forward.

Practice Locations/Standard of Care Issues

Telehealth offers the opportunity for patients and providers to receive and deliver care across state lines, which raises a host of policy issues since health professions are generally licensed and regulated at the state level. In Washington for example, an out-of-state physician may be able to offer some continuing services to a patient who is in Washington without getting a Washington license, but they would not be able to establish a practitioner/patient relationship.¹²⁰

States, including Washington, are also turning to the use of interstate compacts to help ease workforce shortages and to streamline out of state telehealth services. Compacts allow health providers to practice in participating states without having to obtain licenses in each state. Washington currently participates in several health-related compacts including most recently the Nurse Licensure Compact.¹²¹ Entities such as the Uniform Law Commission are also working on possible legislation, such as the Uniform Telehealth Act, which would also make it easier to

¹¹⁸ [20-29 Coronavirus OIC \(tmp\).pdf \(wa.gov\)](#)

¹¹⁹ [Home | Center for Connected Health Policy \(cchpc.org\)](#)

¹²⁰ [FAQ on telemedicine and licensing during COVID | Washington Medical Commission](#)

¹²¹ [Washington joins Nurse Licensure Compact \(NLC\) | Nursing Care Quality Assurance Commission](#)

deliver health care services across state lines.¹²² This legislation has been introduced in Washington but has not become law.¹²³

One of DOH's primary objectives is to ensure that health professions and facilities are properly credentialed and operating safely. As telehealth services become more accessible, DOH will need to be a leader for ensuring that it is done in a safe manner.

Data Privacy and Artificial Intelligence (AI)

Data privacy and artificial intelligence issues are tricky and dynamic policy topics for telehealth services. During the pandemic enforcement for HIPAA violations was eased to encourage the use of telehealth services.¹²⁴ This discretion has now ended.¹²⁵ This dynamic is illustrative of some of the challenges telehealth presents. For example, just think about the amount of data stored on any smart phone application. Do patients own these data? Are they subject to HIPAA? Who can perform analytics on the data? These are not always easy questions to answer but are vital since health data is incredibly sensitive and is entitled to privacy.

There has also been huge growth in other digital health products such as mobile health applications for smart phones, wearable devices,¹²⁶ in addition to more traditional telehealth services. Who regulates this information technology and hardware? The U.S. Food and Drug Administration has stepped into this space, but many other agencies have a role too, such as the Federal Trade Commission and Office of Civil Rights.¹²⁷

Lastly, telehealth is directly connected to the rapidly evolving fields of artificial intelligence. This technology has the potential to transform numerous fields, including telehealth services^{128,129} and public health generally,¹³⁰ but regulation in this area is not developed. The FDA has provided some guidance in this space,¹³¹ but it is a topic that must be watched closely.

Equity Considerations

Health equity exists when all people have the opportunity to achieve their full health potential, regardless of their race, culture, identity, or where they live. Not everyone in Washington State has this opportunity.¹³² The pandemic only heightened these inequities.¹³³ Telehealth also

¹²² [Telehealth Act - Uniform Law Commission \(uniformlaws.org\)](https://www.uniformlaws.org/)

¹²³ [Washington State Legislature](https://www.leg.wa.gov/)

¹²⁴ [OCR Announces Notification of Enforcement Discretion for Telehealth Remote Communications During the COVID-19 Nationwide Public Health Emergency | HHS.gov \(pagefreezer.com\)](https://www.hhs.gov/ohrt/2020/04/20/ocr-announces-notification-of-enforcement-discretion-for-telehealth-remote-communications-during-the-covid-19-nationwide-public-health-emergency/)

¹²⁵ [HHS Office for Civil Rights Announces the Expiration of COVID-19 Public Health Emergency HIPAA Notifications of Enforcement Discretion | HHS.gov](https://www.hhs.gov/ohrt/2020/04/20/hhs-office-for-civil-rights-announces-the-expiration-of-covid-19-public-health-emergency-hipaa-notifications-of-enforcement-discretion/)

¹²⁶ [Home | Apple Heart Study | Stanford Medicine](https://stanfordmedicine.org/2020/04/20/home-apple-heart-study/)

¹²⁷ [What is Digital Health? | FDA](https://www.fda.gov/oc/2019/08/01/what-is-digital-health/)

¹²⁸ [Role of Artificial Intelligence within the Telehealth Domain - PMC \(nih.gov\)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6944444/)

¹²⁹ [Evidently - Cognitive AI for Health](https://www.evidentlyai.com/cognitive-ai-for-health/)

¹³⁰ [Artificial Intelligence in Medicine and Public Health: Prospects and Challenges Beyond the Pandemic | Blogs | CDC](https://www.cdc.gov/artificial-intelligence/2020/04/20/artificial-intelligence-in-medicine-and-public-health-prospects-and-challenges-beyond-the-pandemic/)

¹³¹ [Artificial Intelligence and Machine Learning in Software as a Medical Device | FDA](https://www.fda.gov/oc/2020/04/20/artificial-intelligence-and-machine-learning-in-software-as-a-medical-device/)

¹³² [Health Equity | Washington State Department of Health](https://www.wa.gov/health-equity/)

¹³³ [The Longest Year: How the pandemic made inequality in America worse | PBS NewsHour](https://www.pbs.org/newshour/health/the-longest-year-how-the-pandemic-made-inequality-in-america-worse/)

highlighted this dynamic.¹³⁴ While telehealth can be a powerful tool to reduce barriers to access for historically populations, we have much work to do. Health disparities have been well documented in telehealth research across populations for racial, geographic, cultural, socioeconomic, age, language populations.¹³⁵

Racial Health Disparities

Racial telehealth disparities are well documented in research. One study found that individuals that identified as Hispanic or Latino, Black or Asian were more likely than those who identified as white to use audio-only telehealth, while those who identified as white were more like to use video telehealth.¹³⁶ Another study found that use of telehealth was 41% less likely for individuals that identified as Hispanic, as compared to individuals who identified as non-Hispanic white.¹³⁷

Equitable Use of Low-Barrier Resources

As an example, when COVID-19 therapeutics became available via telehealth, many people who used the service already had health insurance and other resources but took advantage of this new free and low-barrier method. This presents tradeoffs, where the more available a service becomes the greater the likelihood that it will have inequitable effects.

Broadband Access

Another equity consideration for telehealth is the need to provide adequate infrastructure for these resources, including broadband. For example, a study of Medicare telehealth services during the pandemic found that urban areas took greater advantage than rural areas.¹³⁸ Until a person has reliable internet service, telehealth services will not be equitable. Some federal and state resources are focused on increasing broadband access, but there is still much work to do.¹³⁹ A promising development is increased federal funding for these efforts, which Washington state plans to use to further increase broadband access.¹⁴⁰

Translation Services

Language access and representative workforces have been a challenge for telehealth services.¹⁴¹ If a person is not able to connect with telehealth services because the information about how to

¹³⁴ [Equity within digital health technology within the WHO European Region: a scoping review](#)

¹³⁵ Neri, Antonio J., et al. "Practice Full Report: Telehealth and Public Health Practice in the United States—Before, During, and After the COVID-19 Pandemic." *Journal of Public Health Management and Practice* 28.6 (2022): 650. [Practice Full Report: Telehealth and Public Health Practice in the United States—Before, During, and After the COVID-19 Pandemic - PMC \(nih.gov\)](#)

¹³⁶ [household-pulse-survey-telehealth-covid-ib.pdf \(hhs.gov\)](#)

¹³⁷ White-Williams, Cynthia, et al. "Use of telehealth among racial and ethnic minority groups in the United States before and during the COVID-19 pandemic." *Public Health Reports* 138.1 (2023): 149-156. [Use of Telehealth Among Racial and Ethnic Minority Groups in the United States Before and During the COVID-19 Pandemic - Cynthia White-Williams, Xinliang Liu, Di Shang, Jared Santiago, 2023 \(sagepub.com\)](#)

¹³⁸ [Medicare Telehealth: Actions Needed to Strengthen Oversight and Help Providers Educate Patients on Privacy and Security Risks | U.S. GAO](#)

¹³⁹ [Broadband Connection in Rural Communities | ChangeLab Solutions; Rural Broadband Program - Washington State Department of Commerce; RCW 43.330.530: Broadband office—Definitions. \(<i>Effective until July 1, 2023.</i>\) \(wa.gov\); Washington public agencies win \\$121M to extend rural broadband | Crosscut](#)

¹⁴⁰ [Making “internet for all” possible in Washington | by Governor Jay Inslee | Washington State Governor's Office | Jun, 2023 | Medium](#)

¹⁴¹ [Addressing Language Barriers to Digital Health Equity \(upenn.edu\)](#)

connect is not available in their language or translation services are not available, it means the services won't be provided. Similarly, workforces should be representative of the communities they serve, but currently that's often not reality on the ground.

Leaving behind those who Experience Intersectionality Health Disparities

In 2021 – 2022, the Department of Health and Human Services (HHS) conducted a US national survey on telehealth trends that reported lowest telehealth usage rates for individuals who are uninsured and young adults (aged 18-24) and highest usage rates for individuals covered by Medicaid and Medicare, individuals identifying as Black, and individuals with annual earnings of less than \$25K. The study noted persistent disparities in accessing video telehealth services requires further study.¹⁴²

Continued Need for In-Person Care

Telehealth has many virtues and is broadly supported, but it does have limitations. Sometimes in-person care is needed. For example, evidence is starting to mount that many treatable conditions were not identified during the pandemic because people missed routine screens. The National Cancer Institute estimates that there were over nine million missed screenings in 2020 alone.¹⁴³ This will lead to later diagnoses, making treatment more challenging.

Heart and lung disease and infections include a range of symptoms that are hard to diagnose over a telehealth visit¹⁴⁴ and may require more advanced testing including MRIs, CT scans, or x-rays which are currently only an in-house option.¹⁴⁵ There is also concern of not being able to do physical examinations, blood draws, bundle services, or missing potentially hard to diagnose symptoms over a telehealth visit as compared to in person.

It is also important that telehealth be part of broader health system and act as a bridge to care, including routine preventative care. There is a benefit for people to be seen quickly via telehealth, but if that person then needs in-person care and there is no resource or connection in place, then proper care will not have been provided. In light of these dynamics, there are ongoing considerations for whether periodic in-person visits must be required for telehealth service providers.¹⁴⁶

Fraud

There have been abuses of telehealth. A Special Fraud Alert was issued by the Department of Health and Human Services – Office of Inspector General in 2022 to practitioners when entering into contracts with “Purported Telemedicine Companies.”¹⁴⁷ The alert explains that “in recent years, OIG and the Department of Justice (DOJ) have investigated numerous criminal, civil, and administrative fraud cases involving kickbacks from Telemedicine Companies to Practitioners who inappropriately ordered or prescribed items or services reimbursable by Federal health care

¹⁴² [household-pulse-survey-telehealth-covid-ib.pdf \(hhs.gov\)](#)

¹⁴³ [Closing the COVID-Induced Cancer Screening Gap - NCI](#)

¹⁴⁴ [Virtual Health Care Has Limited Benefits, Study Finds - UT News \(utexas.edu\)](#)

¹⁴⁵ [How Telehealth is Changing Health Care \(verywellhealth.com\)](#)

¹⁴⁶ [Will the Doctor See You Now? The Health System's Changing Landscape | KFF Health News: Prescribing controlled substances via telehealth | Telehealth.HHS.gov](#)

¹⁴⁷ [Special Fraud Alert--Telefraud \(hhs.gov\)](#)

programs in exchange for remuneration.” DOJ has targeted nationwide “telemedicine and illegal prescription schemes totaling \$2.5 billion in alleged fraud.”¹⁴⁸ As more telehealth service operations come online, regulatory oversight will need to be a consideration, so abuses do not occur.

Conclusion

Telehealth is already a well-established part of Washington’s health ecosystem and will grow with advances in health-related technologies.

Policy Recommendations

Enhancing internal and external DOH coordination telehealth.

- DOH should convene a telehealth workgroup, possibly including telehealth providers and community partners, to better identify and address telehealth-related issues across the agency.
- DOH should identify DOH staff(s) to represent our agency with strategic partners, track the rapidly evolving policy landscape, and help lead internal coordination.
- DOH should utilize regulatory tools, including training, to assist health care providers in maintaining quality care via telehealth.

Interoperability of systems.

- DOH should prioritize resources to support digital health systems and a workforce capable of successfully utilizing advanced technologies to support creation of bidirectional interoperable data systems.

Map out funding.

- DOH must identify additional funding opportunities, especially in interoperability of systems funds. One source of funding is the HRSA Office of the Advancement of Telehealth funding for telehealth in Washington.

Plans for enacting and/or scaling up digital health.

Use telehealth to connect with and serve vulnerable and underserved populations.

- DOH should consider partner/pilot programs with colleagues like academic institutions and health care partners to support development of telehealth applications.
- DOH should utilize regulatory tools, including training, to assist health care providers in maintaining quality care via telehealth.

Build in data collection and evaluation for telehealth programs.

- DOH should continue efforts to understand how telehealth is impacting people and evaluating its uses should be paramount as technology becomes more and more intertwined with public health.

¹⁴⁸ <https://www.cnn.com/2023/06/28/politics/doj-health-care-fraud-scheme/index.html>

- DOH could contribute to the research base in various ways and the CDC published focus areas that need additional public health research¹⁴⁹ in Table 3.

Additional Questions for Consideration

In addition to policy recommendations, DOH and other public health partners will need to wrestle with tricky questions.

- Should DOH and public health partners be delivering health services via telehealth? If so, should they have a more-narrow focus, such as being used as a relief valve during periods of emergency or as a pilot-projects to evaluate effectiveness?
- How can telehealth improve population level health? Should there be less focus on disease-specific interventions and more on holistic approaches and those that address social determinants of health?
- What steps can and should be taken to prevent inequities that could emerge via the use of telehealth services? How should scarce resources be prioritized?
- How can promising telehealth practices from other parts of the United States and internationally be brought to Washington state?

By considering challenging questions now, DOH alongside partners in Washington and nationally will be better prepared to utilize telehealth for public health purposes. As machine learning, artificial intelligence, and novel uses of digital technology get incorporated into the health ecosystem, public health authorities must be ready. This report serves as a clarion call for public health to prioritize resources and quickly expand telehealth capacity to continue serving as a leader in the health ecosystem. Telehealth and digital health are vital to public health's future.

¹⁴⁹ Neri, Antonio J., et al. "Practice Full Report: Telehealth and Public Health Practice in the United States—Before, During, and After the COVID-19 Pandemic." *Journal of Public Health Management and Practice* 28.6 (2022): 650. [Practice Full Report: Telehealth and Public Health Practice in the United States—Before, During, and After the COVID-19 Pandemic - PMC \(nih.gov\)](#)

Appendices

Appendix 1. Additional Telehealth Definitions

WA DOH 246-335-510 - Definitions—Home health: ““Telehealth” means a collection of means or methods for enhancing health care, public health, and health education delivery and support using telecommunications technology. Telehealth encompasses a broad variety of technologies and tactics to deliver virtual medical, health, and education services.”¹⁵⁰

WA DSHS – Telehealth Implementation Guidebook: “The U.S. Department of Health and Human Services Health Resources and Services Administration defines telehealth as “the use of electronic information and telecommunication technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration.” There are in fact many terms used to describe health-related services delivered via telecommunications technology. The term that is used may have to do with the specific type of service provided (e.g., telepharmacy, teledermatology, telerehabilitation) and/or the name adopted by the profession (e.g., telepsychiatry, telepsychology, teledentistry). Examples of other related terms are eHealth and health informatics. For the purposes of this guidebook, the term “telehealth” is used instead of alternative terms such as “telemedicine” because the term better represents diverse health related services including behavioral health, substance use treatment, counseling, medicine, and more.”¹⁵¹

Washington State Telehealth Collaborative - FAQ: What is telehealth: “Telehealth is the delivery of health care services and health care related information using equipment that can allow for communication between patients and health care providers and even health care providers exchanging information to provide better access to health care services. This work is done using technology like internet, satellite, iPhones, or smart phones. The use of telehealth services can take place in many situations, including hospitals, clinics, homes and nursing facilities, just to name a few.”¹⁵²

Revised Code of Washington – 48.43.735, 70.41.020, 74.09.325: Telemedicine - “means the delivery of health care services through the use of interactive audio and video technology, permitting real-time communication between the patient at the originating site and the provider, for the purpose of diagnosis, consultation, or treatment. For purposes of this section only, “telemedicine” includes audio-only telemedicine, but does not include facsimile or email.”^{153,154}

Audio-only telemedicine: “means the delivery of health care services through the use of audio-only technology, permitting real-time communication between the patient at the originating site and the provider, for the purpose of diagnosis, consultation, or treatment.

¹⁵⁰ [WAC 246-335-510: Definitions – Home health. \(wa.gov\)](#)

¹⁵¹ [BHA - Telehealth Implementation Guidebook \(wa.gov\)](#)

¹⁵² [Telemedicine-Frequently-Asked-Questions-for-Patients-Dec-2018.pdf \(wsha.org\)](#)

¹⁵³ [RCW 48.43.735: Reimbursement of health care services provided through telemedicine or store and forward technology—Audio-only telemedicine. \(wa.gov\)](#)

¹⁵⁴ [RCW 74.09.325: Reimbursement of a health care service provided through telemedicine or store and forward technology—Audio-only telemedicine. \(wa.gov\)](#)

(b) "Audio-only telemedicine" does not include:

(i) The use of facsimile or email; or

(ii) The delivery of health care services that are customarily delivered by audio-only technology and customarily not billed as separate services by the provider, such as the sharing of laboratory results.”¹⁵⁵

Revised Code of Washington – 18.59.180 (Occupational Therapy Licensure Compact): Telehealth: “means the application of telecommunication technology to deliver occupational therapy services for assessment, intervention, and/or consultation.”¹⁵⁶

Congressional Research Service: Telehealth generally refers to a health care provider’s use of information and communication technology (ICT) in the delivery of clinical and nonclinical health care services. The U.S. Code contains one definition for telehealth at Chapter 6A of Title 42. There are also definitions for telehealth technologies, telemedicine and practice of telemedicine.¹⁵⁷

Uniform Telehealth Act (2022) – National Conference of Commissioners on Uniform State Laws: Telehealth - “means use of synchronous or asynchronous telecommunication technology by a practitioner to provide health care to a patient at a different physical location than the practitioner.”¹⁵⁸

¹⁵⁵ [RCW 70.41.020: Definitions. \(wa.gov\)](#)

¹⁵⁶ [RCW 18.59.180: Occupational therapy licensure compact. \(wa.gov\)](#)

¹⁵⁷ [Telehealth and Telemedicine: Frequently Asked Questions \(congress.gov\).](#)

¹⁵⁸ [Telehealth Act - Uniform Law Commission \(uniformlaws.org\)](#)

Appendix 2. List of Report Interviewees

With a team of DOH staff, 37 interviews were conducted with over 50 experts both internal to the agency and external to the agency (Table 4). The following questions were the focus of interviews and the literature review:

- Given the challenges of the digital divide?
- How can public health reduce inequities (or how are we increasing them) as the health ecosystem goes through this digital transformation?
- What impact is telemedicine having on people’s access to health care and our health workforce?
- How can public health departments use telehealth and other digital technology to improve the health of underserved populations?

Table 4. List of Interviewees by Date and by Organization and Title.

Interviewee(s)	Organization	Title(s)	Date of Interview
Dr. Bob Lutz, Matthew Hadorn, Matthew Zimmerman, Emalie Hurliaux	Washington Department of Health, Executive Office of Health and Science, Division of Disease Control and Health Statistics	Regional Medical Officer; Testing Unit Manager; Readiness and Response Support Section Manager; Integrated Infectious Disease, Hepatitis C, and Drug User Health Programs Manager	4/28/2023
Micah Matthews	Washington Medical Commission	Deputy Executive and Legislative Director	5/1/2023
Katie Eilers	Washington Department of Health, Division of Prevention and Community Health	Director – Family and Community Health Improvement	5/3/2023
Jon Wing	Wisconsin Department of Health Services	Contractor, Project Management Office	5/8/2023
Emily Estus, Michelle Hausman, Tamara Corpin	California Department of Public Health	Deputy State Lead – COVID-19 Therapeutics Task Force; Project Manager – Test to Treat Telehealth Program; CDPH Therapeutics	5/9/2023
Dr. Tao Kwan-Gett	Washington Department of Health, Executive Office of Health and Science	Chief Science Officer	5/18/2023
Emalie Hurliaux, Zandt Bryan	Washington Department of	Integrated Infectious Disease, Hepatitis C, and Drug User Health	5/24/2023

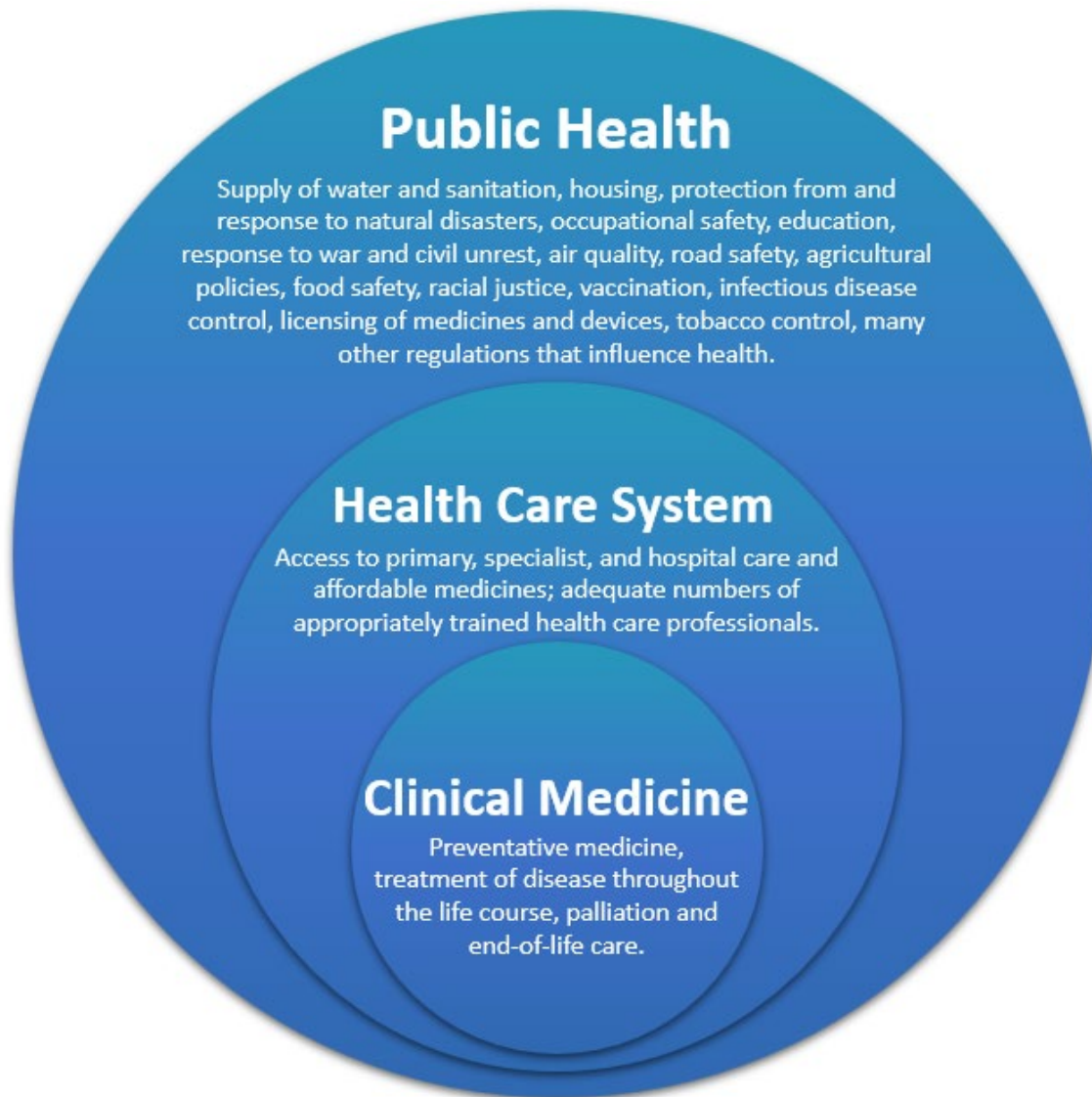
	Health, Division of Disease Control and Health Statistics	Programs Manager; Sexual Health and Prevention Manager	
Patricia Justis	Washington Department of Health, Division of Health Systems Quality Assurance	Executive Director of Rural Health/Office of Community Health Systems	5/26/2023
Paul Throne	Washington Department of Health, Division of Prevention and Community Health	Director Office of Nutrition Services	5/26/2023
Dr. Leo Morales	University of Washington, School of Medicine and Center for Health	Professor and Assistant Dean for Healthcare Equity and Quality in the University of Washington School of Medicine and co-director of the Latino Center for Health at the University of Washington	6/5/2023
Astrid Newell	Washington Department of Health, Division of Prevention and Community Health	Thriving Children and Youth Section Manager	6/5/2023
Candice Wilson	Washington Department of Health, Executive Office for Policy Planning and Evaluation	Tribal Policy Director	6/7/2023
Patrick Hastings, Marshall Bishop	Bird's Eye Medical	Chief Executive Officer; Chief Operations Officer	6/7/2023
Martha Skiles	Washington Department of Health, Division of Prevention and Community Health	Senior Epidemiologist – Family and Community Health Improvement	6/7/2023
Kyle Unland	Washington Department of Health, Division of Prevention and Community Health	Community-Based Prevention Section Manager	6/9/2023
Dr. John Scott	University of Washington	Chief Digital Health Officer	6/9/2023

Lonnie Peterson	Washington Department of Health, Division of Prevention and Community Health	988 Crisis System Section Manager	6/15/2023
Alicia Bissonette	U.S. Representative Kim Schrier's Office	Legislative Assistant	6/16/2023
Jodi Kunkel, Dr. Christopher Chen	Washington Health Care Authority	Telehealth Program Manager, Medical Director	6/21/2023
Carl Filler, Matteo Lieb	DC Department of Health	Director of Office of Government Relations, Legislative Affairs Specialist	6/22/2023
Chelene Whiteaker, Jacqueline Barton True	Washington State Hospital Association	Senior Vice President Government Affairs, Vice President Advocacy and Rural Health	6/23/2023
Kris Holiday, Laura Blaske	Washington Department of Health, Office of Strategic Partnerships	Chief of Strategic Partnerships, Senior Director – Strategic Engagement and Planning	6/27/2023
Caroline Brazeel, Ashley Cram, Chikamso Chukwu, Anna Bartels	Association of State and Territorial Health Officials (ASTHO)		6/28/2023 and 8/8/2023
Lorrin Kim	Hawaii Department of Health	Chief Policy Officer and Legislative Coordinator	6/28/2023
Cassie Lentz, Craig Dublanko	Grays Harbor Public Health, Coastal Community Action Program (CCAP)	Social Services Manager, Chief Executive Officer	7/3/2023
Dr. Mark Lo and staff	Seattle Children's Hospital	Medical Director Telehealth and Digital Health, sits on WA state Telehealth Collaborative	7/12/2023
Dr A Jay Holmgren	University of California, San Francisco	Assistant Professor of Medicine	7/12/2023
Dr. Frances Gough	Molina Healthcare of Washington	Chief Medical Officer, sits on the WA state Telehealth Collaborative	7/12/2023
Les Becker	Washington Department of Health, Executive Office of	Chief of Innovation and Technology	7/12/2023

	Information and Technology		
Nicki Perisho, Jaleen Johnson	Northwest Regional Telehealth Resource Center (NRTRC)	Program Director, Program Manager	7/20/2023
Joel Schwartzkopf, Amie Smith, Sunday Henry	Washington State University, Cougar Health Services	Assistant Vice Chancellor for Student Health, Psychologist, Director of Medical Services	7/24/2023
April Golson, Rae Street, Theresa Skinner	Alabama Department of Public Health	Staff in the Office of Telehealth	7/24/2023
Lana Dov, Dr. Jay Miller	Washington Department of Health, TB Project Extension for Community Health Outcomes (ECHO)	Nursing Consultant, Region 3 Medical Director	7/24/2023
Dr. Nayak Gautam, Dr. Sanjay Khicha	Coltrain and Cognition Medicine	Cardiologist and Chief Executive Officer of Coltrain, Cognition Medicine in Wenatchee Washington	7/25/2023
Dr. Antonio Neri	U.S. Centers for Disease Control and Prevention	Co-director of CDC Telehealth Workgroup	7/26/2023
Dr. Samuel Schneider	Washington State University	Medical Director for Range Clinic	7/26/2023
Dr. Bradford Felker	Department of Veterans Affairs and University of Washington School of Medicine	Professor and Medical Doctor	8/17/2023

Appendix 3. Relationship between Public Health & Clinical Medicine

Figure 8. The Relationship between Public Health and Clinical Medicine.¹⁵⁹



¹⁵⁹ Figure recreated from: Hunter, D. J. (2021). The complementarity of public health and medicine-achieving “the highest attainable standard of health”. *N Engl J Med*, 385(6), 481-4. [The Complementarity of Public Health and Medicine — Achieving “the Highest Attainable Standard of Health” | NEJM](#)

Table 5. Differences in Emphasis between Public Health and Clinical Medicine.^{160, 161, 162}

Variables	Clinical Medicine	Public Health
Unit of measurement and primary focus	Individual patient	Entire Populations (State)
Disciplines	Medicine, nursing, and allied health; primary care and specialties	Epidemiology, economics, behavioral sciences, environmental health, microbiology, etc.
Training	School of medicine, nursing, pharmacy, allied health	Schools of public health, government, business, etc.
Team Approach	Interprofessional	Multidisciplinary
Intervention	Medical Treatment	Assess, Policy Development and Assurance
Intervenes on	Established or incipient disease	Upstream risk factors
Best practices defined by	Evidence-based algorithms and clinical acumen	Scientific evidence encoded in regulations and guidelines
Financed by	Governments, insurance, out-of-pocket	Governments; nonprofit and charity organizations
Orientation	Preventative, disease management, or both	Preventative
Outcomes	Healing: Successful disease management	Healthy Community: Reductions in exposures, disease incidence, or mortality

¹⁶⁰ Table recreated from: Hunter, D. J. (2021). The complementarity of public health and medicine-achieving “the highest attainable standard of health”. *N Engl J Med*, 385(6), 481-4. [The Complementarity of Public Health and Medicine — Achieving “the Highest Attainable Standard of Health” | NEJM](#)

¹⁶¹ Table recreated from: University of Pittsburgh, School of Public Health. [Grad PPT V1 \(002\).pptx \(pitt.edu\)](#)

¹⁶² Table recreated from: Southwest Center for Advanced Public Health Practice Centers. 2009. [Public Health 101 - ppt video](#)