DHCS Telehealth: Research and Evaluation Plan

December 19, 2022

Table of Contents

I. Executive Summary

In response to the onset of the COVID-19 pandemic in 2020, the Department of Health Care Services (DHCS) implemented a number of additional telehealth flexibilities to meet the needs of Medi-Cal enrollees and ensure they could continue to receive necessary care. Although a post-COVID-19 baseline utilization of telehealth is as-yet unknown, DHCS expects telehealth utilization will remain elevated relative to pre-pandemic levels. However, current data limitations inhibit DHCS' ability to understand the full impact of telehealth on the Medi-Cal program and use more granular telehealth data to guide its telehealth policy development process.

DHCS aims to better understand the use of telehealth across Medi-Cal populations so that the Department can continue to implement and refine telehealth policies and guidance that best serve the needs of Medi-Cal enrollees. To that aim, the Department created this Research and Evaluation Plan that not only describes DHCS' current state of telehealth data collection processes and capabilities, but also outlines opportunities to support more comprehensive data collection and analyses in the future.

This Research and Evaluation Plan will serve as a path for DHCS to assess the impact of telehealth on utilization, access, quality, outcomes, equity, and provider and enrollee experience, which could inform future telehealth policy development.

This Research and Evaluation Plan has three key objectives:

1. Provide a detailed assessment of DHCS' current data and reporting capabilities to understand feasibility and timing of future research and evaluation options (Section III);
2. Present telehealth research and evaluation questions that have been proposed by DHCS and through workgroup discussions across key domains (Section IV).
3. Propose near-term, and longer-term research and evaluation questions that aim to evaluate the impact of telehealth on Medi-Cal enrollees (Section V).

Appendix A presents the implementation approach for this plan.

II. Background

Telehealth and Medi-Cal

Medi-Cal's telehealth coverage began in 1996 with the passage of the California Telemedicine Advancement Act (SB 1665), which established telemedicine payment and provision of care requirements. The subsequent passage of the Telehealth Advancement

Act (AB 415) in 2011 laid the foundation for Medi-Cal to expand coverage of telehealth significantly, eliminating the ban on email and telephone-delivered services, permitting patients to consent verbally to telehealth, and enabling all California-licensed and Medi-Cal enrolled providers to practice via telehealth. Prior to the COVID-19 pandemic, many behavioral health services covered by Medi-Cal were available through telehealth.[1,2]

In response to the onset of the COVID-19 pandemic in 2020, the Department of Health Care Services (DHCS) implemented a number of additional flexibilities in order to meet the needs of Medi-Cal enrollees and ensure they could continue to receive necessary care. These included:

» Expanding the ability for providers to render all applicable Medi-Cal services that can be appropriately provided via telehealth modalities, including those historically not identified or regularly provided via telehealth such as home and community-based services, Local Education Agency (LEA) and Targeted Case Management (TCM) services;

» Allowing services to be provided via telehealth for new and established patients;

» Allowing many covered services to be provided via telephone/audio-only for the first time;

» Allowing payment parity between services provided in-person, by synchronous telehealth, and by telephonic/audio only when the services met the requirements of the billing code by various provider types, including Federally Qualified Health Centers (FQHCs)/Rural Health Centers (RHCs), Tribal FQHCs and Indian Health Services Memorandum of Agreement (IHS-MOA) providers in both fee-for-service (FFS) and managed care[3];

» Waiving site limitations for both providers and patients for FQHC/RHCs, Tribal FQHCs and IHS-MOS providers which allowed providers and/or patients to be in locations outside of the clinic to render and/or receive care, respectively; and,

---

[1] [California Department of Health Care Services, TN No 12-025, Approved 12/18/2012](#).
[2] Centers for Medicare and Medicaid Services, Approval Letter and [Special Terms and Conditions for CalAIM Section 1115 Demonstration and DMC-ODS, 12/29/2020.](#)
[3] In subsequent sections, Tribal FQHCs and Indian Health Services Memorandum of Agreement (IHS-MOA) providers are collectively referred to as Tribal Health Providers (THP).

» Allowing for expanded access to telehealth through non-public technology platforms.

Medi-Cal claims data illustrate the rapid increase in telehealth utilization in response to the pandemic. As shown in the figure below, in February 2020, prior to the onset of the COVID-19 pandemic, telehealth represented around 300 claims per 100,000 Medi-Cal member months.[4] By April 2020, telehealth claims increased significantly to over 12,000 claims per 100,000 member months and remained relatively stable through March 2021. Following March 2021, telehealth claims per 100,000 member months remained significantly higher than pre-COVID-19 pandemic levels but declined through December 2021 to around 7,700 claims per 100,000 member months.[5]

---

[4] To create this graph, medical outpatient claims and encounters were pulled from the DHCS Management Information System/Decision Support System (MIS/DSS) Data Warehouse. Measures reported for both Fee-For-Service and Managed Care populations. Telehealth data related to dental and Short Doyle/specialty mental health services were not included. Telehealth inclusion criteria were based on four indicators: 1) Place of Service Code '02' – telehealth; 2) Modifier Code '95' - synchronous telemedicine service rendered via a real-time interactive audio and video telecommunications system (meaning a beneficiary had a live interactive audio and video service with a provider); 3) Modifier Code 'GQ' - via asynchronous telecommunications system (meaning the service was pre-recorded or done through text communication); or 4) Modifier Code 'GT' - via interactive audio and video telecommunication systems (meaning the service was on an interactive audio and video telecommunication system).

[5] Telehealth claims can be submitted for up to a year after date of service; therefore, telehealth claim volumes from 2021 may be underrepresented in this report. DHCS expects claims volume from 2021 to grow as additional claims are submitted over time.

Telehealth Claims per 100,000 Member Months, January 2019 – December 2021
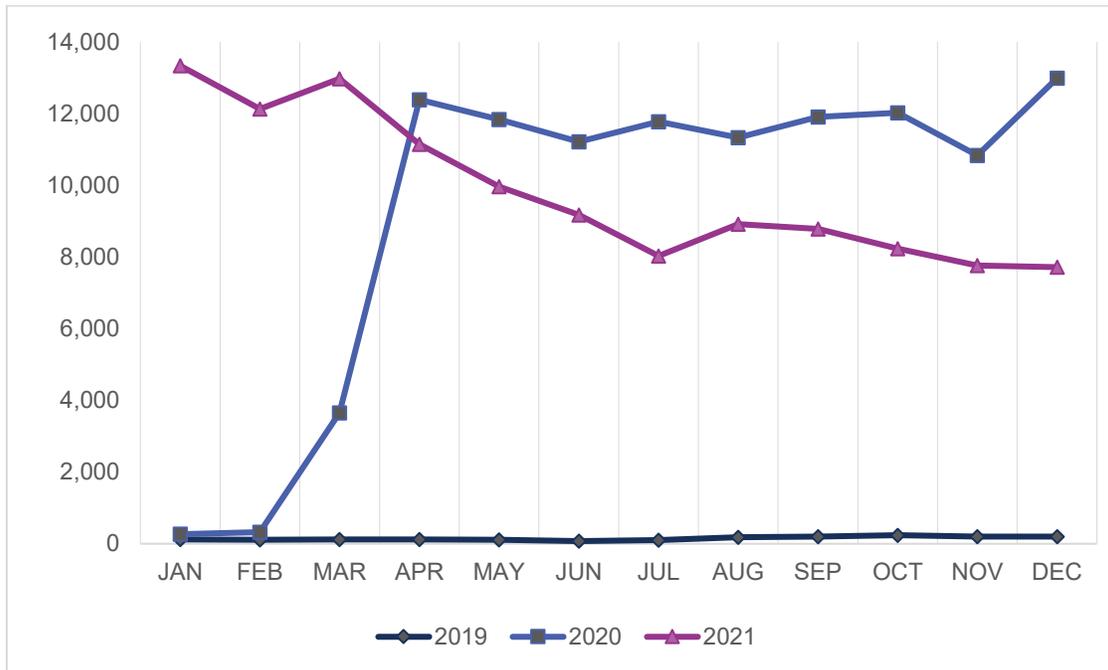
A post-COVID-19 baseline utilization of telehealth appears to be settling at around 7,000 claims per 100,000 member months, remaining elevated relative to pre-pandemic levels. However, current data limitations inhibit DHCS' ability to understand the impact of telehealth on the Medi-Cal program and use more granular telehealth data to guide its telehealth policy development process (e.g. lack of an audio-only modifier in claims). This Research and Evaluation Plan outlines a path that DHCS will pursue to support more comprehensive data collection and analyses that would enable DHCS to answer questions related to telehealth utilization, access, quality, outcomes, equity, and provider and enrollee experience, with the goal of using these analyses to inform future telehealth policy development.

Telehealth Advisory Workgroup

Pursuant to Assembly Bill 133 (AB 133), Chapter 143, Statutes of 2021, for the purposes of informing the 2022 – 2023 Governor's Budget, DHCS was directed to convene a Telehealth Advisory Workgroup.[6] AB 133 directed the Telehealth Advisory Workgroup to consist of subject matter experts and key stakeholders to advise DHCS in establishing and adopting billing and utilization management protocols for telehealth to increase

---

[6] California Assembly Bill No. 133, Committee on Budget, Chapter 143, Statutes of 2021.

access and equity and reduce disparities in the Medi-Cal program. From September to October 2021, the Workgroup met three times to advise DHCS on proposed telehealth policy options, review telehealth utilization data and insights, and discuss future telehealth research and evaluation objectives. DHCS subsequently produced a report that summarized Workgroup proceedings, findings from interviews and surveys conducted with Workgroup members, and discussed the proposed direction of DHCS' Telehealth Research and Evaluation Plan.[7] Workgroup discussion and feedback informed DHCS' updated telehealth policies and the development of this Plan.[8]

Research and Evaluation Plan Objectives

The Research and Evaluation Plan has three key objectives:

1. Provide a detailed assessment of DHCS' current data and reporting capabilities, as described in Section III, to understand feasibility and timing of future research and evaluation options.
2. Present telehealth research and evaluation questions that have been proposed by DHCS and through workgroup discussions across key domains, as described in Section IV.
3. Describe near-term and longer-term research and evaluation activities that aim to answer key questions about the impact of telehealth on Medi-Cal enrollees, as described in Section V.

III.   Current State of Medi-Cal Telehealth Data and Reporting Capabilities

DHCS conducted an internal assessment of its current telehealth data, reporting and analytics capabilities to better understand the capabilities that form the foundation of the Research and Evaluation Plan, and inform the types of research and evaluation objectives DHCS desires to achieve in the near- versus long-term. This section presents various findings from this assessment, including a description of DHCS' existing internal

---

[7] To review workgroup deliberations, the Telehealth Advisory Workgroup Report, and the February 2022 Telehealth Policy Proposal, please visit the DHCS Telehealth Advisory Workgroup webpage.

[8] The final DHCS Medi-Cal Telehealth Policy Paper reflecting policies adopted in the 2022 Budget Act and Legislative Session will be available on the DHCS Telehealth Advisory Workgroup webpage.

telehealth dashboard, current data limitations, telehealth analyses that are currently underway, and future telehealth data-related opportunities. This plan was also informed by a literature review to identify frameworks, methods and measures used by states and researchers to answer telehealth questions.

Existing Telehealth Dashboard

To date, DHCS' telehealth data have been housed within an internal dashboard that includes Fee-for-Service (FFS) and managed care paid claims data from the DHCS Medi-Cal Data Warehouse. These paid claims are for outpatient medical and non-specialty mental health services and do not currently include dental, specialty mental health or substance use disorder services; however, DHCS will incorporate these data in the future. DHCS has used this dashboard to conduct analyses of outpatient claims over time, starting before the pandemic, and also to produce point-in-time measures. These analyses have also examined utilization of services by modality of care: telehealth (although not distinguishing between video and audio-only visits) along with in-person office visits. Outpatient claims may be submitted up to one year after date of service, which often results in a reporting lag of many months. These analyses have been reported publicly through presentations to the DHCS Stakeholder Advisory Committee and the DHCS Telehealth Advisory Workgroup, and in COVID-19 Impact Reports; see Appendix B for measures that have been used to report on telehealth utilization.

Current Telehealth Data Limitations and Actions for Resolution

Audio-Only Modifier

Prior to the COVID-19 pandemic, there were no commonly accepted modifiers for claims and encounters to delineate between video and audio-only synchronous interactions. This has prevented DHCS from stratifying telehealth utilization data by video and audio-only modalities. In late 2021 the American Medical Association Current Procedural Terminology Editorial Panel approved a new audio-only modifier (93), which went into effect nationally on January 1, 2022.[9] In addition, the Centers for Medicare and Medicaid Services (CMS) recently finalized in the CY22 CMS Final Physician Fee Schedule[10], which requires providers to use the new modifier when furnishing services via audio-only communications.

---

[9] CPT Appendix A audio only Modifier 93 for reporting medical services.
[10] FY22 CMS Final Medicare Physician Fee Schedule.

DHCS updated its telehealth provider manual guidance in August 2019 followed by changes to the FFS billing system (CA-MMIS) in September 2019 to accommodate new telehealth billing modifiers. DHCS also issued telehealth guidance in the managed care All Plan Letter (APL) 19-009 in October 2019 directing plans to adhere to the billing requirements in the provider manuals.[11] In July 2022, DHCS updated the telehealth provider manual to include guidance related to audio-only services with an effective date of January 1, 2022.[12]

While DHCS worked to standardize coding guidance for billing telehealth services at the start of the Public Health Emergency (PHE), stakeholder feedback indicated that the policy and billing guidance was not well understood nor consistently implemented by managed care plans (MCP) and FQHC/RHC and Tribal Health Provider (THP) clinics. The use of the telehealth billing modifiers by FQHC/RHC and THP clinics will be discussed in the next section.

In specialty behavioral health (including county-administered specialty mental health, Drug Medi-Cal Organized Delivery System, and Drug Medi-Cal), modifiers for telehealth visits and audio-only visits were implemented effective November 1, 2021 (with extensions given to January 1, 2022, if needed due to the PHE). Due to provider reporting uptake and the resulting claims lag, it will take time for meaningful data to be available for analysis.

Once this modifier is fully implemented and data is available from specialty behavioral health claims, DHCS can monitor variation in telehealth data reporting across providers to assess for data quality and compliance, which could include reporting back to data submitters. This assessment of telehealth visits and audio-only modifiers would inform provider manual updates and education for providers about the forthcoming audio-only modifier for all other providers.

Federally-Qualified Health Centers (FQHCs), Rural Health Clinics (RHCs), and Tribal Health Providers (THPs)

There is no existing telehealth billing methodology utilized by FQHCs, RHCs, and THPs. This lack of billing methodology and guidance on telehealth coding for FQHC/RHCs and THPs poses a challenge for collecting and analyzing telehealth utilization in clinics. In

---

[11] APL 19-009 October 12, 2019. Revised March 2022.
[12] Telehealth modifier guidance is reflected in the DHCS Telehealth Provider Manual: Medicine Telehealth.

addition, MCPs have historically provided inconsistent billing guidance to FQHCs/RHCs, which further complicates the issue.

These problems can be mitigated by establishing telehealth billing modifiers and standardizing billing policy guidance via an APL for MCP encounter submissions for telehealth services delivered by FQHC/RHC and THP providers. DHCS will seek stakeholder feedback and an APL will be released to allow MCPs time to implement system changes.

In addition to updated guidance to MCPs, DHCS will implement changes to FQHC/RHC and THP provider manuals and to the CA-MMIS claims system by July 2023 to activate telehealth modifiers for FQHC/RHC and THP clinics. Changes to the Post Adjudicated Claims & Encounters System (PACES) may also be required to accept the new modifiers in MCP encounter data. It will take 9 to 12 months from the completion of CA-MMIS, PACES and MCP system changes to receive correctly coded claims and encounter data for telehealth analysis and reporting. In addition, DHCS will consider:

» Coordinating the policy on MCP encounter reporting with the wrap payments to ensure that all telehealth services are consistently represented in both data sources (i.e., telehealth modifiers should be submitted via MCP encounters and the wrap payment and this needs to be consistent across all MCPs and FQHCs/RHCs).

» Assessing the variation in reporting across MCPs and FQHC/RHC and THPs before reporting on specific utilization to assess data for data quality and compliance, which could include reporting back to data submitters.

Telehealth Analyses Underway

In addition to the internal telehealth dashboard, DHCS is in the midst of two data analytic efforts that aim to: 1) begin to address aspects of the research questions included in Section IV; and 2) offer a foundation upon which to build and develop further telehealth monitoring or evaluation efforts. These efforts are described in more detail below.

RAND Corporation - Telehealth Use Among California's Large Public Purchasers During COVID-19

With funding from the California Health Care Foundation, the RAND Corporation (RAND) has analyzed the use of telehealth during COVID-19 by enrollees of two major California public purchasers – DHCS and CalPERS. The study examines utilization differences across the two payers and their providers and the populations served. The

analysis also examines telehealth utilization rates by managed care plan types, patient demographics and geography (urban versus rural) and internet access. In addition to service-level utilization, RAND will explore the effect of telehealth on selected clinical quality measures. RAND is expected to complete several peer-reviewed papers with study results in early 2023.

DHCS will assess the extent to which these RAND analyses can be used to understand how the findings complement DHCS' own analyses on telehealth utilization during the pandemic, and to understand and build upon the methodological approaches RAND used to answer telehealth research questions, many of which are the same or related to those in this plan.

Broadband Geographic Information System (GIS) Analysis
To support state grant-making to improve broadband availability, DHCS has overlaid broadband connectivity GIS data with telehealth utilization data and developed geographic maps that identify variations in telehealth utilization associated with broadband connectivity. Initial efforts produced a colored-coded map with the level of telehealth utilization and broadband connectivity by county for the time period January 2019 through September 2021. Early findings show significant variation in telehealth utilization by county based on level of broadband availability. Across all years, Medi-Cal beneficiaries in counties with greater access to broadband connectivity utilized more telehealth services compared to those in counties with less access to broadband. DHCS will continue to follow research developments related to the availability of broadband and its effect on telehealth access, and will provide data to governmental, academic, and other entities where appropriate to support related research and analysis.

Opportunities for Telehealth Data Collection, Reporting and Analysis

The following are specific initiatives that could serve as potential future opportunities for DHCS' telehealth data collection, reporting and analysis.

Data Collection

California Health Interview Survey (CHIS)
CHIS, conducted by the University of California, Los Angeles Center for Health Policy Research, is a web and telephone sample survey of 22,000 households fielded on a continuous basis and covers a wide range of health topics. Survey results are released annually. DHCS partners with CHIS to include additional questions of Medi-Cal interest for the annual survey, including several regarding the use of telehealth. The 2021

[survey questionnaire](#) includes questions about adult respondent telehealth use in the past 12 months, for what type of care, and experience with video and phone visits compared to an in-person visit. Starting in 2023, the survey will include additional telehealth-related questions that will further elucidate consumer use and experience of telehealth. These new data will be available in 2024.

Consumer Assessment of Healthcare Providers and Systems (CAHPS)

Medi-Cal MCPs are required to administer and submit results based on CAHPS Adult and Child Medicaid Health Plan Surveys. This survey is a tool for collecting standardized information on enrollees' experiences with health plans, providers and their services. DHCS is increasing the frequency of survey deployment from every three years to annually starting in 2023. [Version 5.1](#) of the survey tool which has been fielded in the 2022 MCP survey, has questions about primary care and specialist service use and frequency and includes phone and video visits, along with in-person visits. However, the survey does not differentiate in-person from phone or video visits, so a patient's utilization or satisfaction with their health plan and provider cannot be associated with telehealth specifically.[13] Other approaches, such as targeted surveys and focus groups, may be necessary to understand enrollees' experiences of telehealth with specific managed care plans and provider types.

SUD Treatment Perception Survey

DHCS requires plans and providers participating in the Drug Medi-Cal Organized Delivery System to survey adult and youth clients using the Treatment Perception Survey for each provider in the network.[14] This survey is required by the Centers for Medicare and Medicaid Services. The External Quality Review contractor validates findings during annual plan reviews. The [20-question survey](#) assesses consumer perceptions on services received and includes one question on how much of their services were delivered via telehealth. The DMC-ODS annual evaluation reports in 2020 and 2021 have included analyses on telehealth utilization for substance use disorder treatment resulting from the COVID-19 pandemic.[15] DHCS can use the data from this

---

[13] The CAHPS survey questions ask about visits in any modality of care. For example, "In the last 6 months, how many times did you have an in-person, phone, or video visit with your personal doctor about your health?"

[14] [California Department of Health Care Services, Behavioral Health Information Notice No: 21-048, 8/12/2021.](#)

[15] [UCLA Integrated Substance Abuse Programs. California DMC-ODS Evaluation. Evaluation Reports and Presentations.](#)

survey to continue to understand enrollees' experiences with telehealth for DMC-ODS services, but at this time it is not possible to differentiate between audio and video modalities.

Mental Health Services Consumer Perception Survey

County Specialty Mental Health plans are required by the federal Substance Abuse and Mental Health Services Administration (SAMHSA) to collect Consumer Perception Survey data annually about mental health services received.[16] The survey results are reported on the federally determined National Outcome Measures (NOMs). The current version of the survey instrument does not include any questions on telehealth as a modality of care. Given the sustained prevalence of mental health visits using telehealth, DHCS will investigate the feasibility of including a telehealth question on future survey instruments. Federal approval from SAMHSA would be needed to append additional questions to the survey instrument, given that it is a national survey.

Medi-Cal Managed Care Plan Master Provider Files

Medi-Cal MCPs submit data on their provider networks to DHCS broken out by each county they operate in on a monthly basis. Currently, these data include an indicator of whether a provider offers telehealth. Reportable values are the following: "only telehealth services provided", "both telehealth and in-person service provider", and "no telehealth services provided." Given a lag in MCP reporting, however, this indicator has not been analyzed nor included in the data set published to the Open Data Portal. To further leverage the Master Provider File data set, DHCS may require MCPs to collect additional information from providers about their telehealth capacity, including modalities (audio-only, video) and an estimated percentage of their patient visits via telehealth. DHCS will work with MCPs to better understand their capabilities with collecting this level of data from their providers and will consider making corresponding internal system updates to enable data collection.

Data Analysis, Reporting and Transparency

DHCS will endeavor to examine, report on, and make data available to stakeholders on telehealth utilization through several avenues, including the bi-annual report described below.

---

[16] California Department of Health Care Services, Behavioral Health Information Notice No: 21-015, 4/16/2021.

Telehealth Utilization Report

DHCS plans to design and release a bi-annual report on telehealth utilization that will address many of the near-term research questions presented in Section V below. This utilization report will draw from measures in Appendix B, add others, and include narrative discussing the findings. The first report would be available in the Summer 2023 when the Telehealth Dashboard is launched. Given the modifier, claims and encounter data challenges discussed previously, this first report will not likely include telehealth utilization data across all provider types and both telehealth modalities.

Public-Facing Telehealth Dashboard

Through the Dashboard Initiative, DHCS makes program monitoring data and reports available for many programs, such as the Managed Care Performance Dashboard and the Integrated California Children's Services/Whole Child Model Dashboard. DHCS plans to create a public-facing Telehealth Dashboard on which to make available telehealth measures on a routine basis. The measures would be drawn from those DHCS has produced for various stakeholder advisory groups over the past two years (see Appendix B). DHCS is currently reviewing how to structure such a dashboard, evolving from a static dataset to a more interactive presentation. This dashboard could also stratify measures by relevant demographic characteristics. DHCS aims to make the dashboard available by Summer 2023. Given the modifier, claims and encounter data challenges discussed above, this initial dashboard functionality will not likely include telehealth utilization data across all provider types and telehealth modalities.

Open Data Portal

The California Health and Human Services Agency Open Data Portal initiative aims to increase public access to non-confidential health and human services data. There are some 100 Medi-Cal data sets on this site. As the telehealth data evolves and is refined, DHCS will post Medi-Cal telehealth utilization data for the public to analyze. DHCS anticipates posting the first data set in Summer 2023 to align with the Dashboard launch.

IV.   Proposed Research and Evaluation Questions

The following are telehealth research and evaluation questions, organized by domain, that have been identified through deliberations of the Telehealth Advisory Workgroup, as well as through DHCS' development of telehealth policies that formed the 2022-2023 DHCS policy paper and the telehealth provisions included in the 2022-2023 Budget Bill SB 184. These questions will inform DHCS' telehealth research and evaluation priorities. These questions are also offered to potential research partners and other third-party

entities as a potential framework for further analysis, as the answers to these questions could inform DHCS policy and future initiatives.[17]

Access and Utilization

» How does telehealth contribute to access to care for different populations, regions and types of services? Is the availability of telehealth changing patterns of utilization and improving access?

» What are the most common services delivered via telehealth? How has utilization of those services via telehealth changed over time?

» How is the volume of telehealth vs. in-person visits changing over time? Is telehealth replacing or supplementing in-person care?

» What is the baseline of telehealth utilization post-PHE?

» Compared to in-person visits, how does telehealth utilization vary across enrollee populations (race/ethnicity, primary language spoken, location (urban vs. rural), and age)?

Value: Quality, Outcomes and Cost

» Compared to in-person care, how does telehealth impact the following areas among target populations identified within the Comprehensive Quality Strategy:

  o Access to care?

  o Quality of care?

  o Disparities in outcomes?

  o Variation in care delivery?

» How does telehealth impact select preventive care HEDIS quality measures, such as:

  o Adults' access to preventive / ambulatory health services?

  o Hemoglobin A1c Control for patients with diabetes?

---

[17] The term "telehealth" is used to refer to the spectrum of telehealth modalities. When possible based on available data, the intent of these research questions is to stratify data findings by telehealth modality (e.g., synchronous video vs. audio-only).

- o Controlling high blood pressure?

- o Depression screening and full-up for adolescents and adults?

- o Postpartum depression screening and follow-up?

- o Follow-up after ED visit for mental health or substance use disorder?

» How does telehealth impact expenditures (e.g. total costs of care; by provider type; types of visit)?

Equity

» Compared to in-person visits, how does telehealth utilization vary across enrollee populations (race/ethnicity, primary language spoken, location (urban vs. rural), and age)?

Enrollee and Provider Experience

» What are Medi-Cal enrollees' experiences with using telehealth, particularly for limited English proficient/non-English speaking enrollees?

» What are provider experiences with using telehealth?

V. Near and Long-Term Research and Evaluation Approaches

This section outlines a phased approach that DHCS will take in adapting its data collection and reporting capabilities to answer research questions outlined in Section IV. This plan segments the proposed research questions into those that DHCS can address in the near-term versus the long-term. Questions were prioritized based on stakeholder input, DHCS' existing and planned data capabilities, resource needs, feasibility, and the timing required to collect and analyze requisite data. Near-term approaches are those that will be implemented in the next one to two years whereas long-term approaches will be implemented in the next three to five-plus years.

Near-Term: Collect Data, Analyze and Report Findings on Foundational Research Questions to Understand Baseline Telehealth Utilization and Access/Utilization Among Medi-Cal Enrollees (1-2 Years)

Rationale: DHCS recognizes that the most pressing need in the near term is to better understand the impact of all telehealth modalities on access and utilization of care among Medi-Cal enrollees. As described in Section III, DHCS is currently able to report on high-level telehealth utilization, but is unable to conduct more nuanced and detailed analyses that are necessary to understand baseline telehealth utilization and access among Medi-Cal enrollees (e.g., utilization by telehealth modality, service-specific utilization among different race/ethnicity groups, impact of access to telehealth on in-person utilization). In addition, these questions have also been prioritized in the near-term because they can all be answered using a uniform set of data measures that DHCS will be able to collect and report on after implementation of the new audio-only modifier and systems changes over the next one to two years.

Research Questions

1. **How does telehealth contribute to access to care for different populations, regions and types of services? Is the availability of telehealth changing patterns of utilization and improving access?**
2. **What are the most common services delivered via telehealth? How has utilization of those services via telehealth changed over time?**
3. **How is the volume of telehealth vs. in-person visits changing over time? Is telehealth replacing or supplementing in-person care?**
4. **What is the baseline of telehealth utilization post-PHE?**
5. **Compared to in-person visits, how does telehealth utilization vary across enrollee populations (race/ethnicity, primary language spoken, location (urban vs rural), and age)?**

Data Sources: All of the near-term research questions listed above can be answered using the claims and encounter data already aggregated in the DHCS telehealth dashboard, contingent upon the dependencies noted below. These data can be stratified by the following variables:

- » Telehealth modality (synchronous video vs. audio-only)
- » In-person modality
- » Demographics (age, race/ethnicity, primary language spoken, rural vs. urban, among others)
- » Delivery system - managed care or fee-for-service
- » Provider type (e.g., primary care, behavioral health, specialty care, among others)
- » CPT service codes

» Service type (physical vs. mental health)

Dependencies/Limitations: The ability to report on utilization of different telehealth modalities will depend upon the timing of guidance release, systems changes, provider adoption and consistent use of the new audio-only modifier, as previously noted. Additionally, some stakeholders expressed a desire for DHCS to report on telehealth utilization across a broader range of race/ethnicity categories and primary language spoken beyond those that are currently reported on. DHCS is limited in its ability to stratify data by more detailed demographic categories as more granular reporting may be limited by small cell sizes and DHCS data de-identification guidelines. For example, Medi-Cal Fast Facts (page 14) shows the breakdown of language information collected on enrollees that can be reported on.

Implementation Considerations: DHCS is well positioned to support data collection and reporting on these near-term telehealth utilization and access research questions. DHCS may choose to include datasets and analyses that address these research questions either within its current telehealth dashboard from which DHCS can then publish findings, or build into a future interactive public-facing telehealth dashboard. DHCS expects to be able to start collecting and reporting on these research questions between 2023 and 2024.

Long-Term: Use Data to Understand the Impact of Medi-Cal Telehealth Policy on Experience, Quality, Outcomes, and Cost (3-5 Years)

Rationale: In contrast to the more routine collection and reporting of telehealth utilization and access data described in the near-term approach above, there are numerous research questions that DHCS is interested in pursuing over the long-term to evaluate the impact of telehealth on provider and enrollee experience, quality of care, clinical outcomes among Medi-Cal enrollees, and cost.

For enrollee experiences with telehealth, research will address perceptions about using different modalities of telehealth (audio versus video), particularly for those who have limited English proficiency. Likewise, research will also address providers' perceptions of using different telehealth modalities and their impact on the quality of care. Finally, this research will address how telehealth use impacts access to and quality of care for specific populations identified in the Comprehensive Quality Strategy.

The ability to evaluate these impacts would help to inform the continued evolution of DHCS' telehealth policy. These long-term questions are different from the set of near-

term research questions in that they rely on different data sources, metrics, and data collection and analysis may require the support of external research partners or other entities.

Moreover, these questions will take longer to study and answer due to data availability and methodological issues; the timeframe for investigating these is over a longer period of three to five years. In light of the differences among these research questions, they are presented individually below.

Finally, DHCS anticipates that expectations for states to develop infrastructure and processes to enable data collection and reporting related to quality of care delivered via telehealth will increase, following the recently released report and recommendations from the U.S. Government Accountability Office on telehealth utilization and quality in Medicaid.[18]

Research Questions - Medi-Cal Enrollee Experience:

1. **What are Medi-Cal enrollees' experiences with using telehealth, particularly for limited English proficient/non-English speaking enrollees?**
2. **Do patients perceive reduced access to in-person care based on availability of telehealth?**
3. **What are the differences in quality and patient experience for audio-only visits compared to telehealth visits using video, and do they differ by types of service (e.g., medical, mental health).**

Data sources: A potential source of information to address this question could be the telehealth experience survey data collected through the CHIS. These data will be valuable to understand Medi-Cal respondents' use of, and experience with, both video and audio-only modalities. Telehealth questions have been asked on survey questionnaires since the 2015 survey, allowing for a retrospective view of telehealth utilization. The CHIS data also allow a comparison of telehealth utilization and satisfaction by coverage type (e.g. Medi-Cal, Medicare, employer-sponsored) and by county/region. In addition, CHIS demographic variables allow for assessing Medi-Cal respondents' utilization and satisfaction with telehealth based on an individual's level of English proficiency. Similarly, DHCS could also consider using respondent data from the Treatment Perception Survey for enrollees using DMC-ODS services. These survey data

---

[18] United States Government Accountability Office, Report to Congressional Committees: CMS Should Assess Effect of Increased Telehealth Use of Beneficiaries' Quality of Care, 3/2022. https://www.gao.gov/assets/gao-22-104700.pdf

could be used to investigate whether there is a relationship between satisfaction and telehealth utilization. Starting with the 2020 DMC-ODS Annual Evaluation Report, UCLA has included a special section on COVID-19 and SUD treatment.[19] This section includes the changes in telehealth as an offered service, providers' use of telehealth and preferred service modality, and member perceptions of services based on how much of their services were delivered via telehealth.

Dependencies/Limitations: The CHIS survey only began asking respondents to distinguish between their experiences with video and audio-only telehealth in 2021 so a retrospective assessment of earlier years is not possible. In addition, as a sample survey, analysis on small subpopulations (e.g. by race/ethnicity, small counties/regions, level of English proficiency) may result in unstable estimates making interpretation challenging. Also, as noted in the Data Collection section, the Consumer Perception Survey for those receiving mental health services does not currently ask respondents about telehealth use or experiences and would require federal approval to change the survey. Furthermore, the CAHPS survey does not differentiate in-person from phone or video visits, so a patient's utilization or satisfaction with their health plan and provider cannot be associated with telehealth.

Implementation Considerations: Currently, DHCS programs analyze CHIS data resulting from their respective questions and after the data has been released. Depending on the availability of resources for this purpose, DHCS will consider contracting with the UCLA Center for Health Policy Research or other researchers to conduct an independent evaluation using CHIS data to understand Medi-Cal respondents' use of and experiences with telehealth. External researchers could also compare Medi-Cal telehealth utilization and member experiences with Californians with other types of insurance coverage. This work by a partner could be a one-time report, likely by early 2025. DHCS will also consider using the analyses done by the DMC-ODS External Review Organization to understand and report on annual telehealth experience of enrollees using DMC-ODS services.

Research Questions - Provider Experience:
   4. **What are provider experiences with using telehealth?**

---

[19] UCLA Integrated Substance Abuse Programs. California DMC-ODS Evaluation. Evaluation Reports and Presentations.

5. **How does provider perception of quality and the provider experience of care differ when comparing in-person, synchronous video, and audio-only visits, and does this vary by specialty?**

Data sources: DHCS is not currently collecting survey data on Medi-Cal providers' experience using telehealth modalities. Managed care plans are not required to conduct provider satisfaction surveys of their networks, though some plans do survey providers.

Dependencies/Limitations: If such a survey was voluntary for plans to field without a required standardized tool, the results would likely be incomplete and inconsistent across plans.

Implementation considerations: DHCS could consider identifying a standardized provider satisfaction survey instrument[20] and recommend, or require, through an All Plan Letter, that plans field them on a regular basis. In addition, DHCS could consider partnering with plan or provider associations (e.g., Local Health Plans of California, California Association of Health Plans, California Medical Association, California Primary Care Association) to field a provider survey.

Research Question – Access, Quality, Outcomes:
6. **Compared to in-person care, how does telehealth impact access, quality and outcomes among target populations identified within the Comprehensive Quality Strategy? How does telehealth impact select preventive care HEDIS quality measures?**

The DHCS 2022 Comprehensive Quality Strategy presents DHCS' quality and health equity strategy to support a ten-year vision for the Medi-Cal enrollees having longer, healthier, and happier lives. There are four overarching goals:

1. Engaging Members in their Own Care
2. Keeping Families and Communities Healthy
3. Providing Early Interventions for Rising Risk
4. Providing Whole Person Care for High-Risk Populations

In addition to these four goals, the strategy identifies five bold goals focused on children's preventive services, behavioral health integration and maternal outcomes and birth equity. The use of telehealth services may support, or detract from, the achievement of these goals for these target groups and also Medi-Cal enrollees broadly.

---

[20] Neither the NCQA nor AHRQ has provider satisfaction survey instruments, but other organizations do: see Institute for Healthcare Improvement.

Data sources: To evaluate quality, access, equity and outcomes questions as they relate to telehealth, researchers would need multiple data sets. First, claims and encounter data provide service utilization information and the modality of care (i.e., audio, video, in-person). Claims and encounter data also identify specific services that are included in measures for the [Medi-Cal Managed Care Accountability Set (MCAS)](). Second, an eligibility file would provide needed demographic data about service users such as age, sex, aid code, county, language spoken and other fields in order to appropriately stratify and address disparity and equity questions. This approach would identify a subset of the MCAS measures to evaluate the impact of telehealth on DHCS' priority quality goals for specific population. For example:

> » Adults' access to preventive / ambulatory health services

> » Hemoglobin A1c Control for patients with diabetes

> » Controlling high blood pressure

> » Depression screening and follow-up for adolescents and adults

> » Postpartum depression screening and follow-up

> » Follow-up after ED visit for mental health or substance use disorder

> » Breast and cervical cancer screening

While these child and adolescent measures typically require in-person visits, it will be important to study if and how the availability of telehealth may be impacting visit rates.

> » Well-Child visits for Children and Adolescents

> » Infant Well-Child Visits

> » Childhood Immunizations

> » Adolescent Immunizations

> » Blood lead screening

> » Developmental screening

Dependencies/Limitations: Most of these quality measures are assessed over the course of one year and during that time members will likely have numerous visits – in-person and telehealth (both audio and video) – and may use all three modalities. An assessment of telehealth's differential impact on these measures – separate from in-person visits – will be difficult to measure. Researchers could stratify by the percentage of visits by modality to assess the relative association with the quality measures.

Implementation considerations: In addition to the data sets, researchers would need funding to undertake these studies. Depending on the availability of resources for this purpose, DHCS could consider contracting with researchers to undertake the work or encourage foundations to support such research. DHCS could leverage data analysis and the methods developed by the RAND Corporation for the study noted above. While this study used data 2019 and 2020 data, the methodological approach would be similar to study more questions about specific populations that are included in this plan. In addition, DHCS will make data sets available to other health services researchers with whom they have partnered previously, notably researchers with the University of California system. Given that claims and encounter data with audio-only modifiers will not be available until mid-2024 at the earliest, these questions would likely not be studied until the end of 2024. Answers to the questions, and their use in assessing telehealth policy, would not be available until 2025.

Research Question – Expenditures:

7. **How does telehealth impact expenditures (e.g. total costs of care; by provider type; types of visit)?**

Understanding telehealth's contribution to the total costs of care for a set of services or specific group of enrollees would be methodologically quite challenging. Most notably, capitated payments to plans, and then sub-capitated payments to providers, prohibit analyzing specific expenditures for specific services and the modality of care. DHCS will continue to review available national literature and engage with external research partners on potential methodological approaches to address expenditure questions.

VI.   Conclusion

DHCS recognizes the importance of data collection and reporting on the use of telehealth, particularly as new telehealth policies are implemented and telehealth modalities are used with more consistency over time. DHCS is well positioned to accomplish its near-term data and analysis goals, and looks forward to an immediate focus on implementing processes and analytics that allow for a more detailed understanding of telehealth access and utilization of Medi-Cal enrollees. DHCS also acknowledges that some data capabilities take time to build and implement, and will focus its long-term efforts to support analyses of telehealth on quality of care, provider and member experiences, and clinical outcomes.

VII. Appendix A – Telehealth Research and Evaluation Activities and Timeline

Deliverable	Effort Type	Domains Addressed	Target Date
Telehealth Utilization Report (bi-annual)	Reporting and analysis	• Telehealth utilization	• Summer 2023 • On-going
Telehealth Public Dashboard	Data transparency	• Telehealth utilization	• April 2023 (dashboard design) • Summer 2023 (launch) • On-going
Regular posting of telehealth data on Open Data Portal	Data transparency	• Telehealth utilization	• Summer 2023 • On-going
Updated provider guidance on audio-only modifiers	Improving data capacity	• Telehealth data collection	• Nov 2021: Specialty Mental Health, Drug Medi-Cal, Drug Medi-Cal Organized Delivery System (DMC-ODS) • July 2022: Medical services
Standardize telehealth billing policy guidance for FQHC, RHC and THP providers to activate modifiers and implement associated changes to the CA-MMIS system	Improving data capacity	• Telehealth data collection	• July 2023: Provider manuals • July 2023: CA-MMIS systems changes
Standardize policy guidance via APL for MCP encounter submissions for telehealth services delivered by FQHC,	Improving data capacity	• Telehealth data collection	• First quarter 2023: APL

Deliverable	Effort Type	Domains Addressed	Target Date
RHC and THP providers and implement associated changes to the PACES system (if needed)			
DHCS research reports using 2023 California Health Interview Survey (CHIS) data	Data analysis	• Telehealth utilization • Telehealth access • Enrollee experience using telehealth	• 2024-2025

Other commitments:

- DHCS will continue to follow research developments related to the availability of broadband and its effect on telehealth access, and will provide data to governmental, academic, and other entities where appropriate to support related research and analysis.
- DHCS will work with SAMHSA to investigate the feasibility of including a telehealth question on future Consumer Perception Survey instruments.
- DHCS will work with MCPs to better understand their capabilities with collecting additional information from providers about their telehealth capacity and will consider making corresponding internal system updates to enable data collection.
- DHCS will investigate the feasibility of implementing a standardized instrument to measure provider satisfaction in partnership with plan and provider associations and or/managed care plans.

External Telehealth Research and Evaluation Activities

Deliverable	Effort Type	Domains Addressed	Target Date
RAND research reports using DHCS and CalPERS data commissioned by California Health Care Foundation	Data analysis	• Telehealth utilization • Effect of telehealth on clinical quality	• Early 2023
UCLA Integrated Substance Abuse Programs research	Data analysis	• Telehealth access	• 2024 - 2025

using the DMC/DMC-ODS Treatment Perception Survey data		• Provider use of telehealth • Enrollee experience using telehealth	
External reports using California Health Interview Survey (CHIS) data collected in 2023*	Data analysis	• Telehealth utilization • Telehealth access • Enrollee experience using telehealth	• 2024-2025
Assessments and reports measuring the impact of telehealth on enrollee and provider experience, clinical quality and health care outcomes*	Data analysis	• Enrollee experience using telehealth • Provider experience using telehealth • Impact of telehealth on clinical quality and outcomes	• 2024-2026

* Potential research undertakings could be conducted or commissioned by private funders in future years or by DHCS, depending on the availability of resources.

VIII. Appendix B – Telehealth Utilization Metrics Reported by DHCS

DHCS/EDIM produced the following metrics for the DHCS Stakeholder Advisory Committee and COVID-19 Impact on Medi-Cal Utilization reports[21]:

---

[21] Analysis of telehealth data in November 2022 updated these measures from telehealth visits per 100,000 beneficiaries (as previously reported) to telehealth claims per 100,000 member months to more accurately describe the data and methods.

- » Telehealth Visits per 100,000 Beneficiaries, By Age Group, March 2021

- » Telehealth Visits per 100,000 Beneficiaries, By Sex, March 2021

- » Telehealth Visits per 100,000 Beneficiaries, By Race/Ethnicity, March 2021

- » Telehealth Visits per 100,000 Beneficiaries, By Aid Code, March 2021

- » Telehealth Visits per 100,000 Beneficiaries, By Delivery System, March 2021

- » Telehealth Visits per 100,000 Beneficiaries, By Managed Care Plan, March 2021

In addition to the metrics above, DHCS/EDIM analyzed paid claims for the 20 most commonly-used CPT codes for outpatient telehealth visits which produced the following additional metrics for the Telehealth Advisory Workgroup (September-October, 2021).:

- » Telehealth Claims Volume and Percent E & M Procedures - New Patients – April 2021 – March 2021 (99201 – 99205)

- » Telehealth Claims Volume and Percent E & M Procedures - Established Patients – April 2021 – March 2021 (99211 – 99215)

- » Telehealth Claims Volume and Percent E & M Procedures - Treatment of Speech, Language or Hearing Disorders – April 2021 – March 2021 (92507 – 92508)

- » Telehealth Claims Volume and Percent E & M Procedures – Behavioral Health – April 2021 – March 2021 (90791, 90832, 90834, 90837, H0032, 2 others)

- » Percent of Medi-Cal Members by Number of Telehealth Claims, April 2021 – March 2021

- » E&M Claims Mix by Service Modality, April 2020 through March 2021 (Telehealth Only/Office Only/Mixed)

- » New Patient E&M Claims Mix by Service Modality, by Age Group, April 2020 through March 2021 (Telehealth /In-person)

- » New Patient E&M Claims Mix by Service Modality, by Sex, April 2020 through March 2021 (Telehealth /In-person)

- » Established Patient E&M Claims Mix by Service Modality, by Age Group, April 2020 through March 2021 (Telehealth /In-person)

- » Established E&M Claims Mix by Service Modality, by Sex, April 2020 through March 2021 (Telehealth /In-person)

- » New Patient E&M Claims Mix by Service Modality, by Race/Ethnicity, April 2020 through March 2021 (Telehealth /In-person)

» Established Patient E&M Claims Mix by Service Modality, by Race/Ethnicity, April 2020 through March 2021 (Telehealth /In-person)

» New Patient E&M Claims Mix by Service Modality, by Aid Code, April 2020 through March 2021 (Telehealth /In-person)

» Established Patient E&M Claims Mix by Service Modality, by Aid Code, April 2020 through March 2021 (Telehealth /In-person)

In addition, DHCS analyzed claims data to understand visit modalities by these demographic groupings:

» Age Composition of Member Groups by Modality Mix, April 2020 through March 2021 (0-20, 21-40, 41-64, 65+)

» Race/Ethnicity Composition of Member Groups by Modality Mix, April 2020 through March 2021

» Sex Composition of Member Groups by Modality Mix, April 2020 through March 2021

» Claim Type by Primary Language Spoken, April 2020 - March 2021 (Telehealth /In-person/Mixed)