Supplement to the Environmental Scan on Telehealth in the Context of Alternative Payment Models (APMs) and Physician-Focused Payment Models (PFPMs)

November 25, 2020

To assist the Physician-Focused Payment Model Technical Advisory Committee (PTAC) in preparing for a theme-based discussion on telehealth that took place during the September 16, 2020 PTAC public meeting, the Office of the Assistant Secretary for Planning and Evaluation (ASPE) requested the development of an "Environmental Scan on Telehealth in the Context of Alternative Payment Models (APMs) and Physician-Focused Payment Models." This supplement[i] provides additional information on the role telehealth can play in optimizing health care delivery and value-based transformation in the context of alternative payment models (APMs) and Physician-Focused Payment Models (PFPMs) specifically.

[i] i This analysis was prepared under contract #HHSP233201500048IHHSP23337014T between the Department of Health and Human Services' Office of Health Policy of the Assistant Secretary for Planning and Evaluation (ASPE) and NORC at the University of Chicago. The opinions and views expressed in this analysis are those of the authors. They do not reflect the views of the Department of Health and Human Services, the contractor, or any other funding organizations. This analysis was completed on November 25, 2020.

Contents

Introduction and Summary

During its public meeting on September 16, 2020, the Physician Focused Payment Model Technical Advisory Committee (PTAC) conducted its first theme-based discussion to inform PTAC on topics important to physician-focused payment models (PFPMs), focusing on the topic of telehealth and alternative payment models (APMs). Prior to the public meeting, the Office of the Assistant Secretary for Planning and Evaluation (ASPE) requested the development of an "Environmental Scan on Telehealth in the Context of Alternative Payment Models (APMs) and Physician-Focused Payment Models" (which will be referred to in this document as "the original environmental scan") that would provide background information for Committee members. This supplement provides additional context on the role telehealth can play in optimizing health care delivery and value-based transformation under APMs. This supplement contains five sections, each with specific research questions. Table 1 summarizes the sections of the supplement, with their corresponding research questions and data sources.

Table 1. Overview of Supplement to the Environmental Scan

Section	Research Question(s)	Data Source
Brief update on selected new literature	What are key findings from selected new literature published after the original environmental scan on emerging telehealth issues?	Peer-reviewed and grey literature from August – October 2020
Comparison of telehealth utilization and spending data	How does telehealth utilization and spending compare across different payers (Medicare, Medicaid, commercial)?	Peer-reviewed and grey literature from 2015-2020
Differences in telehealth reimbursable service codes by specialty and reimbursement rates by originating provider type	Is there a difference in service codes for which telehealth is reimbursed across specialties? Is there a difference between reimbursement rates if the originating site is a community provider?	Peer-reviewed and grey literature from 2015-2020
Differences in provider eligibility for billing telehealth services	How does provider eligibility to bill for telehealth services differ by state? How does facility (i.e., FQHC, RHC) eligibility to bill for telehealth services differ by state? How does eligibility to bill for telehealth services differ by payer (Medicare, Medicaid, commercial)?	Peer-reviewed and grey literature from 2015-2020
Coverage of telehealth devices and/or Internet services	What types of telehealth devices (i.e., remote patient monitoring devices, tablets, smartphones) are covered by payers? How does this vary by payer? What kind of coverage is available for Internet or broadband services? How, if at all, does additional support for telehealth relate to regulatory limits such as those relevant to the Stark Act?	Peer-reviewed and grey literature from 2015-2020

The inclusion criteria included literature pertaining to the research questions, English language, and U.S.-based studies. In revising each section based on literature, we conducted a chain search, a method where the references within a search result lead to additional connected sources to expand on several

topics. In some cases, it was not possible to identify publications that helped to address each research question.

The following is a summary of some key findings from this supplement, which shows how they relate to some of the key themes in the original environmental scan.

Coverage and Reimbursement for Telehealth

- As the public health emergency (PHE) persists, experts continue to develop recommendations related to the future of virtual care. In many cases, these recommendations suggest continuation of many provisions of emergency Medicare telehealth waivers enacted during the COVID-19 PHE, with the exception of Health Insurance Portability and Accountability Act (HIPAA) exemptions.
- During the PHE, both Medicare and Medicaid expanded eligibility to bill for telehealth services to a broader group of allied health professionals and facility types.
- A number of states are waiving restrictions on provision of telehealth services by out-of-state licensed providers or engaging in compacts with other states to facilitate access.
- The number of billable Medicare telehealth services has expanded under the PHE, and the extent of this expansion and its implications for provider payment varies across specialties.

Issues and Opportunities for Optimizing Telehealth

- Some new publications highlight the importance of audio-only calls for improving access to virtual care, especially for vulnerable populations.
- Recent literature continues to describe concerns regarding potential disparities in access to telehealth care that can adversely affect specific populations, including those with limited access to devices and broadband technology.
- During the PHE, telehealth research, utilization and the regulatory environment continue to evolve.
- While opportunities for beneficiaries to access broadband and devices through providers or payers are limited, other connectivity supports for beneficiaries and providers exist through the Federal Communications Commission (FCC).
- In recent months, a number of experts have focused on the relationship between payment incentives and telehealth services. Some experts have raised concerns regarding unexpected consequences associated with coverage of telehealth in a fee-for-service (FFS) setting, encouraging consideration of alternative payment mechanisms to support telehealth.
- Health systems continued to publish information about increases in telehealth utilization following the initial months of the PHE. Data from across multiple payers suggest that there has been a reduction in use of telehealth for ambulatory care following a rapid increase that occurred during the early months of the PHE. However, telehealth use remains significantly higher than in past years.

Brief Update on Selected New Literature

This section briefly describes findings from selected new literature relating to topics that were discussed in the original environmental scan[ii] that was prepared as background for the theme-based discussion at the September 16, 2020 PTAC public meeting. This summary highlights relevant information from selected new literature that was made public after the completion of the original environmental scan.

Recently published literature includes: information related to expert recommendations for improving telehealth; payment incentives related to telehealth; clinician experience during the PHE; continued discussions on disparities and telehealth; and recent regulatory changes. This information reinforces many of the themes discussed in the original environmental scan.

Experts continue to develop recommendations related to the future of virtual care. Various groups have produced recommendations on the future of virtual care. For example, the National Committee for Quality Assurance (NCQA), the Alliance for Connected Care, and the American Telemedicine Association created the Taskforce on Telehealth Policy (TTP)—a collection of 22 industry experts representing clinicians, health systems, telehealth vendors, state and federal health agencies, insurers and consumer advocates. The TTP synthesized feedback from public comments and stakeholders to develop recommendations focusing on patient safety and program integrity, data flow, care coordination and quality measurement, and the effect of telehealth on total cost of care.[1] In addition to the TTP, other groups, including academic institutions, MedPAC, and the Center for Connected Health Policy (CCHP), have also either produced recommendations or policy options. The following is a summary of recommendations that have been offered across various expert publications.

- The TTP recommends addressing gaps in broadband access, technology, trust, and digital literacy to ensure equity in virtual care. [2]
- Experts from the CCHP, the Urban Institute, and Texas A&M University suggest several changes to reimbursement and payment policy including:
    - considering a lump sum prospective payment to help providers incorporate telehealth into primary care;
    - covering the costs of patient training and education on digital literacy;
    - reducing or eliminating patient copayments and out-of-pocket expenses; and
    - establishing funding for improving patient access to telehealth devices. [3] [4] [5] [6]
- The TTP, Rural Policy Research Institute (RUPRI), researchers from Texas A&M University, the Commonwealth Fund Task Force on Payment and Delivery System (CMWF task force), and clinicians and beneficiaries in MedPAC focus groups recommend permanently extending emergency Medicare telehealth waivers and/or permanently lifting some restrictions related to telehealth, including geographic constraints and originating sites. [7] [8] [9] [10]
    - The CMWF task force suggests that any flexibilities and/or virtual care technologies be subject to evaluations of safety, efficacy, equity, and cost-effectiveness.[11]
- CCHP and RUPRI recommend increasing funding and subsidy programs for broadband access to clinicians and patients. [12] [13]

[ii] The Environmental Scan on Telehealth in the Context of Alternative Payment Models (APMs) and Physician-Focused Payment Models (PFPMs) is available here: https://aspe.hhs.gov/system/files/pdf/261946/Sep2020TelehealthEnvironmentalScan.PDF

- Researchers from Texas A&M University note the importance of monitoring how telehealth-related regulatory changes might affect health outcomes among vulnerable populations.[14]
- The TTP recommends the resumption of full HIPAA privacy rule enforcement.[15]
    - MedPAC proposed the policy option of requiring HIPAA compliance for telehealth technology, noting that this would help protect patient privacy and reduce the risk of identity theft.[16]
- After hosting focus groups of clinicians and beneficiaries in the summer of 2020, researchers from MedPAC examined possible safeguards to protect Medicare and patients from unnecessary spending and potential fraud including:
    - further research into frequency limits for certain telehealth services;
    - requiring clinicians to provide in-person visits before ordering high-cost durable medical equipment (DME) and lab tests; and
    - requiring patients to pay a portion of the cost of telehealth services.[17]
- The CMWF task force recommends that Congress promote the use of telemedicine in primary care by:
    - legislating national rules on telemedicine scope and licensure;
    - authorizing grants and loans to promote telehealth adoption and teleconsultations, especially in rural, low income, and medically underserved communities; and
    - funding broadband internet services in all communities with inadequate access, through the FCC. [18]
- A recent perspective piece in JAMA recommends considering new approaches to telehealth, such as a hybrid in-person and an audio-only model. [19]

In recent months, a number of experts have focused on the relationship between payment incentives and telehealth services. Researchers from the Urban Institute suggest that FFS reimbursement rates for telehealth prior to the PHE were insufficient to cover the cost of the clinician providing the service. This is partially due to the costs of billing Medicare and collecting co-insurance from the patient; such functions make up 10-15 percent of operating revenue for practices.[20] However, the authors suggest that Medicare reimbursement under existing emergency Medicare telehealth waivers may overpay for some kinds of telehealth services and misalign incentives. An alternative approach, such as a lump sum payment to help providers adopt and use telehealth could cover related costs and give providers flexibility to determine the best modality of care for each patient. [21]

Some new publications highlight the importance of audio-only calls to improve access to virtual care for some patients. One-quarter of Medicare beneficiaries do not have both a smartphone and a high-speed Internet connection. Nearly one-third of Medicare patients who received virtual care from mid-March to mid-June 2020 received audio-only calls. These patients may have been unable to access audiovisual services or uncomfortable using the video technology. Research shows that audio-only visits have been beneficial for triaging care, and for symptom management for patients with chronic conditions.[22] Audio-only calls can also improve access to virtual care for patients who do not have access to the devices or broadband necessary for audiovisual calls, are not comfortable with technology, or do not have a caregiver to assist them.[23]

One article suggested that both physicians and patients found that an audio-only call provided enough information to treat and understand symptoms for patients suspected of having COVID-19. The article

found that video-conferencing could add more disruptions (e.g., glitches, technical difficulties) to interactions with the patient.[24] The same article highlighted the importance of the audio-only modality in providing access to specific communities. For example, the Indian Health Service (IHS) noted that approximately 80 percent of the estimated 33,000 virtual visits provided by the IHS during the PHE occurred by telephone.

Recent literature reveals continued discussion of concerns related to disparities in accessing telehealth services during the PHE. Research shows that those aged 65 years or older, racial/ethnic minorities, and patients with low socioeconomic status face barriers in their digital literacy, access to technology, and access to reliable broadband compared to others. [25] One study found that the main barriers among the Medicare-aged population were technical literacy (17 percent), lack of desire to adapt to a new technology (13 percent), and the cost of devices (13 percent). [26] Low-income individuals have lower rates of smartphone ownership (71 percent), access to broadband at home (59 percent), Internet access (82 percent), and digital literacy (53 percent). [27] However, medical outcomes associated with telehealth were positive, including a decrease in psychological stress (18 percent), increase in cognitive ability (15 percent), and increase in autonomy (9 percent). [28]

Vulnerable populations. Recent research suggests that vulnerable populations may not be benefitting from the telehealth expansion at the same rate as the overall patient population. [29] [30] One study examined telehealth visits two weeks before and two weeks after a telemedicine expansion at two large practices that serve diverse populations.[iii] The study found that despite overall increases in video and audio visits during that time, populations with limited access or digital literacy received fewer telehealth visits than others. This includes those who are 65 years or older, persons of color, patients with a non-English language preference, and low-income individuals. [31]

A separate study found that only 36 percent of people with incomes below $25,000 reported being able to access telehealth. [32] This is in part because low-income patients disproportionately lack access to the technology and broadband needed for video visits.[33] [34] The percentage of Medicare beneficiaries without a smartphone or computer is higher among low-income, Black, and Hispanic beneficiaries, as well as beneficiaries with disabilities. [35]

Access in rural areas. While telehealth utilization has grown among all beneficiaries during the PHE, some research suggests that fewer rural beneficiaries are using telehealth relative to their urban counterparts. Rural areas have larger percentages of older and low-income adults, which introduces additional barriers. [36] Asynchronous telehealth services, such as secure messaging via email or text, which do not require broadband, could improve access for rural areas. [37]

A recent analysis of Medicare claims through May 2020 revealed that the percentage of primary care visits using telehealth was 25 percent of visits for rural areas and 47 percent for urban areas at their peaks. By June 1, 2020, telehealth primary care visits fell to 8 percent of all primary care visits in rural areas and 20 percent in urban areas as providers started resuming in-person visits. [38] [39]

[iii] UCSF General Internal Medicine Primary Care Practice and Richard Fine People's Clinic at Zuckerberg San Francisco General Hospital

Expansion of telehealth coverage under Medicare Advantage (MA) also seems to be occurring more frequently in urban rather than rural areas. A recent study on MA plans found that among the 2,992 unique MA plans providing telehealth in 2020, most (58 percent) offered telehealth benefits prior to the PHE. MA plans offering new telehealth benefits in 2020 were more likely to be national plans, plans with a monthly premium, and plans with more than 3,450 enrollees. Rural area MA plans were not more likely to offer new telehealth benefits for 2020.[40]

Treatment for Substance Use Disorders (SUDs). Access to telehealth through Federally Qualified Health Centers (FQHCs) has improved under the emergency Medicare telehealth waivers described in the original environmental scan. FQHCs are temporarily eligible to deliver telehealth as distance site providers under Medicare. This enables FQHCs to provide a range of services, including medication assisted treatment (MAT) for SUD using telehealth. Prior research shows that MAT delivered virtually can be as effective as in-person MAT services.[41] [42] However, FQHCs still face challenges offering MAT virtually as reimbursement under the emergency Medicare telehealth waivers does not follow the typical cost-based reimbursement offered to FQHCs, resulting in payments that are a fraction of their typical reimbursement. [43]

During the PHE, telehealth research, utilization patterns, and the regulatory environment continue to evolve. Since the publication of the original environmental scan, health systems continued to publish information about increases in telehealth utilization following the declaration of the PHE. For example, the University of California, San Francisco (UCSF) Comprehensive Cancer Center provided 2,284 video visits in the 11 weeks prior to the PHE and 12,946 video visits in the 11 weeks after the declaration of the PHE. UCSF did not find differences in this increase in telehealth utilization based on race, ethnicity, primary language, or payer.[44] Data from ambulatory care practices across payers show that there have been reductions in the percentage of visits conducted virtually from a peak in April 2020, but virtual visits have continued to substantially exceed pre-PHE levels (6.3 percent in October 2020 compared to 0.1 percent in February 2020).[45] Since the publication of the environmental scan, there have been additional Medicare regulatory changes, including the expansion of telehealth services covered by Medicare FFS during the PHE [iv] and Department of Health and Human Services (HHS) Secretary Alex M. Azar II's renewal of the PHE determination, which extends the emergency Medicare telehealth waivers through January 2021. [46] [47]

[iv] Since September 2020, CMS has added 11 new telehealth services as part of the COVID-19 Interim Final Rule with comment period, which is in addition to over 135 telehealth services to Medicare since the beginning of the PHE.

Comparison of Telehealth Utilization and Spending Data

This section presents additional findings on the differences in telehealth utilization and spending among Medicare, Medicaid, and commercial insurers. During the PHE, Medicare, Medicaid, and commercial insurers expanded access to telehealth services and consequently, utilization of telehealth increased. A report published by the Epic Health Research Network found a decrease in in-person health care utilization across all payers between March and April 2020. This coincided with a 300-fold increase in telehealth visits across all payers.[48]

A recent publication from the Commonwealth Foundation using a convenience sample of provider data shows that overall, as of October 4, 2020, outpatient visits (in-person and telehealth) have returned to levels comparable with those before the PHE. Medicaid outpatient visits are still slightly lower compared to the first week in March (-1 percent), while Medicare and commercial outpatient visits are slightly above pre-PHE levels (+3 percent and +1 percent, respectively).[49] The table below summarizes existing information comparing telehealth utilization and spending before and during the PHE by payer.

Table 2. Available Information on Utilization and Spending on Telehealth Pre-PHE and During the PHE

	Pre-PHE	During the PHE
Commercial	• In 2018, only 2 percent of large employer-based health plan enrollees with an outpatient visit had at least one telemedicine visit.[50] • Published information on spending on telehealth for commercial payers prior to the PHE was not available.	• Information exclusive to commercial plans is limited; however, a private earnings report showed dramatic increases in telehealth, including virtual visits (600 percent increase) and digital refills (50 percent increase) among CVS Health's commercial- and MA-covered populations at the start of the PHE (March to May 2020).[51] • Published information on spending on telehealth for commercial payers during the PHE was not available.
Medicare FFS	• In 2016, 0.3 percent of all Medicare Part B beneficiaries used telehealth services. [52] • Prior to the PHE, spending on telehealth in 2016 was less than 1 percent (0.4 percent) of Medicare spending. [53]	• In April 2020, nearly 44 percent of Medicare primary care visits were provided through telehealth.[54] [55] • Published information on Medicare FFS spending on telehealth during the PHE was not available.
Medicaid	• Preliminary data released from CMS reported that prior to March 2020, less than 1 percent of Medicaid services were provided by telehealth. [56] • Published information on Medicaid spending for telehealth prior to the PHE was not available.[v]	• CMS reported that over 30 million telehealth services[vi] were delivered from March to June 2020—over 2,000 percent more telehealth services than over the same period in 2019. [57] • Published information on Medicaid spending for telehealth health during the PHE was not available.[vii]

[v] Payment eligibility for providers by state can be found at: https://www.cchpca.org/sites/default/files/2020-10/CCHP%2050%20STATE%20REPORT%20FALL%202020%20FINAL.pdf

[vi] Telehealth services were identified via CPT and HCPCS codes and services delivered included evaluation and management services, virtual check-ins, asynchronous electronic communication, remote patient monitoring, critical care or inter-professional consults, and other telehealth visits.

[vii] Payment eligibility for providers by state can be found at: https://www.cchpca.org/sites/default/files/2020-10/CCHP%2050%20STATE%20REPORT%20FALL%202020%20FINAL.pdf

Differences in Telehealth Reimbursable Service Codes by Specialty and Reimbursement Rates by Originating Provider Type

This section, expands upon findings in the original environmental scan related to coding, billing, and reimbursement for telehealth. Medicare, Medicaid, and several other third-party payers designate specific current procedure terminology (CPT) codes and/or Healthcare Common Procedure Coding System (HCPCS) codes as reimbursable for telehealth services.[58] Codes eligible for telehealth reimbursement vary depending upon payer-specific rules and services provided.[59] For example, whether a provider can be reimbursed for delivering virtual services associated with specific codes under Medicare FFS varies depending on the modality of telehealth used, settings of care, provider characteristics, and other factors.[60] [61] The remainder of this section uses an analysis of recent literature to examine changes in the codes reimbursable using telehealth by specialty area below.

There is little research on how the amount of reimbursement providers received for telehealth versus in-person care varied at the pre-PHE baseline. [62] However, recent research does illustrate how increases in the number of service codes reimbursable using telehealth may affect provider payment during the PHE. Under the emergency Medicare telehealth waivers, Medicare pays for telehealth visits at the same rate as in-person visits in the physician fee schedule (PFS).[63] Medicaid payment policies are established by states, and commercial insurers develop different payment arrangements with different providers.

Before and during the recent PHE, specialties have made different amounts of physician procedure codes eligible for telehealth reimbursement under Medicare, including both CPT and HCPCS. An April 2020 study by Avalere reviewed the distribution of telehealth reimbursable codes by service category (e.g., nutrition counseling, evaluation and management [E&M] services; pediatric and neonatal care) in Medicare. The study reviewed codes from January 2020, as well as codes effective as of March 2020. Table 3 summarizes telehealth codes prior to the PHE and changes during the PHE.

Prior to the PHE, the largest number of telehealth eligible service codes related to end-stage renal disease (ESRD) (18 total). However, psychiatry and psychotherapy services exceeded this number after the addition of nine codes in March 2020 (23 total). Some categories, like pediatric and neonatal care, did not have any telehealth billable codes prior to the PHE, but by March 2020, CMS had added 11 temporary telehealth codes covering these services.

Prior to the PHE, existing telehealth codes for Medicare FFS included 106 physician procedure codes. During 2018, these 106 codes accounted for 24 percent of all Medicare Part B FFS payments. By the end of March 2020, an additional 85 services were declared temporarily eligible for telehealth payment. Together, these 191 Part B services currently reimbursable under telehealth comprised 33 percent of Medicare Part B FFS payments in 2018. [64] Table 3 shows the distribution of telehealth reimbursable codes by medical specialty, distinguishing between those eligible for reimbursement pre-PHE and those temporarily eligible for reimbursement during the PHE.

Table 3: Telehealth Billable Codes by Specialty

TELEHEALTH BILLABLE PART B SERVICE CODES	BILLABLE IN JAN 2020	NEW AND TEMPORARILY BILLABLE AS OF MAR 2020	TOTAL
SPEECH, PHYSICAL, OCCUPATIONAL THERAPY	0	20	20
HOME VISIT, NEW AND ESTABLISHED PATIENTS	0	15	15
OBSERVATION AND HOSPITAL CARE	0	12	12
PEDIATRIC AND NEONATAL CARE	0	11	11
PSYCHIATRY AND PSYCHOTHERAPY	14	9	23
EMERGENCY DEPARTMENT VISIT, CRITICAL CARE	0	7	7
NURSING FACILITY CARE	4	5	9
ESRD SERVICES	18	3	21
HEALTH AND BEHAVIOR ASSESSMENT, INTERVENTION	12	2	14
RADIATION THERAPY	0	1	1
PATIENT RISK ASSESSMENTS	2	0	2
NUTRITION COUNSELING	4	0	4
E&M CODES	10	0	10
SUBSEQUENT OBSERVATION CARE	3	0	3
SUBSEQUENT HOSPITAL CARE	3	0	3
PROLONGED SERVICE CODES	6	0	6
SMOKING, ALCOHOL, OPIOID TREATMENT	11	0	11
CARE PLANNING AND MANAGEMENT	8	0	8
TELEHEALTH CONSULTATION (VARIOUS)	9	0	9
OBSERVATION OR HOSPITAL CARE	2	0	2
TOTAL	106	85	191

Source: Avalere Analysis of CMS Covered Telehealth Services for PHE

Since the PHE, growth in telehealth reimbursable codes, changes in telehealth reimbursement, and the potential impact on provider payment vary across specialties. The Avalere analysis isolated the top 50 Medicare FFS CPT codes used by physicians for billing under specific specialty types to see how these frequently used codes varied in terms of eligibility for telehealth pre-PHE and during the PHE. The top 50 CPT codes roughly account for 85 to 95 percent of total Medicare payments for each specialty. Table 4 presents how these 50 codes break out in terms of eligibility for telehealth reimbursement pre-PHE and during the PHE as well as the share of spending associated with these codes.

For example, prior to January 2020, 21 of the top 50 primary care services were reimbursable using telehealth, and these services accounted for 77 percent of total payments under primary care in 2018. After the declaration of the PHE, an additional 15 temporary codes from the top 50 for primary care were made eligible for reimbursement, and these additional codes accounted for 19 percent of total payments under primary care in 2018.[65] As the data in Table 4 demonstrate, telehealth eligibility for top CPT codes, as a percentage of 2018 payments, varies significantly across specialties. There is limited research on the differential use of these service codes during the PHE under Medicare. However, available research suggests that, until recently, behavioral health care was more commonly provided virtually than medical care. [66]

Table 4: Number of Top 50 CPT Codes Billable for Telehealth Services and Percent of Medicare FFS Payments by Specialty

SPECIALTY	NUMBER OF TELEHEALTH BILLABLE CODES JAN 2020	JAN 2020 BILLABLE CODES % OF PAYMENTS	NUMBER OF TEMPORARILY BILLABLE CODES MAR 2020	TEMPORARILY BILLABLE CODES % OF PAYMENTS	TOTAL
PRIMARY CARE	21	77%	15	19%	96%
ENDOCRINOLOGY	19	88%	5	5%	93%
PEDIATRICS	17	73%	9	18%	91%
NEUROLOGY	11	51%	6	12%	63%
PULMONOLOGY	15	49%	7	14%	63%
UROLOGY	12	51%	3	3%	54%
OB/GYN	13	50%	0	0%	50%
CARDIOLOGY	11	38%	5	7%	45%
ORTHOPEDIC SURGERY	8	40%	5	3%	43%
DERMATOLOGY	7	30%	0	0%	30%
GASTROENTEROLOGY	11	24%	3	5%	29%

Source: Avalere Analysis of 5% Standard Analytical File, CY2018 Claims

Telehealth reimbursement in Medicaid varies significantly by state. Prior to the PHE, Medicaid in all 50 states and DC reimbursed for some type of telehealth service.[67] [68] In 2020, the most common specialties that had expansions in telehealth reimbursable services included behavioral health SUDs, teledentistry, school-based health services, and speech therapy. [69] There is limited research summarizing how telehealth billability for specific services under Medicaid changed during the PHE. However, CCHP maintains a state-level tracker to monitor changes in related Medicaid rules.[viii]

There is currently little research on how reimbursement rates vary based on originating site. While the available research did not produce information summarizing differences in reimbursement rates for telehealth services by originating site, the literature does address the issue of eligibility of FQHCs as originating sites. While Medicare is guaranteeing temporary payment parity between telehealth and comparable in-person care for some providers, this does not extend to FQHCs.[70] FQHCs are now eligible for Medicare reimbursement; however, under the emergency Medicare telehealth waivers, these sites are paid at a rate calculated from the Medicare physician fee schedule (MPFS), rather than their typical FQHC prospective payment rate. Since the FQHC prospective payment system rate is usually higher than the MPFS, this may create a barrier for providers delivering telehealth services from FQHCs.[71]

The regulatory environment continues to evolve during the PHE as more codes become eligible for telehealth reimbursement. In a recent post on Health Affairs, CMS Administrator Seema Verma indicated an interest in evaluating Medicare telehealth reimbursement rates to "determine the level of resources involved in telehealth visits outside of a PHE, and to inform the extent to which payment rate adjustments might need to be made."[72]

[viii] For the state tracker see: https://www.cchpca.org/covid-19-related-state-actions

Differences in Provider Eligibility for Billing Telehealth Services

This section expands upon findings in the original environmental scan related to provider and facility eligibility to bill for telehealth. While the previous section discussed changes in what services can be billed as telehealth, this section focuses on which providers or facilities are eligible for payment. Provider and facility eligibility for telehealth services under Medicare FFS has expanded under the emergency Medicare telehealth waivers. Provider eligibility also varies based on state licensure rules that may limit providers to serving only patients located in states where they hold medical board licenses. As Medicare policies regarding provider eligibility to bill for telehealth have evolved, similar state trends have emerged for Medicaid and private payers. [ix]

Provider and facility eligibility to bill for telehealth services in Medicare has expanded due to the PHE. Medicare restricts the types of health care professionals and facilities that can bill for telehealth services.[x] Since the declaration of the PHE, Medicare has allowed a broader group of professionals to bill for telehealth services and included additional facility-types as approved locations of care.[73] For example, Medicare now allows FQHCs and rural health clinics (RHCs) to act as the originating site, qualifying them to receive a facility fee when providers deliver telehealth to patients at their locations.[74] Evidence suggests that Medicare policies influence decisions adopted by state and commercial payers.[75] [76] [77]

Since state laws govern the provision of health care, some states have implemented additional telehealth flexibilities that apply to their Medicaid agency and commercial payers. Many state legislatures have begun to pass regulations to expand telehealth eligibility beyond the PHE, including executive orders extending the emergency telehealth waivers after the PHE determination expires. For example, the Georgia Department of Community Health (DCH) recently allowed community-based providers and home health providers to deliver initial and annual assessments and level of care determinations using telehealth rather than an in-person visit.[78] States are also adopting CMS-approved Appendix K[xi] waivers that cover emergency response and preparation to support home- and community-based services (HCBS).[79]

Medicaid State Programs. Prior to the PHE, many state Medicaid programs already permitted a wider range of providers to bill for telehealth compared to Medicare. In 2019, 26 states did not restrict coverage to specific types of providers, and 10 states extended provider eligibility to at least six or more different provider types.[80] Prior to the PHE, state Medicaid programs most commonly allowed payments for telehealth services conducted by physicians, physician assistants, nurse practitioners, licensed mental health professionals, occupational therapists, psychologists, and dentists.[81]

Since the declaration of the PHE, many Medicaid programs expanded the types of providers eligible for providing telehealth services to include allied professionals (e.g., physical, occupational, and speech

[ix] For a state-level analysis of telehealth laws, policies, and regulations, the Center for Connected Health Policy has published the following report: https://www.cchpca.org/sites/default/files/2020-10/CCHP%2050%20STATE%20REPORT%20FALL%202020%20FINAL.pdf

[x] For a discussion of eligible providers pre-PHE, please see the environmental scan: https://aspe.hhs.gov/system/files/pdf/261946/Sep2020TelehealthEnvironmentalScan.PDF

[xi] Appendix K is a federal authority that assists DC and states with changes to their 1915(c) home and community-based services (HCBS) waivers for emergency response and preparation. As of July 2020, 44 of the 48 approved waivers included telehealth flexibilities.

therapists) and dentists.[82] Some states have expanded telehealth eligibility to additional providers, such as optometrists in Alabama[83] and pediatric behavioral therapists and hospice providers in Colorado.[84]

Licensure. Each state maintains its own licensure board for health professionals, which may require a provider to have the appropriate license prior to providing telehealth within any given state.[85] [86] Prior to the PHE, licensure compacts between states facilitated interstate provision of care by reducing the number of state licenses that a medical professional must secure. However, some states banned interstate telehealth care delivery.[87] During the PHE, many states have temporarily waived state-specific licensing requirements for telehealth, while some have created temporary licenses, and others have entered into new reciprocal agreements with other states.[88] [89] Multistate licensure compacts or agreements have become an increasingly popular arrangement. [90]

Private Payers. Provider eligibility in private payer plans depends on the payer policies, as well as any applicable state regulations. Due to the PHE, the federal government has requested that private payers cover telehealth for COVID-19. Similar to recent Medicare and Medicaid policies, some commercial payers have expanded their lists of telehealth eligible providers during the COVID-19 PHE. For example, many private payers have recently launched teledentistry programs that expand provider eligibility to in-network dentists and orthodontists. [91]

Facility Type. While facility eligibility in commercial plans is dependent on being in or out of network, eligibility for a reimbursable originating site and/or facility fee in Medicaid varies among state plans. [92] Similar to Medicare, 15 states and DC have limitations on which facilities can be the originating site for a telehealth service. In terms of facility fees, 32 state Medicaid plans will reimburse a transmission fee and/or a facility fee. However, Medicaid policies often restrict eligibility for a facility fee to specific facility types.[93] Since 2020, some states have begun to include FQHCs and RHCs in their telehealth policies. Hawaii included FQHCs in their list of eligible telehealth providers, and West Virginia has added FQHCs and RHCs as eligible distant site providers for psychiatry and psychology care. [94]

Coverage of Telehealth Devices and/or Internet Services

This section discusses opportunities for beneficiaries to access telehealth devices or broadband internet through payers or providers. Internet access to enable the use of telehealth is not universal. Both rural and urban areas struggle to have adequate broadband connection, as demonstrated in recent data from the American Community Survey.[95] Americans in lower income categories are less likely to have home broadband access. A Pew Research Center report revealed that only 56 percent of adults with incomes less than $30,000, regardless of geographic location, have home broadband access, though 71 percent have a smartphone.[96]

The report found very few existing mechanisms that allow insurers to provide beneficiaries access to devices or Internet service to enable telehealth interactions. Insurers currently do not cover smartphones or tablets as medical equipment. However, some specific CMS programs, such as the Diabetes Prevention Program (DPP) and the Comprehensive ESRD Care Innovation Model may allow providers to provide devices to beneficiaries if furnished as part of beneficiary engagement incentives. [97] [98]

On March 30, 2020, CMS issued a waiver to relax some Stark Law restrictions on self-referral due to the PHE. The waiver allows hospital systems to pay a physician to provide on-call telehealth services with

hospital equipment. [99] [100] This waiver supports access and continuity of care during the PHE in areas where there are few specialists. However, providers must broadly abide by CMS policy against beneficiary inducements, which would apply to furnishing tablets, smartphones, or other devices to Medicare or Medicaid beneficiaries for telehealth encounters. [101]

Despite limited support through payers and providers, other federal mechanisms support access to connectivity. The FCC's Lifeline program provides discounted access to cellular phone and broadband network connectivity for low-income consumers. [102] The FCC also maintains the Rural Health Care Program.[103] This program gives providers the opportunity to apply for Universal Service Fund (USF) funding to support network connectivity. Eligible providers must be part of a teaching hospital/medical school, community health and mental health center, local health department, RHC, skilled nursing facility, and/or consortiums of the above health care providers. [104] Non-rural providers can apply for funding if they are a part of a consortium with a majority of rural health care providers.

Due to the PHE, the FCC waived caps on upfront payments in multi-year commitments that can be made through the USF in fiscal year 2020 to support Rural Health Care Program requests. [105] Finally, the CARES Act included a COVID-19 Telehealth Program, which provides $200 million in funding to help health care providers provide telehealth services to patients at their homes or mobile locations. The program funds providers' telecommunication, information services, and devices to provide connected care services.

Appendix: Annotated Bibliography of Key Sources

Ateev Mehrotra et al., *The Impact of the COVID-19 Pandemic on Outpatient Care: Visits Return to Prepandemic Levels, but Not for All Providers and Patients*. Commonwealth Fund, Oct. 2020. https://doi.org/10.26099/41xy-9m57

Subtopic(s): Brief Literature Update
Type of Source: Report
Objective: To highlight the impact of COVID-19 on outpatient care.
Main Findings: Outpatient visits have mostly rebounded to pre-pandemic levels; the number varies by age group, specialty, insurance, and provider size. Telemedicine use has slowly declined, but is now above pre-pandemic levels. The use of telemedicine depends on specialty and provider organization size.
Strengths/Limitations: The patterns may not be nationally representative. Workflows differ based on EHR system, and visits may be underestimated due to workflow delays. However, the data comes from several sources at the organization and gives a baseline to utilization of telehealth.
Generalizability to Medicare Population: Yes
Methods: Trend analysis of outpatient visits.

Berenson R, Shartzer A. The Mismatch of Telehealth and Fee-for-Service Payment. *JAMA Health Forum*. Published online October 2, 2020. doi:10.1001/jamahealthforum.2020.1183 https://jamanetwork.com/channels/health-forum/fullarticle/2771509

Subtopic(s): Brief Literature Update
Type of Source*:* Journal Article, Opinion
Objective*:* To highlight how FFS is not optimal for reimbursing telehealth services.
Main Findings: Fee codes are not precise enough or high enough to justify the cost of telehealth in practices. Lump sum costs and per capita payments are preferred to support practices and reduce billing costs.
Strengths/Limitations: The findings are consistent with CMS reported telehealth utilization trends. However, this report did not look at effectiveness, implementation, or outcomes impact of these flexibilities.
Generalizability to Medicare Population: Yes
Methods: Review of Medicare FFS Part B claims from January to June 2020.

Bosworth A, Ruhter J, Samson LW, et al. ASPE Issue Brief: Medicare Beneficiary Use of Telehealth Visits: Early Data From the Start of the COVID-19 Pandemic.; 2020. Accessed August 4, 2020. https://aspe.hhs.gov/pdf-report/medicare-beneficiary-use-telehealth

Subtopic(s): Brief Literature Update
Type of Source: Report
Objective: To highlight Medicare beneficiary use of telehealth visits from March to May 2020.
Main Findings: Telehealth flexibilities played a critical role in maintaining access of primary care health services. Though many areas are resuming in-person visits, utilization of telehealth is still higher than pre-PHE levels. Telehealth adoption is widespread and often reflects provider's readiness to implement telehealth

Strengths/Limitations: The findings are consistent with CMS reported telehealth utilization. However, there are no outcomes on effectiveness of telehealth and mitigating costs and health impacts.
Generalizability to Medicare Population: Yes
Methods: Medicare fee-for-service Part B primary care services claims from January to June 2020. Primary care services included evaluation and management codes, preventative services, and advance care planning, as well as some mental health services.

Center for Connected Health Policy. Barriers & Challenges to FQHC Use of Telehealth for Substance Use Disorder: An Examination of Policies Affecting FQHCs Pre- and During the COVID-19 Emergency. July 2020. https://www.cchpca.org/sites/default/files/2020-07/BarriersandChallengestoFQHCUseofTelehealth2.pdf

Subtopic(s): Brief Literature Update
Type of Source*:* Report
Objective: To present the results of research and interviews on barriers to implementing a telehealth MAT program in five states (Kentucky, Maine, Maryland, Ohio and Pennsylvania) in a FQHC setting. A secondary analysis was conducted on the policies that impacted their abilities during the PHE.
Main Findings: While many barriers were resolved due to the temporary waivers, the future of these policies is uncertain. Even with the expansions, there are additional barriers such as payment parity, broadband connectivity, patient and provider education, and Federal Tort Claims Act (FTCA) coverage.
Strengths/Limitations: States were diverse in their geographic area and populations. However, due to the uncertainty of the healthcare system post-PHE, barriers may expand in the future.
Generalizability to Medicare Population: Yes
Methods: Interviews and research into barriers to implementing a FQHC telehealth MAT program in five states.

Centers for Medicare and Medicaid Services. Trump Administration Drives Telehealth Services in Medicaid and Medicare. October 14, 2020. https://www.cms.gov/newsroom/press-releases/trump-administration-drives-telehealth-services-medicaid-and-medicare

Subtopic(s): Brief Literature Update
Type of Source: Press release
Objective: To highlight additional telehealth services that Medicare FFS will pay for during the PHE.
Main Findings: CMS is expanding Medicare-approved telehealth services to include additional codes and services. CMS also released a preliminary Medicaid and CHIP dataset on telehealth utilization.
Strengths/Limitations*:* N/A
Generalizability to Medicare Population*:* Yes
Methods: N/A

The Commonwealth Fund Task Force on Payment and Delivery System Reform. Health Care Delivery System Reform: Six Policy Imperatives. November 2020. https://www.commonwealthfund.org/sites/default/files/2020-11/CMWF_DSR_TaskForce_Six_Policy_Imperatives_report.pdf

Subtopic(s): Brief Literature Update
Type of Source: Report
Objective: To highlight the Commonwealth Fund's Task Force on Payment and Delivery System's recommendations to reform health care delivery systems.
Main Findings: The six policy goals include: (1) increase delivery system preparedness for health disasters; (2) increase health system accountability for health care quality, equity, and cost; (3) strengthen the nation's primary health care system; (4) support empowerment and engagement of people, families, and communities; (5) Reduce administrative burden; and (6) encourage a balance of regulatory and competitive approaches to promote a high performing health system.
Strengths/Limitations: There are initiatives and reforms such as expansions in health care coverage, stronger public health system, addressing social determinants of health, and efforts to eliminate systemic racism in society and in health care that are too far-reaching to address thoroughly in this report. However, these changes need to be made on a national level and delivery system reform has opportunities for bipartisan support.
Generalizability to Medicare Population: Yes
Methods: The recommendations were developed through in-person and virtual meetings between May 2019 and October 2020 and an evidence review of the last 10 years on payment and delivery systems.

Jaklevic MC. Telephone Visits Surge During the Pandemic, but Will They Last? *JAMA*. 2020; 324(16):1593–1595. doi:10.1001/jama.2020.17201 https://jamanetwork.com/journals/jama/fullarticle/2771681

Subtopic(s): Brief Literature Update
Type of Source*:* Journal Article, Perspective
Objective*:* To highlight the use of telephone visits as a form of telehealth utilized during the PHE.
Main Findings*:* Telephone visits have benefited patients who are unable to use technology due to broadband access or unfamiliarity with technology, or experience work/family disruptions during a video visit and are a tool for vulnerable populations. It has been helpful for triaging COVID-19 patients or managing specialty care. However, hands on procedures are not conducive to telehealth. There should be a blended care model in the future.
Strengths/Limitations*:* N/A
Generalizability to Medicare Population: Yes
Methods: N/A

Kruse C, Fohn J, Wilson N, Nunez Patlan E, Zipp S, Mileski M. Utilization Barriers and Medical Outcomes Commensurate With the Use of Telehealth Among Older Adults: Systematic Review. *JMIR Med Inform.* 2020; 8(8):e20359.

Subtopic(s): Brief Literature Update
Type of Source: Journal Article

Objective: To identify barriers that prevent use of telehealth, how telehealth improves health outcomes, and quality of life indicators for older adults.
Main Findings: Reviewers identified 14 themes for barriers. The most common of which were technical literacy (25/144 occurrences, 17 percent), lack of desire (19/144 occurrences, 13 percent), and cost (11/144 occurrences, 8 percent). Reviewers identified 13 medical outcomes associated with telehealth interventions. The most common of which were decrease in psychological stress (21/118 occurrences, 18 percent), increase in autonomy (18/118 occurrences, 15 percent), and increase in cognitive ability (11/118 occurrences, 9 percent). Some articles did not report medical outcomes (18/57, 32 percent) and some did not report barriers (19/57, 33 percent).
Strengths/Limitations: There was a low number of articles identified for review, and there may be selection or publication bias. Age inclusion was 50 and older instead of 65 and older, which may limit generalization to the Medicare population. However, this study reveals some of the barriers to telehealth implementation for older adults.
Generalizability to Medicare Population: Yes
Methods: A systematic review of CINAHL, MEDLINE, Web of Science, and Embase databases. Reviewers found 57 articles in scope and identified themes, barriers, and reports of health outcomes and quality of life indicators.

Lonergan PE, Washington SL, Branagan L, et al. Rapid Utilization of Telehealth in a Comprehensive Cancer Center as a Response to COVID-19: Cross-Sectional Analysis. *Journal of Medical Internet Research.* 2020; 22(7). https://www.jmir.org/2020/7/e19322/

Subtopic(s): Brief Literature Update
Type of Source: Journal Article
Objective: To analyze the change in video visit volume at the University of California, San Francisco (UCSF) Comprehensive Cancer Center in response to COVID-19 and compare patient demographics and appointment data from January 1, 2020, and in the 11 weeks after the transition to video visits.
Main Findings: In 17 departments and divisions at the UCSF Cancer Center, 2,284 video visits were performed in the 11 weeks before COVID-19 changes were implemented (mean 208, SD 75 per week) and 12,946 video visits were performed in the 11-week post–COVID-19 period (mean 1177, SD 120 per week). The proportion of video visits increased from 7-18 percent to 54-72 percent, between the pre- and post-COVID-19 periods without any disparity based on race/ethnicity, primary language, or payer.
Strengths/Limitations: This was the first report on utilization of video visits in a cancer setting with a demographic information before and during the PHE. However, there was no information on outcomes, and may not be as generalizable to other specialties or populations due to its cancer focus.
Generalizability to Medicare Population: Yes
Methods: Patient demographics and appointment data (dates, visit types, and departments) were extracted from the electronic health record (EHR) reporting database. Video visits were performed using a HIPPA-compliant video conferencing platform with a pre-existing workflow.

Mueller KJ, Rochford H, Coburn AF, et al. The Evolving Landscape of National Telehealth Policies during a Public Health Emergency: Responsiveness to Rural Needs. October 2020. http://www.rupri.org/wp-content/uploads/RUPRI-Telehealth-paper.pdf

Subtopic(s): Brief Literature Update
Type of Source: Report
Objective: To highlight current telehealth policies and assess the use for expansion of telehealth to support an improved rural health care system and improve access to care.
Main Findings: Providers and patients support making many of these waivers permanent. There needs to be funding for infrastructure, expanded provider eligibility, willingness to use by patients and providers, education of patients and providers, and reimbursement in place.
Strengths/Limitations: N/A
Generalizability to Medicare Population: Yes
Methods*:* Review of current telehealth policies during the PHE.

Nouri S, Khoong E, Lyles CR, Karliner L. Addressing Equity in Telemedicine for Chronic Disease Management During the Covid-19 Pandemic. *NEJM Catalyst.* May 4, 2020. https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0123

Subtopic(s): Brief Literature Update
Type of Source: Journal Article, Report
Objective: To highlight inequities in access to telehealth implementation.
Main Findings: There are four key actions for clinicians and health leaders: (1) proactively explore potential disparities in telemedicine access; (2) develop solutions to mitigate barriers to digital literacy and the resources needed for engagement in video visits; (3) remove health system–created barriers to accessing video visits; and (4) advocate for policies and infrastructure that facilitate equitable telemedicine access.
Strengths/Limitations: Their recommendations are based on experiences at one hospital system in California for cancer patients. However, their findings are highly generalizable and are consistent with national recommendations.
Generalizability to Medicare Population: Yes
Methods: Experiences in telehealth at UCSF General Internal Medicine Practice, an academic medical center practice with three clinics, and Richard Fine People's Clinic at Zuckerberg San Francisco General Hospital, an urban safety-net practice.

Park S, Langellier BA, Burke RE. Telehealth Benefits Offered by Medicare Advantage Plans in 2020. *Medicare Care.* September 2020. https://europepmc.org/article/med/32925464

Subtopic(s): Brief Literature Update
Type of Source: Report
Objective: To analyze new telehealth benefits offered by MA plans in 2020 and examine plan characteristics associated with the provision of the new telehealth benefits.
Main Findings: Of 2,992 unique MA plans, 58.1 percent offered new telehealth benefits in 2020. The most frequently covered services were primary care, mental health, and urgent care. Coverage for other types of services was limited. The multivariable logistic regression showed that offering any new telehealth benefits was not more common among plans in rural areas, but was more likely among national plans, those with a monthly premium, those with more than 3,540 enrollees, and those with a star rating of 4.0–4.5. The new telehealth benefits were less likely to be provided by for-profit plans. Overall, findings remained similar when analyzed according to the type of services.

Strengths/Limitations: The CMS enrollment data does not report enrollment in counties with less than 10 enrollees, which may underestimate rural enrollment. The enrollment data also is self-reported by MA plans, limited to June 2019, and predetermined categories are difficult to distinguish. In addition, the focus was on plan benefits and not utilization and outcomes. However, this study shows that plans are embracing new benefits.
Generalizability to Medicare Population: Yes
Methods: Cross-sectional data of four CMS sources: Q1 Plan Benefits Package, MA Landscape File, MA plan directory file, and MA enrollment data. Researchers examined whether plans offered new telehealth benefits in 2020 and the characteristics of those plans.

Schmit CD, Schwitzer J, Survance K, et al. Telehealth in the COVID-19 Pandemic. *COVID 19 Policy Playbook.* August 2020. https://static1.squarespace.com/static/5956e16e6b8f5b8c45f1c216/t/5f445d20e69bfd5795288338/1598315810250/Chp16_COVIDPolicyPlaybook-Aug2020.pdf
Subtopic(s): Brief Literature Update
Type of Source: Report
Objective: To describe how states have acted through legislative, regulatory, and executive actions to leverage telehealth in the COVID-19 response.
Main Findings: Congress should permanently allow the actions of the telehealth waivers to continue, reduce or eliminate co-payments and out of pocket expenses throughout the PHE, and monitor telehealth policy changes for inequitable outcomes. States should lift regulations, permit new modes of telehealth, promote cross-state licensure, and implement telehealth parity.
Strengths/Limitations: N/A
Generalizability to Medicare Population: Yes
Methods: Assessment of federal actions and state actions to support telehealth usage throughout the PHE.

Taskforce on Telehealth Policy (TTP). Findings and Recommendations. https://www.ncqa.org/wp-content/uploads/2020/09/20200914_Taskforce_on_Telehealth_Policy_Final_Report.pdf
Subtopic(s): Brief Literature Update
Type of Source*:* Policy findings and recommendations
Objective: To synthesize policies and make recommendations around patient safety and program integrity; data flow, care coordination, and quality measurement; and telehealth's effect on total cost of care.
Main Findings: The document provides recommendations to policymakers, such as funding research on telehealth best practices for patient safety and update existing patient safety event reporting structures to incorporate telehealth. The report recommends research on cost and utilization post-PHE, which could be integrated into the current health care system as a new setting/modality of care. Therefore, quality measures should be the same. The report also recommends that fraud occurs in all health care programs, but emerging artificial intelligence tools to audit claims and other data may have potential to make it easier to detect aberrations quickly. Policymakers should make permanent the following specific COVID-19 policy changes: lifting geographic restrictions and limitations on originating sites; allowing telehealth for various types of clinicians and conditions; acknowledging, as many states now do, that

telehealth visits can meet requirements for establishing a clinician/patient relationship if the encounter meets appropriate care standards or unless careful analysis demonstrates that, in specific situations, a previous in-person relationship is necessary; and eliminating unnecessary restrictions on telehealth across state lines.
Strengths/Limitations: Stakeholders represented a broad spectrum of interests and there is a consensus that telehealth is a natural evolution of healthcare in the digital age. However, because of its rapid uptake, impacts are uncertain.
Generalizability to Medicare Population: Yes
Methods: Convened a taskforce to collect recommendations and public comments from over 1,000 stakeholders through public comment and a town hall.

United States Department of Health and Human Services. Renewal of Determination That A Public Health Emergency Exists. October 2, 2020. https://www.phe.gov/emergency/news/healthactions/phe/Pages/covid19-2Oct2020.aspx

Subtopic(s): Brief Literature Update
Type of Source: Public health action
Objective: To extend the PHE.
Main Findings*:* N/A
Strengths/Limitations: N/A
Generalizability to Medicare Population: Yes
Methods: N/A

Winter A, Tabor L. Expansion of telehealth in Medicare. MedPAC. November 9, 2019. http://www.medpac.gov/docs/default-source/meeting-materials/telehealth-medpac-nov-2020.pdf?sfvrsn=0

Subtopic(s): Brief Literature Update
Type of Source: Presentation
Objective: To report on findings and present policy options around the expansion of telehealth in Medicare.
Main Findings: Telehealth should be permanently expanded, cover many services in-home, eliminate audio-only after the PHE, pay lower rates than in-person services, require HIPPA compliance, require cost sharing, and safeguard against fraud.
Strengths/Limitations: N/A
Generalizability to Medicare Population: Yes
Methods: N/A

Weintraub E, Greenblatt AD, Chang J, et al. Expanding Access to Buprenorphine Treatment in Rural Areas with the Use of Telemedicine. *American Academy of Addiction Psychiatry*. September 2018. https://onlinelibrary.wiley.com/doi/abs/10.1111/ajad.12805

Subtopic(s): Brief Literature Update
Type of Source: Journal Article
Objective: To describe the results of patients who used telemedicine for buprenorphine treatment.
Main Findings: Retention in treatment was 98 percent at one week, 91 percent at one month, 73 percent at two months, and 57 percent at three months. Of patients still engaged in treatment at three months, 86 percent had opioid-negative urine toxicology.

Strengths/Limitations: The study was comparable to existing cohort studies of telemedicine-based MAT. Limitations included the lack of a control group, the missing data on patients who ended treatment early, and the high proportion of patients already in opioid abstinence. This may not be sustainable due to the removing of temporary waivers for prescribing via telemedicine.

Generalizability to Medicare Population: Yes

Methods: This study evaluated a program that began providing buprenorphine treatment to patients at a drug treatment center in rural Maryland via telemedicine in August 2015. A chart review was performed of the first 177 patients who were enrolled in the program. Data were extracted to examine retention in treatment and rates of continued opioid use.

[1] Taskforce on Telehealth Policy (TTP). Findings and Recommendations. https://www.ncqa.org/wp-content/uploads/2020/09/20200914_Taskforce_on_Telehealth_Policy_Final_Report.pdf

[2] Taskforce on Telehealth Policy (TTP). Findings and Recommendations. https://www.ncqa.org/wp-content/uploads/2020/09/20200914_Taskforce_on_Telehealth_Policy_Final_Report.pdf

[3] Center for Connected Health Policy. Barriers & Challenges to FQHC Use of Telehealth for Substance Use Disorder: An Examination of Policies Affecting FQHCs Pre- and During the COVID-19 Emergency. July 2020. https://www.cchpca.org/sites/default/files/2020-07/BarriersandChallengestoFQHCUseofTelehealth2.pdf

[4] Berenson R, Shartzer A. The Mismatch of Telehealth and Fee-for-Service Payment. *JAMA Health Forum*. Published online October 2, 2020. doi:10.1001/jamahealthforum.2020.1183 https://jamanetwork.com/channels/health-forum/fullarticle/2771509

[5] Schmit CD, Schwitzer J, Survance K, et al. Telehealth in the COVID-19 Pandemic. *COVID 19 Policy Playbook.* August 2020. https://static1.squarespace.com/static/5956e16e6b8f5b8c45f1c216/t/5f445d20e69bfd5795288338/1598315810250/Chp16_COVIDPolicyPlaybook-Aug2020.pdf

[6] Schmit CD, Schwitzer J, Survance K, et al. Telehealth in the COVID-19 Pandemic. *COVID 19 Policy Playbook.* August 2020. https://static1.squarespace.com/static/5956e16e6b8f5b8c45f1c216/t/5f445d20e69bfd5795288338/1598315810250/Chp16_COVIDPolicyPlaybook-Aug2020.pdf

[7] Schmit CD, Schwitzer J, Survance K, et al. Telehealth in the COVID-19 Pandemic. *COVID 19 Policy Playbook.* August 2020. https://static1.squarespace.com/static/5956e16e6b8f5b8c45f1c216/t/5f445d20e69bfd5795288338/1598315810250/Chp16_COVIDPolicyPlaybook-Aug2020.pdf

[8] Mueller KJ, Rochford H, Coburn AF, et al. The Evolving Landscape of National Telehealth Policies during a Public Health Emergency: Responsiveness to Rural Needs. October 2020. http://www.rupri.org/wp-content/uploads/RUPRI-Telehealth-paper.pdf

[9] Winter A, Tabor L. Expansion of telehealth in Medicare. MedPAC. November 9, 2019. http://www.medpac.gov/docs/default-source/meeting-materials/telehealth-medpac-nov-2020.pdf?sfvrsn=0

[10] The Commonwealth Fund Task Force on Payment and Delivery System Reform. Health Care Delivery System Reform: Six Policy Imperatives. November 2020. https://www.commonwealthfund.org/sites/default/files/2020-11/CMWF_DSR_TaskForce_Six_Policy_Imperatives_report.pdf

[11] The Commonwealth Fund Task Force on Payment and Delivery System Reform. Health Care Delivery System Reform: Six Policy Imperatives. November 2020. https://www.commonwealthfund.org/sites/default/files/2020-11/CMWF_DSR_TaskForce_Six_Policy_Imperatives_report.pdf

[12] Center for Connected Health Policy. Barriers & Challenges to FQHC Use of Telehealth for Substance Use Disorder: An Examination of Policies Affecting FQHCs Pre- and During the COVID-19 Emergency. July 2020. https://www.cchpca.org/sites/default/files/2020-07/BarriersandChallengestoFQHCUseofTelehealth2.pdf

[13] Mueller KJ, Rochford H, Coburn AF, et al. The Evolving Landscape of National Telehealth Policies during a Public Health Emergency: Responsiveness to Rural Needs. October 2020. http://www.rupri.org/wp-content/uploads/RUPRI-Telehealth-paper.pdf

[14] Schmit CD, Schwitzer J, Survance K, et al. Telehealth in the COVID-19 Pandemic. *COVID 19 Policy Playbook.* August 2020. https://static1.squarespace.com/static/5956e16e6b8f5b8c45f1c216/t/5f445d20e69bfd5795288338/1598315810250/Chp16_COVIDPolicyPlaybook-Aug2020.pdf

[15] Taskforce on Telehealth Policy (TTP). Findings and Recommendations. https://www.ncqa.org/wp-content/uploads/2020/09/20200914_Taskforce_on_Telehealth_Policy_Final_Report.pdf

[16] Winter A, Tabor L. Expansion of telehealth in Medicare. MedPAC. November 9, 2019. http://www.medpac.gov/docs/default-source/meeting-materials/telehealth-medpac-nov-2020.pdf?sfvrsn=0

[17] Winter A, Tabor L. Expansion of telehealth in Medicare. MedPAC. November 9, 2019. http://www.medpac.gov/docs/default-source/meeting-materials/telehealth-medpac-nov-2020.pdf?sfvrsn=0

[18] The Commonwealth Fund Task Force on Payment and Delivery System Reform. Health Care Delivery System Reform: Six Policy Imperatives. November 2020. https://www.commonwealthfund.org/sites/default/files/2020-11/CMWF_DSR_TaskForce_Six_Policy_Imperatives_report.pdf

[19] Jaklevic MC. Telephone Visits Surge During the Pandemic, but Will They Last? *JAMA*. 2020; 324(16):1593–1595. doi:10.1001/jama.2020.17201 https://jamanetwork.com/journals/jama/fullarticle/2771681

[20] Berenson R, Shartzer A. The Mismatch of Telehealth and Fee-for-Service Payment. *JAMA Health Forum*. Published online October 2, 2020. doi:10.1001/jamahealthforum.2020.1183 https://jamanetwork.com/channels/health-forum/fullarticle/2771509

[21] Berenson R, Shartzer A. The Mismatch of Telehealth and Fee-for-Service Payment. *JAMA Health Forum*. Published online October 2, 2020. doi:10.1001/jamahealthforum.2020.1183 https://jamanetwork.com/channels/health-forum/fullarticle/2771509

[22] Jaklevic MC. Telephone Visits Surge During the Pandemic, but Will They Last? *JAMA*. 2020; 324(16):1593–1595. doi:10.1001/jama.2020.17201 https://jamanetwork.com/journals/jama/fullarticle/2771681

[23] Jaklevic MC. Telephone Visits Surge During the Pandemic, but Will They Last? *JAMA*. 2020; 324(16):1593–1595. doi:10.1001/jama.2020.17201 https://jamanetwork.com/journals/jama/fullarticle/2771681

[24] Jaklevic MC. Telephone Visits Surge During the Pandemic, but Will They Last? *JAMA*. 2020; 324(16):1593–1595. doi:10.1001/jama.2020.17201 https://jamanetwork.com/journals/jama/fullarticle/2771681

[25] Nouri S, Khoong E, Lyles CR, Karliner L. Addressing Equity in Telemedicine for Chronic Disease Management During the Covid-19 Pandemic. *NEJM Catalyst.* May 4, 2020. https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0123

[26] Kruse C, Fohn J, Wilson N, Nunez Patlan E, Zipp S, Mileski M. Utilization Barriers and Medical Outcomes Commensurate With the Use of Telehealth Among Older Adults: Systematic Review. *JMIR Med Inform.* 2020; 8(8):e20359.

[27] Nouri S, Khoong E, Lyles CR, Karliner L. Addressing Equity in Telemedicine for Chronic Disease Management During the Covid-19 Pandemic. *NEJM Catalyst.* May 4, 2020. https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0123

[28] Kruse C, Fohn J, Wilson N, Nunez Patlan E, Zipp S, Mileski M. Utilization Barriers and Medical Outcomes Commensurate With the Use of Telehealth Among Older Adults: Systematic Review. *JMIR Med Inform.* 2020; 8(8):e20359.

[29] Schmit CD, Schwitzer J, Survance K, et al. Telehealth in the COVID-19 Pandemic. *COVID 19 Policy Playbook.* August 2020. https://static1.squarespace.com/static/5956e16e6b8f5b8c45f1c216/t/5f445d20e69bfd5795288338/1598315810250/Chp16_COVIDPolicyPlaybook-Aug2020.pdf

[30] Mueller KJ, Rochford H, Coburn AF, et al. The Evolving Landscape of National Telehealth Policies during a Public Health Emergency: Responsiveness to Rural Needs. October 2020. http://www.rupri.org/wp-content/uploads/RUPRI-Telehealth-paper.pdf

[31] Nouri S, Khoong E, Lyles CR, Karliner L. Addressing Equity in Telemedicine for Chronic Disease Management During the Covid-19 Pandemic. *NEJM Catalyst.* May 4, 2020. *https*://catalyst.nejm.org/doi/full/10.1056/CAT.20.0123

[32] Mueller KJ, Rochford H, Coburn AF, et al. The Evolving Landscape of National Telehealth Policies during a Public Health Emergency: Responsiveness to Rural Needs. October 2020. http://www.rupri.org/wp-content/uploads/RUPRI-Telehealth-paper.pdf

[33] Jaklevic MC. Telephone Visits Surge During the Pandemic, but Will They Last? *JAMA*. 2020; 324(16):1593–1595. doi:10.1001/jama.2020.17201 https://jamanetwork.com/journals/jama/fullarticle/2771681

[34] Mueller KJ, Rochford H, Coburn AF, et al. The Evolving Landscape of National Telehealth Policies during a Public Health Emergency: Responsiveness to Rural Needs. October 2020. http://www.rupri.org/wp-content/uploads/RUPRI-Telehealth-paper.pdf

[35] Jaklevic MC. Telephone Visits Surge During the Pandemic, but Will They Last? *JAMA*. 2020; 324(16):1593–1595. doi:10.1001/jama.2020.17201 https://jamanetwork.com/journals/jama/fullarticle/2771681

[36] Mueller KJ, Rochford H, Coburn AF, et al. The Evolving Landscape of National Telehealth Policies during a Public Health Emergency: Responsiveness to Rural Needs. October 2020. http://www.rupri.org/wp-content/uploads/RUPRI-Telehealth-paper.pdf

[37] Mueller KJ, Rochford H, Coburn AF, et al. The Evolving Landscape of National Telehealth Policies during a Public Health Emergency: Responsiveness to Rural Needs. October 2020. http://www.rupri.org/wp-content/uploads/RUPRI-Telehealth-paper.pdf
[38] Mueller KJ, Rochford H, Coburn AF, et al. The Evolving Landscape of National Telehealth Policies during a Public Health Emergency: Responsiveness to Rural Needs. October 2020. http://www.rupri.org/wp-content/uploads/RUPRI-Telehealth-paper.pdf
[39] Bosworth A, Ruhter J, Samson LW, et al. ASPE Issue Brief: Medicare Beneficiary Use of Telehealth Visits: Early Data From the Start of the COVID-19 Pandemic.; 2020. Accessed August 4, 2020. https://aspe.hhs.gov/pdf-report/medicare-beneficiary-use-telehealth
[40] Park S, Langellier BA, Burke RE. Telehealth Benefits Offered by Medicare Advantage Plans in 2020. *Medicare Care.* September 2020. https://europepmc.org/article/med/32925464
[41] Center for Connected Health Policy. Barriers & Challenges to FQHC Use of Telehealth for Substance Use Disorder: An Examination of Policies Affecting FQHCs Pre- and During the COVID-19 Emergency. July 2020. https://www.cchpca.org/sites/default/files/2020-07/BarriersandChallengestoFQHCUseofTelehealth2.pdf
[42] Weintraub E, Greenblatt AD, Chang J, et al. Expanding Access to Buprenorphine Treatment in Rural Areas with the Use of Telemedicine. *American Academy of Addiction Psychiatry*. September 2018. https://onlinelibrary.wiley.com/doi/abs/10.1111/ajad.12805
[43] Center for Connected Health Policy. Barriers & Challenges to FQHC Use of Telehealth for Substance Use Disorder: An Examination of Policies Affecting FQHCs Pre- and During the COVID-19 Emergency. July 2020. https://www.cchpca.org/sites/default/files/2020-07/BarriersandChallengestoFQHCUseofTelehealth2.pdf
[44] Lonergan PE, Washington SL, Branagan L, et al. Rapid Utilization of Telehealth in a Comprehensive Cancer Center as a Response to COVID-19: Cross-Sectional Analysis. *Journal of Medical Internet Research.* 2020; 22(7). https://www.jmir.org/2020/7/e19322/
[45] Ateev Mehrotra et al., *The Impact of the COVID-19 Pandemic on Outpatient Care: Visits Return to Prepandemic Levels, but Not for All Providers and Patients*.Commonwealth Fund, Oct. 2020. https://doi.org/10.26099/41xy-9m57
[46] Centers for Medicare and Medicaid Services. Trump Administration Drives Telehealth Services in Medicaid and Medicare. October 14, 2020. https://www.cms.gov/newsroom/press-releases/trump-administration-drives-telehealth-services-medicaid-and-medicare
[47] United States Department of Health and Human Services. Renewal of Determination That A Public Health Emergency Exists. October 2, 2020. https://www.phe.gov/emergency/news/healthactions/phe/Pages/covid19-2Oct2020.aspx
[48] Epic Health Research Network. Expansion of Telehealth During COVID-19 Pandemic. https://ehrn.org/articles/expansion-of-telehealth-during-covid-19-pandemic. Published 2020. Accessed October 12, 2020.
[49] Mehrotra A, Chernew M, Linetsky D, Hatch H, Cutler D, Schneider EC. The Impact of the COVID-19 Pandemic on Outpatient Care: Visits Return to Prepandemic Levels, but Not for All Providers and Patients. Oct 15 2020.
[50] Cox C, Kamal R, McDermott D. How have healthcare utilization and spending changed so far during the coronavirus pandemic? Health System Tracker Web site. https://www.healthsystemtracker.org/chart-collection/how-have-healthcare-utilization-and-spending-changed-so-far-during-the-coronavirus-pandemic/#item-start. Published 2020. Updated Aug 6. Accessed October 12, 2020.
[51] Thomson Reuters, CVS Health Corporation. *Q1 2020 CVS Health Corp Earnings Call.* May 06 2020.
[52] MedPAC. *Mandated report: Telehealth services and the Medicare program* March 2018.
[53] MedPAC. *Mandated report: Telehealth services and the Medicare program* March 2018.
[54] HHS Issues New Report Highlighting Dramatic Trends in Medicare Beneficiary Telehealth Utilization amid COVID-19 [press release]. July 28 2020.
[55] Bosworth A, Ruhter J, Samson LW, et al. ASPE Issue Brief: Medicare Beneficiary Use of Telehealth Visits: Early Data From the Start of the COVID-19 Pandemic.; 2020. Accessed August 4, 2020. https://aspe.hhs.gov/pdf-report/medicare-beneficiary-use-telehealth
[56] Centers for Medicare & Medicaid Services. *Services Delivered via Telehealth Among Medicaid & CHIP Beneficiaries During COVID-19: Preliminary Medicaid & CHIP Data Snapshot.* 2020.
[57] Centers for Medicare & Medicaid Services. *Services Delivered via Telehealth Among Medicaid & CHIP Beneficiaries During COVID-19: Preliminary Medicaid & CHIP Data Snapshot.* 2020.

[58] Centers for Medicare & Medicaid Services. *Medicare Telemedicine Health Care Provider Fact Sheet.* 2020 March 17.
[59] Centers for Medicare & Medicaid Services. *Covered Telehealth Services for PHE for the Covid-19 Pandemic, Effective March 1, 2020.* October 14, 2020. https://www.cms.gov/Medicare/Medicare-general-information/telehealth/telehealth-codes
[60] Bajowala SS, Milosh J, Bansal Chani. Telemedicine Pays: Billing and Coding Update. *Current Allergy and Asthma Reports.* July 2020; 20(60). https://link.springer.com/article/10.1007/s11882-020-00956-y
[61] National Consortium of Telehealth Resource Centers. *Telehealth Reimbursement.* 2019. https://www.telehealthresourcecenter.org/wp-content/uploads/2019/03/03.08.19-Reimbursement-Final.pdf
[62] National Consortium of Telehealth Resource Centers. *Telehealth Reimbursement.* 2019. https://www.telehealthresourcecenter.org/wp-content/uploads/2019/03/03.08.19-Reimbursement-Final.pdf
[63] Centers for Medicare & Medicaid Services. *Medicare Telemedicine Health Care Provider Fact Sheet.* March 17, 2020.
[64] Epple T, Moorman A, Ivan J, Failor B, Burris-Jones C. Provider Impact of Covid-19 Telehealth Policies by Specialty. *COVID-19 Intel Center.* April 2020. https://avalere.com/insights/provider-impact-of-covid-19-telehealth-policies-by-specialty
[65] Epple T, Moorman A, Ivan J, Failor B, Burris-Jones C. Provider Impact of Covid-19 Telehealth Policies by Specialty. *COVID-19 Intel Center.* April 2020. https://avalere.com/insights/provider-impact-of-covid-19-telehealth-policies-by-specialty
[66] Mehrotra A, Huskamp H, Souza J, et. al. Rapid Growth in Mental Health Telemedicine Use among Rural Medicare Beneficiaries, Wide Variation across States. *Health Affairs.* May 2017: (36)5. https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2016.1461.
[67] Center for Connected Health Policy. COVID-19 Telehealth Coverage Policies. September 15 2020. https://www.cchpca.org/resources/covid-19-telehealth-coverage-policies
[68] Center for Connected Health Policy. COVID-19 Telehealth Coverage Policies. September 15 2020. https://www.cchpca.org/resources/covid-19-telehealth-coverage-policies
[69] Center for Connected Health Policy. State Telehealth Laws & Reimbursement Policies. *Public Health Institute.* 2020. https://www.cchpca.org/sites/default/files/2020-10/CCHP%2050%20STATE%20REPORT%20FALL%202020%20FINAL.pdf
[70] Kim JH, Desai Eesha, Cole MB. How The Rapid Shift To Telehealth Leaves Many Community Health Centers Behind During The COVID-19 Pandemic. *Health Affairs.* 2020 June 2.
[71] Center for Connected Health Policy. Barriers & Challenges to FQHC Use of Telehealth for Substance Use Disorder: An Examination of Policies Affecting FQHCs Pre- and During the COVID-19 Emergency. 2020 July. https://www.cchpca.org/sites/default/files/2020-07/BarriersandChallengestoFQHCUseofTelehealth2.pdf
[72] Verma S. Early Impact of CMS Expansion of Medicare Telehealth During COVID-19. *Health Affairs.* 2020 July 15. https://www.healthaffairs.org/do/10.1377/hblog20200715.454789/full/
[73] Center for Connected Health Policy. COVID-19 Related State Actions. 2020. https://www.cchpca.org/covid-19-related-state-actions
[74] Center for Connected Health Policy. State Telehealth Laws & Reimbursement Policies. 2020. https://www.cchpca.org/sites/default/files/2020-10/CCHP%2050%20STATE%20REPORT%20FALL%202020%20FINAL.pdf
[75] Public Meeting Transcript: Physician-Focused Payment Model Technical Advisory Committee (PTAC) [Transcript]. September 16, 2020.
[76] Center for Connected Health Policy. State Telehealth Medicaid Fee-For-Service Policy – A Historical Analysis of Telehealth: 2013-2019. January 2020. https://www.cchpca.org/sites/default/files/2020-01/Historical%20State%20Telehealth%20Medicaid%20Fee%20For%20Service%20Policy%20Report%20FINAL.pdf?utm_source=Telehealth+Enthusiasts&utm_campaign=9f1c503f72-EMAIL_CAMPAIGN_2020_01_17_11_12&utm_medium=email&utm_term=0_ae00b0e89a-9f1c503f72-353227725
[77] Center for Connected Health Policy. State Telehealth Medicaid Fee-For-Service Policy – A Historical Analysis of Telehealth: 2013-2019. January 2020. https://www.cchpca.org/sites/default/files/2020-01/Historical%20State%20Telehealth%20Medicaid%20Fee%20For%20Service%20Policy%20Report%20FINAL.pdf?u

tm_source=Telehealth+Enthusiasts&utm_campaign=9f1c503f72-EMAIL_CAMPAIGN_2020_01_17_11_12&utm_medium=email&utm_term=0_ae00b0e89a-9f1c503f72-353227725

[78] McGlone A, Dickinson WB, Baker L. Commercial Payors and Medicare Telehealth Billing. JDSUPRA. 2020 April 7. https://www.jdsupra.com/legalnews/commercial-payors-and-medicaid-80762/

[79] Augenstein J, Marks J, Morgan V, Peng A. Executive Summary: Tracking Telehealth Changes State-by-State in Response to COVID-19 - July 2020. JDSUPRA. 2020 July 14. https://www.jdsupra.com/legalnews/executive-summary-tracking-telehealth-74025/

[80] American Telemedicine Association. ATA Releases 2019 Update of State-by-State Telehealth Report Cards. July 19 2019. https://www.americantelemed.org/in-the-news/ata-releases-2019-update-of-state-by-state-telehealth-report-cards/

[81] American Telemedicine Association. ATA Releases 2019 Update of State-by-State Telehealth Report Cards. July 19 2019. https://www.americantelemed.org/in-the-news/ata-releases-2019-update-of-state-by-state-telehealth-report-cards/

[82] Center for Connected Health Policy. State Telehealth Laws & Reimbursement Policies. 2020. https://www.cchpca.org/sites/default/files/2020-10/CCHP%2050%20STATE%20REPORT%20FALL%202020%20FINAL.pdf

[83] Alabama Medicaid. Alabama Medicaid Extends Temporary Telemedicine Coverage for Optometrists. March 20 2020. https://medicaid.alabama.gov/alert_detail.aspx?ID=13751

[84]Colorado Department of Health Care Policy & Financing Temporary Authorization of Telemedicine Services During COVID-19 State of Emergency. March 18 2020. https://www.colorado.gov/pacific/sites/default/files/Temporary%20Authorization%20of%20Telemedicine%20Services%20During%20COVID-19%20State%20of%20Emergency%2003-18-2020.pdf

[85] Federation of State Medical Boards Telemedicine Policies: Board by Board Overview. July 2020. https://www.fsmb.org/siteassets/advocacy/key-issues/telemedicine_policies_by_state.pdf

[86] American Academy of Allergy, Asthma & Immunology. Providing Care Across State Lines. https://www.aaaai.org/practice-resources/running-your-practice/practice-management-resources/Telemedicine/state

[87] Center for Connected Health Policy. National Policy: Cross State Licensing. https://www.cchpca.org/telehealth-policy/cross-state-licensing

[88] Center for Connected Health Policy. State Telehealth Laws & Reimbursement Policies. 2020. https://www.cchpca.org/sites/default/files/2020-10/CCHP%2050%20STATE%20REPORT%20FALL%202020%20FINAL.pdf

[89] Feldman S. How are States Addressing Licensing Of Out-Of-State Telehealth Providers. April 17 2020. https://www.wolterskluwer.com/en/expert-insights/how-are-states-addressing-licensing-of-out-of-state-telehealth-providers

[90] Center for Connected Health Policy. State Telehealth Laws & Reimbursement Policies. 2020. https://www.cchpca.org/sites/default/files/2020-10/CCHP%2050%20STATE%20REPORT%20FALL%202020%20FINAL.pdf

[91] America's Health Insurance Plans. Health Insurance Providers Respond to Coronavirus (COVID-19). November 6 2020. https://www.ahip.org/health-insurance-providers-respond-to-coronavirus-covid-19/

[92]America's Health Insurance Plans. Health Insurance Providers Respond to Coronavirus (COVID-19). November 6 2020. https://www.ahip.org/health-insurance-providers-respond-to-coronavirus-covid-19/

[93] Center for Connected Health Policy. State Telehealth Laws & Reimbursement Policies. 2020. https://www.cchpca.org/sites/default/files/2020-10/CCHP%2050%20STATE%20REPORT%20FALL%202020%20FINAL.pdf

[94] Center for Connected Health Policy. State Telehealth Laws & Reimbursement Policies. 2020. https://www.cchpca.org/sites/default/files/2020-10/CCHP%2050%20STATE%20REPORT%20FALL%202020%20FINAL.pdf

[95] Levin B, Downes L. Cities, not rural areas, are the real Internet deserts. *The Washington Post.* Sep 13, 2019.

[96] Anderson M. *Mobile Technology and Home Broadband 2019.* Pew Research Center; Jun 13 2019.

[97] Centers for Medicare & Medicaid Services. *Notice of Waivers of Certain Fraud and Abuse Laws in Connection with the Comprehensive ESRD Care Initiative LDO Model.* July 15 2015.

[98] Centers for Medicare & Medicaid Services. *Notice of Waiver of Certain Fraud and Abuse Laws in Connection with the Medicare Diabetes Prevention Program Expanded Model.* Mar 1 2018.
[99] Centers for Medicare & Medicaid Services. *Physicians and Other Clinicians: CMS Flexibilities to Fight COVID-19.* Aug 20 2020.
[100] Lagasse J. Telehealth and the law: What hospital executives should know about kickback and false claims rules. Healthcare Finance. https://www.healthcarefinancenews.com/news/telehealth-and-law-what-hospital-executives-should-know-about-kickback-and-false-claims-rules. Published 2019. Updated Jan 18. Accessed Nov 5, 2020.
[101] Department of Health & Human Services, Office of Inspector General. Special Advisory Bulletin, Offering Gifts and Other Inducements to Beneficiaries. https://oig.hhs.gov/fraud/docs/alertsandbulletins/SABGiftsandInducements.pdf. Published August 2002.
[102] Federal Communications Commission. Lifeline Program for Low-Income Consumers. https://www.fcc.gov/general/lifeline-program-low-income-consumers. Published 2020. Accessed Nov 3, 2020.
[103] Federal Communications Commission. The FCC's Universal Service Rural Health Care Programs. https://www.fcc.gov/guides/universal-service-program-rural-health-care-providers. Published 2019. Accessed Oct 30, 2020.
[104] Universal Service Administrative Company. Rural Health Care https://www.usac.org/rural-health-care/. Published 2020. Accessed Oct 30, 2020.
[105] In the Matter of Rural Health Care Support Mechanism. *Federal Communications Commission (FCC)*. Washington, DC: Federal Communications Commission, 2020. https://docs.fcc.gov/public/attachments/DA-20-1233A1.pdf